

KORRG

Pa5X

PERFOR

MANCE

GUIDE

Important safety instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- **WARNING** – This apparatus shall be connected to a mains socket outlet with a protective earthing connection.
- Turning off the standby switch does not completely isolate this product from the power line, so remove the plug from the socket if not using it for extended periods of time, or before cleaning. Please ensure that the mains plug or appliance coupler remains readily accessible.
- Mains powered apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- Install this product near the wall socket and keep the power plug easily accessible.
- Do not install this equipment in a confined space such as a box for the conveyance or similar unit.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.





WARNING – Do not ingest battery, chemical burn hazard. This product contains a coin/button cell battery.

If the coin/button cell battery is swallowed it can cause severe internal burns in just 2 hours and can lead to death.

Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children.

If you think the battery may have been swallowed or placed inside any part of the body seek immediate medical attention.

- **WARNING** – Date/time Lithium button cell battery inside. Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type. The internal date/time Lithium button cell battery is user replaceable.
- Do not expose batteries to excessive heat, such as direct sunshine, fire or the like.
- Dispose of used batteries according to the battery manufacturer's instructions.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

Other notices

Automatic power-off

To avoid wasting power, Pa5X will by default automatically enter standby mode after two hours not using it (playing, pressing buttons or using the touch-screen). Please save your data (Keyboard Sets, Styles, Songs, and so on) before taking a prolonged pause.

Data handling

Data in memory may sometimes be lost due to incorrect user action. Be sure to save important data to the internal memory or to an external USB device. KORG will not be responsible for damages caused by data loss.

Display handling

Be very careful not to force the display when tilting it. Fully lower the display before carrying the instrument. Also, be very careful not to apply too much pressure on the display while carrying the instrument, or it might break.

Cleaning

If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, or cleaning compounds or flammable polishes.

Use a soft cotton cloth to clean the display. Some materials, such as paper towels, could cause scratches and damage it. Computer wipes are also suggested, provided they are specifically designed for LCD screens.

Do not spray any liquid on the LCD screen directly. Always apply the solution to your cloth first, then clean the screen.

Wooden flanks

These are made of natural wood, whose characteristics vary from piece to piece. The more it is used, the more beautiful it will become. If you notice any irregularities, these are to be considered unique intrinsic characteristics, which further enhance its natural origin.

Example screens

Some pages of the manuals show snapshots of the screen along with an explanation of functions and operations. All sound, style, song or parameter names, as well as shown values, are merely examples and may not always match the actual display you are working on.

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Open source notice

Portions of this product's software are copyright ©2007 "The FreeType Project" (www.freetype.org). All rights reserved.

Disclaimer

The information contained in this manual have been carefully revised and checked through. Due to our constant efforts to improve our products, the specifications might differ to those in the manual. KORG is not responsible for any differences found between the specifications and the contents of the instruction manual – all specifications being subject to change without prior notice.

Liability

KORG products are manufactured under strict specifications and voltages required by each country. These products are warranted by the KORG distributor only in each country. Any KORG product not sold with a warranty card or carrying a serial number disqualifies the product sold from the manufacturer's/distributor's warranty and liability. This requirement is for your own protection and safety.

Service and user's assistance

For service, please contact your nearest Authorized KORG Service Center. For more information on KORG products, and to find software and accessories for your keyboard, please contact your local Authorized KORG distributor. For up-to-date information, please point your web browser to our [web site](http://www.korg.com).

Keep your instrument up-to-date

Your instrument can be constantly updated as new versions of the operating system are released by KORG. You can download the operating system from our web site (www.korg.com/us/support/download/). Please, read the instructions supplied with the operating system.

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PLAY

01

Let's start!

Introduction

Welcome to Pa5X!

Many thanks, and congratulations on purchasing the KORG Pa5X Professional Arranger! We're sure it'll give you countless hours of enjoyment making great music on a stage or at home.

Pa5X is an elegant and powerful music production workstation. It is easy to use, with a clear user interface, based on the reclining color touch screen, and the illuminated buttons on the control panel showing color-coded functions. The naturally responsive 88-note piano-like hammer-action keyboard, and the 76- and 61-note semi-weighted keyboards, are designed for a completely authentic feel and full control of expression.

Robust and reliable, Pa5X is excellent as a live instrument, but it is also a powerful creative tool in studio, helping you in writing songs or soundtracks, while generating a produced sound that makes the perfect demo or ready-to-use media music.

The onboard sounds, based on our EDS-X (Enhanced Definition Synthesis-eXpanded) sound engine, range from ultra-realistic acoustic instruments, to electric vintage keyboards, to synth classics, with the addition of fantasy sounds and special effects for media and cinema production. We also included instruments from various ages and cultures, leaving ample room for your own expansions.

Pa5X is easy to control, via the KORG's DNC (Defined Nuance Control) system, allowing the performer to accurately and expressively introduce the most subtle nuances and sound articulation. Faders, switches, real and virtual matrices of real time controls, a joystick and a ribbon controller, allow for immediate access to all the parameters of the sound. A complete set of programmable sliders and buttons is associated to a dedicate strip display.

The sounds are processed by an elaborate chain of effects for each of the Players and for the Keyboard Sounds. Each Player even includes a finalizer module. The final mastering effects on the audio outputs, making the instrument's sound 'blended' and 'produced', are the result of KORG's long term cooperation with Waves Audio, the world reference in studio mastering effects.

To listen with the best audio quality, even at the lowest volume for rehearsing at night, you can add the optional KORG PaAS Amplification System, which has been specifically designed to connect directly to Pa5X.

The optional modern, stylish dedicated ST-SV1-BK stand makes the instrument a solid statement on stage, and a stylish piece of modern furniture in your living room.

Pa5X's included KORG XDS Crossfade Dual Sequencer/Player can be used to freely preload and mix Styles and Songs. You can also create your own Styles, and record your own MIDI and MP3 Songs. Automatic harmonization, the chord sequencer, a sophisticated chord recognition engine, can create the rich arrangement of a competent pop or jazz player.

With both Songs and Styles you can show lyrics and chords in the internal or an external display, and you can convert any MIDI Song track into a readable score. Markers allow for jumping back to a passage you wish to repeat, for example in a piece you are studying or rehearsing, or for repeating a section live.

You can record a MIDI Song using a full-featured Sequencer. Even easier, just record what you sing and play (including MP3 Songs) as an MP3 file, and listen to it anywhere you like.

Song and Style can be saved into the onboard SongBook, together with all the associated sounds, effects, lyrics and chords. These database-like entries are easy to synchronize with external score readers on a tablet. You can therefore use a digital music book to control your Pa5X. And you can create your own set lists, each one dedicated to a style or a show.

Voice and guitar can be connected to the dedicated audio inputs, and processed with the excellent onboard effects. Our long experience in vocal harmonies and guitar effects is entirely included here. And the Vocal Remover will let you sing along with any MP3 Song.

There is more, much more, and we invite you to explore Pa5X in depth. Pa5X is the most evocative, powerful, easy-to-use complete Professional Arranger ever produced. Enjoy your musical life with the new Pa5X!

Before starting to play...

What's in the box

After you get your Pa5X, please check that all the listed items are included in the package. If any of them is missing, please contact your KORG dealer immediately.

- > Pa5X
- > Music stand
- > AC power cable
- > Quick Guide
- > Pa5X88 only: Safety felts for the ST-SV1-BK stand

What you can download

Point your web browser to our web site (www.korg.com/us/support/download/), to download the most up-to-date software, the full manual, the video manuals, a MIDI driver.

What you can add

After having purchased Pa5X, you might want to add these other fine options:

- > The elegant KORG ST-SV1-BK keyboard stand, recommended for safety and comfort, perfectly matching your arranger design.

CAUTION: The Pa5X Professional Arranger is intended for use only with the KORG ST-SV1-BK stand. Use with another stand may result in instability and cause injury.

- > The PaAS Amplification System, adding a three-way amplification system, a pair of integrated speakers and a bass-reflex box.
- > One of the sturdy pedals and footswitches from the KORG catalogue.

Contacts

Your KORG dealers not only deliver this instrument, but also carry hardware and software accessories, as well as useful information on how to use these products. Ask them for any help you should eventually need.

Our international web site is www.korg.com. A list of all KORG Distributors can be found in our dedicated web page (www.korg.com/us/corporate/distributors/).

Making a safety copy of your data

In case you like to customize your musical resources, we suggest you do frequent backups of your data. Press the **FILE** button to go to the **File** page, select the **Internal** group, select the **All** folder, and choose the **Save** command from the **page menu** (on the top right corner). Then save the data as a KST folder in an external storage device.

Restoring a safety copy

To restore a backup of your User data, reload the KST folder where you saved them. If it is an external device, connect the backup storage device. Press the **FILE** button to go to the **File** page, select the **Drives** group and then the external storage device. Select the KST folder where you backed up your data, and choose the **Load** command from the **page menu** (on the top right corner). Then load the data into the internal memory. If you like, you can only reload some individual elements.

Restoring the original factory data

In case you want to restore the original factory data, use the **Factory Restore** command you can find in the **File > Menu > Restore** page.

WARNING: This operation will overwrite all the User data!

Loading the Operating System

Your Pa5X can be constantly updated as new versions of the operating system are released. You can download the most up-to-date operating system from our web site (www.korg.com/us/support/download/). Please, read the instructions supplied with the operating system.

You can see which version of the operating system is installed in your Pa5X by going to the **File** pages, and choosing the **System Info** command from the **page menu**.

HINT: Be sure your Pa5X always includes the latest version of the operating system. This may contain new features and bug fixes.

WARNING: Do not install an OS other than the official OS supplied by KORG for the Pa5X. Trying to install an OS created for different models or downloaded from unofficial web sites may cause data loss and permanent damage to the instrument. KORG is not responsible for any damage caused by improper installation of the OS.

The front panel

The front panel is where you can find the instrument's controls.

Slide guide for the music stand and PaAS amplification system



Headphones

Keyboard

Keyboard

Use the keyboard to play notes and chords. Depending on the status of the **SPLIT** indicator, the keyboard may be joint or split between different sounds.

Headphones connector

Connect a pair of headphones to this output. You can use headphones with an impedance of 16-200 Ohms (50 Ohms suggested).

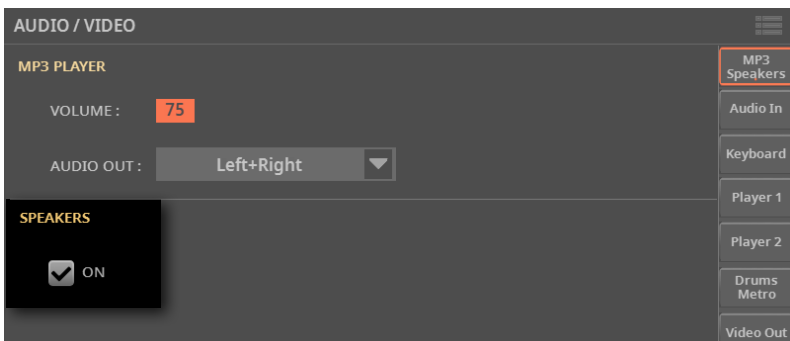
Music stand

A music stand is included with your Pa5X.

PaAS amplification system

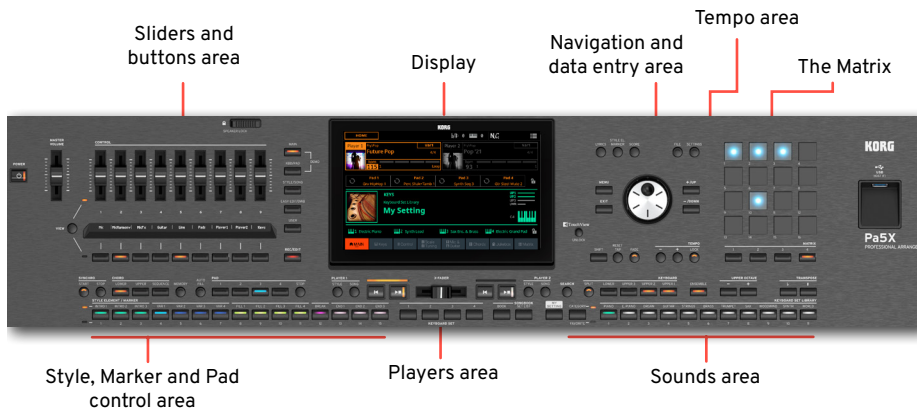
You can install the (optional) PaAS amplification system. When installed, control the output volume of the speakers via the **MASTER VOLUME** slider.

The speakers are automatically deactivated when connecting the headphones. You can also manually deactivate them by deselecting the **Speakers** checkbox in the **Settings > Audio/Video > MP3/Speakers** page.



The control panel

The control panel is the part of the front panel where you can find the instrument's controls.



Sliders and buttons

Use this section to control each element of your performance in real time. The mode button on the right select one of the available function groups. The small strip display always shows what the controllers are doing. (See [The Control section](#) on page 116).



Display

Use this touchscreen display to interact with the instrument. The display can be tilted for optimal visualization. There are controls around the display, to help you select the various elements.



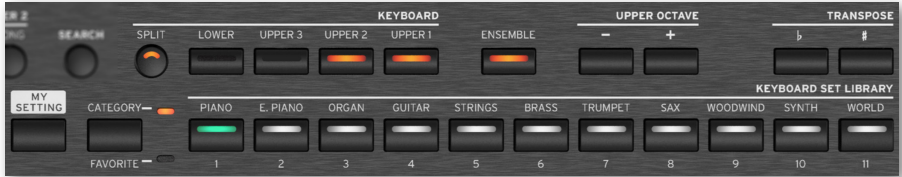
Navigation and data entry area

Use these controls to go through the menus, pages and parameters, and change the value of the selected parameter.



Sounds area

Sounds are what you can play on the keyboard. Here you can choose combinations of Sounds saved as Keyboard Sets in a dedicated library. (See [Playing the Sounds](#) on page 77).



Styles, Pads and Markers area

Styles supply the automatic accompaniment with a virtual band. Markers allow jumping to saved points in the Song. You can play Sounds (selected via the Keyboard Sets) and Pads along with the Styles and Songs. (See [Playing the Styles](#) on page 150 and [The Markers](#) on page 258).



Players area

Styles and Songs can be played back by the two onboard Players. You can assign different elements to each Player, to have another Style or Song ready to play. You can mix the two Players with the **X-FADER**. (See [Playing the Styles](#) on page 139 and [Playing the Songs](#) on page 211).



SongBook area

The SongBook is a database of 'songs', called SongBook Entries. Each of them is a snapshot of the current situation, including the selected Style, Song, Keyboard Set, Pads, Chord Sequences and Voice and Guitar effects. You can quickly access all the songs in the SongBook (Book), or selected lists of songs (Set Lists). (See [The SongBook](#) on page 271).



Tempo area

Use these buttons to control the Tempo of the Styles and the Songs (see page 129). You can turn a metronome click on or off by pressing the **CONTROL > SWITCH #9** button while in **STYLE/SONG** mode, and practice with the metronome



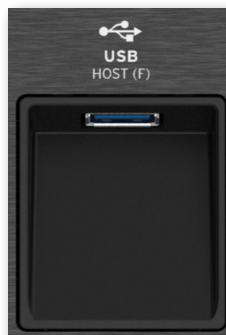
The Matrix

You can use this programmable matrix of big, easy accessible keys to trigger elements and functions. (See [The Matrix](#) on page 319).



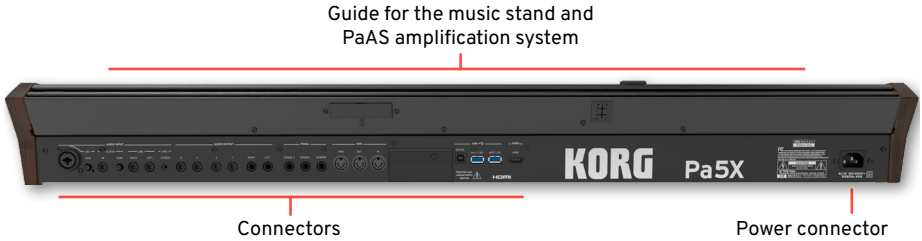
USB connector

Use this socket to connect an USB memory device, like an USB pendrive, or other musical instruments to be used as controllers. You can also use it to attach a small USB lamp and illuminate the control panel or the music stand. Please note that two other ports are on the back of the instrument.



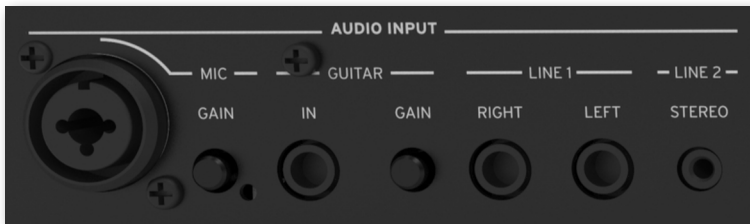
The rear panel

The rear panel is where you can find the various connections.



Audio inputs

Use these connectors to connect a microphone, a guitar or another musical instrument. The handy **STEREO** minijack can be used to directly connect the audio output of a media player, a smartphone or a tablet. (See starting from [page 589](#)).



Audio outputs

Use the LEFT/RIGHT sockets to send the stereo audio signal to a mixer, a PA system, a set of powered monitors, or your hi-fi system. Four separate audio outputs (1-4) are also available. (See [Connecting the audio outputs](#) on page 19 and [Audio Outputs](#) on page 567).



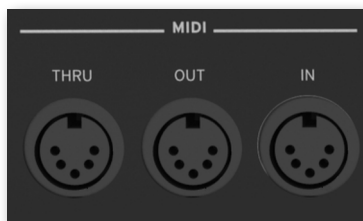
Pedal connectors

Use the **DAMPER** connector to connect a damper pedal, and the **ASSIGNABLE** connectors to connect either a continuous pedal or footswitch. (See [Foot controllers](#) on page 499).



MIDI ports

Use these ports to connect Pa5X to external controllers (master keyboard, MIDI guitar, wind controller, MIDI accordion, MIDI pedalboard...), to a series of expanders, or to a computer with a MIDI interface. (See [MIDI](#) on page 515).



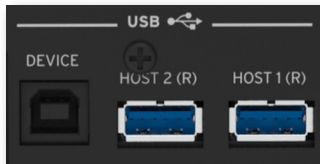
Battery and microSD slot

This opening contains the clock battery and the microSD card slot.



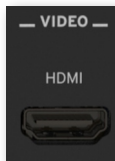
USB ports

Use these sockets to connect your Pa5X to a personal computer or a tablet (**DEVICE**) or to connect up to two USB memory device, like an USB pendrive, or another musical instrument to be used as a controller (**HOST1-R**, **HOST2-R**). Another **HOST** socket (**HOST-F**) is available on the front panel. (See [MIDI](#) on page 515 and [File management](#) on page 649).



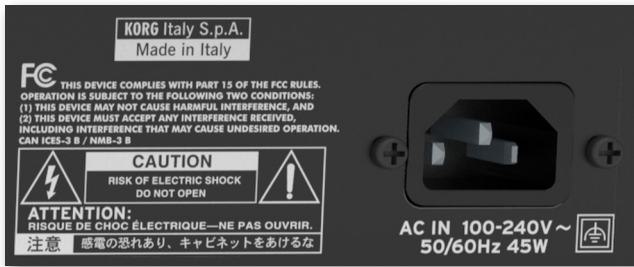
Video out

Connect Pa5X to a TV or video monitor, to read lyrics and chords on a bigger display. (See [Video connections](#) on page 717).

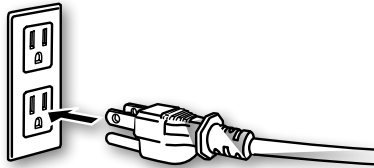


Power connector

Use this socket to plug in the supplied IEC power cable.



Plug the other end of the cable to an AC power outlet. Be sure to use a compatible plug. Never force the plug into the socket!



WARNING: Connect the plug to an AC socket of matching voltage! Please read the safety information at the beginning of this manual.

Connecting the pedals

Connecting the damper pedal

Use the **PEDAL > DAMPER** connector to connect a damper pedal, like the (optional) KORG PS-1, PS-3 or DS-1H. The DS-1H pedal supports all the nuances of half-pedaling on some acoustic piano sounds. You can experiment how it works by gradually pressing it down, and gradually releasing it, while playing the **Concert Grand** Sound.

If you need to change the pedal's polarity and calibrate it, go to the **Settings > Controllers > Foot** page.

Connecting a pedal or footswitch

Use the **PEDAL > ASSIGNABLE** connector to connect a footswitch pedal like the (optional) KORG PS-1, PS-3 or DS-1H, or a continuous pedal like the (optional) KORG XVP-20 Volume pedal or the EXP-2 Expression pedal.

By default, this connector will work as an Expression pedal. If you want to change the assigned function, or you need to change the pedal's polarity and calibrate it, go to the **Settings > Controllers > Foot** page.

What if the pedals do not behave correctly?

If needed, you might want to recalibrate the pedals. Or you might need to reverse the pedal's polarity. See how to do in [Calibrating the pedals and setting their polarity](#) on page 503.

Connecting the audio outputs

Connecting the headphones

Connect a pair of headphones to the **PHONES** connector. You can use headphones with an impedance of 16-200 Ohms (50 Ohms suggested). When connecting the headphones, the PaAS speakers are automatically deactivated.

Adjust the output level with the **MASTER VOLUME** slider.

Connecting the line audio outputs

Use the **AUDIO OUTPUT** connectors to send the audio output to a mixer, a set of powered monitors, or an audio amplification system. These are balanced/unbalanced (TRS) 6.35 mm, or 1/4", jack connectors. (Please note that balanced connectors and cables are also called stereo, while the unbalanced ones are called mono).

Where possible, use all balanced connections, to reduce the risk of noise (hum) occurring in the audio signal.



Pa5X's AUDIO OUT
(2 x 6.35 mm / 1/4" balanced jacks)

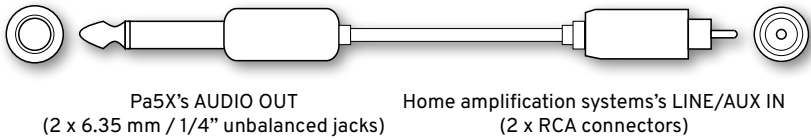
Mixer's/Amplification's LINE IN
(2 x 6.35 mm / 1/4" balanced jacks)



Pa5X's AUDIO OUT
(2 x 6.35 mm / 1/4" unbalanced jacks)

Mixer's/Amplification's LINE IN
(2 x 6.35 mm / 1/4" unbalanced jacks)

When using a home audio amplifier, connect the other end of the cable to the CD, LINE IN or TAPE/AUX input of your audio system. Don't use the PHONO inputs of your audio system!



- > Use the **LEFT** and **RIGHT** connectors as the main stereo outputs. Connect either of them to output a mono signal. Adjust the output level with the **MASTER VOLUME** slider.
- > Use the **1-4** connectors as separate sub-outputs. These can be used as stereo sub-mixes, or as individual outputs, to process and mix individual sounds with an external mixer or amplification system. The sounds are sent to these outputs with the Insert FXs applied. Master FX and the MaxxAudio are deactivated. The **MASTER VOLUME** is not applied to these outputs. The **X-FADER** changes the balance between the Players on these outputs. Adjust their volume with the mixer's or external speaker's level controls.

If installed, the (optional) **PaAS** amplification system will work in parallel with the main audio outputs.

Powering up

Turning the instrument on

Connecting the power cable

Plug the supplied power cable into the **POWER** socket on the back of the instrument, and the cable plug into a wall power socket.

When the cable is connected, the instrument is in standby.

WARNING: When the instrument is in standby, it is still connected to the power line. Accessing the inside of the instrument can be dangerous. To completely disconnect the instrument from the power, unplug the power plug from the power socket on the wall.

Turning the power on or off

■ Turn the instrument on

> Press the **POWER** (⏻) button to turn the instrument on (that is, 'exit from standby'). After you turn the instrument on, wait for the welcome screen to disappear, then the Main page will be shown in the display.

■ Turn the instrument off (standby)

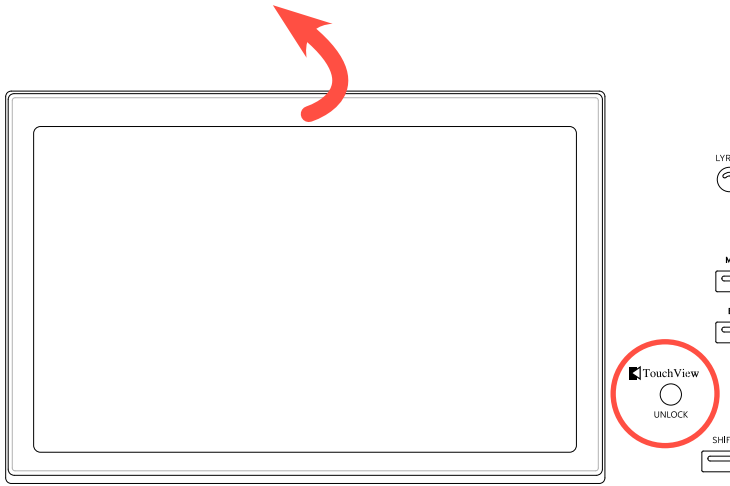
> Keep the **POWER** (⏻) button pressed for about two seconds, then release it when the screen appears dimmed. The shutdown procedure will begin and last for a few seconds. Please do not disconnect the power cable during this procedure.

Tilting the display

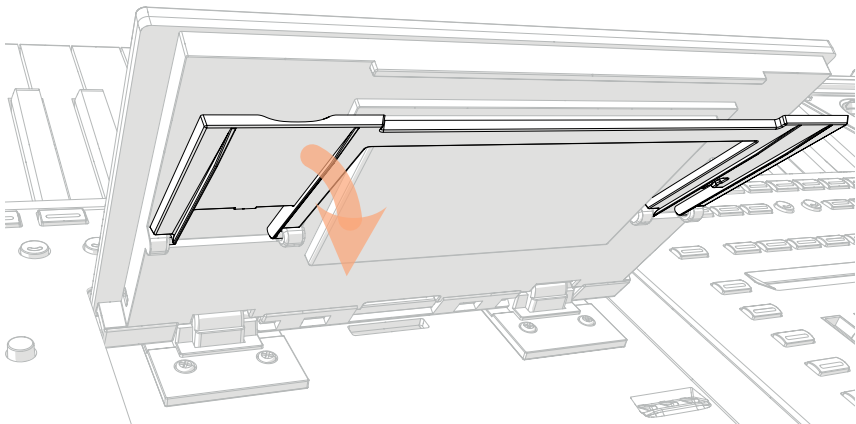
For optimal visibility under any seating position, the display's tilt angle can be adjusted.

Lifting the display

- 1 Press the **UNLOCK** button to unlatch the display.

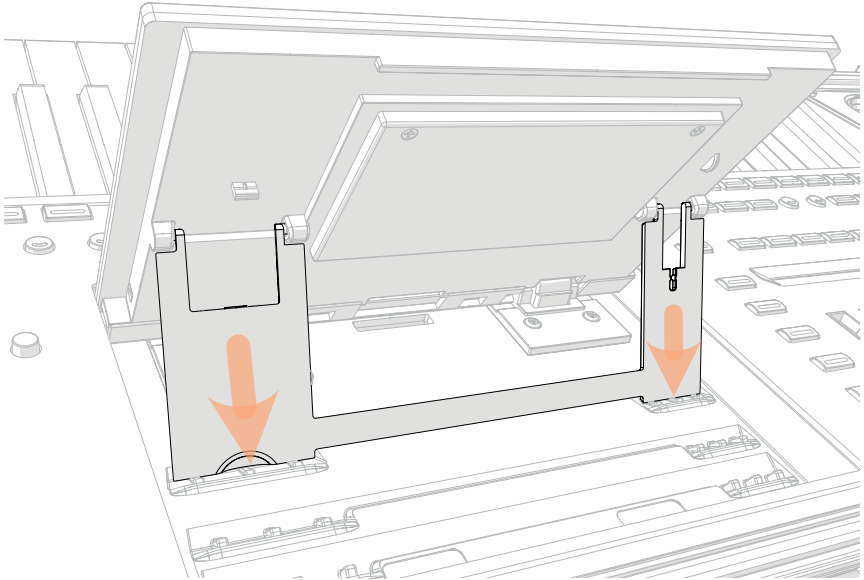


- 2 Keep the **UNLOCK** button pressed, and lift the display.
- 3 Open the safety bracket by detaching it from the top back of the display.



- 4 While still keeping the **UNLOCK** button pressed, adjust the tilt angle, and fix the bracket to one of the stops in the bottom of the display housing.

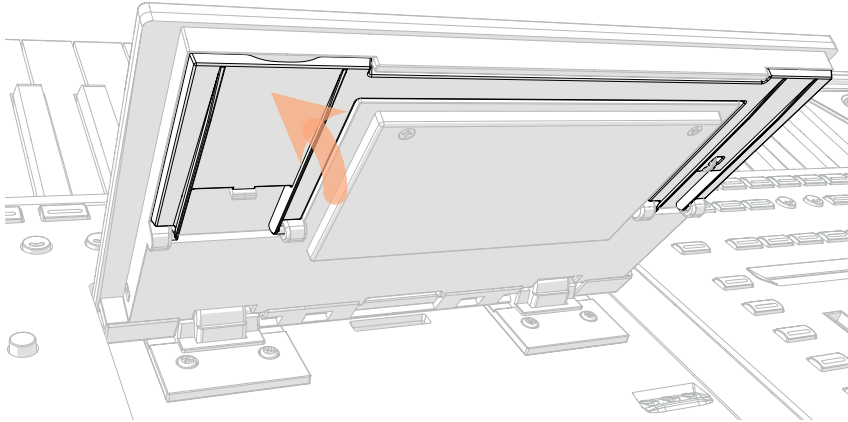
CAUTION: Do not apply excessive pressure, or you risk to break it!



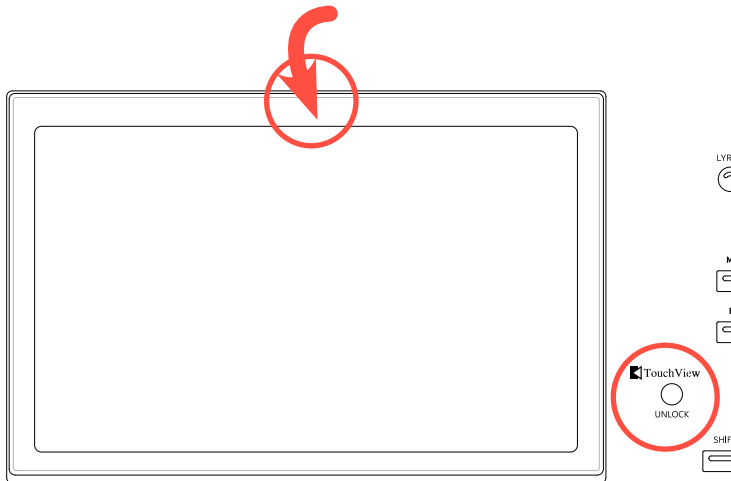
- 5 Release the **UNLOCK** button to fix the display to the current position.

Closing the display

- 1 Keep the **UNLOCK** button pressed, and lift the display.
- 2 Lift the safety bracket, and put it back to the closed position.



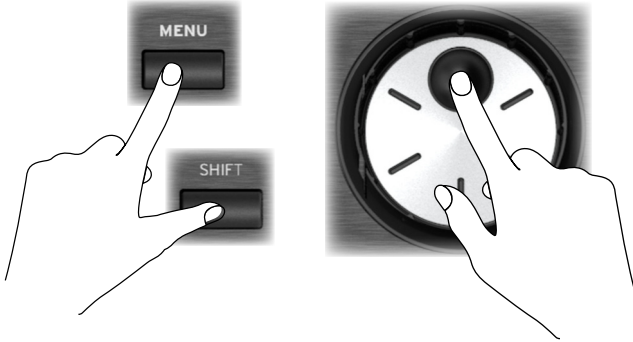
- 3 Still keeping the **UNLOCK** button pressed, accompany the display down to its housing.
- 4 Release the **UNLOCK** button, and gently press the center of the top border of the display to lock it in the initial position.



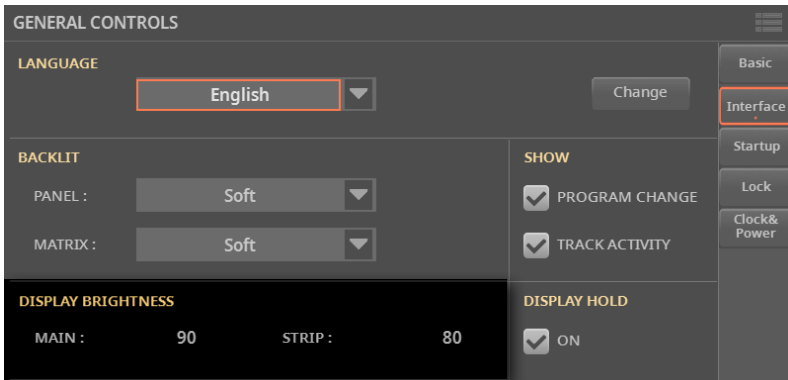
Adjusting the display brightness

The display brightness can be adjusted to match the ambient's light.

- > Keep the **SHIFT** and **MENU** buttons pressed, and use the **DIAL** to adjust the display brightness.



You can also adjust the display (and the strip display) brightness in the **Settings > General Controls > Interface** page.



Listening to the Demo Songs

You can listen to some songs we prepared, to let you understand what this instrument can do.

■ Access the Demo mode

- Press the **DEMO** buttons together.



■ Listen to all the Demo Songs

- After accessing the Demo mode, do not press any button. All the Demo Songs will be played back.

■ Choose a single Demo Song

- Touch one of the options on the display, then choose **one of the Demo Songs**.

■ Exit from the Demo mode

- Press either of the **DEMO** buttons.

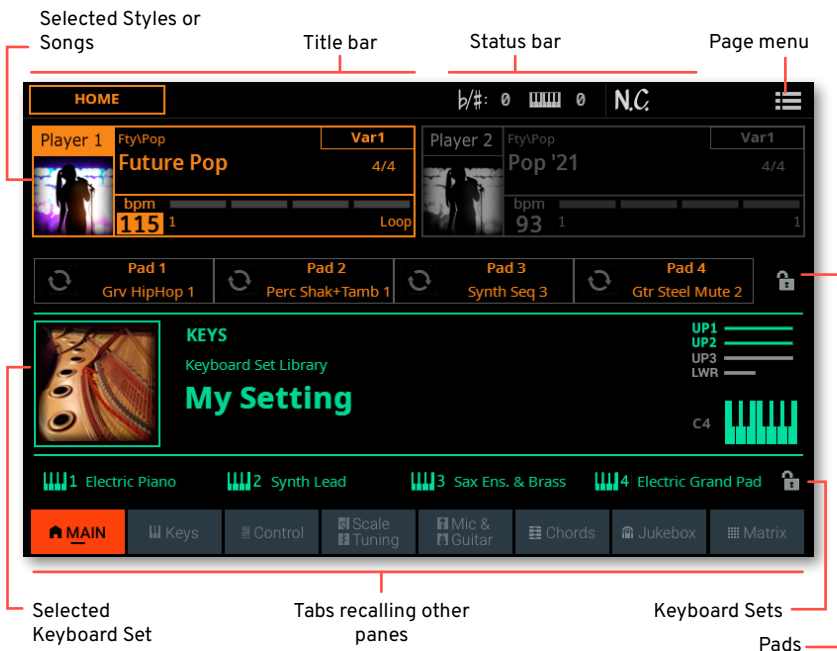
02

The User Interface

The Main page

Overview of the Main page

The **Main page** of the **Home mode** appears when turning the instrument on. You can return to this page by pressing the **EXIT** button while in any other page.



The Main page in detail

These are the separate sections of the **Main** page.

Title bar

The **Title bar** on the top left, showing the name of the section.



Status bar

The **Status bar** in the top center, showing the status of the master transpose, octave transpose, and the recognized chords.



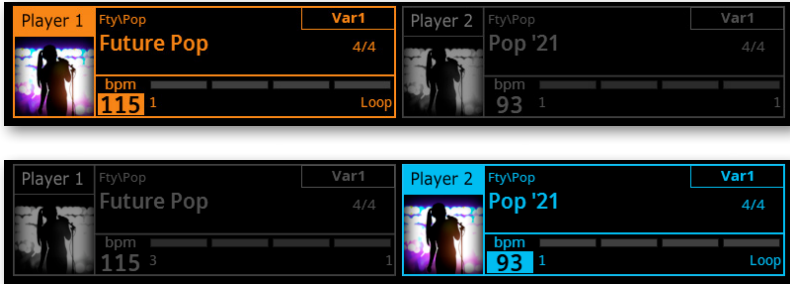
Page menu

The **Page menu** on the top right, containing the commands with the operations for the current page.



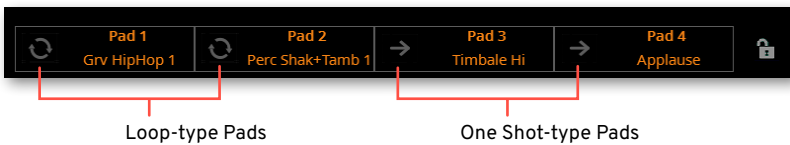
Players

The **Players**, where you can access the Styles and the Songs. **Player 1**, orange, is on the left; **Player 2**, blue, is on the right. You can mix between the two by moving the **X-FADER**, or switch to one of them by touching it.



Pads

The **Pads** (1-4), for immediate access to Loop-type and One Shot-type Pads. You can also select them with the **PAD** buttons on the control panel, or in the dedicated mode of the **Matrix**. If you close the padlock, the Pads will not change.

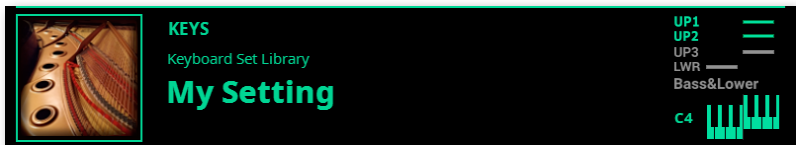


Keys

The **Keys**, where you can see which set of sounds (Keyboard Set) is assigned to the keyboard. On the right you can see the split point, in case the keyboard is split in two parts.



Full Keyboard mode



Split mode, Bass&Lower mode on

Keyboard Sets

The four **Keyboard Sets** provided by the current Style or SongBook Entry. You can also select them with the four **KEYBOARD SET** buttons under the **X-FADER**. If you close the padlock, the Keyboard Sets will not change.



Tabs

The **tabs**, corresponding to a pane with dedicated parameters.



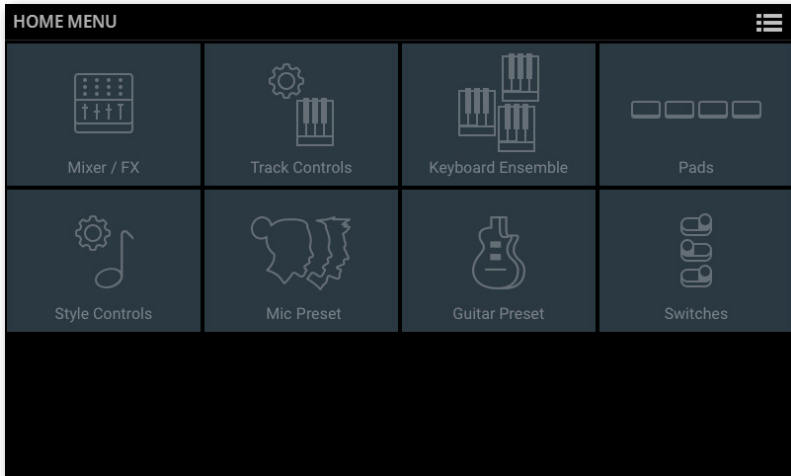
The Home mode

The **Home mode** contains the **Main page**, but it also contains other pages with important settings.

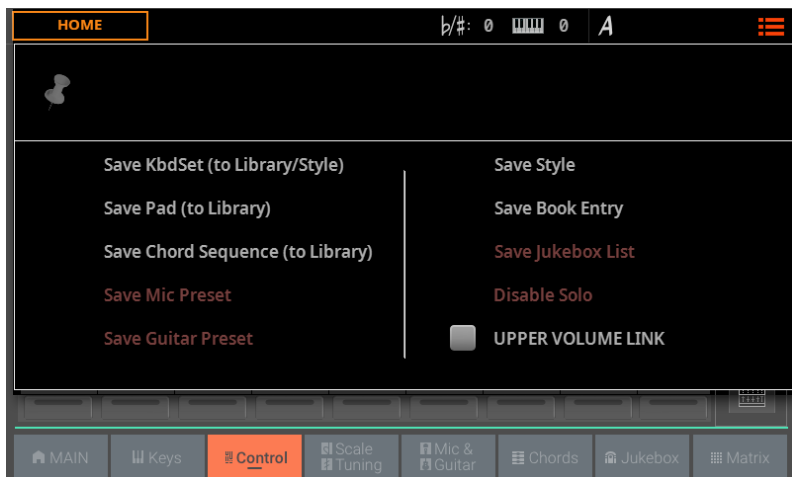
Touch the **tabs**, on the bottom of the display, to see the corresponding pane.



You can access other play settings (like the Mixer, the Effects, or the Chord Recognition options) by pressing the **MENU** button, and see the **Home edit menu**. Touch one of the buttons to access the corresponding **edit section**.

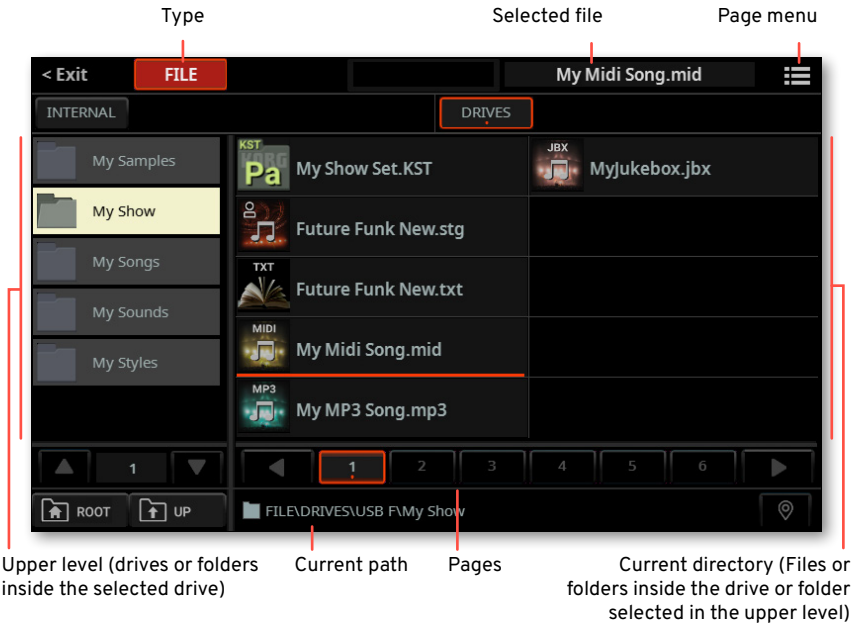


To save the various elements (Keyboard Sets, Styles, Chord Sequences...) and set some of the play options, choose a command from the **page menu**.

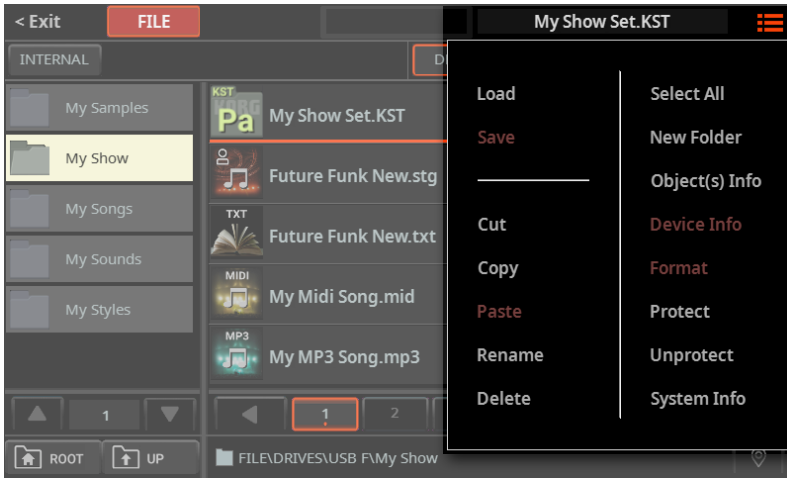


The File mode

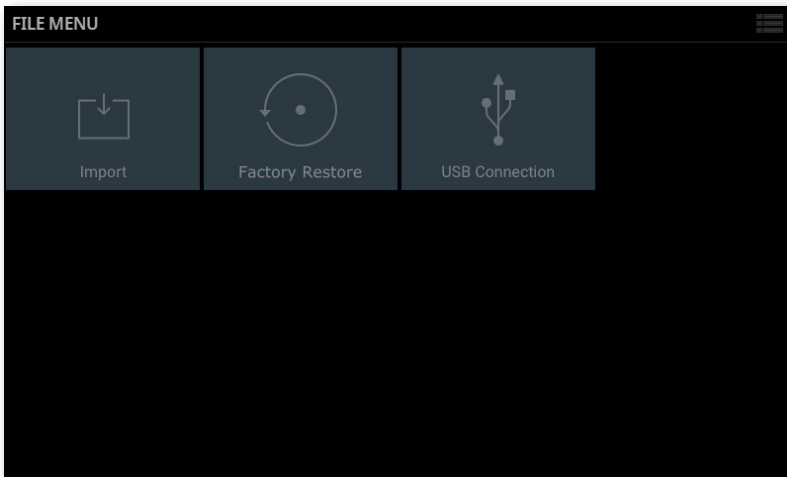
The **File mode** is where you manage the files in the internal and external storage devices. You can access it by pressing the **FILE** button. You can exit it by pressing the **EXIT** or the **FILE** button again.



To perform operations on a device, folder or file, touch it, and then choose a command from the **page menu**. In some cases you can select multiple files by keeping the **SHIFT** button pressed while touching them, and perform operations on multiple files.

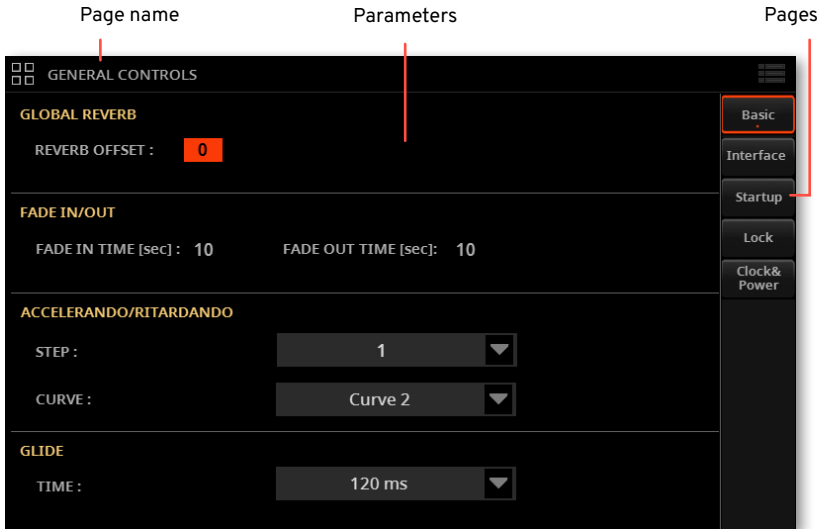


You can access other File operations by pressing the **MENU** button, and see the **File edit menu**. Touch one of the buttons to access the corresponding **edit section**.

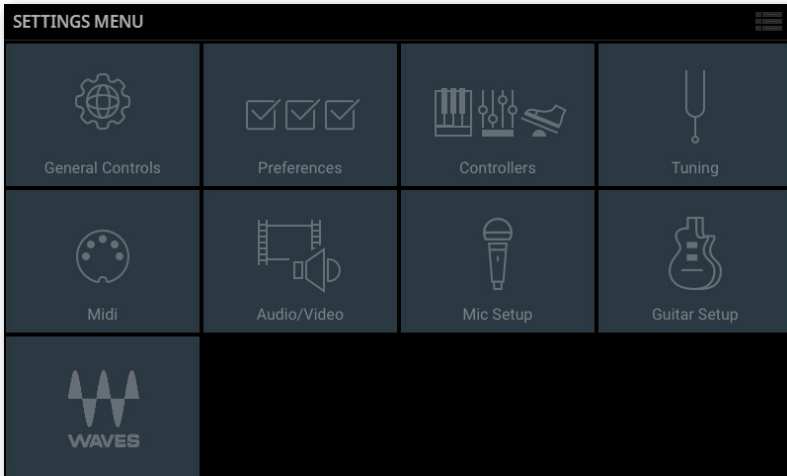


The Settings mode

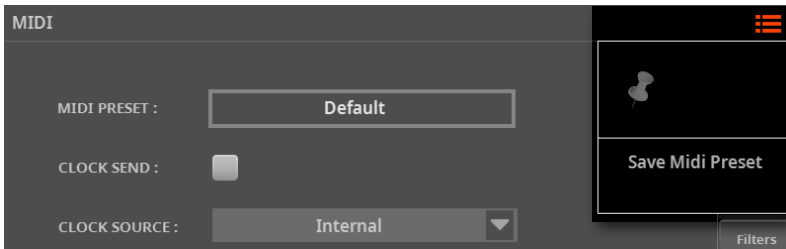
The **Settings mode** is where you set the general settings and preferences. You can access it by pressing the **SETTINGS** button. You can exit it by pressing the **EXIT** or the **SETTINGS** button again.



You can access the various general settings and preferences by pressing the **MENU** or **SETTINGS** button, and see the **Settings edit menu**. Touch one of the buttons to access the corresponding **edit section**.

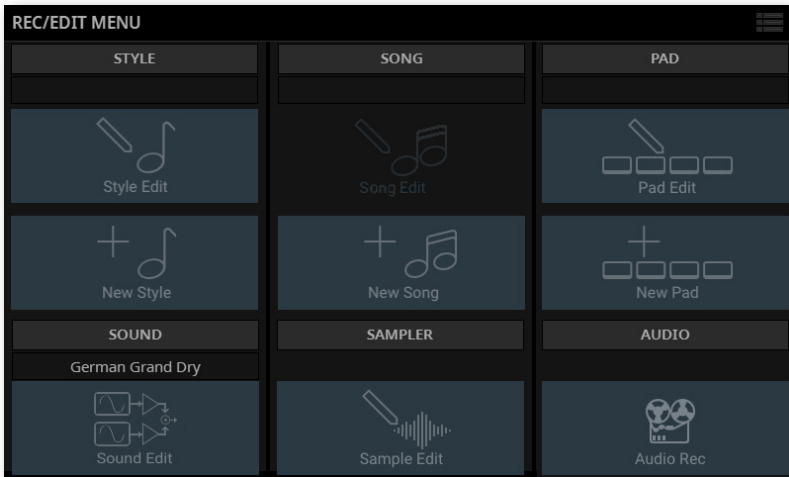


To save the element in edit, in some pages, choose the corresponding command from the **page menu**.



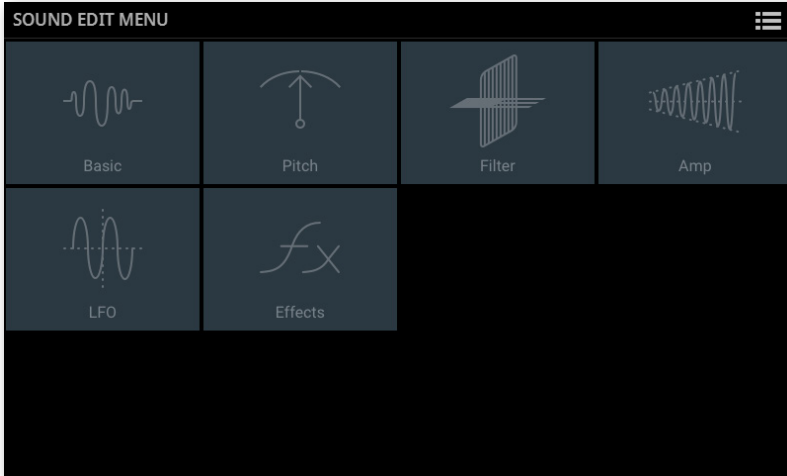
The Record/Edit modes

The **Record/Edit modes** are where you can record new elements, or edit them in deep detail. You can access these modes by pressing the **REC/EDIT** button, and choosing one of the modes.

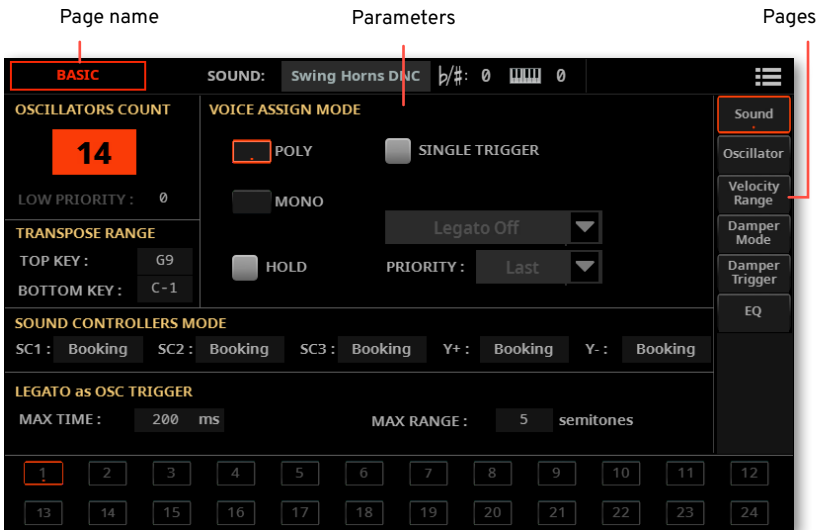


You can exit the **Record/Edit mode** by pressing the **EXIT** or the **REC/EDIT** button again.

Each of the **Record/Edit modes** is organized as the **Home mode**, with a **Main page** and **edit pages** you can access by pressing the **MENU** button. The following example shows the **edit menu** of the **Sound Edit mode**.



Each of the modes is organized in **edit pages**.



To save the element in edit and set some options, in some pages, choose the corresponding command from the **page menu**.



The user interface in detail

Physical controls

Buttons

Many buttons include LED indicator lights. The simpler ones have an on/off red light over them. Others have multi-color lights, whose color changes depending on the corresponding function status.

Buttons and color coding

STYLE ELEMENTS buttons get different colors depending on the type of Element.

Style Elements	Color Code
Intro	Light Green
Variation	Dark Blue
Fill	Yellow-Green
Break	Purple
Ending	Dark Pink

MARKERS are shown in white when one of them is associated to a button. When one of them is selected, it takes the color of the current Player.

Markers	Color Code
Available	White
Non available	Off
Selected	Orange (Player 1) or Blue (Player 2)

The **MATRIX** buttons change depending on the selected Player. If no functions are assigned, a button remains dark.

Matrix	Color Code
Available	White
Non available	Off
Selected	Orange (Player 1) or Blue (Player 2)

The selected button's color shows the current Player it is assigned to.

Current Player	Color Code
Player 1	Orange
Player 2	Blue

Modes and colors

Color TouchView graphical user interface

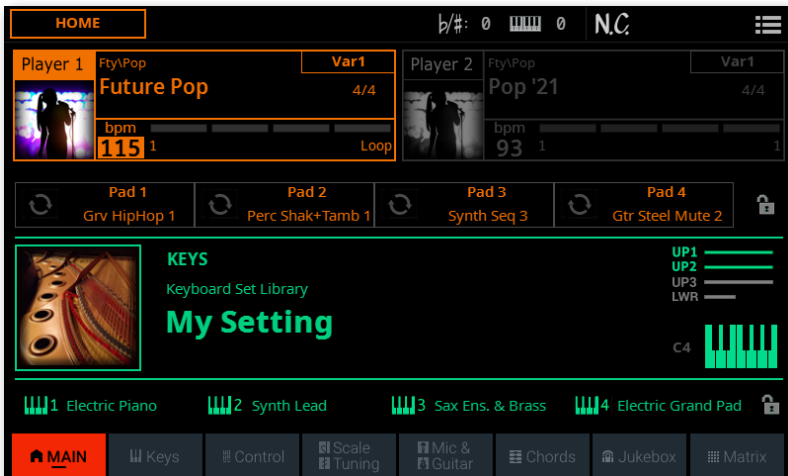
Pa5X features our exclusive easy-to-use Color TouchView™ graphic interface, based on an LCD touch display. By touching items on the display, you can select pages, tabs, and parameters, and set parameter values via onscreen menus and buttons.

Modes

The user interface is organized in pages. Pages are organized in modes. Each mode is accessed by pressing the corresponding button on the control panel.

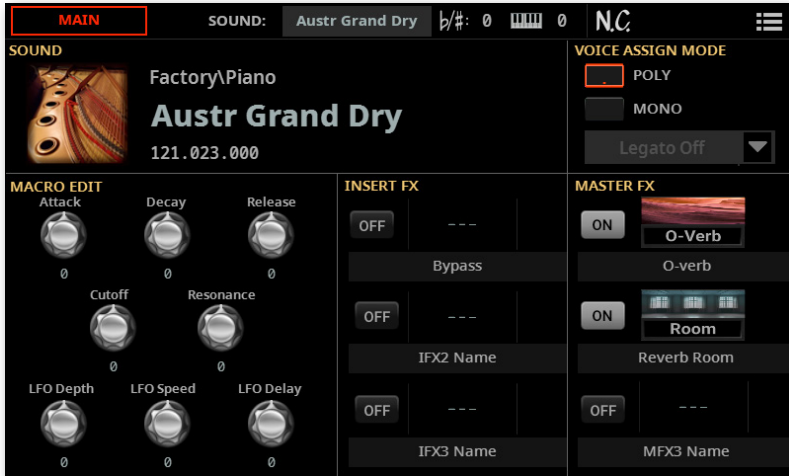
■ Home/Play

HOME is the main mode, the one you see when turning the instrument on. It is where you can play with the accompaniment of Styles or Songs, use the Pads and the Matrix, sing with the vocal effects and play with your guitar through an amp simulator. You can return here from elsewhere by pressing the **EXIT** button. While in this mode, pressing the **MENU** button allows for browsing through the various sections and pages.



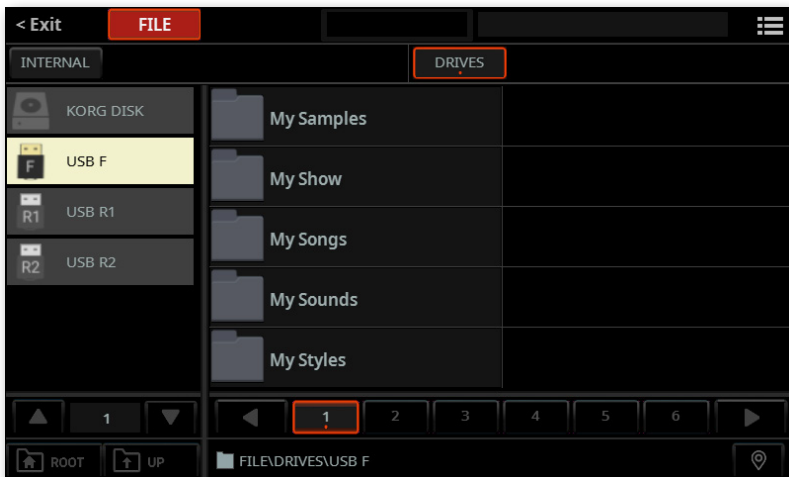
■ Record/Edit

RECORD/EDIT is where you can record and edit Sounds, Samples, Styles, Songs and Pads. You can go there by pressing the **REC** button. You can press the **MENU** button to browse through the various sections and pages. Press the **EXIT** button to exit from this mode.



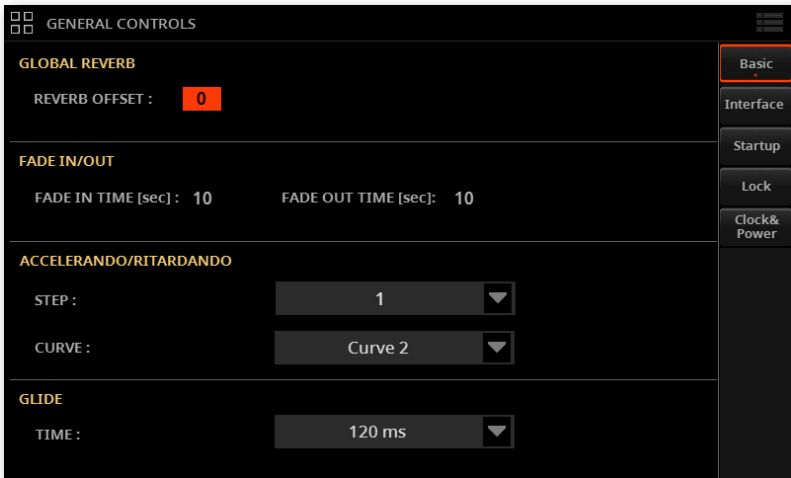
■ File

FILE is where you load, save and manage files. You go there by pressing the **FILE** button. Pressing the **MENU** button allows you to browse through the various sections and pages. Press the **EXIT** button to exit from this mode.



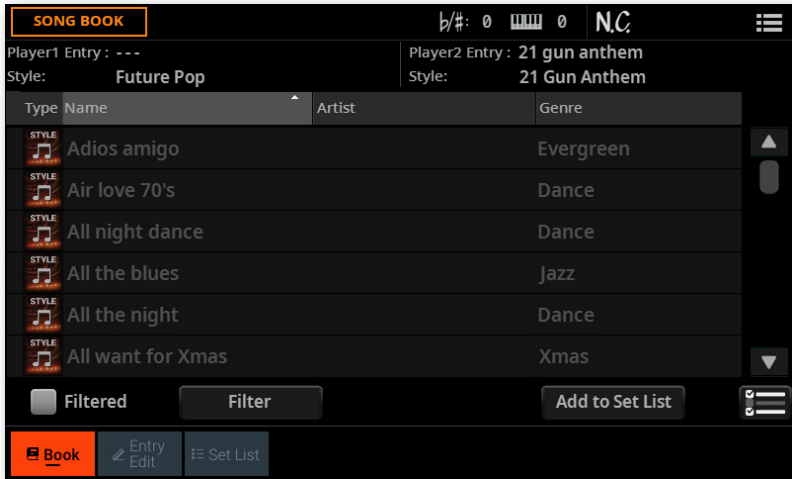
■ Settings

SETTINGS is where you edit the general preferences, and elements that are common to all the modes. You go there by pressing the **SETTINGS** button. Pressing the **SETTINGS** or **MENU** button allows you to browse through the various sections and pages. Press the **EXIT** button to exit from this mode.



■ SongBook

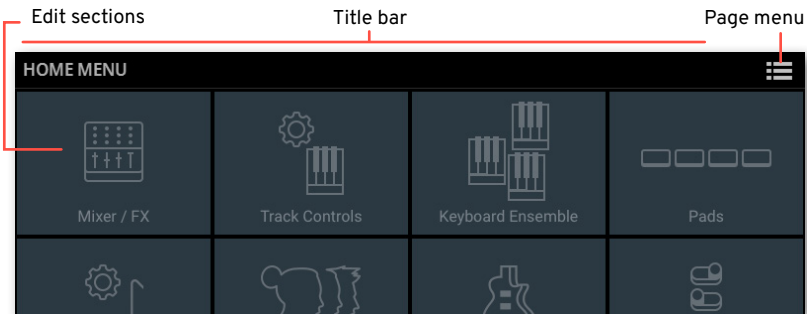
SONGBOOK is where you access a database of songs, each one recalling Sounds, a Style, a MIDI file or an MP3 file. You get there by pressing the **BOOK** or **SET LIST** button. Press the **EXIT** button to exit from this mode.



Menus, pages, windows

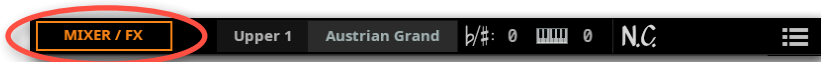
Edit menus and sections

The edit pages are grouped into sections. Sections are selected by touching the corresponding buttons in the edit menu that opens up when you press the **MENU** button.



The menu is context sensitive, and may vary depending on the page you are when you open it.

The name of the current section is shown in the title bar.

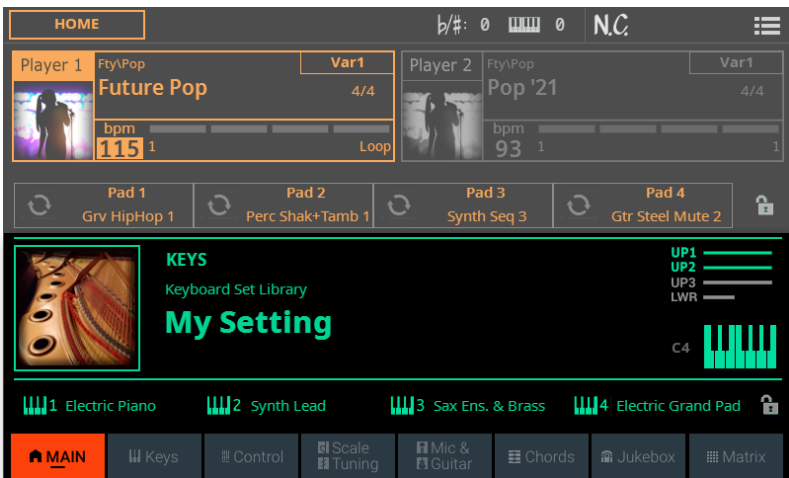


Pages, panes and tabs

Parameters are grouped into separate pages. You can select a page by touching the corresponding tab in the rightmost area of the display.



Some pages also contain panes, where only part of the page will change, leaving the top half always visible. You can select a pane by touching the corresponding tab at the bottom of the display.



Expanded view

Some panes can be expanded, to show more parameters. You can expand a pane by touching the **Expand** (↗) button.

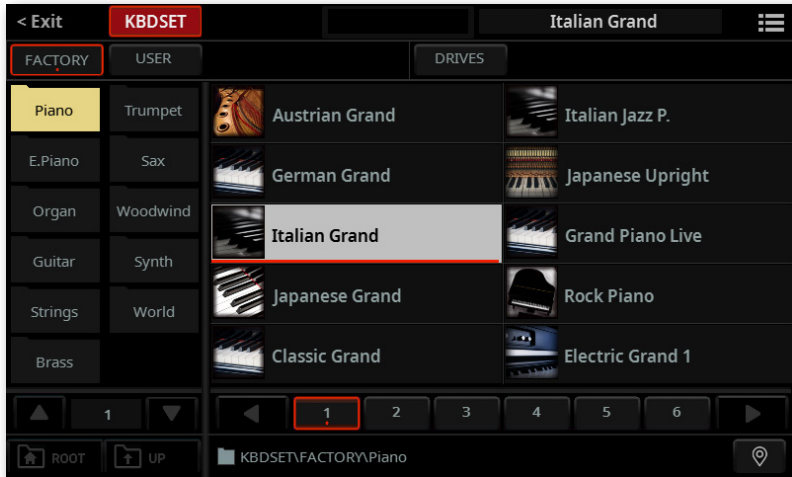


You can make the pane go back to the reduced size by touching the **Collapse** (↖) button.



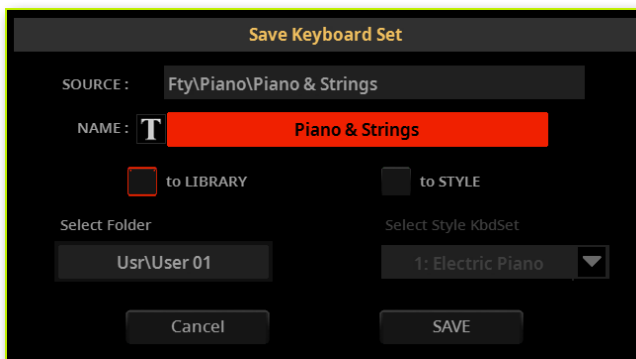
Overlapping windows

Some windows, like the **Select** ones, overlap the current window. After you select an item in one of the **Select** windows, or press the **EXIT** button, the window closes, and the underlying page is shown again. The following example is the **Keyboard Set Select** window.



Dialogs

Similar to the Select windows, dialogs overlap the underlying page. Choose the options in the dialog (if any), then touch one of the buttons at its bottom to confirm your answer, and the dialog will close.



Messages

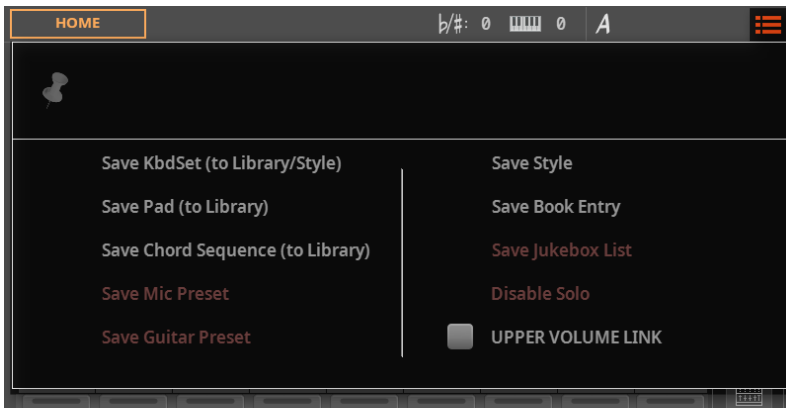
During an operation, you may see a message letting you know what it is happening and how long it will last. The message will close automatically at the end.



Page menus

Touch the **page menu** (☰) icon in the upper right corner of each page, and a menu with commands relevant to the current page will appear.

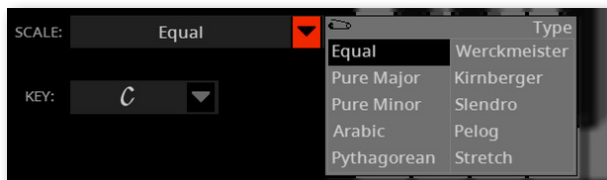
Touch one of the available commands to select it. (Or, touch anywhere else on the screen to make it disappear, with no command selected).



Pop-up menus

When a **down-pointing arrow** appears next to a parameter name, touch the arrow to open the **pop-up menu** containing a list of options. Choose an option by touching it, or by scrolling the list with the **DIAL** or **UP/DOWN** controls. As an alternative, touch the parameter name and use the **DIAL** or **UP/DOWN** controls to scroll the list of options.

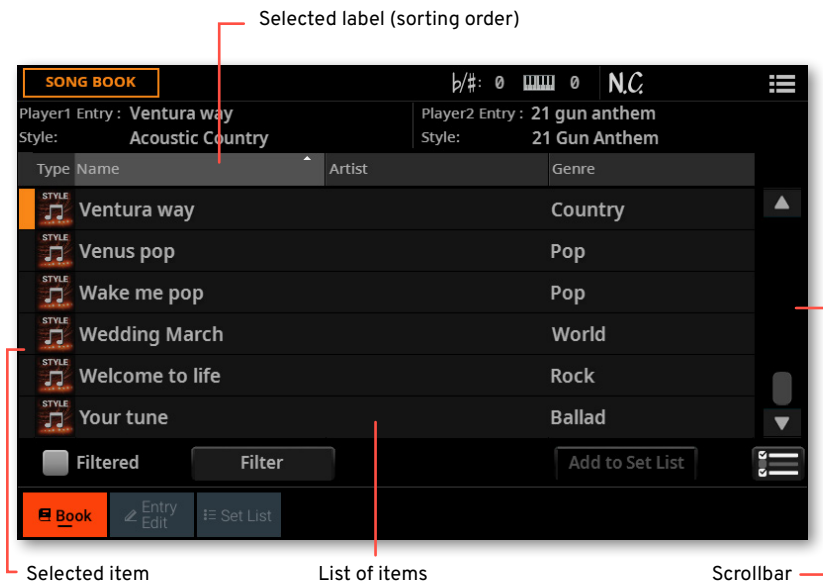
If you want to make the menu disappear without selecting anything, touch anywhere else on the display.



Lists and scrollbars

Songs in the SongBook, as well as other types of data, are shown as lists. Use the **scrollbar** to scroll the list content; you can touch in a direction, or touch and drag the scroll box. Also, you can use the **DIAL** or **UP/DOWN** controls to scroll.

When the **Name** label is selected on top of a list, keep the **SHIFT** button pressed while touching one of the **arrows** on the scrollbar, to jump to the next or previous alphabetic section.



Parameters

On/Off buttons

These buttons turn the corresponding parameter or section on or off. Touch them to change their status.



Checkboxes

This kind of parameters are on/off switches. Touch them to change their status.



Selected, highlighted items

Any operation on parameters, data or list entries, is executed on highlighted items. First touch the parameter or item to select it, then execute the operation. Most parameters can be edited with the **DIAL** or **UP/DOWN** controls.



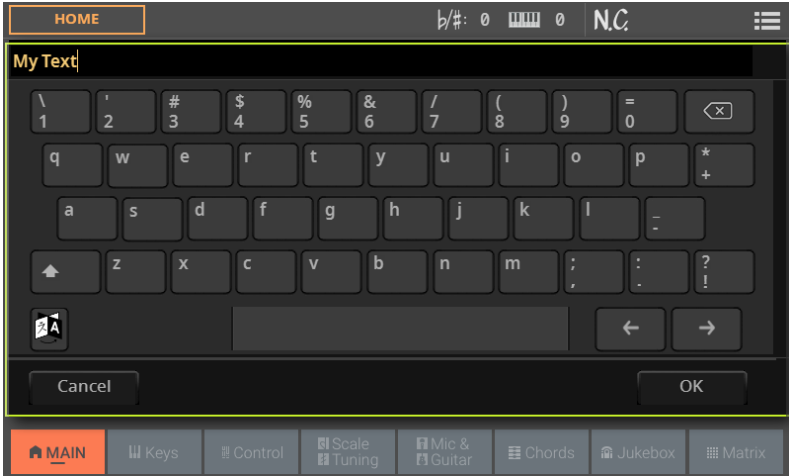
Non-available, dimmed parameters

When a parameter or command is not currently available, it is shown dimmed on the display. This means it cannot be selected, but may become available when a different option is selected.



Editable names

When the **Text Edit (T)** button appears next to a name, touch it to open the **Text Edit** window and edit the name.



The **virtual keyboard** works exactly as a tablet's or a personal computer's keyboard. Some of the symbols are context-sensitive, and only appear when they can actually be used.

Some of the keys include additional characters. Keep a key pressed in the virtual keyboard, until a pop-up menu appears, and choose one of the alternative characters.



If you want to delete the full string, keep the **Backspace** button pressed.

Numeric fields

When a numeric value can be edited, touch it a second time to open the **Numeric Keypad**.







The **virtual numeric keypad** works exactly as the numeric keypad of a personal computer.

As an alternative, touch a numeric field and keep it held. Then move your fingers up (or right) to increase the value, or move it down (or left) to decrease it.

This also includes the Tempo numeric field in various pages.

Icons

Various icons help identifying the type of a file, a folder, a Song. For example:

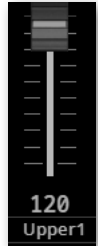
Icon	Meaning
	Folder (generic)
	Folder (KST)
	Style file
	MIDI file

Virtual controllers

Virtual sliders

To change a virtual slider's position, touch it and keep it held, then slide up or down to change its position. As an alternative, touch it, then use the **DIAL** or **UP/DOWN** controls to change its position.

Depending on the status of the **SLIDER MODE** indicator, the position of the virtual sliders might match that of the **SLIDERS**.



Virtual knobs

To change a virtual knob's position, touch it and keep it held, then slide your finger up (or right) to rotate it clockwise, or slide it down (or left) to rotate the knob counter-clockwise. As an alternative, touch it, then use the **DIAL** or **UP/DOWN** controls to change its position.



Virtual drawbars

To change a virtual drawbar's position, touch it and keep it held, then slide it up or down to change its position. As an alternative, touch it, then use the **DIAL** or **UP/DOWN** controls to change its position.

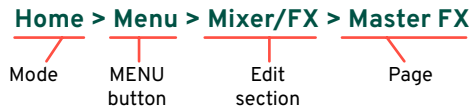


Navigating through the pages

How to read a page address

The operative modes contain edit pages, that are grouped into edit sections. In some case a page contains separate panes with additional data.

Through this manual, page addresses are shown as in the following example:

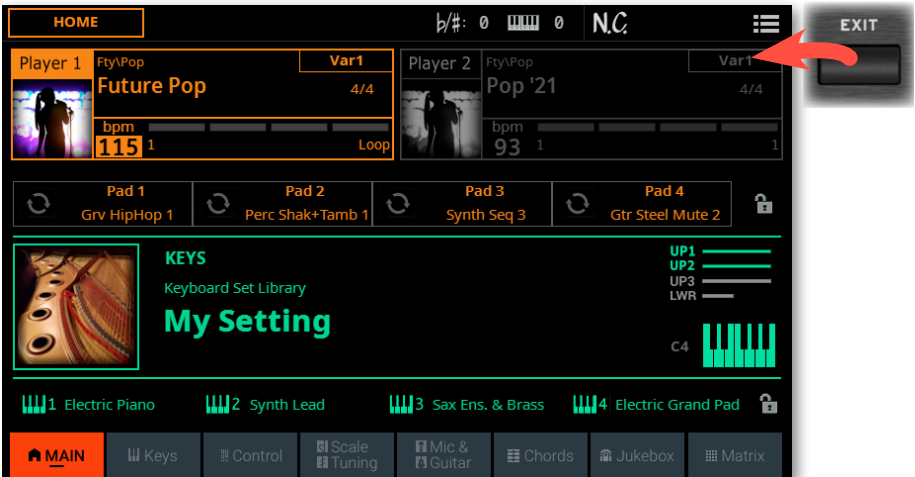


An example of navigating through the pages

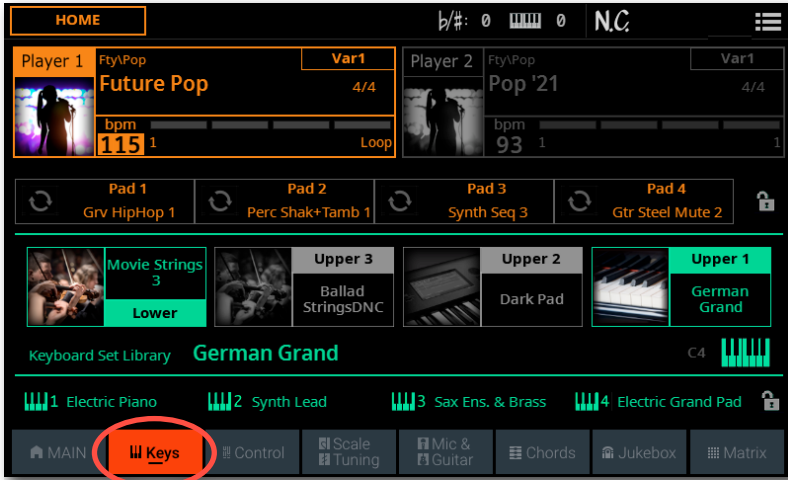
In the Home mode

Here is how to reach a given page.

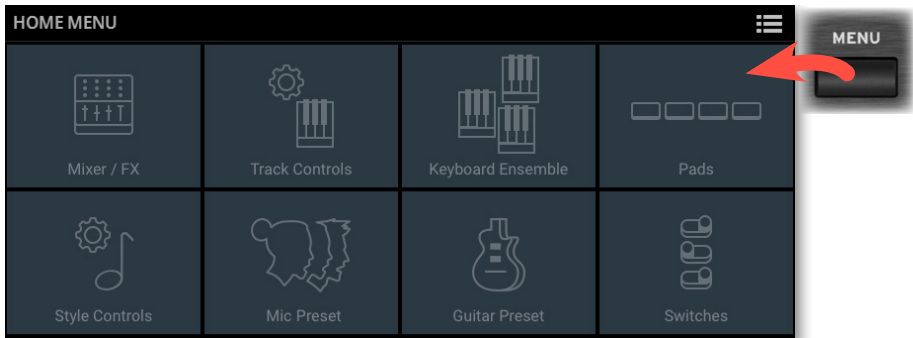
- 1 First of all, go to the **mode** containing the page or pane you are looking for. To return to the **Home** mode from any other page, press the **EXIT** button. When the instrument turns on, it is already in this page.



2 Touch the **tab** in the lower area of the display to select a different **pane**. For example, while in the **Home** page, touch the **Keys** tab to choose the **Keys** pane.



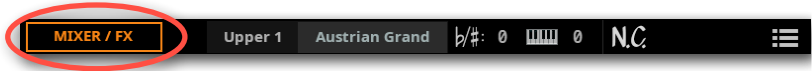
3 Press the **MENU** button on the control panel to see the **edit menu** of the **Home** mode.



4 Touch the **Mixer/FX** button in the **edit menu** to choose the **Mixer/FX** section.



The selected **edit section** is always shown in the **title bar**:



5 If the page is not yet shown in the display, touch the **Master FX** side tab to choose the **Master FX** page.

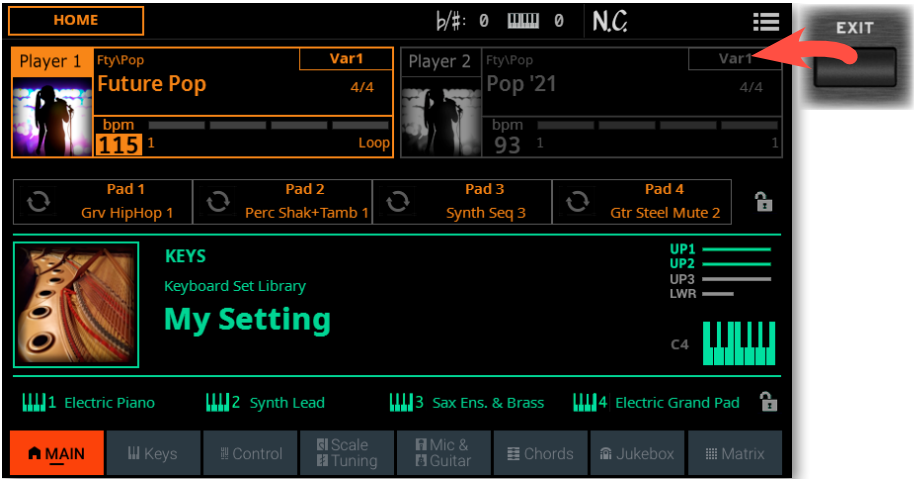


6 Edit the **parameters**.

7 Try a different page in the same edit section. Touch the **EQ** tab to go back to the **EQ** page, and edit the parameters.



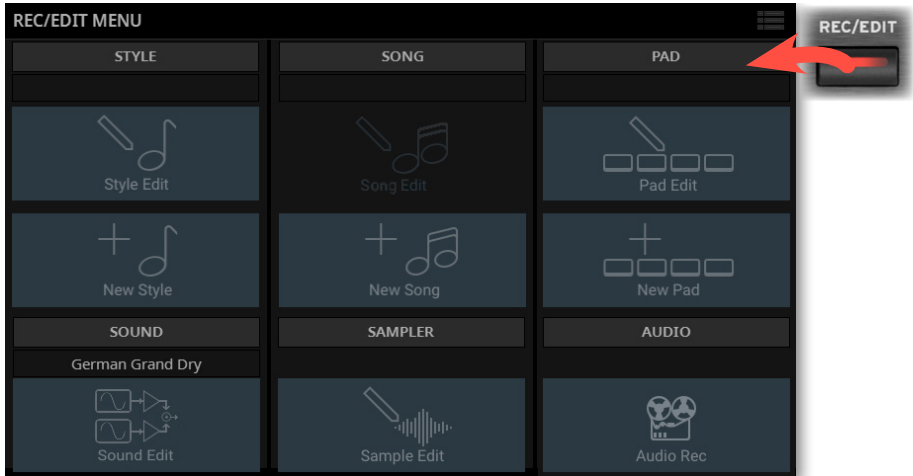
8 Press the **EXIT** button to return to the **Main** page of the **Home** mode.



In Record/Edit mode

Navigating through the sections and page of the **Record/Edit** mode is the same as in the **Home** mode.

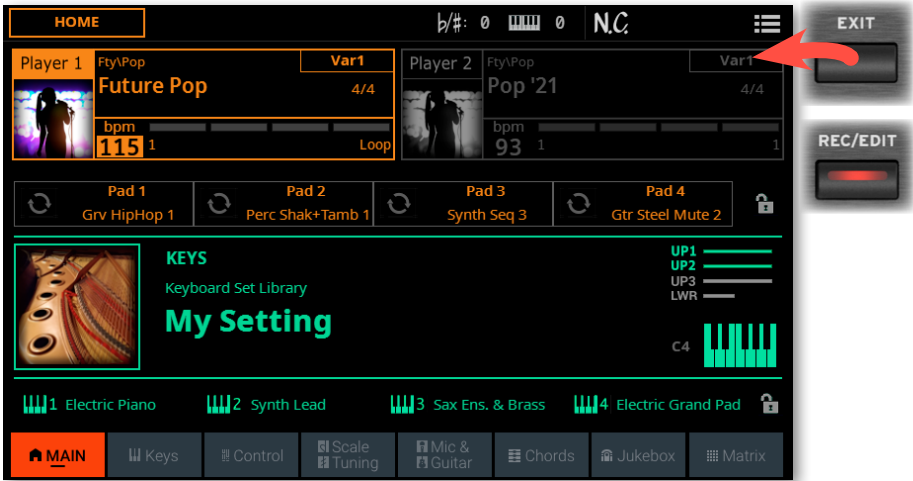
1 From the Home page, press the **REC/EDIT** button to see the **edit menu** of the **Record/Edit** mode.



2 Touch one of the **Record/Edit section** buttons in the **edit menu** to choose the corresponding section.

3 While in one of the **Record/Edit** pages, pressing **EXIT** a first time returns to the **Main page** of the current **Record/Edit** mode.

4 To exit from the **Record/Edit** mode and return to the **Home** mode, press the **EXIT** or the **REC/EDIT** button again.



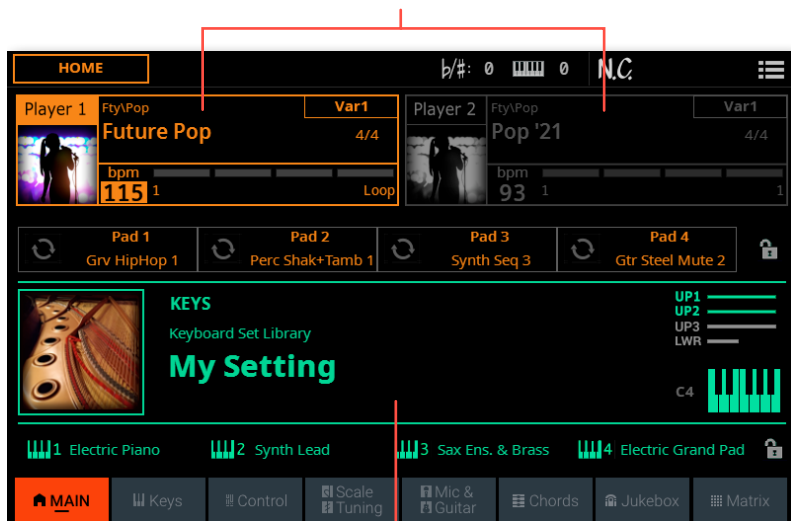
Choosing the musical resources

Opening a Select window

When you press the **STYLE**, **SONG**, or one of the **KEYBOARD SET LIBRARY** buttons, the corresponding **Select window** appears.

The **Select window** can also be opened by touching the name of the corresponding element (Style, Song, Keyboard Set, Voice or Guitar Preset...) in the display.

Touch to choose a Style or Song



Touch to choose a Keyboard Set

For example, this is the **Select** window when browsing for a Keyboard Set:



If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

You can always exit from this window by pressing the **EXIT** button, or by touching the **Exit** command in the top left corner of the display.

Select windows stay open until you press the **EXIT** button or touch the **Exit** command. If you prefer they automatically close after a few seconds, or after you select something, turn the **Display Hold** parameter off (see **Display Hold** on page 72).

The Select window in detail

These are the individual sections of a **Select** window.

Title bar

The **title bar**, showing the **type** of element you are going to select on the left, and the **selected element** on the right. It also contains the **page menu icon**.



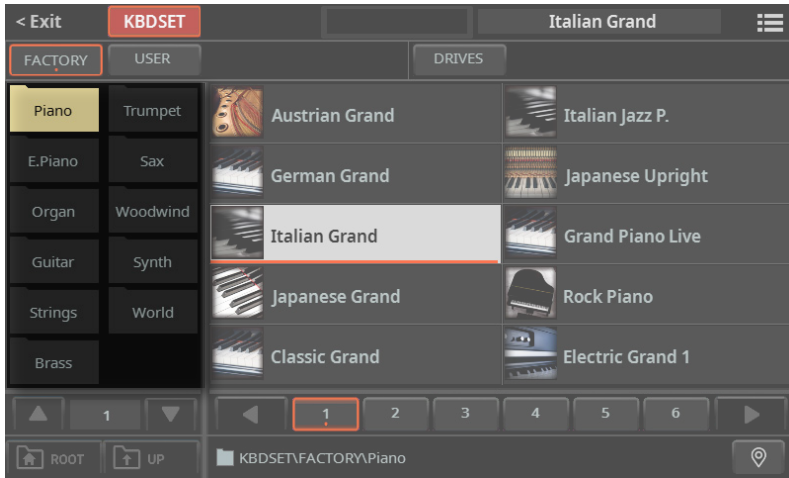
Group stripe

The **group stripe**, where you can select from **Factory** elements (supplied by KORG), **User** elements (your own custom elements in the internal memory), and **Drives** (custom elements read directly from an external storage device, including removable ones).

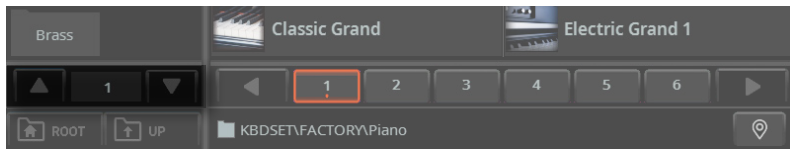


Upper level (containing drive or folder)

The **upper level**, in the left side of the display, usually containing a list of **drives** or **folders**. Touch one of them to see its content in the right side of the display.

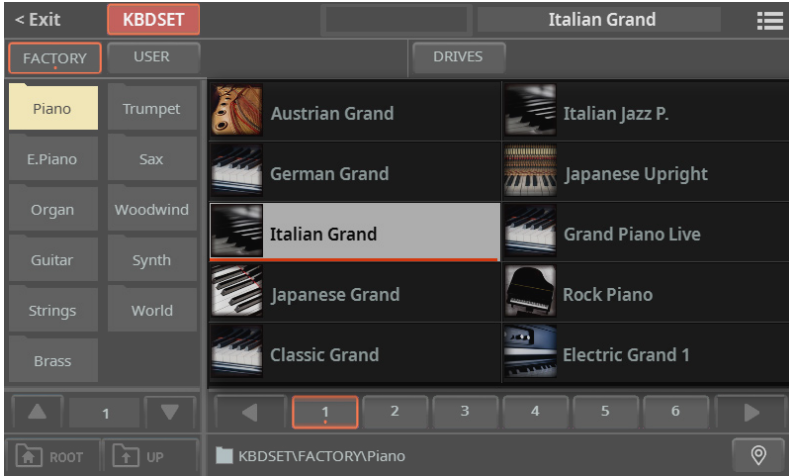


Under it, you can see the page number selector. Scroll through the different pages, if the folders are too many to fit in a single page.

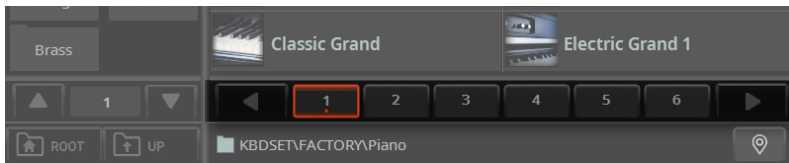


Lower level (current directory)

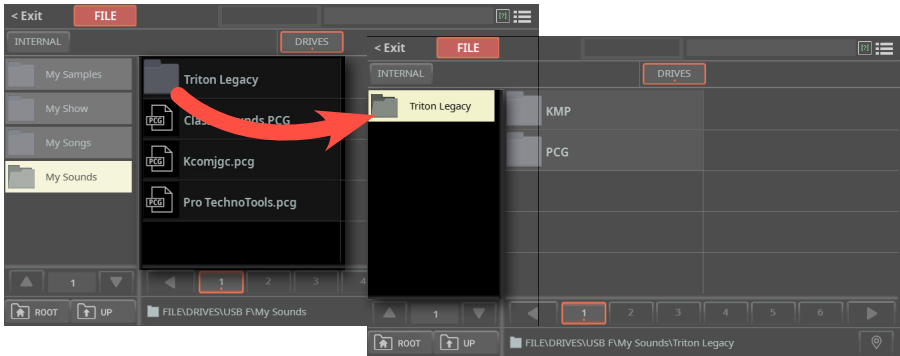
The **lower level**, showing the **current directory**, usually containing individual elements contained in the folder you touched in the first level. You can immediately select an element by touching it.



Under the elements, you can see the **page number selector**. Scroll through the different pages, if the elements are too many to fit in a single page. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



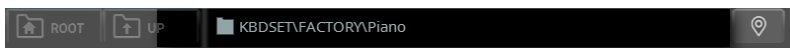
The **lower level** may also contain folders. If so, touch one of the folders to see its content. The content of the **lower level** will be moved to the **upper level**.



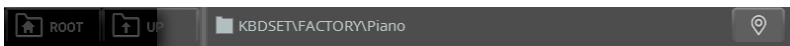
You can return to the containing folder by touching the **Up** button.

File path, Up, Root

The **file path**, where you can see the position of the selected item in the storage device or the internal memory.

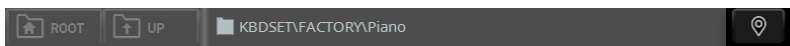


You can go to the parent folder at the upper level by touching the **Up** button, or to the top level of the drive by touching the **Root** button.



Locate button

If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

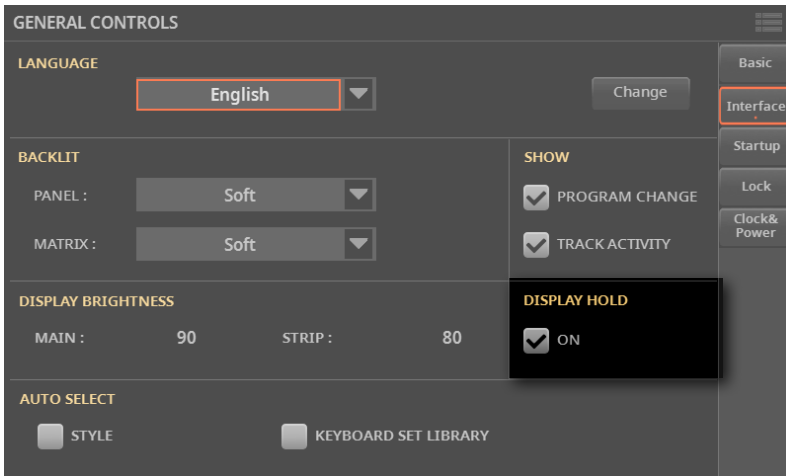


Display Hold

You may prefer to leave a Select window open after you have done your choice, maybe to continue trying other elements in that window. Or, you may prefer to let it automatically close after you have completed your choice. This depends on the **Display Hold** parameter.

Here is how to turn the Display Hold parameter on or off.

- 1 Go to the **Settings > Menu > General Controls > Interface** page.



- 2 Turn the **Display Hold** parameter on or off:
 - > Select the **Display Hold On** checkbox to turn it on. All Select windows will remain open on the display, until you press the **EXIT** button.
 - > Deselect the **Display Hold On** checkbox to turn it off. All Select windows will automatically close after you have chosen an element.
- 3 Press the **EXIT** button to return to the previous page.

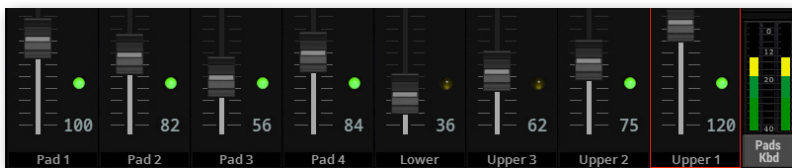
Styles, Songs and the Players

You can play a Style or a Song with either Player 1 or Player 2. Therefore, if you want, you can assign a Style or Song to each of the players, and have the other player be ready for the next musical selection. You can also mix Styles and Songs with the different Players.

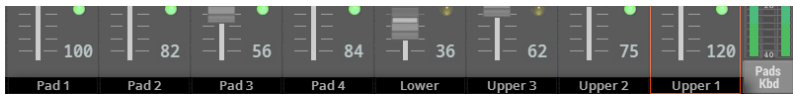
You can choose which Player has the focus by moving the **X-FADER**, or by pressing the corresponding **PLAY/STOP** (▶◻) button when both Players are stopped.

Keyboard, Style, Song and Pad tracks

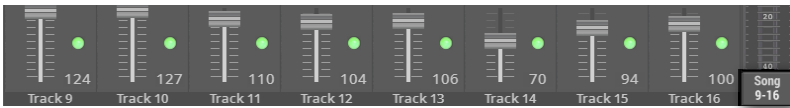
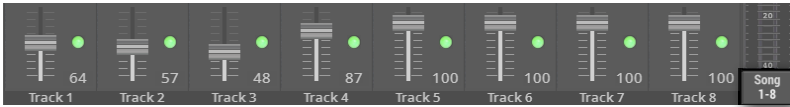
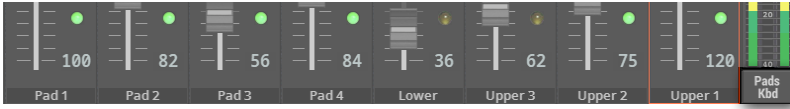
The Sounds are assigned to Keyboard, Style, Song, or Pad tracks. You can see eight of them at a time in the display.



Which track is shown can be see in the track's label at the bottom of the page.



By touching the **TRACK SELECT** button next to the tracks, you can switch to a different group of eight tracks. Which one are displayed depends on the current elements (Keyboard Sounds, Pads, Style, Song).



Saving the musical resources

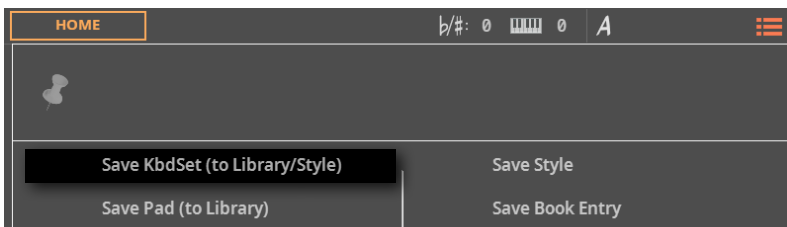
Pa5X allows you to edit most of its data. Changes can then be saved into the **User** area of the internal memory (never the **Factory** area).

Saving the Settings

Most of the changes you make in the **Settings** mode are automatically saved. There is no need to save them after editing.

Saving changes to Keyboard Sets, Styles, MIDI Songs and Pads

When you do some changes to the sounds, the effects and the various parameters of a Keyboard Set, a Style, a MIDI Song or a Pad, you can save them by choosing the corresponding **Save** command from the **page menu**, while in one of the **Home** pages.



Saving changes to Mic, Guitar and MIDI Presets

When you do some changes to a Mic, Guitar or MIDI Preset, you can save them by choosing the corresponding **Save** command from the **page menu**, while in one of their **edit** pages.

Saving other types of data

You can edit and save Styles, MIDI Songs, MP3 Songs, Chord Sequences, Sounds, Samples, Audio Loops, Effects for the Sounds. You can save them by choosing the corresponding **Save** command from the **page menu**, while in one of their **edit** pages.

03

Playing the Sounds

The Keyboard Sets

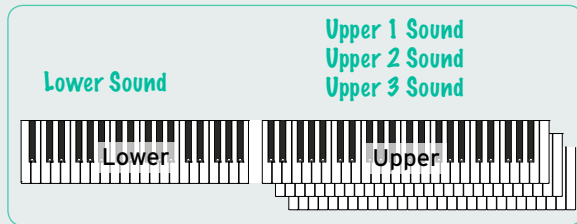
Keyboard Sets and the Sounds

Keyboard Sets are what you play on the keyboard. They can be individual sounds, or rich ensembles of timbres split or layered across the keyboard.

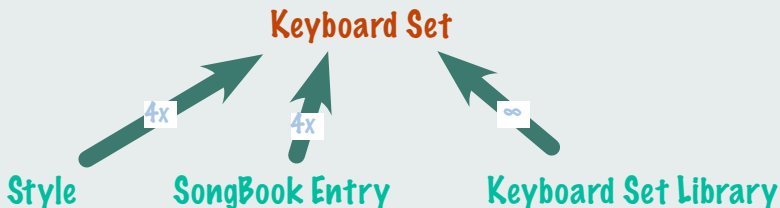
Individual timbres are called the Sounds. Pa5X contains timbres from any instrumental family (pianos, strings, synthesizers...). A set of Sounds playing together on the keyboard can be memorized as a Keyboard Set.

To automatically recall sounds with all their settings (effects, transposition, and so on) you select a Keyboard Set.

Keyboard Set



Keyboard Sets are individually contained in the Keyboard Set Library (**KEYBOARD SET LIBRARY** buttons). For your convenience, a group of four perfectly matched Keyboard Sets is automatically assigned to the four **KEYBOARD SET** buttons under the X-FADER, each time you select a Style or SongBook Entry.



When choosing a Style or SongBook Entry, the Keyboard Set may be automatically recalled depending on the status of the **Style to Keyboard Set** function (see page 147). If you want this to happen, turn this function on. By default, you can turn it on or off by using **BUTTON #8** when the **CONTROL** section is in **USER** mode.

Choosing your preferred Keyboard Set

Choosing the 'My Setting' Keyboard Set

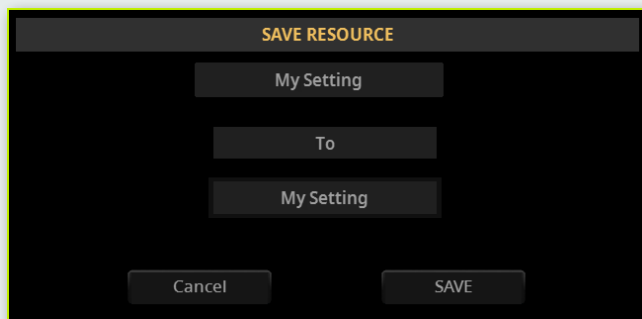
- > Press the **MY SETTING** button to choose your preferred sounds.



The My Setting Keyboard Set

My Setting is a special Keyboard Set, where you can save your preferred settings for things like Keyboard sounds, effects, control sliders and buttons, and the assignable switches. This Keyboard Set is automatically chosen when the instrument is turned on, and will automatically configure the instrument for you.

You can save here your preferred Keyboard Set. Keep the **MY SETTING** button pressed for about one second, until the **Save** dialog appears, then touch the **Save** button to confirm saving to memory.



Choosing a Keyboard Set from the library

Keyboard Sets are contained in a dedicated library, that you can access from the control panel or from the display.

■ Open the Select window from the control panel

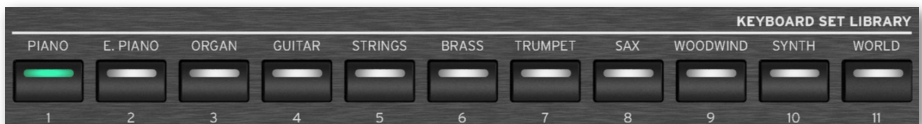
1 Use the **CATEGORY/FAVORITE** button to choose the type of Keyboard Set you want to select.



Type	Meaning
Category	The full database of Keyboard Sets contained in the Library. You can browse between the categories.
Favorite	A selection of your preferred Keyboard Sets, that can be accessed by pressing a single button.

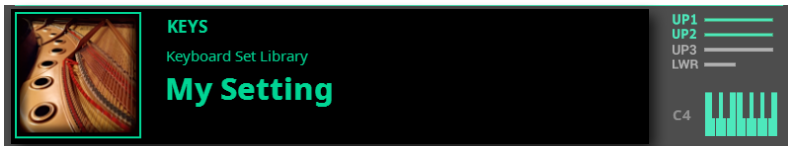
2 Press one of the buttons of the **KEYBOARD SET LIBRARY** section. The selected button's light indicator will turn green.

You will notice that each of them has an **instrument family name** (Piano, E.Piano...) printed over it. Under the buttons, you will see the number corresponding to the Favorite Keyboard Set (1-11).

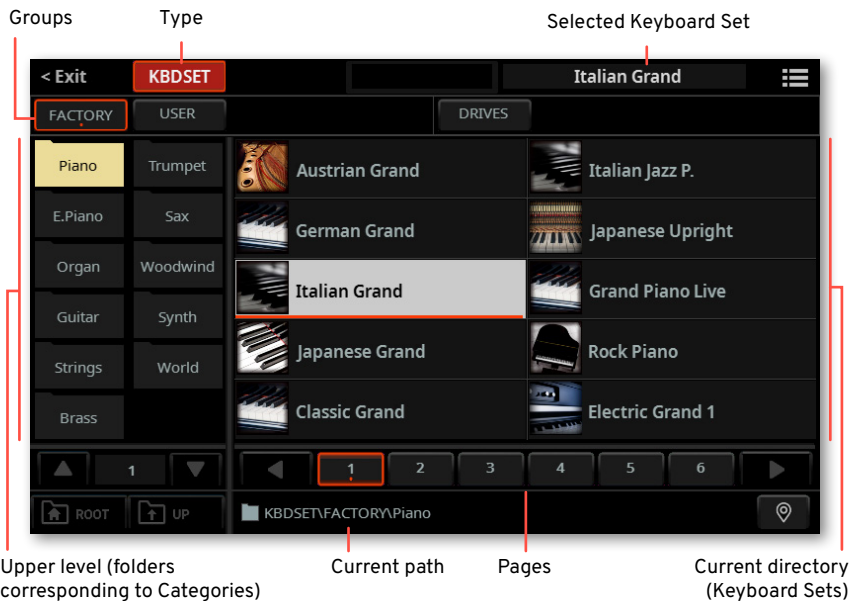


■ Open the Select window from the display

> While in the **Main page**, touch the **name of the selected Keyboard Set**. You can touch anywhere in the Keyboard Set area.



As soon as you press the button or touch the display, the **Keyboard Set Select** window appears.



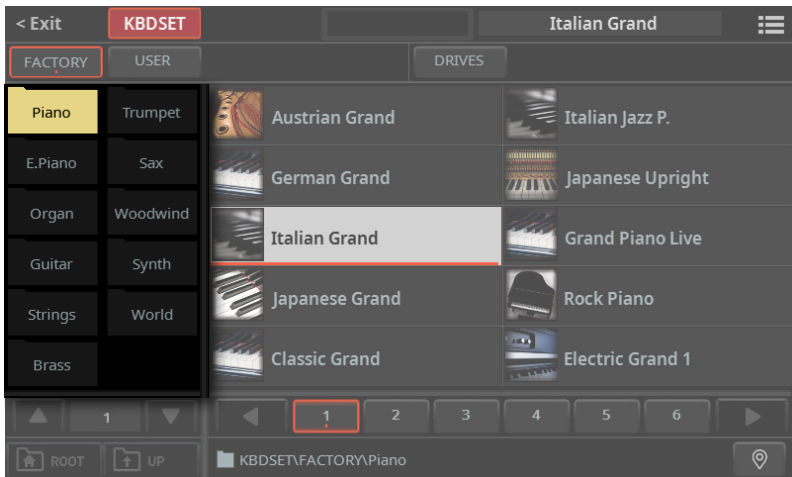
■ Choose a Keyboard Set

1 To choose one of the available groups from which to choose a Keyboard Set, touch the **buttons** in the second line at the top of the window.

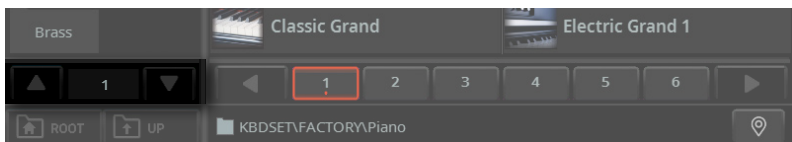


Group	Meaning
Factory	Keyboard Sets included at the factory, that can't be modified or overwritten.
User	Internal memory area where you can save new or edited Keyboard Sets, or where you can copy Keyboard Sets from an external storage device.
Drives	Keyboard Sets accessed from an external storage device. You can organize them freely, as if they were ordinary files.

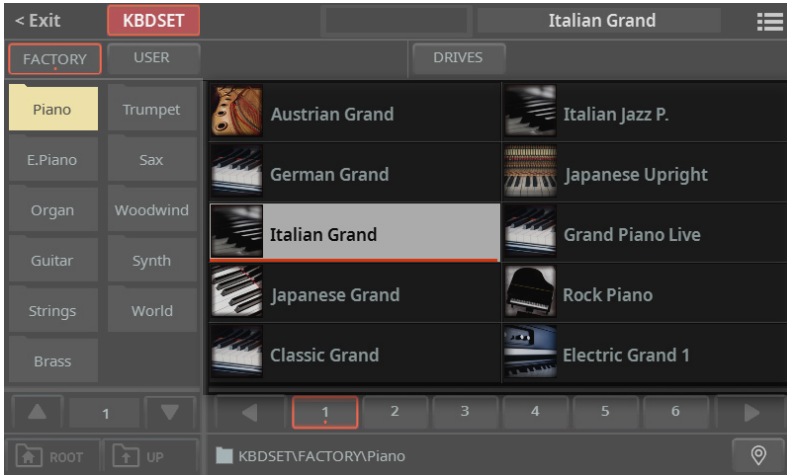
2 In case you want to choose a different category, press a different button in the **KEYBOARD SET LIBRARY** section. As an alternative, touch one of the category folders in the left side of the **Keyboard Set Select** window.



3 If not all the category folders can be seen in the current page, scroll through the page numbers to access the other folders.



4 The Keyboard Sets contained in the selected folder appear in the right side of the window.



5 If the selected category folder contains more elements than the ones that can be seen in a page, repeatedly press the same **button** in the **KEYBOARD SET LIBRARY** section to cycle through the pages.

As an alternative, you can browse through the pages in the display. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



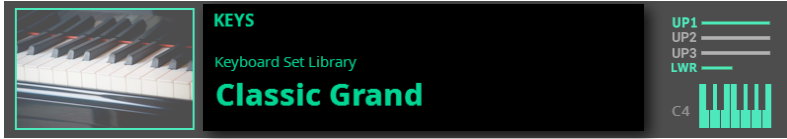
6 If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

7 Touch the **name of the Keyboard Set** you want to choose.

8 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** option is turned on. See [Display Hold](#) on page 72.

In the end, you will see the name of the selected Keyboard Set in the dedicated area of the **Main** page. The sounds assigned to the keyboard will change.



Digital Drawbars

You will notice that some Keyboard Sets in the Organ group of the library contain the 'DWB' abbreviation in their name. These Keyboard Sets contain Digital Drawbars Sounds, that are simulations of electro-mechanical organs of the past.

When you choose one of them, choose the **DRAWBARS** mode in the **CONTROL** section. Then use the **sliders** to control the drawbars and the corresponding footage of the organ sound; and use the **buttons** to control the classic drawbar organ features, like the amp rotation speed and the overdrive.

Factory, User, Drives

Across the pages, you will find words like Factory, User, Drives. These terms refer to the type of protection from saving, or how much you can customize them.

- > **Factory** are elements that you can't overwrite or modify. They are meant to warrant that musical resources (like SongBook Entries) will always find linked musical resources (like Styles).
- > **User** are elements that you can save, modify or overwrite. User Keyboard Set and Pad categories can be renamed to create your own categories.
- > **Drives** indicate groups of User elements that you can directly access as ordinary files from a storage device (including external ones).

Choosing a Keyboard Set from a Style or a SongBook Entry

There are four matched Keyboard Sets in each Style or SongBook Entry, fine-tuned for the containing Style or SongBook Entry. You can choose them from the control panel or from the display.

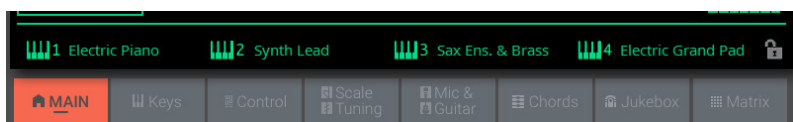
Choosing a Keyboard Set from the control panel

- > Press one of the buttons in the **KEYBOARD SET** section under the X-FADER.



Choosing a Keyboard Set from the display

- > While in the **Main page**, touch one of the **Keyboard Set names** to select it. The Sounds assigned to the keyboard will change.



Letting the Style choose Keyboard Set #1

When choosing a Style or SongBook Entry, the Keyboard Set may be automatically recalled depending on the status of the **Style to Keyboard Set** function.

■ Access the Style to Keyboard Set function from the control panel

- 1 Press the **USER** button in the **CONTROL** section.

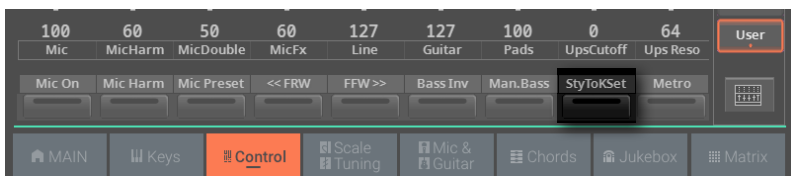


- 2 Check if the **strip display** is showing the functions assigned to the buttons. If not, you may want to press the **VIEW** button in the **CONTROL** section to see them.



■ Access the Style to Keyboard Set function from the display

- > Go to the **Home > Control > User** pane.



■ Turn the Style to Keyboard Set function on or off

> Repeatedly press (or touch) the **Style to Keyboard Set** switch to set the function.

Style to Keyboard Set indicator	Meaning
Off	Styles don't select a Keyboard Set.
On	When choosing a Style, Keyboard Set #1 is automatically selected.
Blinking	Choosing a Variation automatically recalls the corresponding Keyboard Set (1 - 4) inside the Style. For example, choose Variation 2, and Keyboard Set 2 will be automatically recalled; choose Variation 3, and Keyboard Set 3 will be automatically recalled.

Playing and controlling the sound

Playing the keyboard

The instrument's keyboard is like a piano keyboard. Just play it!

With some Sounds, you can press the keys while they are already down, and the sound might vary (for example, you might hear more vibrato).

Using the pedals

Pedals do different things depending on how they are programmed. The **Damper** pedal is precisely that – a damper pedal, sustaining notes until you release the pedal. The **Assignable** pedal (or footswitch) may change depending on how it is programmed in the **Settings > Menu > Controllers > Foot** page.

Using the control sliders and buttons

Depending on the selected mode, the **CONTROL** sliders and buttons can control different things, like volume levels of the different sounds, the organ drawbars or some assignable functions. How they work is shown by the strip display under the sliders.

Using the assignable switches

Depending on the chosen Keyboard Set and the assigned functions, these controllers can do different things. With the DNC Sounds, the switches can either 'book' a function, that will be triggered while playing, or enable (or disable) it by pressing the button to 'toggle' it. In other cases, these switches can 'toggle' or 'trigger' the assigned function.

Indicator status	Meaning
Off	No DNC function assigned.
Purple steady	Booking DNC function available.
Purple blinking	Booking DNC function waiting to be executed. Then, it will return steady.
Light green steady	Toggle DNC function available.
Light green blinking	Toggle activated. Press it again to disable it.

Using the Matrix

The **Matrix** of programmable buttons can do several different things (triggering Pads, Chords Sequences, Track Play/Mute, etc.). Press one of the four **preset** buttons under the Matrix to choose a set of functions. Touch one or more of the **Matrix buttons** to select the corresponding function. If they are on/off switches, touch them again to turn them off.

The color of the switches may change, depending on the assigned function and the selected Player. Switches with no function assigned are off.

Indicator status	Meaning
Off	No function assigned.
Orange/Blue steady	Function activated.
Orange/Blue blinking	On-shot function playing.

Using the joystick

Moving the joystick left of right usually changes the Sound's pitch. Moving it forward usually add modulation, but this depends on the selected sounds. With the electro-mechanical organs, pushing the joystick forward changes the rotary speaker's speed. What it does when pulled back depends on the selected Sounds. Just experiment!

Using the ribbon controller

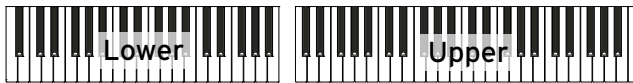
Sweeping left of right on the ribbon controller usually changes the brilliance of the sounds and/or the pitch, but how it works depends on the selected sounds.

Customizing the Keyboard Sets

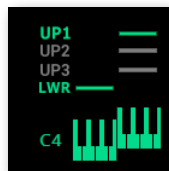
Playing different Sounds with the left and right hand

Splitting the keyboard

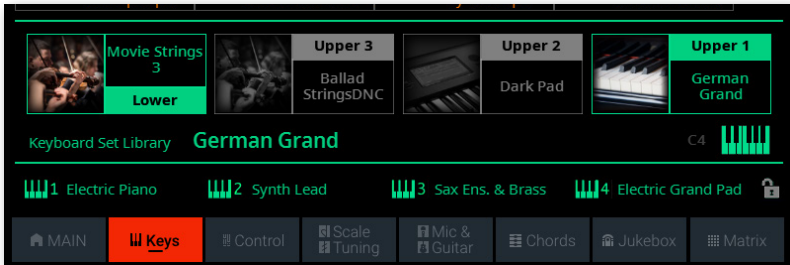
- Split the keyboard into a Lower (left hand) and Upper (right hand) part
- > Press the **SPLIT** button on the control panel to light up its indicator. The keyboard will be divided into a Lower (left hand) and Upper (right hand) part.



The **split status icon** is shown in the **Main** page, next to the name of the Keyboard Set. Which of the Upper and Lower Sound is playing is also shown (green parts are playing, dimmed ones are muted).



You can see the Sounds assigned to each part in the **Home > Keys** page.

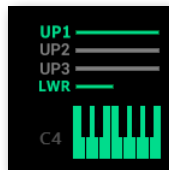


■ Remove the split and play the Upper Sounds over the full keyboard range

> Press the **SPLIT** button again to turn its indicator off. The Upper Sounds will play on the full keyboard range, as in an acoustic piano.



The **full keyboard status icon** is shown, next to the name of the Keyboard Set. Which of the Upper and Lower Sound is playing is also shown.



Split, Keyboard modes, Sounds

When changing the **SPLIT** status, the number of Sounds you hear may change.

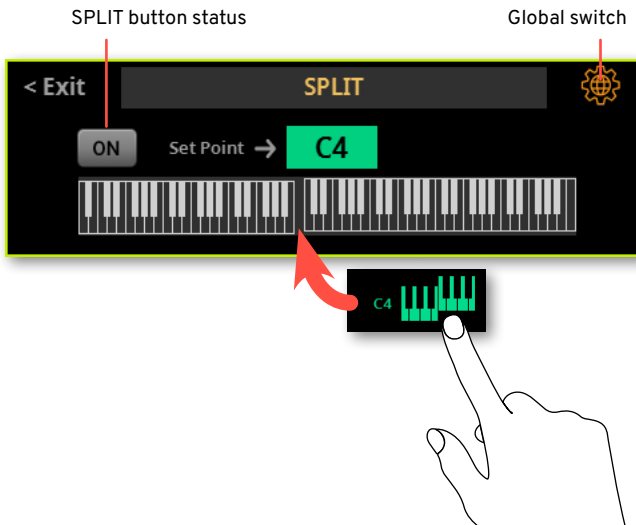
SPLIT indicator	Keyboard mode	Left hand (Lower) Sounds	Right hand (Upper) Sounds
Off	Full	No Lower Sound	Up to three Upper Sounds assigned to the full extension of the keyboard
On	Split	A single Lower Sound assigned to the left hand	Up to three Upper Sounds assigned to the right side of the keyboard.

Changing the local split point

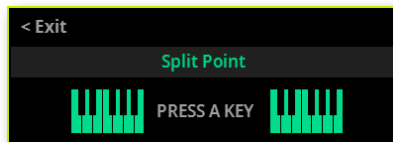
You can choose a different point where the keyboard divides into an Upper and a Lower part. This is called the **split point**.

■ Change the local split point from the control panel

1 While in the **Home > Main** or **Keys** page, touch the **Split** icon to open the **Split** dialog.



2 Touch the **keyboard diagram** in the display. When the **Press a key** message appears, play the lowest note of the Upper (right) part on the keyboard.



As an alternative, touch the **Set Point** parameter to select it, and use the **DIAL** or **UP/DOWN** controls to select the new split point.

When you change the split point, the **Global** switch is automatically deselected. The split point is now local (see 'Global' and 'local' split point on page 95).

■ Memorize the local split point

The local split point can be memorized into a Keyboard Set. Each Keyboard Set associated to a Style or SongBook Entry can have a different split point.

- > Save the changes to a User Keyboard Set.

Changing the global split point

The global split point is both the general setting you use when there is no local split point, and a ‘template’ from which to start setting the various local split points saved into the Keyboard Sets. You can edit it and use it as the main split point of the instrument. Some Keyboard Sets might override the global split point with their own local split point.

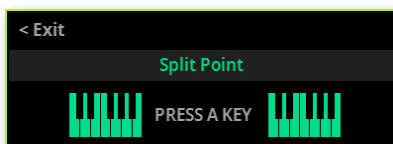
■ Change the global split point

- 1 Go to the **Settings > Menu > Preferences > Style** page.

As an alternative, keep the **SHIFT** button pressed and press one of the **PLAYER > STYLE** buttons to open the **Style** page.



- 2 Touch the **keyboard diagram** in the display. When the **Press a key** message appears, play the lowest note of the Upper (right) part on the keyboard.



As an alternative, touch the **Split** parameter to select it, and use the **DIAL** or **UP/DOWN** controls to select the new split point.

- 3 Press the **EXIT** button to return to the previous page.

'Global' and 'local' split point

You can choose a 'global' split point that is not changed when choosing a different Keyboard Set. Or you can choose a 'local' split point that is better suited to the individual Keyboard Set, and can change when selecting it. The current 'local' split point can be saved into a User Keyboard Set.

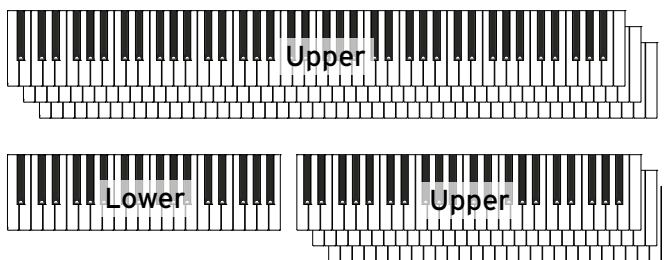
To change the type of split point, select or deselect the **Global** switch in the **Split** dialog.



Global Split	Split type	Meaning
On (Selected)	Global	Leave this box checked to use the global split point. This is the general setting from which you can start programming the local settings.
Off (Deselected)	Local	This box is automatically deselected when you start programming a local split point in the Split dialog. The local split point can be saved into a User Keyboard Set. Use it when you need a particular split point for a particular Keyboard Set.

Playing two or three Sounds at the same time

You can play up to three layered Sounds on the keyboard. This is useful to add, for example, a layer of strings or synth pads to a grand piano sound. The Sounds will be assigned to the Upper part of the keyboard. When the **SPLIT** button indicator is turned off (**Full Keyboard** mode), the Upper parts will play on the full range of the keyboard, as it happens on an acoustic piano. Otherwise (**Split Keyboard** mode), you will play the Upper Sounds with the right hand.



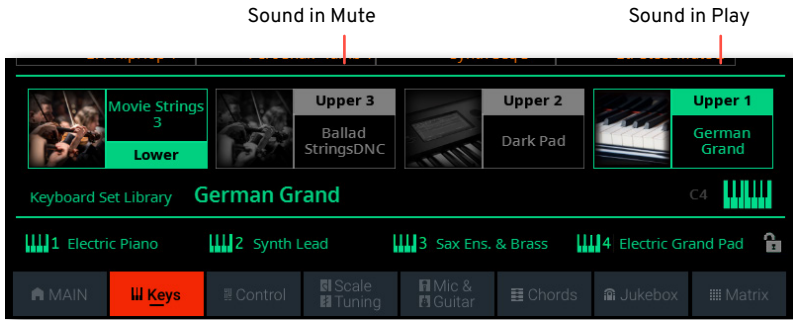
■ Turn a Sound on or off from the control panel

> Use the **LOWER**, **UPPER3**, **UPPER 2** and **UPPER1** buttons in the **KEYBOARD** section to turn the corresponding Sounds on or off.

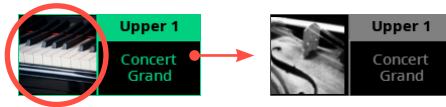


■ Turn the selected Sound on or off from the display

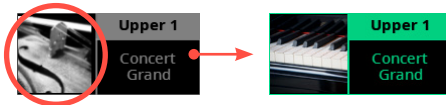
1 Go to the **Home > Keys** page. Sounds with icons in solid colors are in play, while dimmed ones are in mute.



2 If the Sound you want to mute is in play, touch the **icon of the Sound category** to set it to mute.



3 If the Sound you want to hear is in mute, touch the **icon of the Sound category** to set it to play.



■ Memorize the Sound status

> Save the changes to a User Keyboard Set.

Choosing different Sounds

You can assign different Sounds to the keyboard. The new combination of Sounds can then be saved into a User Keyboard Set.

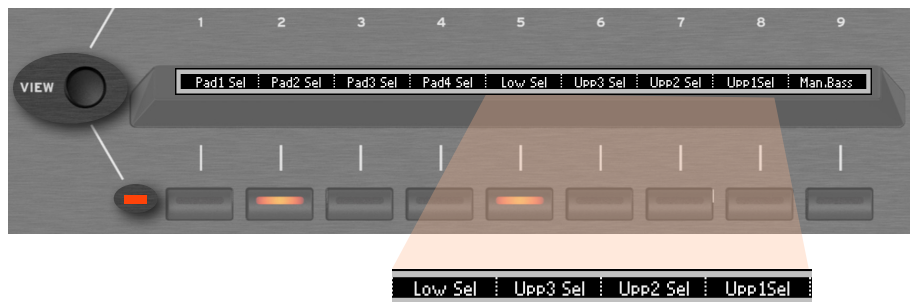
You can follow the same procedure when choosing Sounds for the other combinations of Sounds (Style and MIDI Song tracks, that can be saved into the current User Style or a MIDI Song).

■ Open the Select window from the control panel

- 1 Press the **KBD/PAD** mode button in the **CONTROL** section.



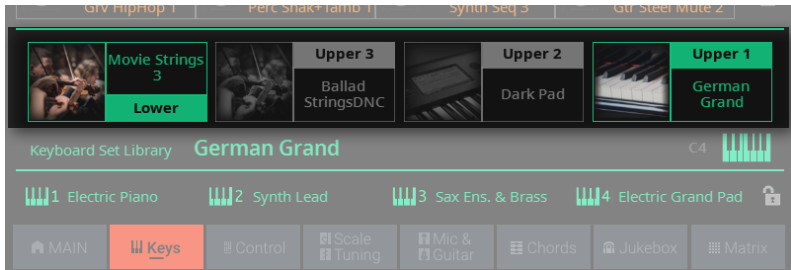
- 2 If you want, press the **VIEW** button to turn its lower indicator on, and see the functions assigned to the **CONTROL** buttons. As you see, the buttons are programmed as **Sound Select** buttons for the corresponding parts.



- 3 Press the **CONTROL** button corresponding to the Sound you want to change.

■ Open the Select window from the display

- > While in the **Home > Keys** page, touch the **name of the Sound** you want to change.

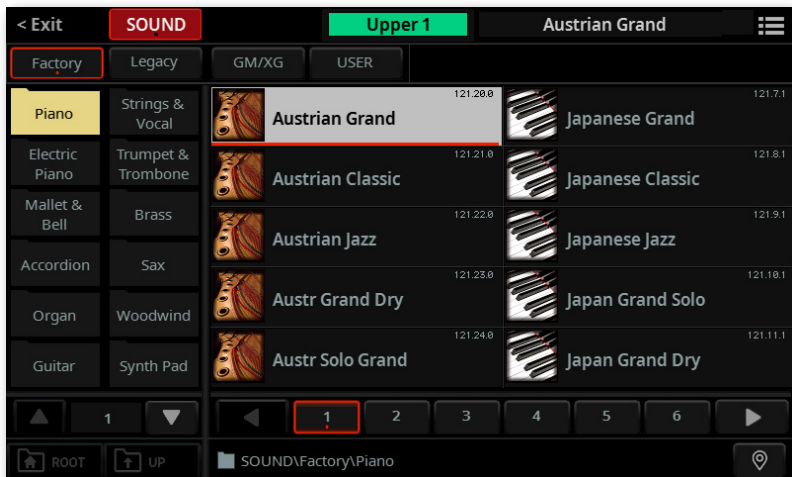


- > While in the **Home > Control** page, touch the **Select** button corresponding to the Sound you want to change.



■ Choose a Sound

- 1 Browse through the Sounds in the **Sound Select** window.

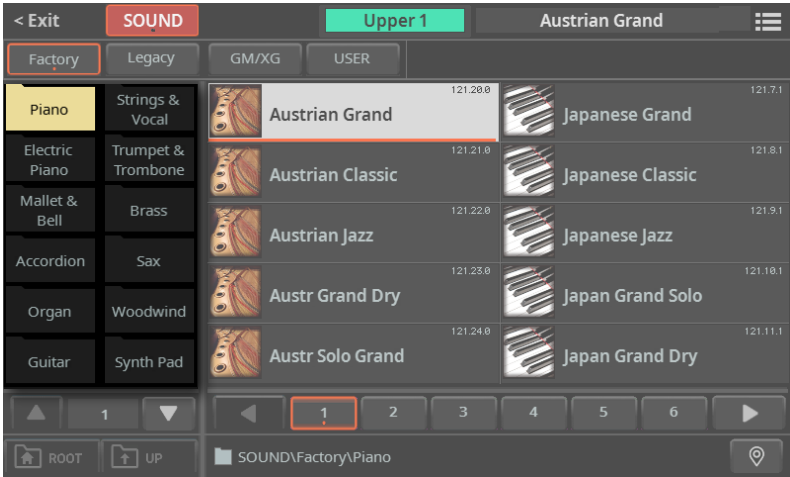


2 To choose one of the available **types of Sound**, touch the **buttons** at the top of the window.

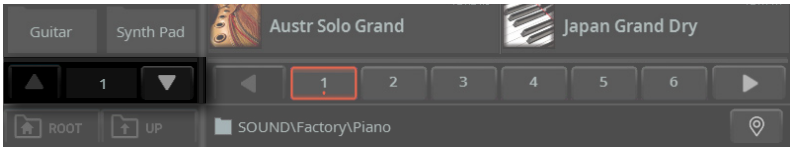


Type of Sound	Meaning
Factory	Standard Pa5X Sounds, that can't be modified or overwritten. These are the richest, most modern Sounds of the whole collection.
Legacy	Legacy Sounds, allowing for greater compatibility with older Pa-Series instruments.
GM/XG	Sounds allowing for full compatibility with MIDI Songs based on General MIDI and XG Sounds and Drum Kits.
User	Internal memory area where you can load new Sounds and Drum Kits from an external device, or save new or edited Sounds and Drum Kits.

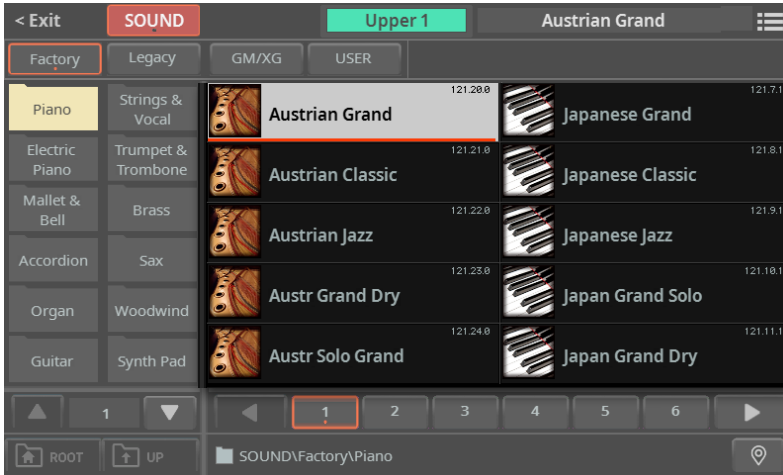
3 In case you want to choose a different category, touch one of the category folders in the left side of the **Sound Select** window.



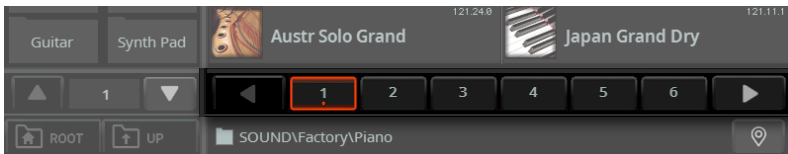
4 If not all the category folders can be seen in the current page, scroll through the page numbers to access the other folders.



5 The Sounds contained in the selected folder appear in the right side of the window.



6 If the selected category folder contains more elements than the ones that can be seen in a page, browse through the pages. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



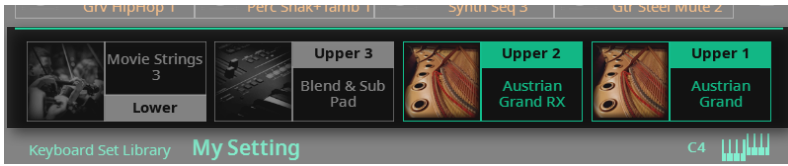
7 If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

8 Touch the **name of the Sound** you want to choose.

9 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** option is turned on. See **Display Hold** on page 72.

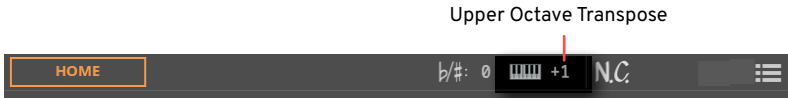
In the end, you will see the name of the selected Sound in the dedicated area of the **Keys** page.



-
- **Memorize the assigned Sounds**
-
- Save the changes to a User Keyboard Set.

Transposing the Upper Sounds to a different octave

All Upper Sounds can be transposed to an upper or lower octave using the **UPPER OCTAVE - and +** buttons. The current octave transposition is shown in the status bar.



- **Transpose the Upper Sounds one octave up**
 - > Press the **UPPER OCTAVE +** button on the control panel.
- **Transpose the Upper Sounds one octave down**
 - > Press the **UPPER OCTAVE -** button on the control panel.
- **Reset the octave transposition**
 - > Press both **UPPER OCTAVE** buttons together.
- **Memorize the Sound transposition**
 - > Save the changes to a User Keyboard Set.

Using the Ensemble to add harmony

There are several types of Ensemble, but with most of them what you play with your right hand will be harmonized with the chords you play with your left hand.

Turning the Ensemble on or off

■ Turn the Ensemble function on

- 1 Be sure the **SPLIT** indicator is turned on.
- 2 Press the **ENSEMBLE** button to light up its indicator.

Play chords with your left hand, and a melody with your right hand. You will hear the chord notes added to the melody.

■ Turn the Ensemble function off

- > Press the **ENSEMBLE** button again to turn its indicator off.

Choosing an Ensemble type

■ Select a different harmonization style

1 Go to the **Home > Menu > Keyboard/Ensemble > Ensemble** page.

As an alternative, keep the **SHIFT** button pressed, and press the **ENSEMBLE** button to open the **Ensemble** page.



2 Use the **Type** parameter to choose an **Ensemble type** for each of the Upper Sounds.

Ensemble type	Meaning
Duet	Adds a single note to the melody.
Close	Adds a closed-position chord to the melody.
Open 1	Adds an open-position chord to the melody.
Open 2	As the above, but with a different chord shape.
Block	Block harmonization – very typical of jazz music.
Power Ensemble	Adds a fifth and an octave to the melody, as heard in hard rock.
Third UP	This option adds a third over the melody note (depending on the recognized chord).
Fourths LO	Typical of jazz, this option adds two perfect fourths under the melody.
Fourths UP	As the above, but with notes added over the melody.
Fifths	This adds two fifths below the original note.
Octave	Adds an octave to the melody.
Dual	This option adds to the melody line a second note, at a fixed interval set with the “Note” parameter. When selecting this option, a transposition value appears (-24...+24 semitones to the original note).
Brass	Typical Brass section harmonization.
Reed	Typical Reed section harmonization.
Trill	When two notes are played on the keyboard, this option trills them. If three or more notes are played, only the last two are trilled. You can set the trill speed by using the Tempo parameter (see below).
Repeat	The played note is repeated in sync with the Tempo parameter (see below). When playing a chord, only the last note is repeated.
Echo	As the Repeat option, but with the repeated notes fading away after the time set with the Feedback parameter (see below).

3 Use the **Wet/Dry** parameter to enable/disable the original note.

Wet/Dy	Meaning
Wet/Dry	Both the original note and the harmonization notes will play.
Wet Only	Only the harmonization notes will play.

4 Use the **Auto Split** parameter to assign a different musical role to each of the Upper Sounds.

Auto Split	How it works
Top Note	If more than a single Upper Sound is in play, the last uppermost note is assigned to Upper 1, while the other Upper Sounds, if available, play the other chord notes.
Top Retrigger	If the uppermost note is released, while other notes are still playing, the uppermost note is retriggered and assigned to Upper 1.
Top & Bottom Note	If all the Upper Sounds are in play, the last uppermost note is assigned to Upper 1, the last lowermost note is assigned to Upper 3, while Upper 2 plays the other chord notes.
Top & Bottom Retrigger	If the uppermost note is released, while other notes are still playing, the uppermost note is retriggered and assigned to Upper 1. When the lowermost note is released, while other notes are still playing, the lowermost note is retriggered and assigned to Upper 3.

5 When they appear, adjust the **additional parameters**.

Additional parameters	How it works	Value
Note Velocity	Velocity (dynamics) difference between the melody played with your right-hand and the added harmonization notes.	-10...0
Note Transpose	Transposition of the harmonization notes. ± 12 semitones = ± 1 octave.	-24...0...+24
Tempo	Note duration for the Trill, Repeat or Echo Ensemble options. This is in sync with the Tempo value.	1/23...4/4
Feedback	Repetitions of the original note/chord when the Echo option is selected.	1...8

■ Exit the Ensemble settings page

- > Press the **EXIT** button to return to the previous page.

■ Memorize the Ensemble settings

- > Save the changes to a User Keyboard Set.

The Favorite Keyboard Sets

Choosing a Favorite Keyboard Set

Favorite Keyboard Sets are a selection of your preferred Keyboard Sets, that can be accessed by pressing a single button in the **KEYBOARD SET LIBRARY** section.

1 To select the Favorite Keyboard Sets, first light up the **FAVORITE** indicator by pressing the **CATEGORY/FAVORITE** button. The corresponding row of buttons will become available.



2 Press one of the **KEYBOARD SET LIBRARY** buttons (lower row, buttons **1-11**) to select the corresponding Favorite Keyboard Set.

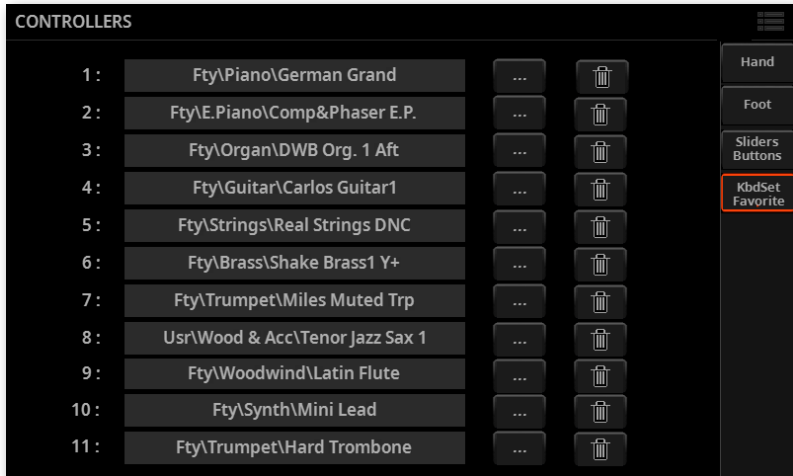


3 Press the **CATEGORY/FAVORITE** button again to return to the regular Keyboard Sets (upper row, buttons **PIANO ... WORLD**).

Creating a list of Favorite Keyboard Sets

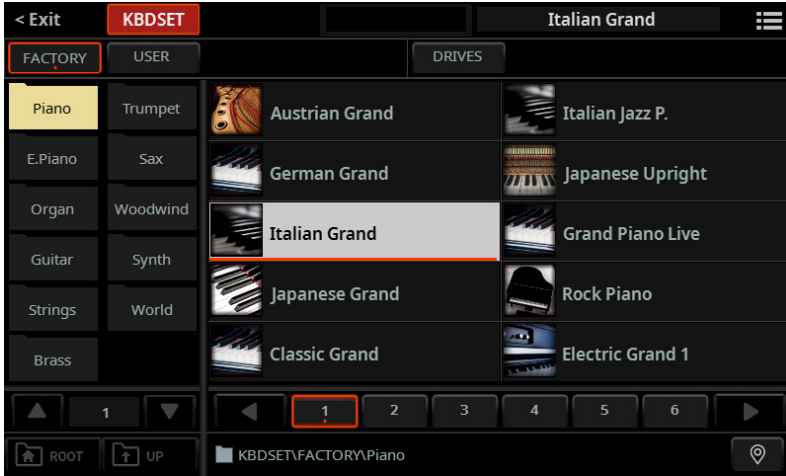
You can create your own list of Favorite Keyboard Sets.

- 1 Go to the **Settings > Menu > Controllers > Keyboard Set Favorites** page.



Each of the items in this page corresponds to one of the **FAVORITE** buttons in the **KEYBOARD SET LIBRARY** section on the control panel.

2 Touch the ... button next to the Favorite you want to replace. The **Keyboard Set Select** window will appear.



3 Browse through the drives and folders, and choose the desired Keyboard Set.

04

Volume and Control

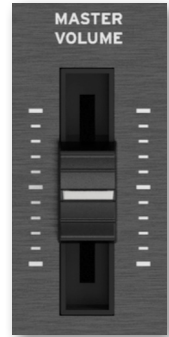
Adjusting the volume

The Master Volume

The general volume control, adjusting the output volume for the headphones, the main outputs and the integrated speakers (if installed) is the **MASTER VOLUME** slider.

CAUTION: Set the volume to a comfortable level. A level too high can damage your hearing!

- > Move the slider up to increase the output level.
- > Move the slider down to decrease the output level.



The X-Fader

The **X-FADER** (short for ‘crossfader’) allows mixing the two Players.

■ Assign a Style or Song to each of the Players

> Either use the **STYLE** or **SONG** button in the **PLAYER 1** or **PLAYER 2** sections, or touch the **name of the Style or Song** in the display.

For more details, please see the relevant chapters in the manual.

■ Start both Players at the same time

> If you want to synchronize both Player’s Tempo to the Tempo of the current Player, turn the **TEMPO LOCK** on.

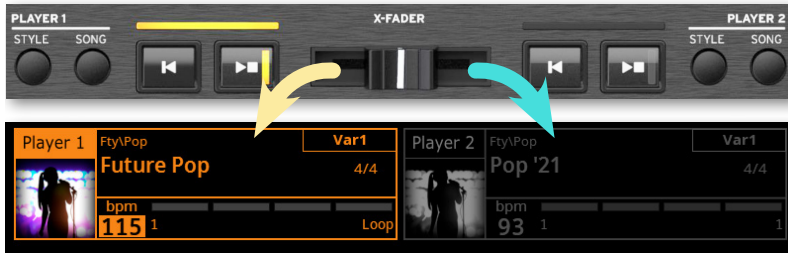
> Keep the **SHIFT** button pressed, and press any of the two **PLAY/STOP** (▷◻) buttons to start both Players at the same time.

■ Mix the two Players

> During playback, move the **X-FADER** slider to mix the two Players.

> Move the **X-FADER** slider fully to the left to only listen to Player 1, fully to the right to only listen to Player 2. Move it to the center to balance the two Players.

The indicator over the corresponding Player section will turn on.



■ Separately control each Player

> During playback, control each Player by using the dedicated **PLAYER** controls on the control panel.

■ Stop the Players

- > Press the **PLAY/STOP** (▷◻) button to stop the corresponding Player. If you are playing a Song, it will pause at the current position.
- > Press the **STOP/GO TO START** (⏮) button to stop the corresponding Player. If you are playing a Song, it will be rewound to the beginning.
- > Keep the **SHIFT** button pressed, and press any of the two **PLAY/STOP** (▷◻) buttons to start both Players at the same time.

■ Fade between songs

Instead of starting both Players together, you can start them one after the other, and fade between them.

- 1 Assign a first Style or Song to Player 1, and a second Style or Song to Player 2.
- 2 Move the **X-FADER** slider fully to the left, to only listen to Player 1.
- 3 Start Player 1.
- 4 When the song is nearing the end, start Player 2.
- 5 Gently move the **X-FADER** slider toward the right, to fade out the first Player and fade in the second Player.
- 6 While Player 2 is playing, assign a third Style or Song to Player 1, and repeat the above procedure (by reversing the **X-FADER** direction) to fade out Player 2 and fade in Player 1.

The Control section

The individual volume levels and buttons

The sliders and the buttons in the **CONTROL** section are always accessible, whichever page you are in.



The **sliders** allow for adjusting the volume of the Keyboard Sounds, the Pads, the two Players (with their Style or Song), or the individual Sounds. They also allow for controlling the level of the Audio Inputs.

The **buttons** allow for switching functions on/off, or muting/setting back to play the individual Sounds. They also allow for turning the Audio Inputs on/off.

The Easy Edit, Drawbars and User modes also allow for controlling other parameters of the sound. The User mode also allows for mixing the sound parameters with any other type of controls.

Adjusting the levels from the control panel

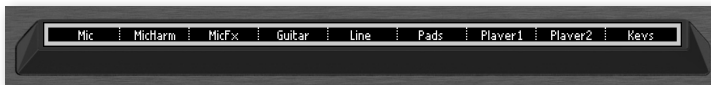
The **CONTROL** section can work in one of five modes. Each mode controls a particular set of elements or groups of elements.

1 Press one of the **mode buttons** on the right of the **CONTROL** section to choose one of the modes. Its indicator will turn on.

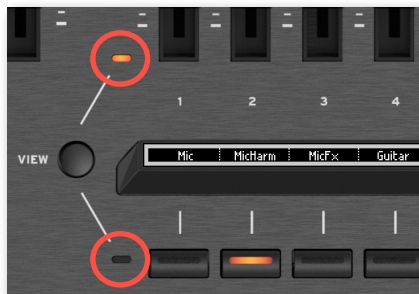


2 With MIDI Songs, you can press the **SONG** mode button again to cycle between Tracks 1-8 and 9-16. When the button is pressed again, you can briefly see the sliders' MIDI value.

3 To see which function is assigned to each slider or button, check the **strip display** under the sliders.

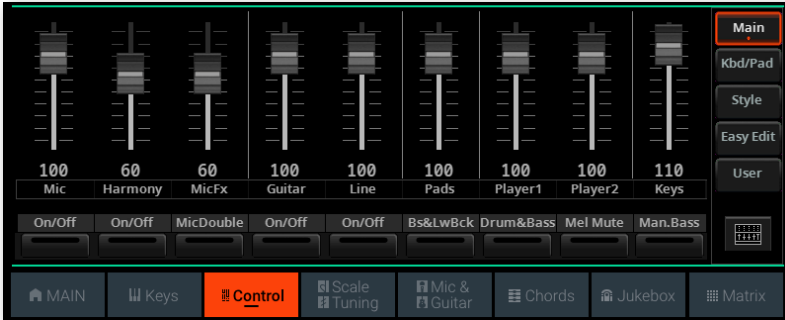


You can alternate between the sliders and the buttons by pressing the **VIEW** button. An indicator will turn on next to the sliders or the buttons, to tell what is shown in the strip display.

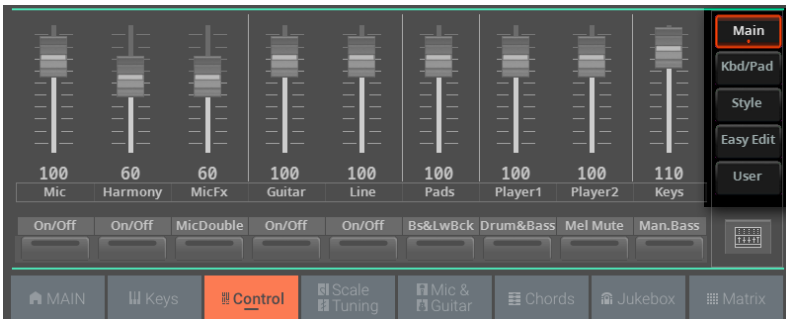


Adjusting the levels from the display

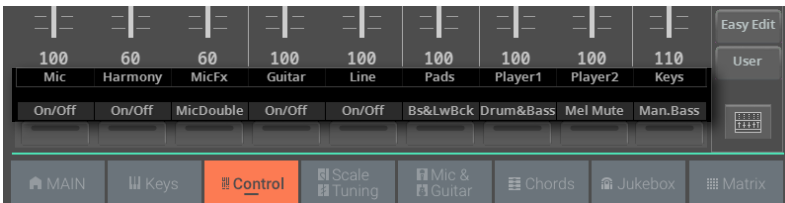
1 Go to the **Home > Control** page. This mirrors the **CONTROL** section on the control panel.



2 Choose the control mode with the **mode buttons** on the right side of the page.

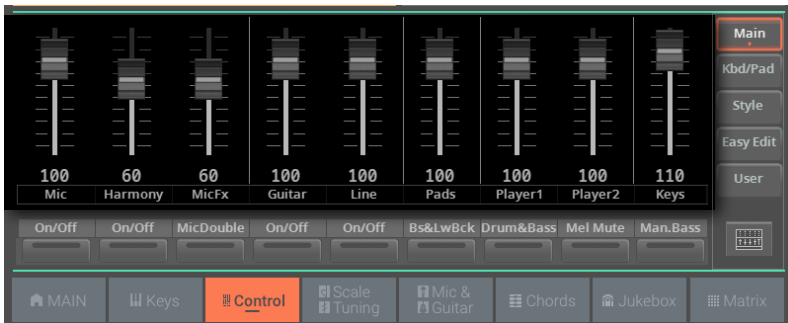


3 Check the functions assigned to the sliders and the buttons with the **labels** between them. The labels mimic the **strip display** on the control panel.



4 Drag the virtual slider whose level you want to change.

As an alternative, use the **DIAL** or **UP/DOWN** controls to change the volume level of the selected channel.



5 Touch the button whose function you want to turn on/off.



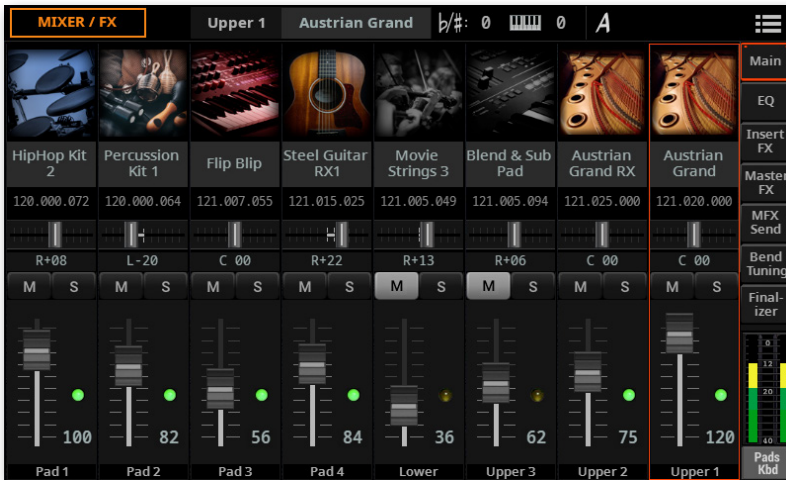
Switching to the Mixer page

While in the **Home > Control** page, you can quickly switch to the **Mixer**, and adjust the individual levels of the Sounds.

- 1 Touch the **Mixer** button to switch to the **Home > Menu > Mixer > Main** page.



- 2 While in the **Mixer**, adjust the level and other parameters of the individual Sounds.



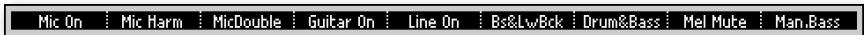
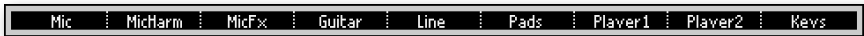
The Control modes in detail

Each control mode gives access to a particular set of elements or groups of elements.

The Main control mode

The **Main** mode controls groups of sounds, like the Keyboard, the Players, and the audio inputs. It also includes switches for the Drum&Bass and the Manual Bass functions (that can be used with the Styles).

Access this mode by pressing the **MAIN** mode button in the **CONTROL** section.

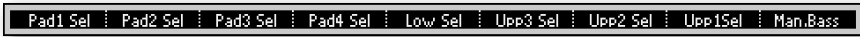
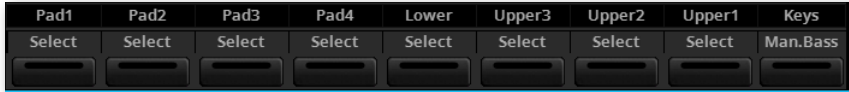


#	Slider	controls the level of...	Button	turns on/off...
1	Mic	Microphone input	On/Off	Microphone input
2	Harmony	Harmony voices	On/Off	Harmony voices
3	MicFx	Delay and Reverb effects on the Mic input.	MicDouble	Doubling voice
4	Guitar	Guitar input	On/Off	Guitar input
5	Line	Audio from the Line input	On/Off	Audio from the Line input
6	Pads	The Pads (proportionally)	Bs&LwBck	Bass&Lower Backing
7	Player 1	Style or Song from Player 1	Drum&Bass	Drum&Bass
8	Player 2	Style or Song from Player 2	Mel.Mute	Mutes the melody track or a MIDI Song Melody and the solo voice of a MP3 Song
9	Keys	The Keyboard Sounds as a whole	Man.Bass	Manual Bass

The Keyboard/Pad control mode

The **Keyboard/Pad** mode controls the volume of the individual Pads and Keyboard Sounds. It also controls the Keyboard Sounds as a whole. A set of switches lets you open the Select window to choose the Pads and the Keyboard Sounds. It also includes a switch for the Manual Bass function.

Access this mode by pressing the **KBD/PAD** mode button in the **CONTROL** section.

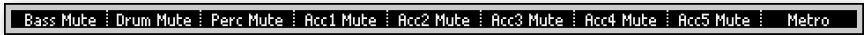
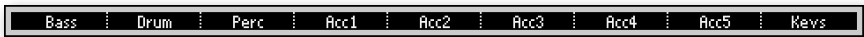


#	Slider	controls the level of...	Button	selects...
1	Pad1	Pad 1	Select	Pad 1
2	Pad2	Pad 2	Select	Pad 2
3	Pad3	Pad 3	Select	Pad 3
4	Pad4	Pad 4	Select	Pad 4
5	Lower	Lower Sound	Select	Lower Sound
6	Upper3	Upper 1 Sound	Select	Upper 3 Sound
7	Upper2	Upper 2 Sound	Select	Upper 2 Sound
8	Upper1	Upper 3 Sound	Select	Upper 1 Sound
9	Keys	All the Keyboard Sounds	Man.Bass	Turns Manual Bass on/off

The Style control mode

The **Style** mode controls the volume of the individual Style Sounds, when a Style is playing or selected to play. It also controls the Keyboard Sounds as a whole. You can mute each of the Style Sounds. You can turn the Metronome on/off.

Access this mode by pressing the **STYLE/SONG** mode button in the **CONTROL** section when a Style is assigned to the current Player.



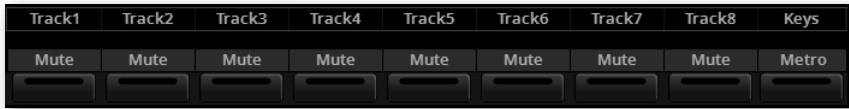
#	Slider	controls the level of...	Button	mutes...
1	Bass	Pad 1	Mute	Pad 1
2	Drum	Pad 2	Mute	Pad 2
3	Perc	Pad 3	Mute	Pad 3
4	Acc1	Pad 4	Mute	Pad 4
5	Acc2	Lower Sound	Mute	Lower Sound
6	Acc3	Upper 1 Sound	Mute	Upper 1 Sound
7	Acc4	Upper 2 Sound	Mute	Upper 2 Sound
8	Acc5	Upper 3 Sound	Mute	Upper 3 Sound
9	Keys	All the Keyboard Sounds	Metro	Turns Metronome on/off

The Song control mode

The **Song** mode controls the volume of the individual MIDI Song Sounds, when a MIDI Song is playing or selected to play. It also controls the Keyboard Sounds as a whole. You can mute each of the Song Sounds. You can turn the Metronome on/off.

Access this mode by pressing the **STYLE/SONG** mode button in the **CONTROL** section when a MIDI Song is assigned to the current Player.

MIDI Songs have sixteen tracks, each one with a Sound assigned. To cycle between Tracks 01-08 and Tracks 09-16, press the **STYLE/SONG** button again in the **CONTROL** section, or touch the **Song** button again in the **Home > Control** page, .



#	Slider	controls the level of...	Button	mutes...
Tracks 01-08				
1	Track1	MIDI Song Track 01	Mute	MIDI Song Track 01
2	Track2	MIDI Song Track 02	Mute	MIDI Song Track 02
3	Track3	MIDI Song Track 03	Mute	MIDI Song Track 03
4	Track4	MIDI Song Track 04	Mute	MIDI Song Track 04
5	Track5	MIDI Song Track 05	Mute	MIDI Song Track 05
6	Track6	MIDI Song Track 06	Mute	MIDI Song Track 06
7	Track7	MIDI Song Track 07	Mute	MIDI Song Track 07
8	Track8	MIDI Song Track 08	Mute	MIDI Song Track 08
Tracks 09-16				
1	Track9	MIDI Song Track 09	Mute	MIDI Song Track 09
2	Track10	MIDI Song Track 10	Mute	MIDI Song Track 10
3	Track11	MIDI Song Track 11	Mute	MIDI Song Track 11
4	Track12	MIDI Song Track 12	Mute	MIDI Song Track 12
5	Track13	MIDI Song Track 13	Mute	MIDI Song Track 13
6	Track14	MIDI Song Track 14	Mute	MIDI Song Track 14
7	Track15	MIDI Song Track 15	Mute	MIDI Song Track 15
8	Track16	MIDI Song Track 16	Mute	MIDI Song Track 16
Keyboard				
9	Keys	The Keyboard Sounds as a whole	Metro	Turns the Metronome on/off

Since MIDI Songs are already dynamically mixed by the original creators, their volume may automatically change during playback.

The volume of the MIDI Song tracks may change when choosing a different Song.

You can mute/unmute the Song track that you will want to play or sing live. The melody track in a MIDI Song is usually #04.

The Easy Edit control mode

The **Easy Edit** mode controls the level of the most important parameters of the Upper Sounds. The changes are an offset relative to the saved values.

If you want to quick edit the individual Sounds, you can go to the **Home > Menu > Track Controls > Sound Edit** page.

The changes made here can be saved to a Keyboard Set.

Access this mode by pressing the **EASY EDIT/DWB** mode button in the **CONTROL** section when an ordinary Sound is selected.



#	Slider	controls the value of...	Button	resets the value of...
1	Attack	Attack Time	Reset	Attack Time
2	Decay	Decay Time	Reset	Decay Time
3	Release	Release Time	Reset	Release Time
4	Cutoff	Filter Cutoff Frequency	Reset	Filter Cutoff Frequency
5	Resonance	Filter Resonance	Reset	Filter Resonance
6	LFO Depth	LFO Depth	Reset	LFO Depth
7	LFO Speed	LFO Speed	Reset	LFO Speed
8	LFO Delay	LFO Delay	Reset	LFO Delay
9	Port.Time	Portamento Time	Port.On	Turns Portamento on/off

The Drawbars control mode

When a Drawbar Sound is assigned to the keyboard, you can control the drawbars with the sliders.

Access this mode by pressing the **EASY EDIT/DWB** mode button in the **CONTROL** section when a Digital Drawbars Sound is selected.

If you press the **EASY EDIT/DWB** button a second time, you get access to the **Digital Drawbars Edit** page (see [Editing the Digital Drawbars](#) on page 433).



#	Slider	controls the level of...	Button	turns on/off...
1	16'	Corresponding tonewheel	Dwb Perc	Drawbars percussion
2	5 1/3'		Dwb Harm	Percussion harmonic
3	8'		Dwb Leak	Drawbar Leak
4	4'		DwbKeyOn	Key On sound
5	2 2/3'		DwbKeyOff	Key Off sound
6	2'		Dwb Vibr	Vibrato*
7	1 3/5'		DwbOvdrw	Overdrive*
8	1 1/3'		DwbBrake	Rotary Speaker Brake*
9	1'		RotaryF/S	Switches between the Fast and Slow speed of the Rotary Speaker*

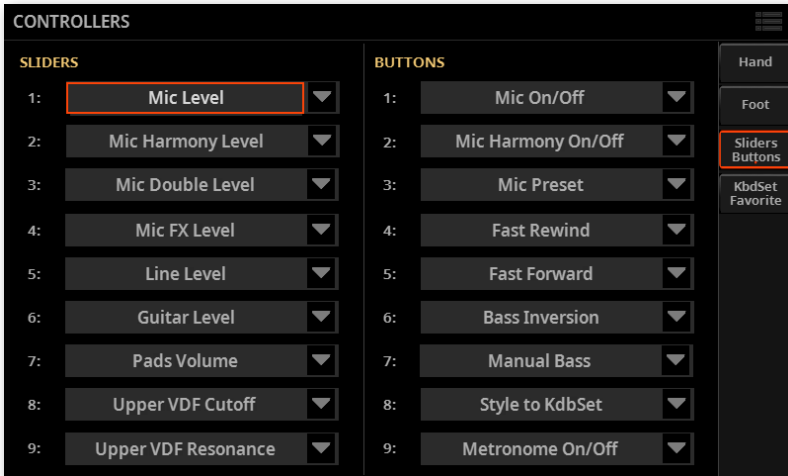
*) These controls are only available if the Organ Vibrato/Chorus, CX-3 Amp and one of the Rotary Speakers effects are assigned to the Internal FXs.

The User control mode

The **User** mode controls the parameters you assign to the sliders and buttons. This programming is unique and automatically saved in the Settings.

Access this mode by pressing the **USER** mode button in the **CONTROL** section.

To program the set of controls, go to the **Settings > Menu > Controllers > Sliders/Buttons** page.



05

Tempo and Metronome

Tempo

Setting the Tempo value

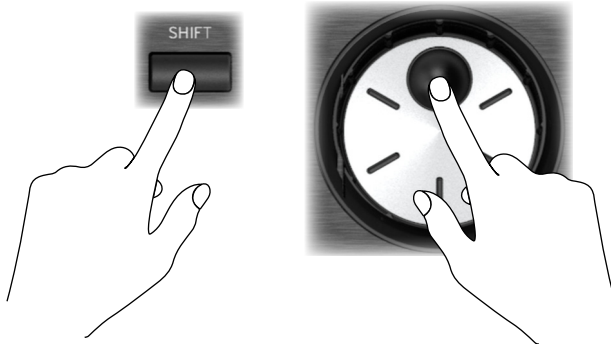
While an optimal Tempo value is saved with each Style or Song, you can freely adjust it at your will. This will also set the Tempo for the Metronome.

Adjusting the Tempo value from the control panel

> Use the **TEMPO** controls to adjust the Tempo value (or the speed of the MP3 Song).

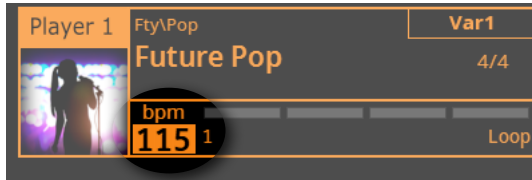


> As an alternative, for bigger Tempo changes, keep the **SHIFT** button pressed and use the **DIAL** or **UP/DOWN** controls.



Adjusting the Tempo value from the display

- 1 If it is not highlighted, touch the **Tempo** value in the display.



- 2 Use the **DIAL** or **UP/DOWN** controls to adjust the Tempo value.

As an alternative, touch the **Tempo** field again to open the **numeric keypad**, and enter the Tempo value as a number.

Resetting the Tempo value

- > Press both **TEMPO** buttons (+ and -) at the same time.

The Tempo value memorized in the Style or the MIDI Song will be recalled. With MP3 Songs, the original speed of the Song will be restored.



Other Tempo operations

'Tapping' the Tempo value

You can 'tap' (beat) the Tempo value of a Style or MIDI Song.

- > While no Style or MIDI Song is playing, beat the Tempo on the **RESET/TAP** button. Beat as many times as indicated by the **Meter** numerator (for example, three times in 3/4).

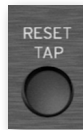


At the end, the Style or MIDI Song will start playing with the 'tapped' Tempo.

Resetting the Style or Song position to the beginning

While a Style or MIDI Song is playing, you can make it go back to the beginning.

- > While a Style or MIDI Song is playing, press this button to make it restart from the beginning.



Locking the Tempo value

You can prevent the Tempo value from automatically changing when choosing a different Style or MIDI Song. MP3 Songs are not affected by this 'lock', and will always play at the recorded Tempo.

You are free to continue setting the Tempo manually, including beating the Tempo with the **Tap Tempo** function.

Locking the Tempo value is very important to make both Players play at the same Tempo. When the Tempo Lock is enabled, both the Players will play at the Tempo of the selected Player, and changing Tempo will affect both Players.

Please remember you can start both Players at the same time by keeping the **SHIFT** button pressed and pressing one of the **PLAY/STOP** (▷◻) buttons.

■ Prevent the Tempo value from changing

> Press the **TEMPO > LOCK** button to light up its indicator. The Tempo value will not change when choosing a different Style or Song. You can still manually change the Tempo value (as seen above).



■ Let the Style or Song change the Tempo value

> Press the **TEMPO > LOCK** button again to turn its indicator off. When choosing a different Style or Song, the memorized Tempo value will be recalled.

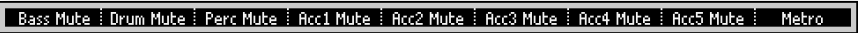
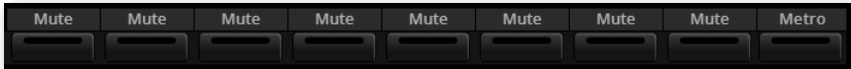
Tempo Change events found in the Style pattern or the MIDI Song may still change the Tempo.

Metronome

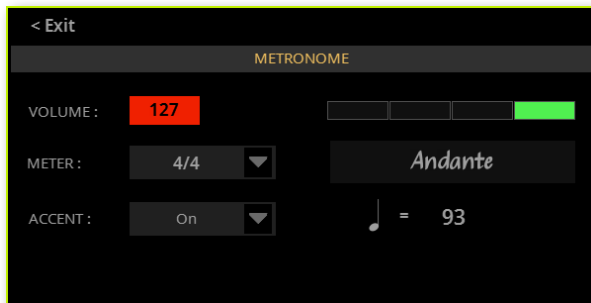
Turning the metronome on and off

Turning the metronome on

1 Be sure the **CONTROL** mode is including the **METRO** command. The **Style/Song** mode includes it, as well as the default **User** programming.



2 Press the **METRO** button to turn its indicator on. The **Metronome** window will open, and the metronome will start playing, beating the current Tempo.



Turning the metronome off

> Press the **METRO** button to turn its indicator off. The metronome will stop.

Setting the meter, accent and volume

Setting the meter

You can mark the beginning of the measure, by setting the meter and accent.

- 1 Press the **METRO** button to open the **Metronome** window.



- 2 Use the **Meter** parameter to choose the meter (time signature).
- 3 Use the **Accent** parameter to choose the accent.

Accent	Meaning
Off	No accent.
On	The first beat of each measure is accented.
Bell	A bell sound is heard at the first beat of each measure.

Adjusting the metronome volume

- > While in the **Metronome** window, use the **Volume** parameter to adjust the metronome volume.

Closing the Metronome window

- > Press the **METRO** button to exit the window and stop the metronome.
- > Press the **EXIT** button to exit the window without stopping the metronome. Then, press the **METRO** button to stop the metronome.

Playing with the metronome

While the metronome is turned on, you can start a Player. The metronome will play at the same tempo of the Player. It will get the same tempo of the current Player.

When you stop the Player by pressing the **STOP/GO TO START** (⏏) button, the metronome will also stop. Its indicator will continue flashing at the current Tempo value.

06

Playing the Styles

The Styles

The Style and its Elements

Styles are collections of musical patterns in a particular music genre – or ‘musical style’ – offering an eight-parts automatic accompaniment, similar to an eight-member band playing with you. Chords you play on the keyboard will be recognized and will adapt the patterns to suit the music. Different sections can be selected to let you create a complete song in real time.

Accompaniment parts

Accompaniment parts are like the members of a band. With Pa5X you get five pitched instrument players (for example guitar, piano, strings, synthesizers), a bass player, a percussion player, and a drum player.

Chords and patterns

Accompaniment patterns are repeating musical sequences (like a bass groove, a guitar riff or a piano chord progression) that are dynamically adapted to match the recognized chords. They may vary depending on the type of chord (like C Major, C minor, or 7th).

Sections and Style Elements

Songs are made of different sections (Intro, Verse 1, Bridge, Chorus 1 and so on). There are different patterns for each song section, and they are collected under the Style Element buttons (INTRO, VARIATION, FILL, BREAK, ENDING). While the name of the Intro, Fill, Break and Ending are the same as the name of the corresponding song section, Variations can be used either for Verse, Bridge, Chorus or Special sections. The arrangement becomes denser the higher the element numbers go.



Auto Fill

Pa5X can automatically match each Variation with a Fill. When the **AUTO FILL** indicator is on, when going from a Variation to a different one a Fill is automatically selected, without having to press one of the **FILL** buttons.

Choosing the Styles

You can play a Style with either Player 1 or Player 2. Therefore, if you want, you can assign a Style to each of the players, and have the other player be ready for the next musical selection. You can also mix Styles and Songs with the different Players.

You can choose a Style from the control panel or from the display.

We'll assign a Style to Player 1. Instructions for Player 2 would be identical, apart for the different player.

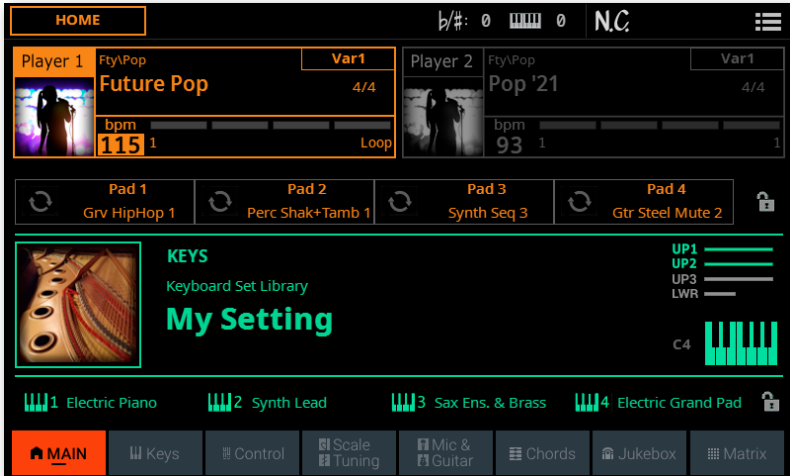
-
- **Open the Select window from the control panel**
 - > While in any page, press the **STYLE** button in the **PLAYER 1** section.
-



■ Open the Select window from the display

1 Go to the **Home > Main** page.

When turning the instrument on, you are already in the **Main** page. If you are not in the **Main** page, press the **EXIT** button in the control panel.

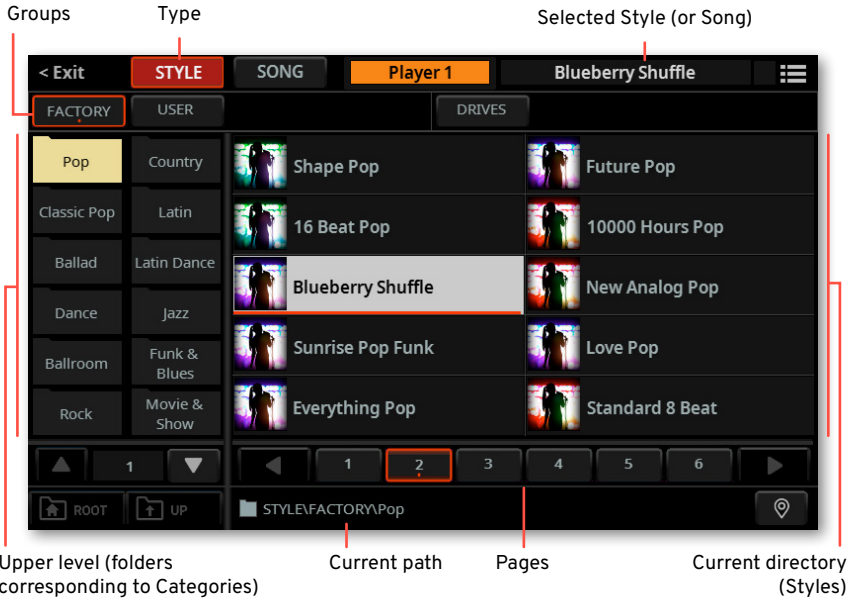


2 Touch the name of the **Style (or Song)** in the display.



■ Choose a Style

1 Browse through the Styles in the **Style Select** window.



2 Be sure you are browsing the Styles, and not the Songs. If not, touch the **STYLE** button at the top of the window.

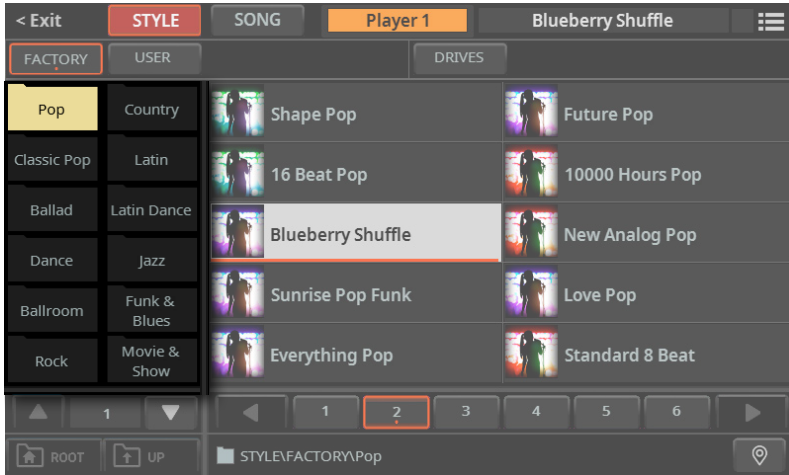


3 To choose one of the available **groups** from which to choose a Style, touch the **buttons** in the second line at the top of the window.

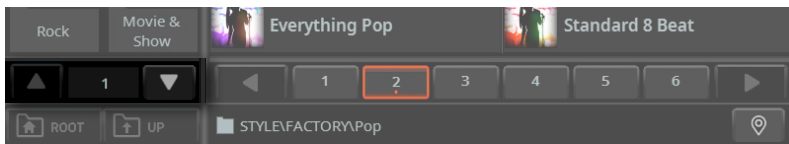


Group	Meaning
Factory	Styles included at the factory, that can't be modified or overwritten.
User	Internal memory area where you can save new or edited Styles, or where you can copy Styles from an external storage device.
Drives	Styles accessed from an external storage device. You can organize them freely, as if they were ordinary files.

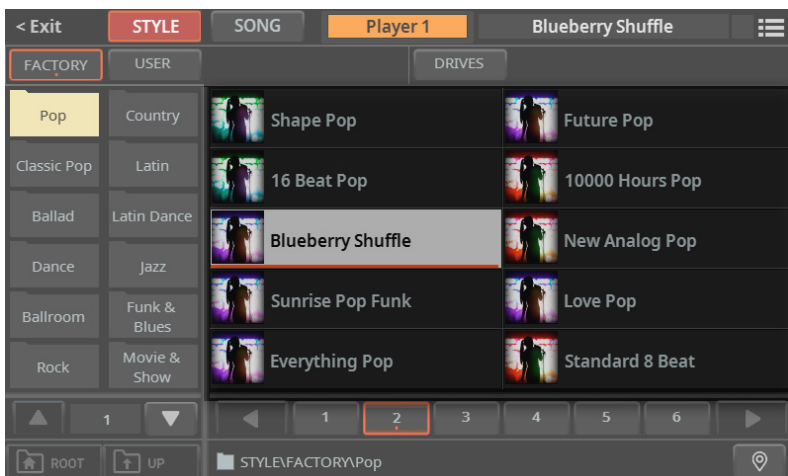
- 4 In case you want to choose a different category, touch one of the category folders in the left side of the **Style Select** window.



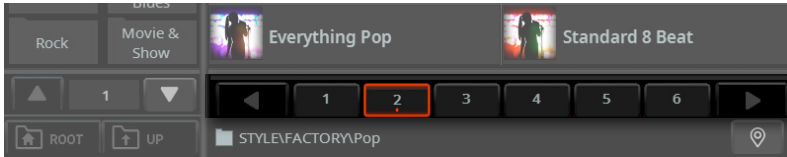
- 5 If not all the category folders can be seen in the current page, scroll through the page numbers to access the other folders.



- 6 The Styles contained in the selected folder appear in the right side of the window.



7 If the selected category folder contains more elements than the ones that can be seen in a page, browse through the pages. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



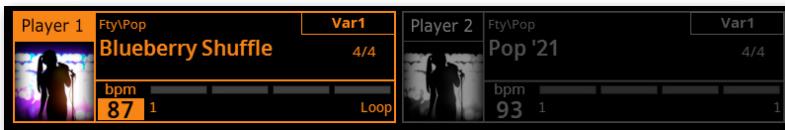
8 If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

9 Touch the **name of the Style** you want to choose.

10 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** is turned on. See [Display Hold](#) on page 72.

In the end, you will see the name of the selected Style in the dedicated area of the **Main** page.



11 If you want, repeat the same procedure to assign another Style (or Song) to the other Player.

Selecting the Keyboard Sounds when choosing a Style

Turning the Style to Keyboard Set function on or off

Choosing a Style might automatically choose the first Keyboard Set in the **KEYBOARD SET** section under the X-FADER. This depends on the status of the **Style to Keyboard Set** function.

As per factory programming, this function is assigned to **CONTROL > BUTTON #8** when in **USER** mode.

■ Access the Style to Keyboard Set function from the control panel

- 1 Press the **USER** button in the **CONTROL** section.

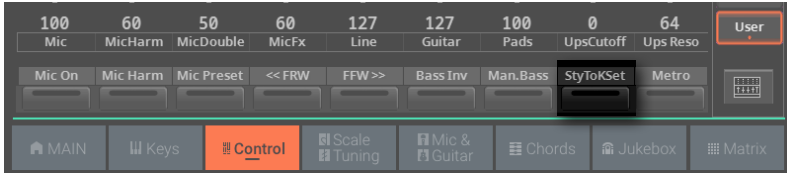


- 2 Check in the **strip display** the functions assigned to the buttons. If they are not shown, press the **VIEW** button in the **CONTROL** section to see them.



■ **Access the Style to Keyboard Set function from the display**

> Go to the **Home > Control > User** pane.



■ **Turn the Style to Keyboard Set function on of off**

> Repeatedly press (or touch) the **Style to Keyboard Set** switch to set the function.

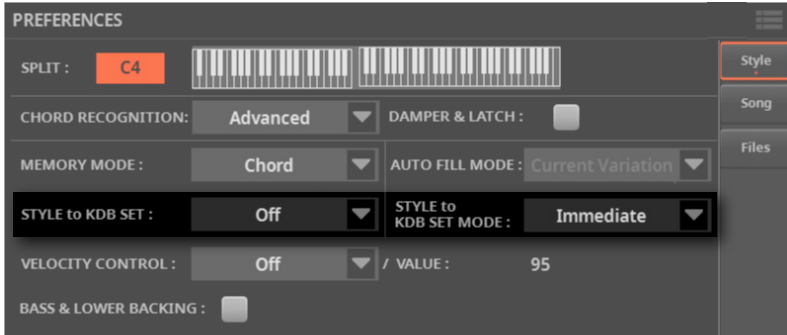
Style to Keyboard Set indicator	Meaning
Off	Styles don't select a Keyboard Set.
On	When choosing a Style, Keyboard Set 1 is automatically selected.
Blinking	Choosing a Variation automatically recalls the corresponding Keyboard Set (1 - 4) inside the Style. For example, choose Variation 2, and Keyboard Set 2 will be automatically recalled; choose Variation 3, and Keyboard Set 3 will be automatically recalled.

Programming the Style to Keyboard Set function

You can program how the **Style to Keyboard Set** button works.

1 Go to the **Settings > Menu > Preferences > Style** page.

As an alternative, keep the **SHIFT** button pressed and press the **PLAYER 1 > STYLE** button to open the **Style** page.



2 Use the **Style to Keyboard Set** menu to set the default status of the function.

Style to Kbd Set	Meaning
Off	Styles don't select a Keyboard Set.
On	When choosing a Style, Keyboard Set 1 is automatically selected.
Var to KbdSet	Choosing a Variation automatically recalls the corresponding Keyboard Set (1 – 4) inside the Style. For example, choose Variation 2, and Keyboard Set 2 will be automatically recalled; choose Variation 3, and Keyboard Set 3 will be automatically recalled. This is equivalent to the Style to Keyboard Set indicator blinking.

3 Use the **Style to Kbd Set Mode** menu to choose how the function works.

Style to Kbd Set Mode	Meaning
Next Measure	When you choose a Style, the new Keyboard Set will not be automatically selected until the first beat of the next measure is reached.
Immediate	When you choose a Style, the new Keyboard Set will be immediately selected.

4 Press the **EXIT** button to return to the previous page.

Playing the Styles

Starting and stopping the Styles

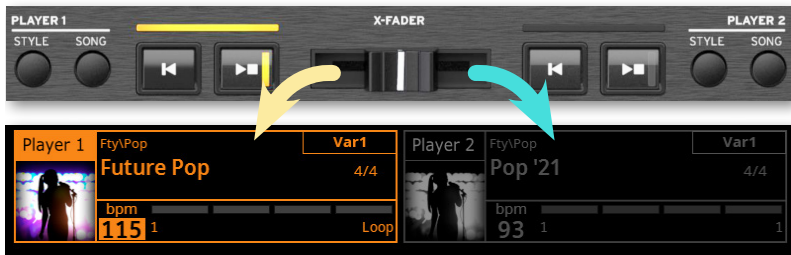
You can manually start and stop the automatic accompaniment, by using the controls in the **PLAYER 1** or **PLAYER 2** section.



■ Set the right mix

> Move the **X-FADER** fully toward the Player you want to listen to. Move it fully to the left for Player 1, to the right for Player 2.

The indicator over the corresponding Player section will turn on.

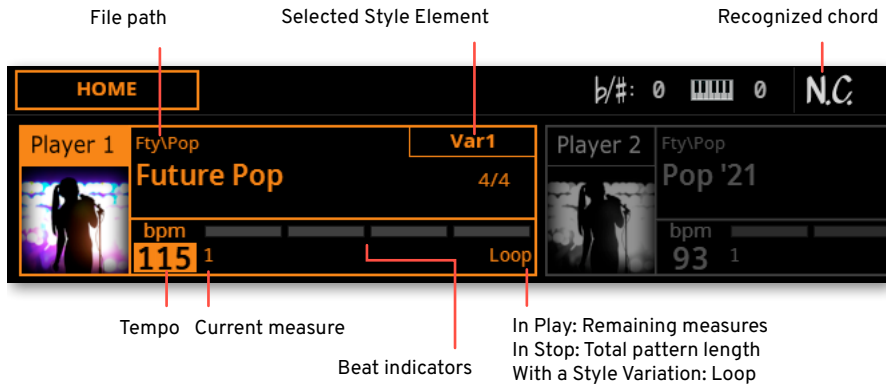


> Move it to an intermediate position to mix the two Players.

■ Start the accompaniment

- 1 Press the **PLAY/STOP** (▷◻) button.
- 2 Play some chords with your left hand, while playing a melody with your right hand.

While the accompaniment is playing, please note the various indicators in the display.



■ Stop the accompaniment

- > Press the **PLAY/STOP** (▷◻) button again.
- > As an alternative, you can press the **STOP** (⏏) button.

■ Start and stop both Players at the same time

You can start both Players at the same time, to mix them with the **X-FADER** while playing.

- > Keep the **SHIFT** button pressed, and press any of the two **PLAY/STOP** (▷◻) buttons to start both Players at the same time.
- > Keep the **SHIFT** button pressed, and press any of the two the **PLAY/STOP** (▷◻) buttons to stop both Players at the same time.

Automatic start and stop

You can let the Players automatically start or stop by just playing the keyboard in the chord recognition area, without having to press the **PLAY/STOP** (▷◻) button. This leaves your hands free for playing.

This will work with either a Style or a Song assigned to the Player.

■ Make the Player start automatically (Synchro Start)

- 1 Press the **SYNCHRO > START** button to light up its indicator.



- 2 Play a chord, and see how the Player will start automatically.
- 3 Stop the Player by pressing the **PLAY/STOP** (▷◻) button.

■ Make the Player start and stop automatically (Synchro Start and Stop)

- 1 Be sure the **SYNCHRO > START** indicator is turned on.
- 2 Press the **SYNCHRO > STOP** button, to light up both the **START** and **STOP** indicators.



- 3 Play a chord to start the Player, and keep the keys pressed.
- 4 Lift your hands from the keyboard, and see how the Player will automatically stop.

■ Make the Player stop automatically (Synchro Stop)

1 Press the **SYNCHRO > START** button again to turn it off, and leave only the **SYNCHRO > STOP** indicator lightened.



2 Press the **PLAY/STOP** (▶□) button to start the Player, then play a chord and keep the keys pressed.

3 Lift your hands from the keyboard, and see how the Player will automatically stop.

■ Deactivate the Synchro Start/Stop functions

> Press the **SYNCHRO > START** and/or **SYNCHRO > STOP** buttons to turn both indicators off.



Choosing the Style Elements from the control panel

You can use the **buttons** in the **STYLE ELEMENT / MARKER** section on the control panel to choose the Style Elements. The **indicator** on the left of the buttons will show that the Style Elements can be selected.



Choosing an Intro

An Intro is the introduction of the song. To choose the right Intro for your song, please note that **Intro 1** plays a short sequence with a prerecorded chord sequence and melody, while **Intro 2** plays on the chord recognized on the keyboard. **Intro 3** is usually a one-bar Count In.

Style Element	Suggested use
Intro 1	Intro with prerecorded chord sequence and melody.
Intro 2	Intro with chord recognized on the keyboard.
Intro 3/Count In	One-measure Count In.

1 Press one of the **VARIATION** buttons on the control panel to choose the Variation you want to use for the first verse. The button's indicator will be on, meaning the Variation is waiting to start.



2 Press one of the **INTRO** buttons on the control panel to 'book' one of the Intro sections. The button's indicator will be on, meaning the Intro is waiting to start. The button's indicator on the selected **VARIATION** button will be flashing, meaning it is booked after the Intro.



3 Start the accompaniment.

Choosing a Variation to play a Verse or Chorus

Variations can be used for verses, choruses, bridges or specials. To choose the right Variation for your verse, please note that Variations are of growing 'density' and 'loudness'. This means that **Variation 1** will be the 'sparsest' and the 'quietest' of the arrangements, while **Variation 4** will be the 'densest' and 'loudest' of them. Usually, you will use Variation 1 for the first verse, Variation 4 for the last chorus.

Style Element	Suggested use
Variation 1	Verse, Bridge, Chorus or Special (lowest density)
Variation 2	Verse, Bridge, Chorus or Special (medium-low density)
Variation 3	Verse, Bridge, Chorus or Special (medium-high density)
Variation 4	Verse, Bridge, Chorus or Special (highest density)

> Wait for the Intro to end playing, and then the selected Variation will start playing. The selected **VARIATION** indicator will stay lit.



> As an alternative, you can start the Variation before the end of the Intro. While the Intro is playing, press one of the **VARIATION** buttons. The Variation will start at the next measure.

Choosing a Fill

Fills are phrases that can be used for smoothly bridging between different sections of a song. Their density is similar to that of the same numbered Variations.

Style Element	Suggested use
Fill 1	Fill (lowest density)
Fill 2	Fill (medium-low density)
Fill 3	Fill (medium-high density)
Fill 4	Fill (highest density)

Manually selecting a Fill

You can directly choose a Fill.

- 1 When you want to choose a Fill, press one of the **FILL** buttons to choose the Fill you want to play. The button's indicator will be on while the Fill is playing.



- 2 If you want, choose a different Variation before the end of the Fill.

Automatically selecting a Fill

If you like, you can let Pa5X automatically select a Fill when you choose a Variation.

- 1 Press the **AUTO FILL** button to light up its indicator.



- 2 Press one of the **VARIATION** buttons. A Fill will be automatically selected.



- 3 When you no longer need this function, press the **AUTO FILL** button again to turn the indicator off.

Programming the Auto Fill

You can program how the Auto Fill works.

1 Go to the **Settings > Menu > Preferences > Style** page.

As an alternative, keep the **SHIFT** button pressed and press the **PLAYER > STYLE** button to open the **Style** page.



> Use the **Auto Fill mode** menu to choose the Auto Fill mode.

Auto Fill Mode	Meaning
Current Variation	The Fill with the same number of the previous Variation will be automatically selected. For example, if you are going from Variation 2 to Variation 3, Fill 2 will be automatically selected.
Target Variation	The Fill with the same number of the target Variation will be automatically selected. For example, if you are going from Variation 2 to Variation 3, Fill 3 will be automatically selected.
Smart	Auto Fill tries to make the transition smoother. For example, if you are going from Variation 1 to Variation 4, Fill 3 will be automatically selected.

2 Press the **EXIT** button to return to the previous page.

Choosing a Break

A break introduces a short pause in your song, creating a suspension and a sense of surprise.

Style Element	Suggested use
Break	One-measure break

> When the Variation is nearing its end, press the **BREAK** button to play a short musical break.



Choosing an Ending

To choose the right Ending for your song, please note that **Ending 1** plays a sequence with a prerecorded chord sequence and melody, while **Ending 2** plays on the chord recognized on the keyboard.

Style Element	Suggested use
Ending 1	Ending with prerecorded chord sequence and melody. It will start at the next measure.
Ending 2	Ending with the chord recognized on the keyboard. It will start at the next measure.
Ending 3	Two-measure Ending, starting immediately, without waiting for the measure to end.

> When it is time to end the song, press one of the **ENDING** buttons on the control panel to 'book' one of the Ending sections.



After the Ending, the Style will automatically stop.

Looping sections

If you feel that an Intro, a Fill, a Break or Ending should last longer than the recorded pattern, you can let it enter a cycling loop.

■ Set a Style Element to loop

- > Press twice the button of the Intro, Fill, Break or Ending to loop.

The indicator on the button will start flashing, and the pattern will start repeating.

■ Exit from the loop

Do one of the following:

- > Press the same Style Element button again, or
- > Select a different Style Element.

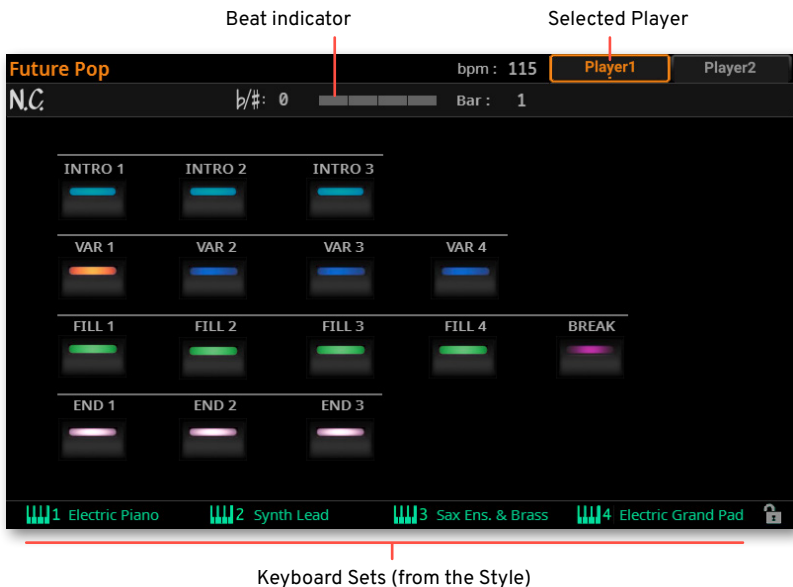
Choosing the Style Elements from the display

You can select the Style Elements from the **Style Elements** page on the display. This page allows for some different ways of working.

- > The **STYLE ELEMENT** buttons on the control panel let you quickly access the Style Elements of the current Player. You can still access the Elements while, for example, reading the Lyrics on the display.
- > The **Style Elements** page allows to select the Elements for the current Player, but also allow for pre-selecting Elements in the other Player while not yet selected. If a MIDI Song is assigned to the other Player, you will be able to pre-select Song Markers instead.

■ Access the Style Elements page

- 1 Assign a Style to one or both Players.
- 2 Press the **STYLE ELEMENT / MARKER** button to open the **Style Elements** button.



When accessing this page, the current Player appears selected on top of the page. If it is playing, you can see it progressing in the **beat indicator**.

■ Select a Style Element in the current Player

> While the Style Elements of the **current Player** appear in the display, touch one of them to select it. This is the equivalent of the **STYLE ELEMENT** buttons on the control panel.

■ Pre-select a Style Element in the other Player

1 Touch the button corresponding to the **other Player** on top of the page.

If the other Player has a MIDI Song assigned, the corresponding page will show the Markers instead of the Style Elements.

When switching to the other Player, the **beat indicator** shows the activity of the newly selected Player. If it is in stop, there is no activity shown.

2 Choose one of the **Style Elements** from the other Player to pre-select it.

3 When moving the **X-FADER** to select the other Player, you will find the selected Element ready to play.

4 If the newly selected Player is stopped, the corresponding **PLAY/STOP** (▷□) button to start it.

You can see the activity of the selected Player in the **beat indicator**.

5 If you want, press the **PLAY/STOP** (▷□) button corresponding to the older Player to stop it.

Fade In/Out

Using the Fade button

You can use the **FADE** button to start and/or stop your playing with a smooth fade-in or out.



■ Fade in

> While the Style is not playing, press the **FADE** button to light up its indicator and start the Style with a smooth fade-in.

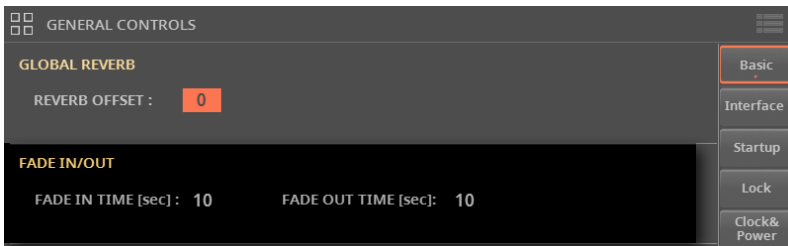
The Style will start. When the maximum volume is reached, the indicator will turn off.

■ Fade out

> When the song is approaching its end, press the **FADE** button to stop the Style with a smooth fade-out.

Setting the Fade time

> Go to the **Settings > Menu > General Controls > Basic** page to set the Fade In and Fade Out time.



Setting the Style play controls

Choosing where to play chords (Chord Scan area)

You can play chords with your left or right hand separately, or with both hands. You can choose the recognition area, depending on the song you are playing and your preferred playing style.

The area where chords are recognized depends on the status of the **CHORD** indicators.

CHORD	Where to play chords (Chord Scan area)	Notes to play
LOWER	Left hand (Lower area of the keyboard)	Depends on the Chord Recognition mode
UPPER	Right hand (Upper area of the keyboard)	Three or more
LOWER+UPPER	Both hands (full keyboard)	Three or more
Off	No chord recognized	-

■ Make chords be recognized when played with your left hand

- > Press the **CHORD > LOWER** button to turn its indicator on.



The number of notes to be played, for a chord to be recognized, depends on the Chord Recognition mode (see below).

- **Make chords be recognized when played with your right hand**

- > Press the **CHORD > UPPER** button to turn its indicator on.



Always play three or more notes to let the arranger recognize a chord.

- **Make chords be recognized when played with both hands**

- > Press both the **CHORD (LOWER+UPPER)** buttons to turn their indicators on.



Always play three or more notes to let the arranger recognize a chord.

- **Deactivate chord recognition**

- > Press both the **CHORD (LOWER+UPPER)** buttons to turn their indicators off.
Only the Drum and Percussion tracks will continue to play.

- **Memorize the Chord Scan area**

- > Save a User Keyboard Set.

Choosing how to play chords (Chord Recognition mode)

You can play chords in the simplest (even simplified), or the most sophisticated way. It's at you how chords have to be played to be recognized.

1 Go to the **Settings > Menu > Preferences > Style** page.

As an alternative, keep the **SHIFT** button pressed and press the **PLAYER > STYLE** button to open the **Style** page.



2 Choose how to play chords by using the **Chord Recognition** menu.

Chord Recognition	How to play chords
One Finger	<p>This mode is only available when the SPLIT indicator is turned on. If you turn it off, the mode will automatically switch to Fingered (3 Notes).</p> <p>With this mode, you can compose a chord using a simplified chord playing technique:</p> <ul style="list-style-type: none"> • Play a single note for a Major chord to be recognized. • Play the root note, plus a white key on the left, for a 7th. For example, play C3 + B2 for a C7. • Play the root note, plus a black key on the left, for a Minor chord. For example, play C3 + Bb2 for a C minor. • Play the root note, plus a white and a black key on the left, for a Minor 7th. For example, play C3 + B2 + Bb2 for a C min 7.
One Finger Plus	<p>This mode works like One Finger. However, if you play complete chords, it will recognize them as if you were in Fingered (3 Notes). This way, you can play chords that One Finger cannot recognize.</p>
Fingered (1 Note)	<p>When the SPLIT indicator is turned on, play one or more notes to compose a chord. A full Major chord will be recognized even if only a single note is played.</p> <p>When the SPLIT indicator is turned off, play at least three notes to compose a chord.</p>
Fingered (3 Notes)	<p>Always play three or more notes for a chord to be recognized.</p>

Chord Recognition**How to play chords**

Advanced

When the SPLIT indicator is turned on, play one or more notes for a chord to be recognized. If you play a single note, a 'root+8ve' will be played. If you play a fifth, a 'root+5th' chord will be played.

When the SPLIT indicator is turned off, play at least three notes to compose a chord.

With this mode, you can play rootless and slashed chords, often used in jazz, fusion or modern pop. You don't always need to play the root note, that would otherwise double the note already played by the bassist.

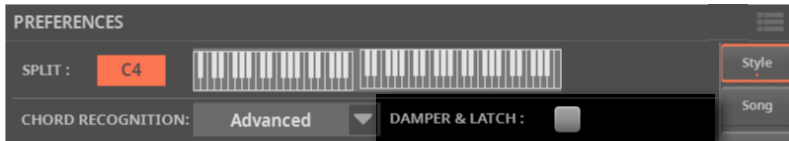
3 Press the **EXIT** button to return to the previous page.

Keeping a chord in memory by pressing the Damper pedal

You can choose to keep the recognized chord in memory while the Damper pedal is kept pressed. In this case, you can freely play any chord on the keyboard, and the Style will continue to play the 'latched' chord. This is especially useful when playing in Full Keyboard mode (with the **SPLIT** indicator turned off), and you would risk that all the notes played on the keyboard are recognized as a new chord.

1 Go to the **Settings > Menu > Preferences > Style** page.

As an alternative, keep the **SHIFT** button pressed and press the **PLAYER > STYLE** button to open the **Style** page.



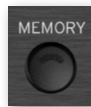
2 Select the **Damper&Latch** checkbox, to make the recognized chord be held for as long as the Damper pedal is kept pressed.

At this point, play a chord for the Style. Press the Damper pedal and keep it pressed to keep the recognized chord in memory. Release the Damper pedal when you want to play another chord to be recognized by the Style.

Holding chords and Lower notes (Memory)

Using the Memory function

You can keep the chords and/or Lower notes in memory even after raising your hand from the keyboard. How this function works depends on the settings of the **Memory Mode** parameter (see below).



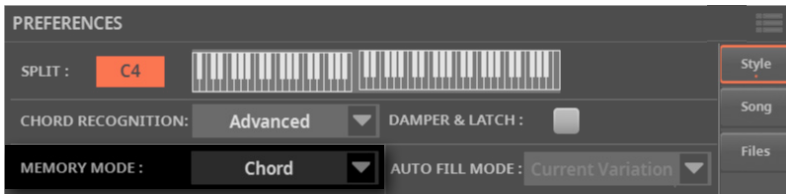
- > Press the **MEMORY** button to turn its indicator on, and keep the chords and/or Lower notes in memory.
- > Press the **MEMORY** button to turn its indicator off. The chords and/or Lower notes are released as soon as you raise your hand from the keyboard.

Choosing the Memory Mode

Set how the **MEMORY** button works according to your preferences.

- 1 Go to the **Settings > Menu > Preferences > Style** page.

As an alternative, keep the **SHIFT** button pressed and press the **PLAYER > STYLE** button to open the **Style 1** page.



2 Use the **Memory Mode** parameter to choose the way the **MEMORY** button works.

Memory Mode	Meaning
Chord	When the MEMORY indicator is on, recognized chords are held even when raising your hand from the keyboard. When the indicator is off, chords are reset when raising your hand.
Chord + Lower	When the MEMORY indicator is on, recognized chords and the Lower Sound are held until the next note or chord is played. When the indicator is off, both the chord (therefore the accompaniment) and Lower Sound are cut when raising the hand from the keyboard.
Fixed Arr. + Lower	When the MEMORY indicator is on, recognized chords and the Lower Sound are held until the next note or chord is played. When the indicator is off, the Lower Sound is cut when raising the hand from the keyboard, while the chord is held (the accompaniment will continue to play).

Bass inversion and slashed chords

The arranger recognizes chords by analyzing all the notes you play in the chord recognition area, and evaluating their function in a chord. You can, however, always force the lowest (leftmost) note of the chord to be considered, for example the chord's root of a slashed chord (such as 'C/E' or 'F/C').

As per factory programming, this function is assigned to **CONTROL > BUTTON #6** when in **USER** mode.

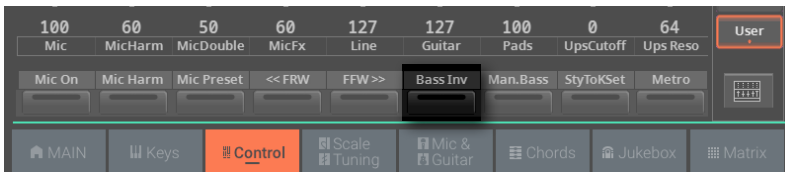
■ Access the Bass Inversion function from the control panel

- 1 Press the **USER** button in the **CONTROL** section.
- 2 Check in the **strip display** the functions assigned to the buttons. If they are not shown, press the **VIEW** button in the **CONTROL** section to see them.



■ Access the Bass Inversion function from the display

- > Go to the **Home > Control > User** pane.



■ Turn the Bass Inversion function on

- > Use the **Bass Inversion** switch to activate the function.

The lowest note of a chord will always be detected as the root note.

■ Turn the Bass Inversion function off

- > Use the **Bass Inversion** switch to deactivate the function.

The lowest note will be scanned together with the other chord notes, and will not always be considered as the root note.

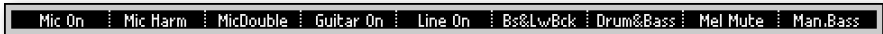
Playing a manual bass line

You can play the Bass Sound with your left hand, freeing it from the automatic accompaniment.

This function is assigned to **CONTROL > BUTTON #9** when in **MAIN** mode. As per factory programming, it is also assigned to **CONTROL > BUTTON #7** when in **USER** mode.

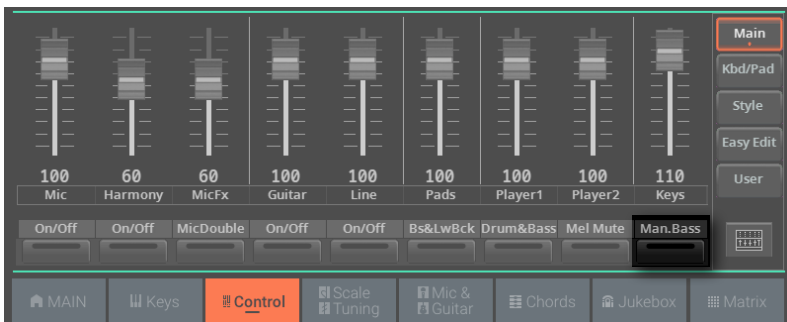
■ Access the Manual Bass function from the control panel

- 1 Press the **MAIN** button in the **CONTROL** section.
- 2 Check in the **strip display** the functions assigned to the buttons. If they are not shown, press the **VIEW** button in the **CONTROL** section to see them.



■ Access the Manual Bass function from the display

- > Go to the **Home > Control > Main** pane.



■ Turn the Manual Bass function on

- > Use the **Manual Bass** switch to activate the function.

The automatic accompaniment will stop playing (except for the Drum and Percussion Sounds), and you can manually play the Bass line on the Lower part of the keyboard.

When in Manual Bass mode, the volume level of the Bass Sound will be automatically increased.

■ Turn the Manual Bass function off

- > Use the **Manual Bass** switch to deactivate the function.

When turning the Manual Bass mode off, the volume level of the Bass Sound will be automatically set back to the original value.

HINT: You can turn Manual Bass on and choose the Upper Chord Scan mode. This way, you can send chords to the Style with your right hand, while playing the bass freely with your left hand.

Controlling the Style with dynamics

You can play stronger than a set velocity value to trigger a Style control.

1 Go to the **Settings > Menu > Preferences > Style** page.

As an alternative, keep the **SHIFT** button pressed and press the **PLAYER > STYLE** button to open the **Style** page.



2 Use the **Velocity Control** parameter to choose the function to be controlled when playing strongly.

Velocity Control	Meaning
Off	The function is turned off.
Break	When playing with a velocity higher than the trigger value on the Lower track, the Break is automatically triggered.
Start/Stop	You can start or stop the Style by playing harder on the keyboard.
Bass Inversion	When playing with a velocity higher than the trigger value, the Bass Inversion function will be activated or deactivated.
Memory	When playing with a velocity higher than the trigger value, the Memory function will be activated or deactivated.

3 Use the **Value** parameter to set the velocity trigger value.

4 Before using this function, be sure the **SPLIT** indicator is turned on.

Playing a Bass & Lower Backing

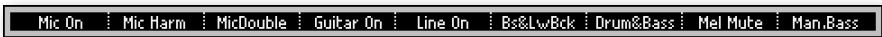
You can play a simple manual accompaniment, where the chord you play with your left hand is split between the Bass (chord root) and Lower (the remaining notes) Sounds.

This function is assigned to **CONTROL > BUTTON #6** when in **MAIN** mode.

Turning the Bass & Lower Backing function on or off

- Access the Bass & Lower Backing function from the control panel

- 1 Press the **MAIN** button in the **CONTROL** section.
- 2 Check in the **strip display** the functions assigned to the buttons. If they are not shown, press the **VIEW** button in the **CONTROL** section to see them.



- Access the Manual Bass function from the display

- > Go to the **Home > Control > Main** pane.



- Turn the Bass & Lower Backing function on/off from the Control section

- > Use the **Bass & Lower Backing** switch to activate or deactivate the function.

■ Turn the Bass & Lower Backing function on/off from the Settings

1 Go to the **Settings > Menu > Preferences > Style** page.

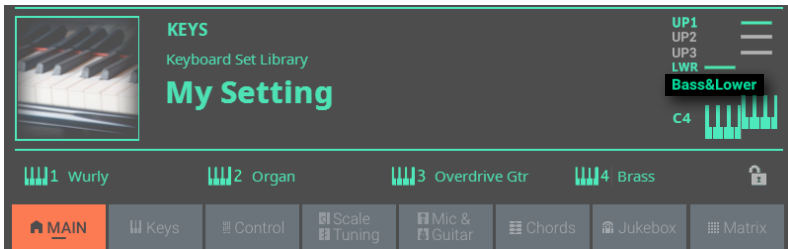
As an alternative, keep the **SHIFT** button pressed and press the **PLAYER > STYLE** button to open the **Style** page.



2 Select or deselect the **Bass & Lower Backing** checkbox to activate or deactivate the function.

3 Press the **SPLIT** button to turn its indicator on.

With the Split enabled, the **Bass & Lower** indication will appear in the **Home > Main** page.



Playing the manual accompaniment

1 Be sure the **Bass & Lower Backing** function is active (the **Bass & Lower** indication appears in the **Home > Main** page, see above).

2 Be sure the **SPLIT** indicator is turned on, and the Style is not running.

3 Play a chord sequence with your left hand.

Notice how the chord root is played by the Bass Sound, while the remaining chord notes are played by the Lower Sound (even if it is muted).

07

Playing the Pads

The Pads

What is a Pad?

Pads are single-track hits (One Shot-type) or sequences (Loop-type), that you can instantly play with the dedicated **PADS** buttons, the **Pad** buttons in the **Home** page, or with up to four assigned **MATRIX** buttons.

Pads can either play single sounds or short, cycling sequences that play in time with the Style or the MIDI Song. In Style Play mode, sequences are transposed according to the recognized chords.

Choosing a combination of Pads

You can have up to four Pads selected at the same time in a Player. Each of the Players can have its own set of Pads. A set of Pads can be selected with a Style or a SongBook Entry.

■ Choose the Pads by selecting a Style

- > Choose a Style. The four Pads it contains will be recalled.

■ Choose the Pads by selecting a SongBook Entry

- > Choose a SongBook Entry (either based on a Style or a Song). The four Pads it contains will be recalled.

Playing the Pads

Playing the Pads

Starting and stopping the Pads

You can play up to four Pads at the same time, by using the dedicated **PADS** buttons, the **Pad** buttons in the **Home** page on the display, or up to four assigned **MATRIX** buttons.

Pads of the One Shot type automatically stop at the end of the sequence. Pads of the Loop type continue cycling until you don't press the **PADS > STOP** button.

■ Play and stop the Pads from the PAD section

1 Press the **PAD** button corresponding to the Pad to play. You can also start more Pads at the same time.



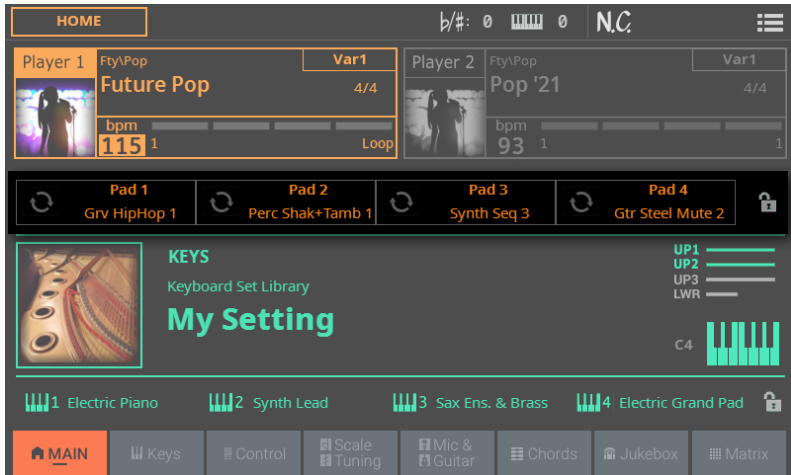
The indicators of the Pads playing will turn on. Also, the **Pads playback indicators** in the display will be shown running (see below).

2 Press the **PAD** button(s) you want to stop.

3 Press the **PAD > STOP** button to stop all the Pads.

■ Play and stop the Pads from the Main page

- 1 Go to the **Home > Main** page.
- 2 Touch the **Pad** button corresponding to the Pad to play. You can't start more Pads at the same time from the display, but you can start other Pads after the first one.



The indicators of the Pads playing will turn on in the **PAD** section on the control panel. Also, the **Pads playback indicators** in the display will be shown running.



- 3 Touch the **Pad** button(s) you want to stop, or press one of the buttons in the **PAD** section on the control panel.
- 4 Press the **PAD > STOP** button to stop all the Pads.

■ Stop all the Pads together with the Style or Song

- > Press the **PLAY/STOP** (▶◻) button, the **STOP/GO TO START** (⏮) button.

■ Transpose the Pads

- > Play some chords, and transpose any pitched sequence in a Pad.

Changing Tempo

Pads are always synchronized to the Tempo of the selected Player. Change the **Player's Tempo**, and the Pads' Tempo will change accordingly.

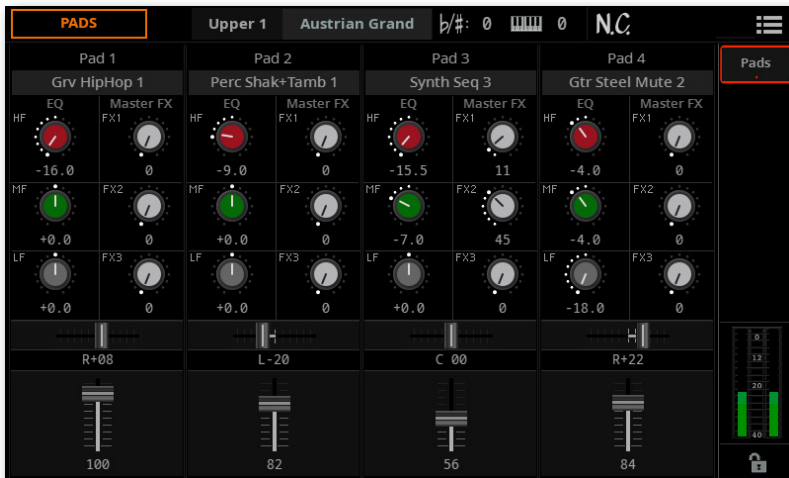
Customizing the Pad set

Choosing the individual Pads

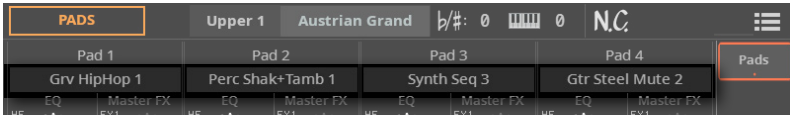
Every Factory and User Style, as well as each SongBook Entry, has its own four Pads. You can save a new combination of Pads into a User Style or SongBook Entry.

Choosing the Pads

- Open the Select window
- 1 Go to the **Home > Menu > Pads** page.

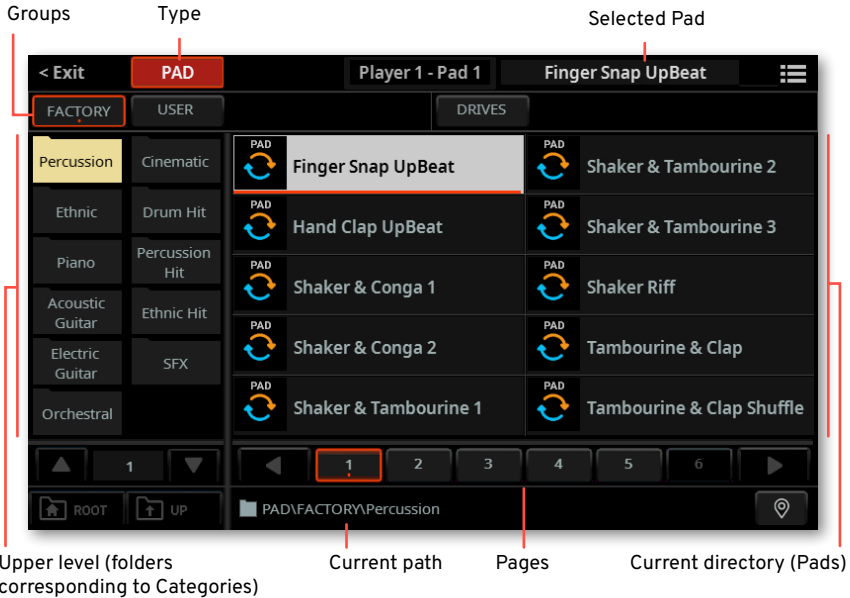


2 Touch the **name of the Pad** you want to change to open the **Select** window.



■ **Choose a Pad**

1 Browse through the Pads in the **Pad Select** window.

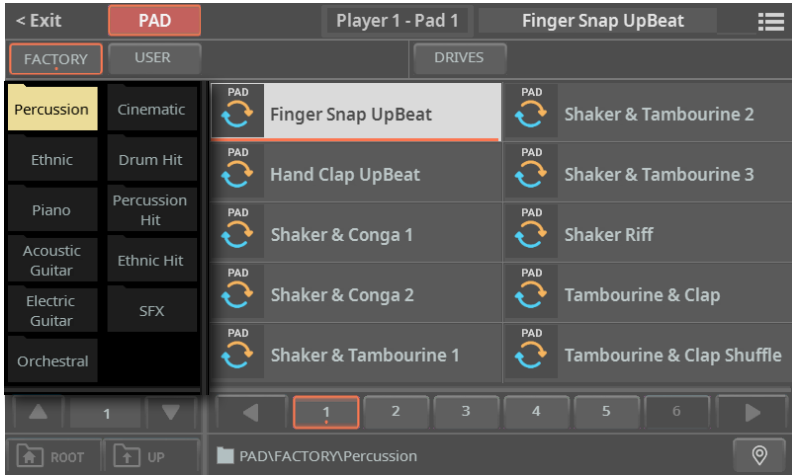


2 To choose one of the available **groups** from which to choose a Pad, touch the **buttons** in the second line at the top of the window.

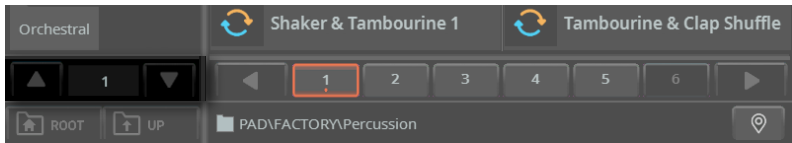


Group	Meaning
Factory	Pads included in the Factory library, that can't be modified or overwritten.
User	Internal memory area where you can save new or edited Pads, or where you can copy Pads from an external storage device.
Drives	Pads accessed from an external storage device. You can organize them freely, as if they were ordinary files.

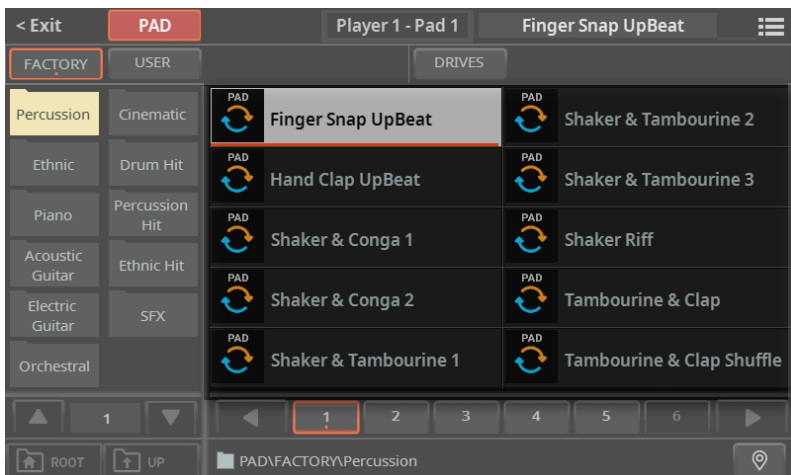
- 3** In case you want to choose a different category, touch one of the category folders in the left side of the **Pad Select** window.



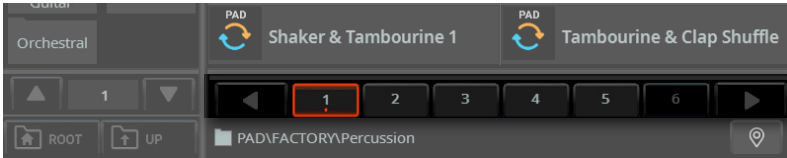
- 4** If not all the category folders can be seen in the current page, scroll through the page numbers to access the other folders.



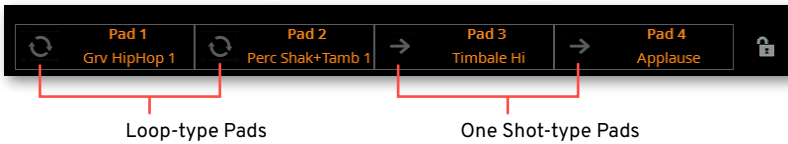
- 5** The Pads contained in the selected folder appear in the right side of the window.



6 If the selected category folder contains more elements than the ones that can be seen in a page, browse through them. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



Pads can be **Loop-type** or **One Shot-type** Pads.



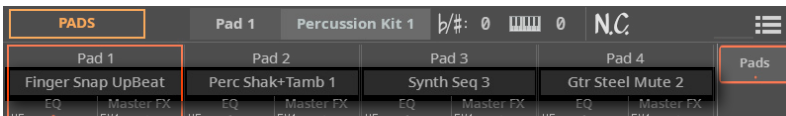
7 If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

8 Touch the **name of the Pad** you want to choose.

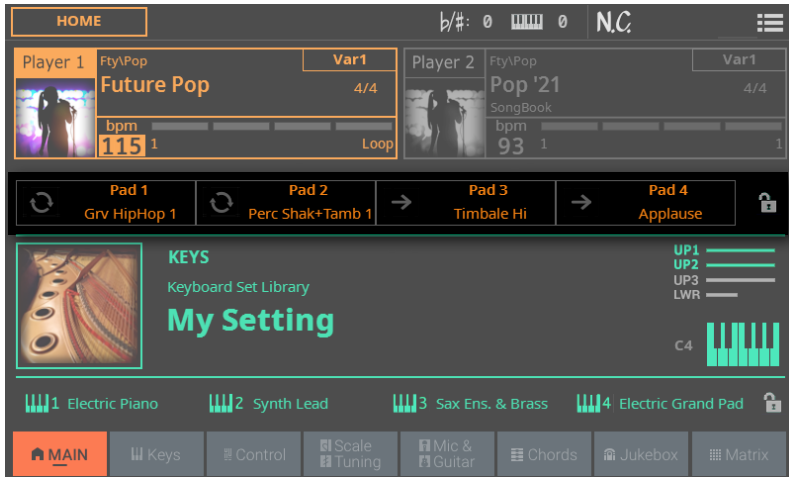
9 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** is turned on. See [Display Hold](#) on page 72.

In the end, you will see the name of the selected Pad in the dedicated area of the **Home > Menu > Pads** page.



The name of the Pad will also appear in the **Home > Main** page.



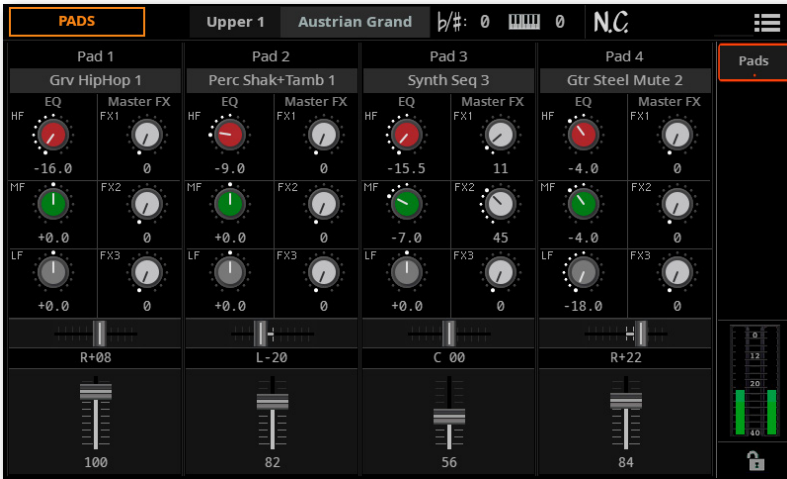
Saving the assigned Pads

- › Save a User Style or a SongBook Entry.

Mixing the Pads

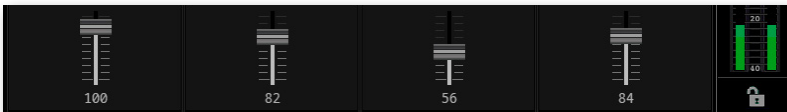
Editing the Pad parameters

- Access the Pads page
- > Go to the **Home > Menu > Pads** page.



- Adjust the volume and pan

- > Use the **Volume** parameter (vertical sliders) to set the level of each Pad.



- > Use the **Pan** parameter (horizontal sliders) to set the position of each Pad in the stereo panorama.



■ Adjust the send level to the master effects

- > Use the **Master FX** parameters to adjust the amount of the signal sent to the FX 1, 2 and 3 Master effects (FX Group A).



The Master Effects are the ones of the Style the Pads are linked to.

■ Equalize the sound

- > Use the **EQ** gain controls to set the three-band equalizer for each Pad. Adjust the **HF** (High Frequencies), **MF** (Middle Frequencies) and **LF** (Low Frequencies) parameters as needed.



Saving the combination of Pads

- > Save a User Style or a SongBook Entry.

08

Playing the Chord Sequences

The Chord Sequences

Chord Sequences and the Styles

You can record a Chord Sequence, that will play the chords for you. This will be useful, for example, when you have to play a repeated sequence, and prefer to use your left hand to play a solo on the keyboard, or to select the DNC controllers.

Chord Sequences are individually contained in the Chord Sequence Library. All the supplied Styles and SongBook Entries already contain a Chord Sequence. A Chord Sequence can be memorized in the User library, in a User Style or a SongBook Entry.

Enabling the Chord Sequence

You can enable or disable the Chord Sequence by using the **SEQUENCE** button in the **CHORD** section in the control panel.



The SEQUENCE indicator shows the status of the Chord Sequences.

SEQUENCE	Meaning
Off	Chord Sequence not available.
White	Chord Sequence available, but not activate for playing.
Orange/Blue flashing	Chord Sequence available and ready to play in the corresponding Player (orange = Player 1, blue = Player 2).
Orange/Blue steady	Chord Sequence playing in the corresponding Player (orange = Player 1, blue = Player 2).

When you enable the Chord Sequence, the list of chords appears in the **Home > Chord** pane.



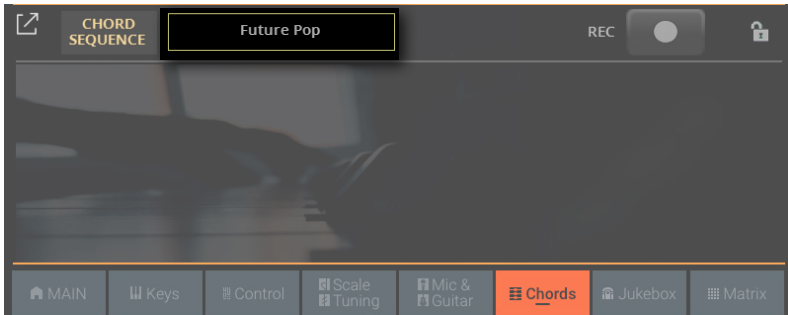
A Chord Sequence must be recalled by the Style or SongBook Entry, or chosen from the library. If it isn't, load it, as described below.

Choosing a Chord Sequence

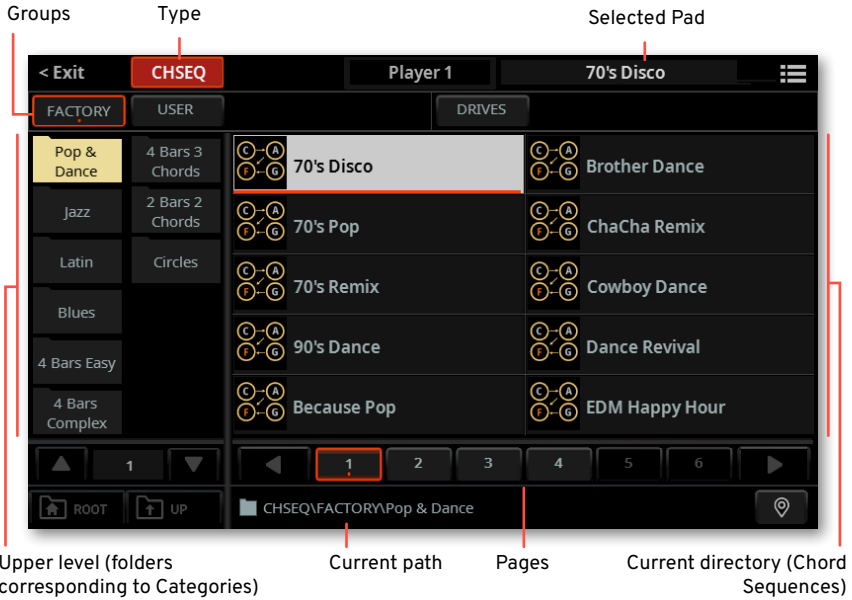
Choosing a Chord Sequence from the library

Chord Sequences are contained in a dedicated library, that you can access from the **Home > Chords** page.

- 1 Be sure the **CHORDS > SEQUENCE** indicator on the control panel is showing the color of the Player (orange or blue), so that you can see the loaded Chord Sequence.
- 2 Go to the **Home > Chords page**, and touch the **name of the selected Chord Sequence**. If no Chord Sequence is already selected, the **Chords** label will appear instead of the name.



As soon as you touch the display, the **Chord Sequence Select** window appears.

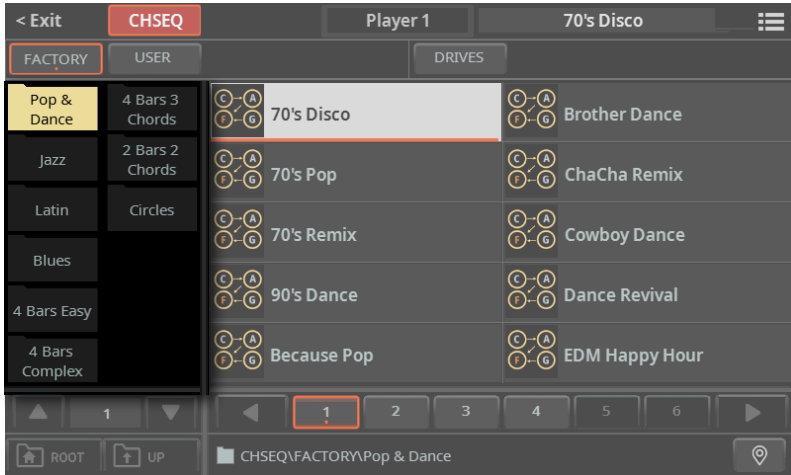


3 To choose one of the available **groups** from which to choose a Pad, touch the **buttons** in the second line at the top of the window.

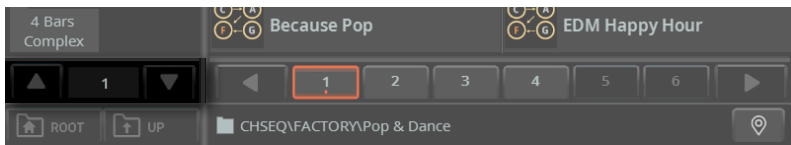


Group	Meaning
Factory	Chord Sequences included at the factory, that can't be modified or overwritten.
User	Internal memory area where you can save new or edited Chord Sequences, or where you can copy Chord Sequences from an external storage device.
Drives	Chord Sequences accessed from an external storage device. You can organize them freely, as if they were ordinary files.

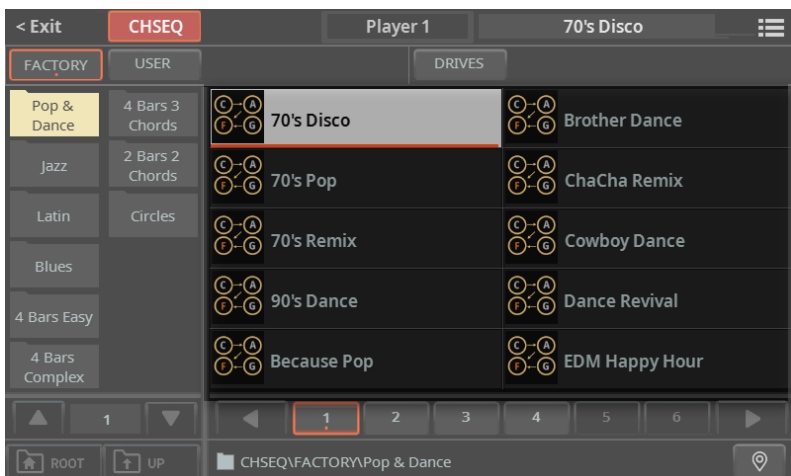
4 In case you want to choose a different category, touch one of the category folders in the left side of the **Chord Sequence Select** window.



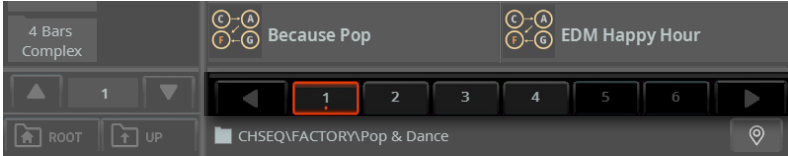
5 If not all the category folders can be seen in the current page, scroll through the page numbers to access the other folders.



6 The Chord Sequences contained in the selected folder appear in the right side of the window. Touch the **name of the Chord Sequence** you want to choose.



7 If the selected category folder contains more elements than the ones that can be seen in a page, browse through them. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



8 If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

9 Touch the **name of the Chord Sequence** you want to choose.

10 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** is turned on. See [Display Hold](#) on page 72.

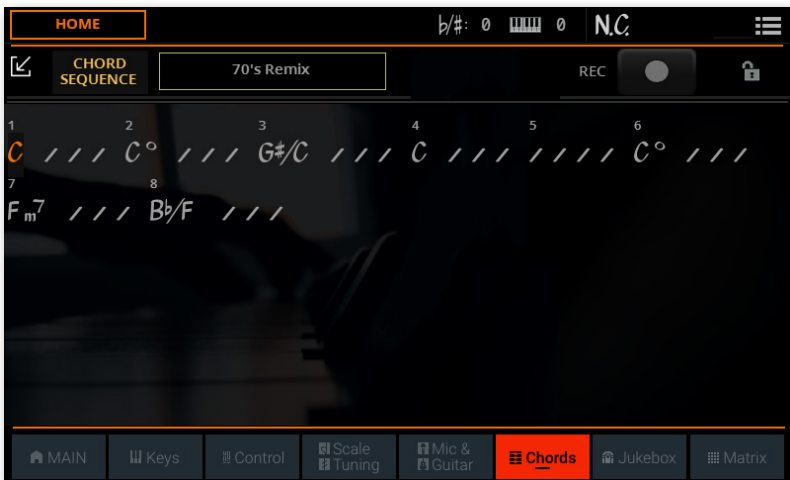
In the end, you will see the name of the selected Chord Sequence in the dedicated area of the **Main** page.



A list of chords will appear in the pane.



If the sequence is very long, you can touch the **Expand** (📄) button to see more chords.



You can make the pane go back to the reduced size by touching the **Collapse** (📄) button.

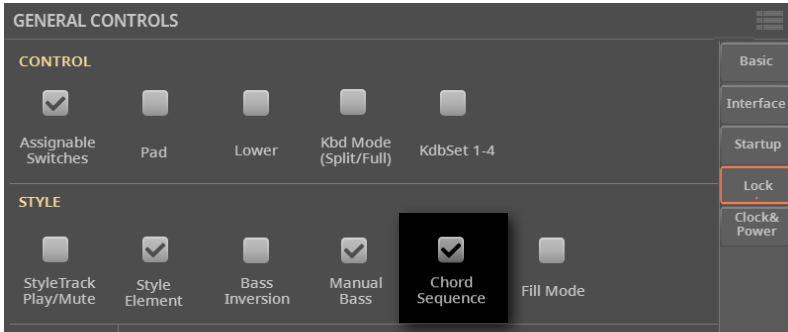
Chord Sequences automatically selected by a Style or a SongBook Entry

When choosing a Style or a SongBook Entry containing a Chord Sequence, this is automatically selected. Use the **CHORDS > SEQUENCE** button in the control panel to turn it on or off.

Locking the Chord Sequence

If you prefer to keep the current Chord Sequence, without letting a Style or SongBook Entry recall the memorized one, select the Chord Sequence lock.

- > Go to the **Settings > Menu > General Controls > Lock** page, and select the **Style > Chord Sequence** checkbox.



Playing the Chord Sequences

Starting and stopping a Chord Sequence

- 1 If a Chord Sequence is available but not activated, the **CHORD > SEQUENCE** indicator will appear white. If it is off, load a Chord Sequence as shown above.
- 2 Enable the Chord Sequence by pressing the **CHORD > SEQUENCE** button. If the Player is stopped, its indicator will start flashing with the color of the current Player. If it is playing, its indicator will be steady on.



- 3 Start the Player. The Chord Sequence will immediately start playing. If the Player was already running, the Chord Sequence will start playing from the next measure.
- 4 Play your solo part, while the Chord Sequence plays the chords for you. During Chord Sequence looping, you can freely select any Fill or Variation, as if you were playing chords with your hands.
- 5 Press the **CHORD > SEQUENCE** button again to disable the Chord Sequence. The button indicators will return white.

09

Recording the Chord Sequences

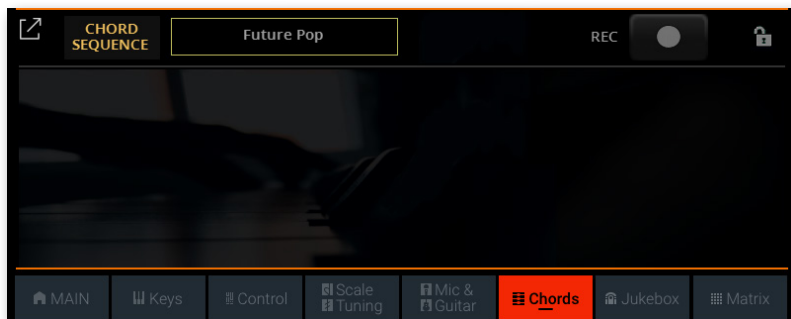
Recording Chord Sequences

You can record a Chord Sequence, that can then be saved to the dedicated library or in the selected User Style. The new Chord Sequence can then be used with any other Style.

Please note that recording a new sequence will delete the exiting one (if any).

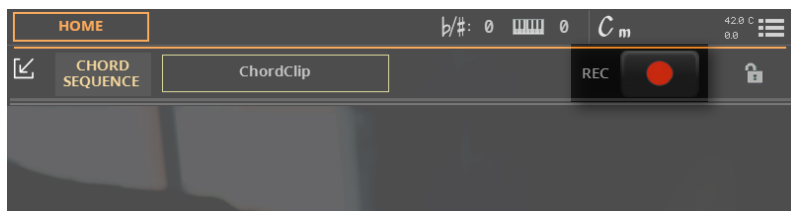
■ Prepare recording

- 1 Go to the **Home > Main** page, and choose a Style. If you want to save the new Chord Sequence in the Style, choose a User Style (Factory Style can't be overwritten).
- 2 Go to the **Home > Chords** pane.



■ Start recording

- 1 Touch the **Record (●)** button in the display. The button will start flashing in red. Any sequence already selected will be deleted from memory.



2 At this point, you can start recording in one of two ways:

> If the **SYNCHRO START** indicator is turned off, play the first chord of the sequence, and keep it held. Then press the **PLAY/STOP** (▷□) button to start recording.

> If the **SYNCHRO START** indicator is turned on, recording will start as soon as you play a chord.

3 While recording, the **Record** (●) button in the display will be steadily red. Check the recognized chords appearing in the display.

■ Stop recording

1 Stop recording in one of two ways:

> Press the **PLAY/STOP** (▷□) button on the control panel. The Style will stop. The **CHORD > SEQUENCE** indicator will become white to show that there is a Chord Sequence available.

> Touch the **Record** (●) button in the display. The button will go dark. The Style will continue to play. The **CHORD > SEQUENCE** indicator will become orange or blue, and the recorded Chord Sequence will play in loop.

2 At this point, you can use the **CHORDS > SEQUENCE** button to turn the sequence on or off.

3 Check if the recorded chords are correct.

■ Save the Chord Sequence

The Chord Sequence will remain in memory until you record a new Chord Sequence, choose a different Style or SongBook Entry, or turn the instrument off.

If the sequence is locked, it will not change when choosing a different Style or SongBook Entry.

To avoid losing it, save it, as described in the following pages.

Saving a Chord Sequence

You can save your Chord Sequences into the dedicated library, or as the Chord Sequences inside a User Style.

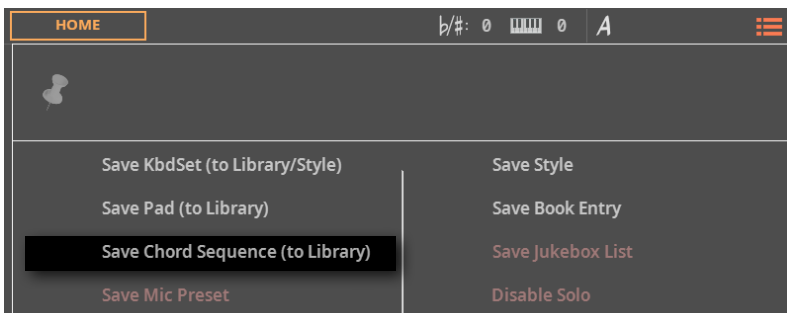
Saving Chord Sequences to the library

The library is where you organize the Chord Sequences by type and category, independently from a Style or SongBook Entry. You can recall these Chord Sequences from the **Home > Chord** page. A link to the selected Chord Sequence can then be saved with a Style or SongBook entry.

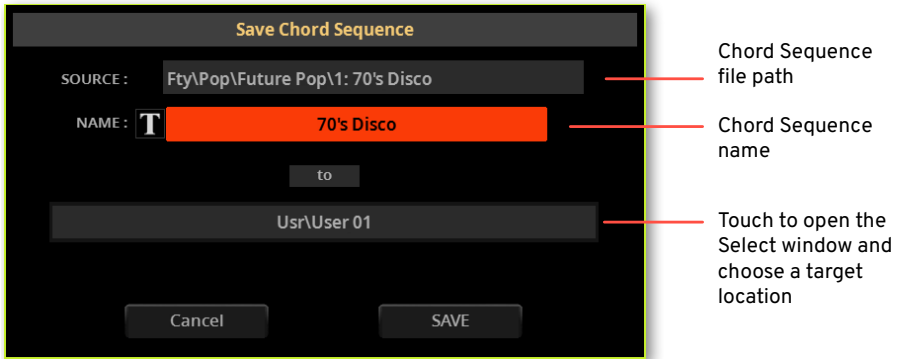
Factory Chord Sequences can't be overwritten. If you want to save changes to a Factory Chord Sequence, copy it into the User area.

Note: All changes will be lost when choosing a different Chord Sequence, unless you save them.

- **Open the Save dialog from the display**
- > Choose the **Save Chord Sequence (to Library)** command from the **page menu**.



The **Save Chord Sequence** dialog will appear. If the selected Style is a **Factory** one, and you can't save on it, you will only be allowed to save into the **Chord Sequence Library**.



■ Save over the same User Chord Sequence

> If you want to overwrite the current User Chord Sequence, just touch the **Save** button.

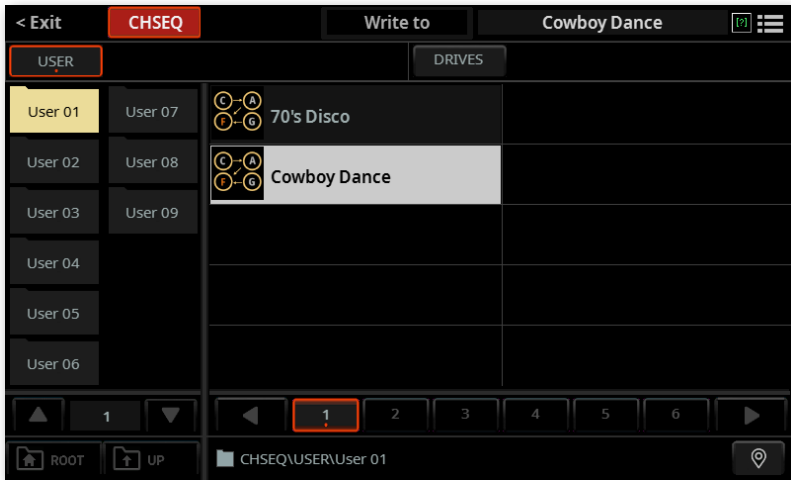
■ Rename the Chord Sequence

While in the **Save Chord Sequence** dialog, you may change the **name** of the Chord Sequence.

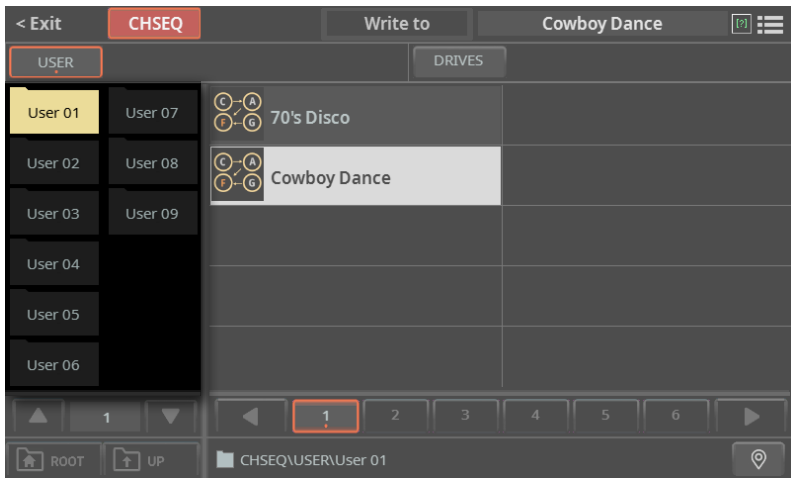
- 1 Touch the **Text Edit (T)** button to open the **virtual keyboard** and edit the name.
- 2 When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

■ Save to a different location

- 1 If you want to save to a different folder, touch the **To (target location)** button in the **Save Chord Sequence** dialog, and open the **Save To** window.



- 2 Touch the **folder** where you want to save the new Chord Sequence.



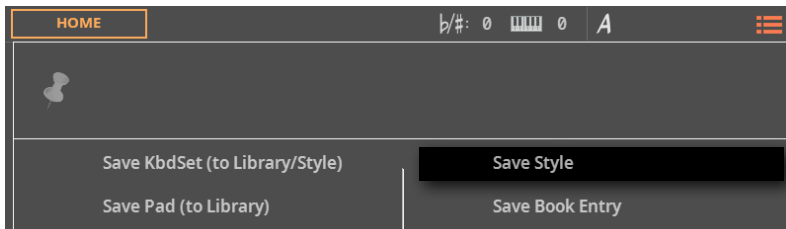
- 3 To save a new file, don't touch any of the Chord Sequences in the folder (shown in the right side of the window). On the contrary, if you want to overwrite one of the existing elements, touch it.
- 4 Press the **EXIT** button to close the **Save To** window and confirm your selection.
- 5 When back at the **Save Chord Sequence** dialog, confirm the Save operation by touching the **Save** button.

Saving Chord Sequences into a Style

Styles can contain a Chord Sequence. When choosing a Style, a Chord Sequence working well with the selected Style is automatically selected.

You can save a new Chord Sequence into a User Style. Factory Styles can't be overwritten. If you want to edit and save a Factory Style, copy it into the User area.

- 1 Choose the **Save Style** command from the **page menu**.



- 2 Confirm saving.

10

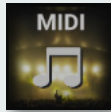
Playing the Songs

The Songs

What is a MIDI Song

MIDI Songs' technical name is Standard MIDI File, often abbreviated as SMF. The filename extension is .mid. The Standard MIDI File is the industry standard format for songs, and is used by Pa5X as the native file format when playing or recording MIDI Songs.

The MIDI Karaoke File (.kar) is an extension of the SMF format, and is also supported. It always contains lyrics.



MIDI
Song



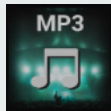
MIDI file on
disk



KAR file
on disk

What is an MP3 Song

MP3 Songs' technical name is MPEG Layer-3, usually abbreviated as MP3. The filename extension is .mp3. This is a compressed audio file, used to store recorded songs in the smallest amount of space, without losing too much audio quality. At the highest quality, MP3 files are usually impossible to distinguish from non-compressed audio files. Pa5X can play and record MP3 files.



MP3
Song



MP3 file on
disk

Choosing the Songs

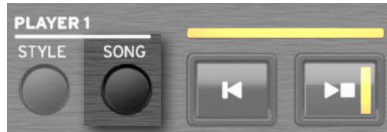
Choosing a Song

Songs can be either MIDI or MP3 Songs. You can play a Song with either Player 1 or Player 2. Therefore, if you want, you can assign a Song to each of the players, and have the other player be ready for the next musical selection. You can also mix Styles and Songs with the different Players.

You can choose a Song from the control panel or from the display.

We'll assign a Song to Player 1. Instructions for Player 2 would be identical, apart for the different player.

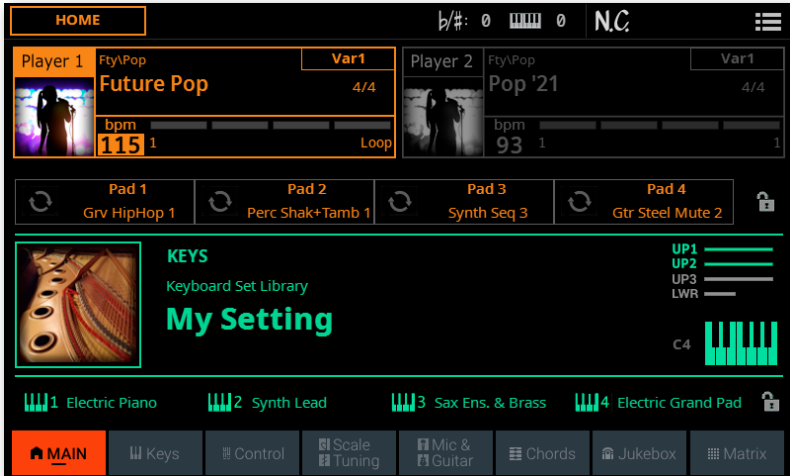
-
- **Open the Select window from the control panel**
-
- > While in any page, press the **SONG** button in the **PLAYER 1** section.



■ Open the Select window from the display

- > Go to the **Home > Main** page.

When turning the instrument on, you are already in the **Main** page. If you are not in the **Main** page, press the **EXIT** button in the control panel.

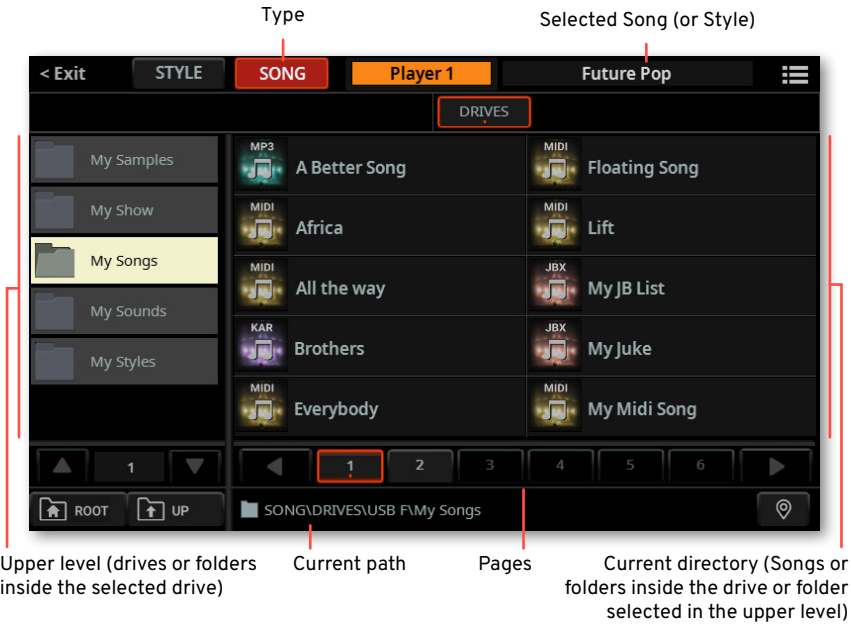


- > Touch the name of the **Song (or Style)** in the display.



■ Choose a Song

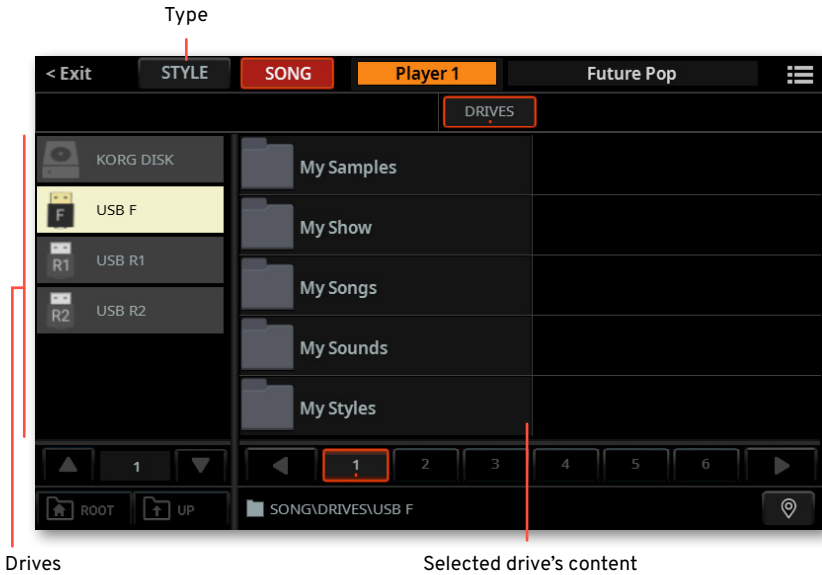
1 Browse through the Songs in the **Select** window.



2 Be sure you are browsing the Songs, and not the Style. If not, touch the **SONG** button at the top of the window.



- 3 To choose one of the available **storage devices (drives)** from which to choose a Song, touch the **name of the drive** in the left side of the window.

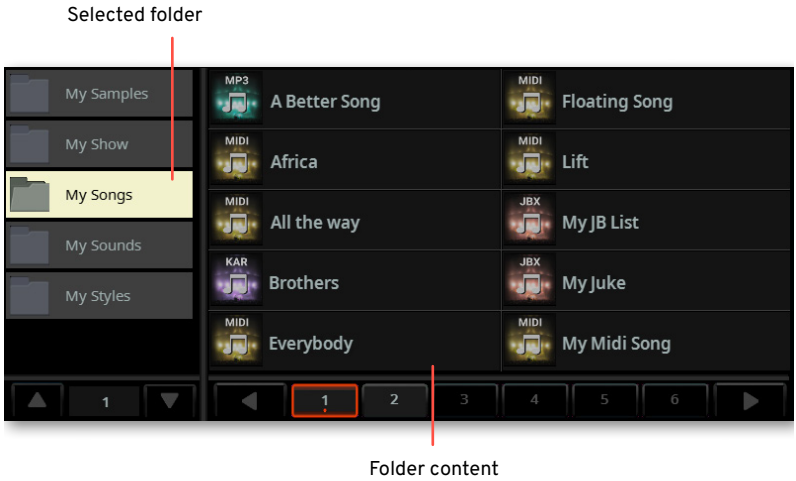


Drive	Meaning
KORG DISK	User storage space inside the internal drive.
SD USER	User storage space inside the (optional) SD card.
USB F	Storage device connected to the front USB HOST port.
USB R1	Storage device connected to the rear USB HOST #1 port.
USB R2	Storage device connected to the rear USB HOST #2 port.

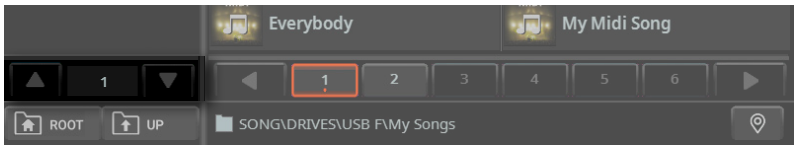
- 4 If not all the drives can be seen in the current page, scroll through the page numbers to access the other drives.



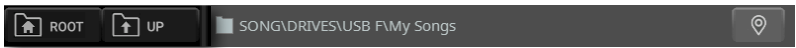
5 Select the **folder** containing the Song. Its content will appear in the right side of the window, and the containing folder will be moved to the left side.



6 If not all the folders can be seen in the current page, scroll through the page numbers to access the other folders.



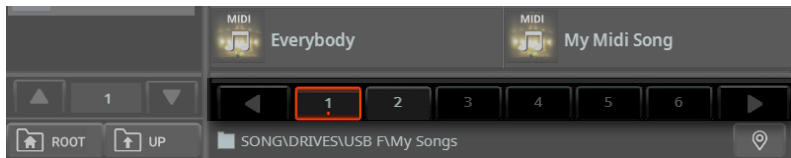
7 Browse through the folders. If you want to close the current folder and go up one level, touch the **Up** button. If you want to go up to the main directory of the drive, touch the **Root** button.



- 8** The Songs contained in the selected folder will appear in the right side of the window.

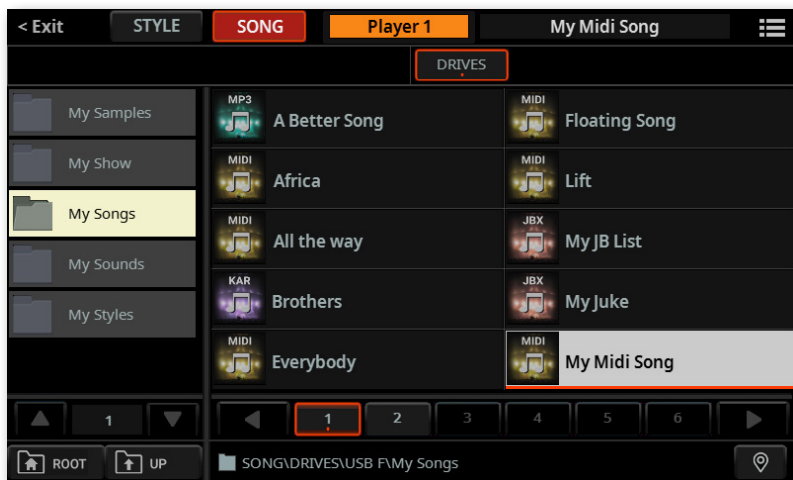


- 9** If the selected folder contains more elements than the ones that can be seen in a page, browse through the pages. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



- 10** If you are lost while browsing though the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.
- 11** Touch the **name of the Song** you want to choose.

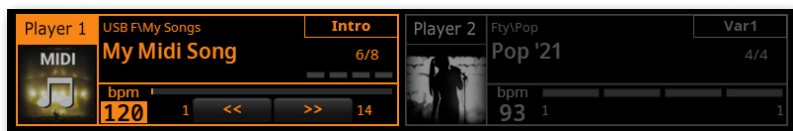
Once the Song has been selected, it will blink for a few seconds, and then be assigned to the selected Player. The selected file will appear highlighted in the list of files.



12 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** is turned on. See [Display Hold](#) on page 72.

In the end, you will see the name of the selected Song in the dedicated area of the **Main** page.



13 If you want, repeat the same procedure to assign a Song (or Style) to the other Player.

Playing the Songs

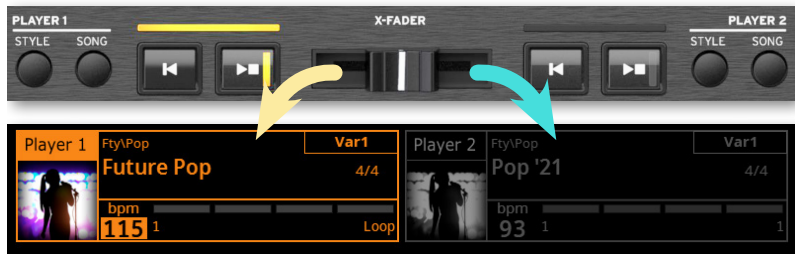
Starting, stopping and controlling the Songs

You can start a single Song, or mix two Song, or Songs and Styles, in the two Players.

■ Set the right mix

> Move the **X-FADER** fully toward the Player you want to listen to. Move it fully to the left for Player 1, to the right for Player 2.

The indicator over the corresponding Player section will turn on.



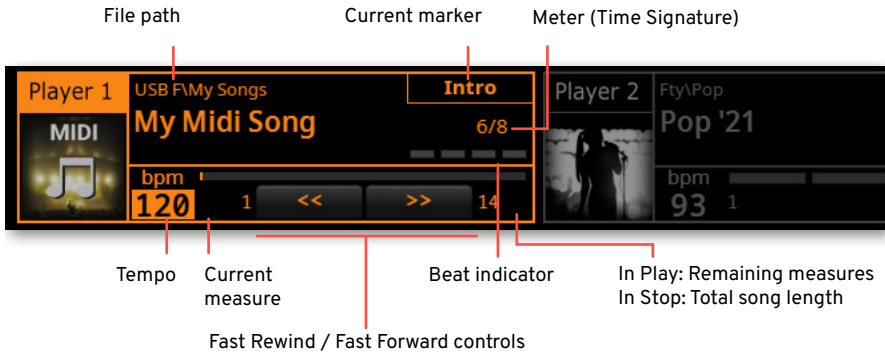
> Move it to an intermediate position to mix the two Players.

■ **Start the Player**

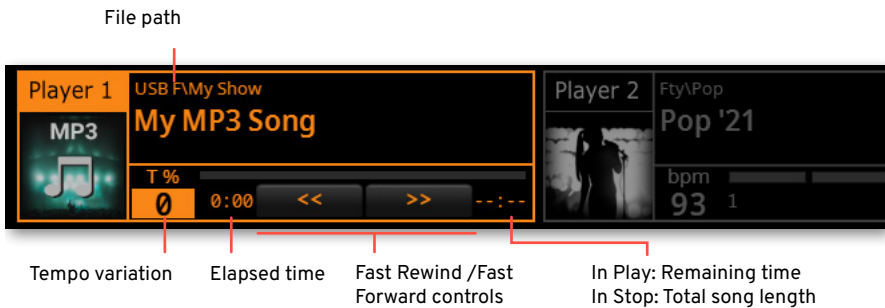
> Press the **PLAY/STOP** (▷◻) button in the section dedicate to the Player you want to start.



While the Song is playing, please note the various indicators in the display.
With a MIDI Song:

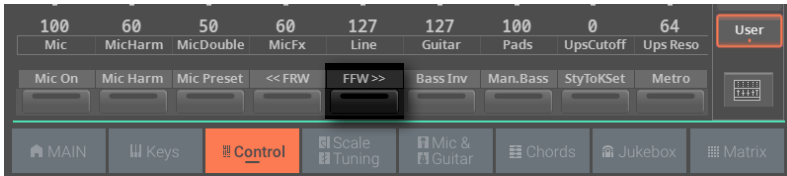


With an MP3 Song:



■ Fast Forward the Song

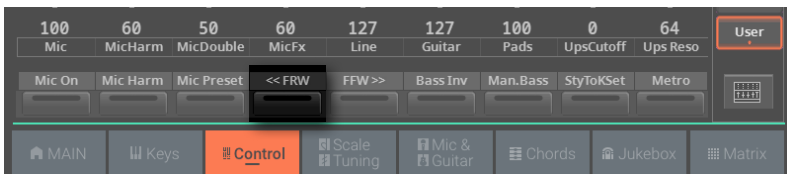
- > Touch the **FAST FORWARD (>>)** button once to jump to the next measure (MIDI Song) or to the next second (MP3 Song).
- > As an alternative, use the **FFW>>** button in the **USER** mode of the **CONTROL** section (on the control panel or the display).



- > Keep touching the **FAST FORWARD (>>)** button to scroll the Song continuously. Release it when you have reached the desired position.

■ Rewind the Song

- > Touch the **FAST REWIND (<<)** button once to jump to the previous measure (MIDI Song) or to the previous second (MP3 Song).
- > As an alternative, use the **<<FRW** button in the **USER** mode of the **CONTROL** section (on the control panel or the display).



- > Keep touching the **FAST REWIND (<<)** button to scroll the Song continuously. Release it when you have reached the desired position.

■ Pause and resume playback

- > Press the **PLAY/STOP (▷◻)** button to stop the Song at the current position. The button's indicator will become white.
- > Press the **PLAY/STOP (▷◻)** button again to resume playback. The indicator will get the Player's color (orange or blue) again.

■ Stop the Player and return to the beginning of the Song

- > Press the **STOP/GO TO START (⏮)** button to stop the Player and move to the beginning of the Song. The button's indicator will turn off.

■ Start and stop both Players at the same time

You can start both Players at the same time, and mix them with the **X-FADER** while playing.

- > Keep the **SHIFT** button pressed, and press any of the two **PLAY/STOP** (▶□) buttons to start both Players at the same time.
- > Keep the **SHIFT** button pressed, and press any of the two the **PLAY/STOP** (▶□) buttons to stop both Players at the same time.

Fade In/Out

Using the Fade control

You can use the **FADE** button to start and/or stop a Song with a smooth fade-in or out.



■ Fade in

> While the Song is not playing, press the **FADE** button to light up its indicator and start with a smooth fade-in.

The Song will start. When the maximum volume is reached, the indicator will turn off.

■ Fade out

> When the Song is approaching its end, press the **FADE** button to end it with a smooth fade-out.

Setting the Fade time

> Go to the **Settings > Menu > General Controls > Basic** page to set the Fade In and Fade Out time.



Playing the keyboard along with the Song

■ Play along with the Song

- > While the Song is playing, play the keyboard.

■ Choose different Sounds from the Keyboard Set Library

- > Choose a different **Keyboard Set** from the **KEYBOARD SET LIBRARY** section of the control panel, or by touching the **name of the selected Keyboard Set** in the **Main page**.

■ Choose different Sounds from the Style or SongBook Entry

- > The latest Style or SongBook Entry you selected contains up to four Keyboard Set. Choose a different **Keyboard Set** from the **KEYBOARD SET** section under the X-FADER, or from the **Kbd Set** pane of the **Main page**.

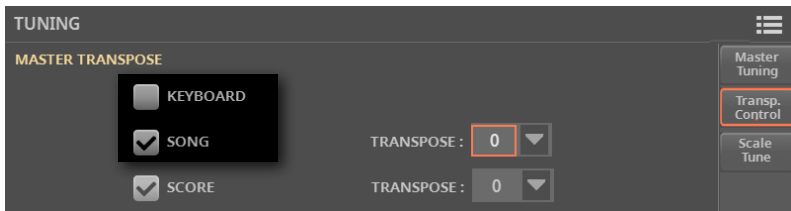


Transpose the Songs to play in an easier key

With Songs in a difficult key, you may want to transpose them to an easier key. You can choose to only apply transposition to the Songs, without transposing the keyboard.

■ Activate transposition only for the Songs

- 1 Go to the **Settings > Menu > Tuning > Transpose Control** page.
- 2 Activate Transpose on the Song, and deactivate it on the Keyboard.



■ Transpose the Songs

- > Use the **TRANPOSE** buttons on the control panel.



Playing a list of songs (Jukebox)

The Jukebox list

The Jukebox list is a list of songs, that you can use as a playlist to quickly select all the songs of your show, or as a random list of songs for the background music.

Creating a Jukebox list from a folder

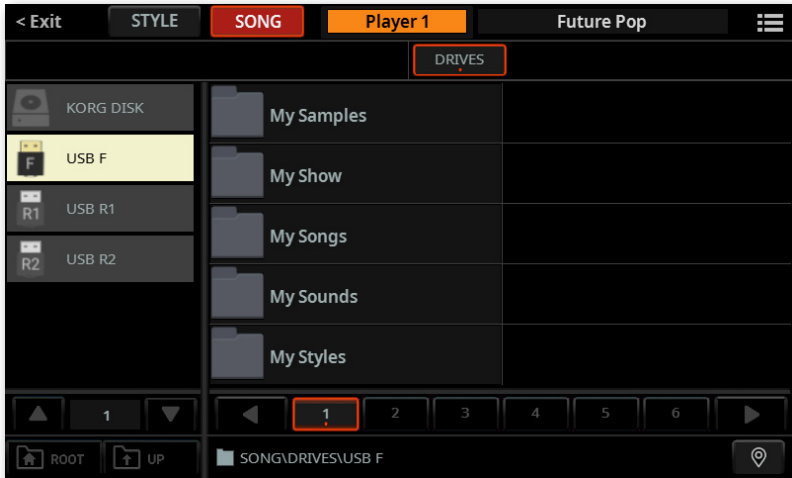
You can quickly convert all the Songs contained in a folder into a Jukebox list. This is useful to play background music in a random-like way, without having to program a playlist.

■ Select the folder

- 1 Press the **SONG** button on the control panel, or touch the **name of the Style or Song** in the display.
- 2 Be sure you are browsing the Songs, and not the Style. If not, touch the **SONG** button at the top of the window.



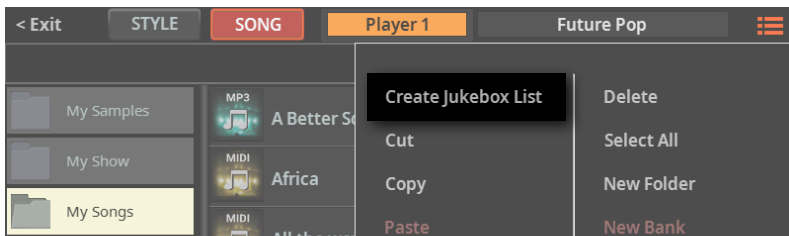
The **Song Select** window will appear.



3 Browse through the files and folders, until you find the folder containing the Songs to play, and open it.

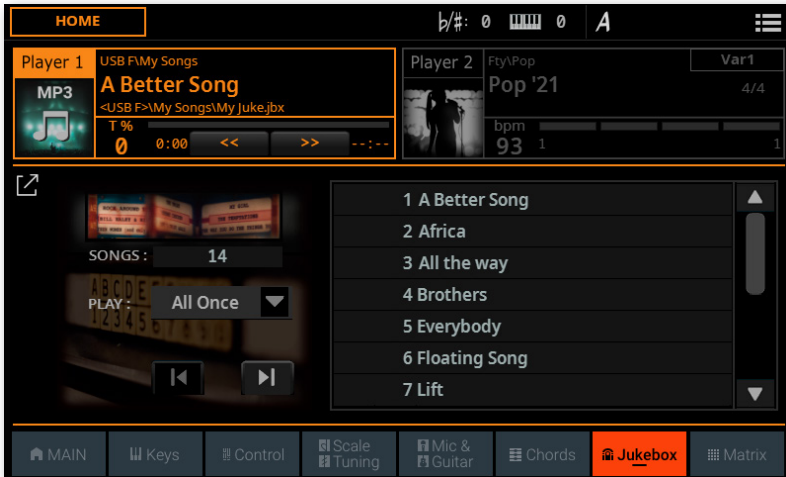
■ Make a Jukebox list from the selected folder

1 While the folder containing the Songs is open, choose the **Create Jukebox List** command from the **page menu**.



A Jukebox list will be automatically generated and assigned to Player 1. The order in which the Songs will be played back will depend on how they appear in the **Song Select** window.

- Go to the **Home > Jukebox** page to see the newly created list.



- If you want to save the list, choose the **Save Jukebox List** command from the **page menu**.

■ Play the Jukebox list

You can immediately play the list of Songs from the selected folder.

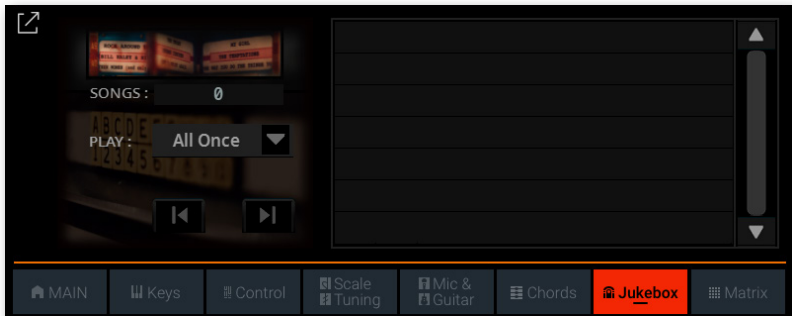
- Start and stop the Songs by pressing the **PLAY/STOP** (▷◻) button.
- Use the standard **PLAYER 1** controls to play, pause, stop, fast forward and fast rewind the Songs.
- Use all the Jukebox controls, as described below.

Creating a Jukebox list from different folders

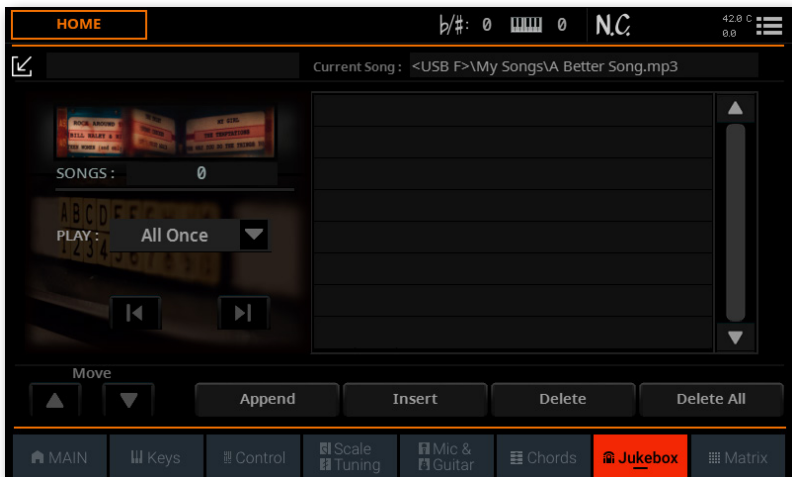
You can choose MIDI or MP3 Songs from any folder. This is useful to create a playlist for a show, without having to look around for the individual Songs in their respective folders.

Creating a Jukebox list

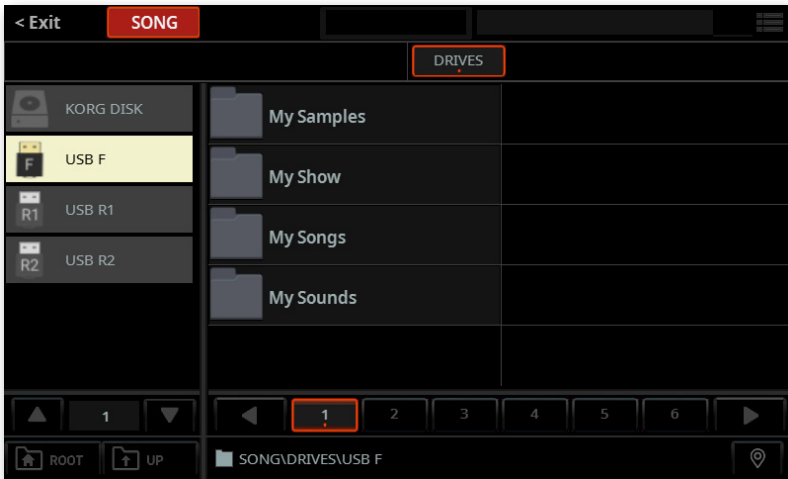
- 1 Go to the **Home > Jukebox** page.



- 2 Touch the **Expand** (🗲) button to expand the pane.



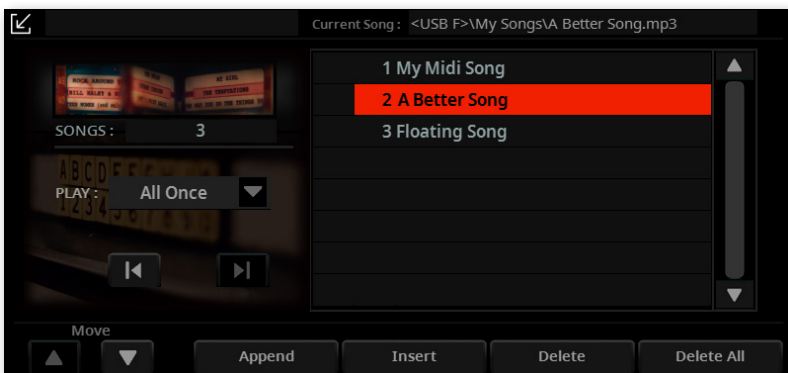
- 3 If a list of Songs already exists (because you selected an existing Jukebox file), and you want to start anew, touch the **Delete All** button to delete all from the list. Otherwise, you can simply edit the existing list.
- 4 Touch the **Append** or **Insert** button to open the **Song Select** window. **Append** will append a Song to the end of the list, while **Insert** will insert a Song between the selected item and the previous one.



- 5 Select a drive and browse through the folders in the drive. You can choose Songs from any folder.
- 6 Touch the MID, KAR and MP3 files to be added. If you like, you can choose another Jukebox (JBX) file, and add all its Songs to the Jukebox list you are editing.

Hint: Don't worry about the correct order or the Songs in the list. You will be able to rearrange them later.

- 7 When done, press the **EXIT** button to return to the **Jukebox** pane.



- 8 Repeat the above procedure and continue adding Songs to the list, until you have a full playlist for a show or session.
- 9 In the end, touch the **Collapse** (☒) button to collapse the pane again.

Editing the Jukebox list

■ Rearrange the Songs in the list

If the order of the Songs added to the list is not the desired one, rearrange them.

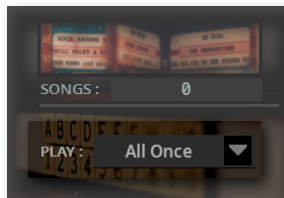
- 1 Touch the Song to move.
- 2 Use the **Move > Up** (▲) and **Move > Down** (▼) buttons on the display to move the selected Song to a different position in the list.

■ Delete unwanted Songs from the list

- > Touch the **Delete** button to delete the selected Song from the list.
- > Touch the **Delete All** button to delete all Songs from the list.

■ Choose the playback options

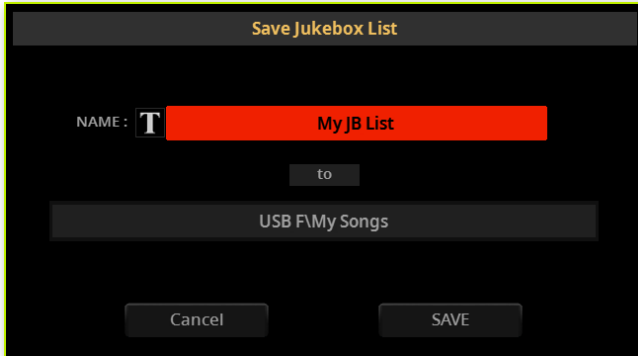
- > Use the **Play** pop-up menu to choose the way the list will be played back.



Play mode	Meaning
All Once	All the Songs of the list are played back once, from the first to the last one.
Single	The selected Song is played back, then playback automatically stops. To play the following Song in the list, select it and press the PLAY/STOP button.
All Loop	All the Songs of the list are played back once, and then restart from the beginning, until you press the PLAY/STOP or STOP/GO TO START button.

Saving the Jukebox list

1 While in the **Jukebox** pane, choose the **Save Jukebox List** command from the page menu, to open the **Save Jukebox List** dialog.



2 While in the **Save Jukebox List** dialog, touch the (**T**) button if you want to assign the Jukebox file a new name. Edit the name and confirm to return to the **Save Jukebox List** dialog.

3 Touch the **To (target path)** to open the file selector, and browse through the drives and folders, until you find and open the target folder. Press the **EXIT** button to return to the **Save Jukebox List** dialog.

4 When done, touch the **Save** button to confirm saving the list, or the **Cancel** button to stop the procedure.

Playing back the Jukebox list

Instead of single Songs, you can assign a Jukebox file to Player 1.

Opening a Jukebox list

■ Open the Song Select window from the control panel

- > Press the **SONG** button in the **PLAYER 1** section.

■ Open the Song Select window from the display

- > Touch the **name of the Song** in the display.

■ Select the Jukebox file

- > Browse through the files, until you find the Jukebox (.jbx) file, and open it.

You can quickly locate the Jukebox files by their icon.

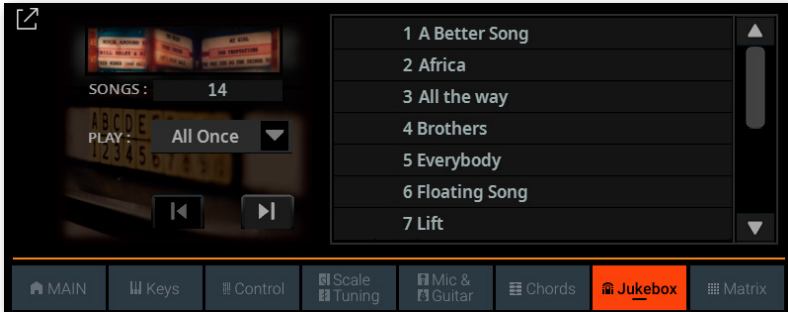


The selected Jukebox list contains pointers to Songs residing in various drives and folders. Please do not move nor delete the Songs, nor disconnect any connected USB storage device containing the Songs.

Playing the Jukebox list

■ Start the Jukebox list

- 1 While in the **Home > Main** page, touch the **Jukebox** tab to see the list of Songs contained inside the selected Jukebox list.



- 2 Touch the **name of the Song** you want to start from.
- 3 Start and stop the Songs by pressing the **PLAY/STOP** (▷◻) button.

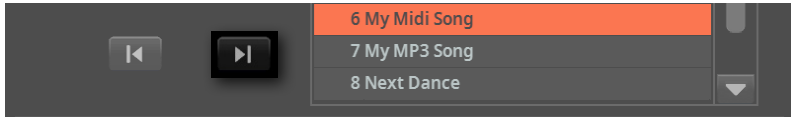
By default (with one of the All play options selected next to the list), all the Songs in the list will continue playing one after the other, until you don't stop them.

- 4 Use the standard **PLAYER 1** controls to play, pause, stop, fast forward and rewind the Songs.

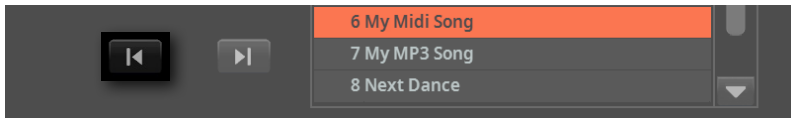
■ Move through the Songs

There are various ways to move through the Songs.

- > Touch in the list the Song you want to play.
- > Jump to the next Song in the list by touching the **Next Song** button in the **Jukebox** pane.



- > Jump to the previous Song by touching the **Previous Song** button in the **Jukebox** pane.



- > Press the **STOP/GO TO START** (⏮) button to go back to the beginning of the current Song.

The special tracks (Melody, Drum & Bass)

Muting the melody or singer's voice

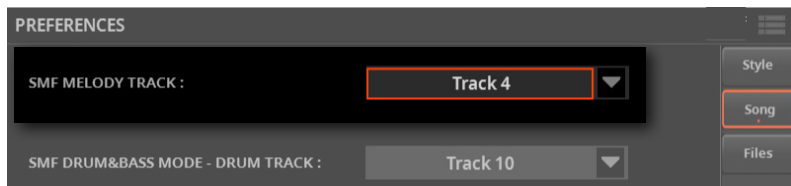
You can mute the melody of the MIDI Song, or remove the singer's voice from an MP3 Song, if you are going to play or sing live. This will avoid overlapping your playing or singing with the internal Sounds or the voice recorded in the MP3 Song.

Please note that programming an assignable switch will tie this function to a particular Keyboard Set or SongBook Entry. On the contrary, programming a Control button or a footswitch will offer a global option, that will not change when choosing a different Keyboard Set or SongBook Entry.

Selecting a MIDI Song's Melody track

One of the sixteen tracks of the MIDI Songs has to be chosen as the Melody track. While there isn't an official standard, it is common practice to use Track #4 as the Melody track.

- 1 Go to **Settings > Menu > Preferences > Song** page.
- 2 Use the **SMF Melody Track** parameter to choose a track number.



- 3 You can activate this function by pressing **BUTTON #8** in the **CONTROL** section, when in **MAIN** mode. See below how to assign the **Melody/Voice Remover** command to an assignable switch or footswitch.

Playing Drum & Bass

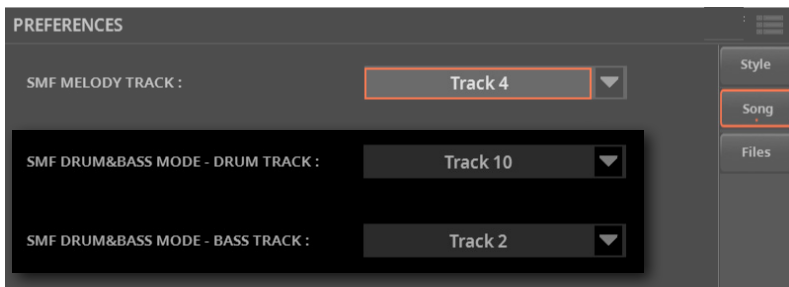
You can define two MIDI Song's tracks as the Drum and Bass tracks. These tracks will play when selecting the **Drum&Bass** function, that you can assign to a switch, Control button or footswitch.

Please note that programming an assignable switch will tie this function to a particular Keyboard Set or SongBook Entry. On the contrary, programming a Control button or a footswitch will offer a global option, that will not change when choosing a different Keyboard Set or SongBook Entry.

Selecting a MIDI Song's Melody track

Two of the sixteen tracks of the MIDI Songs have to be chosen as the Drum and Bass tracks. It is common practice to use Track #2 as the Bass track and Track #10 as the Drum track in the Songs. Please note that the Bass track is usually Track #9 in the Styles.

- 1 Go to **Settings > Menu > Preferences > Song** page.
- 2 Use the **SMF Drum&Bass Mode - Drum/Bass Track** parameters to choose the track numbers.



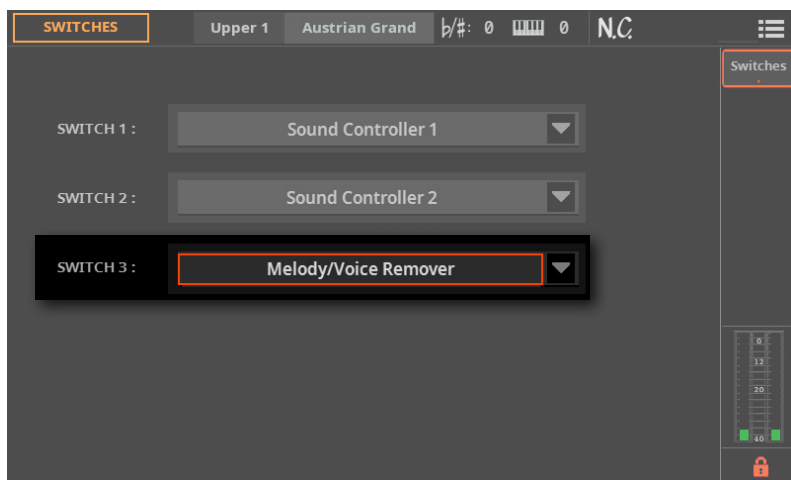
- 3 You can activate this function by pressing **BUTTON #7** in the **CONTROL** section, when in **MAIN** mode. See below how to assign the **Drum&Bass Mode** command to an assignable switch or footswitch.

Programming the switches for the special tracks

Programming an assignable switch

You can assign the **Melody/Voice Remover** and/or **Drum&Bass Mode** functions to an assignable switch.

- 1 Go to the **Home > Menu > Switches** page. As an alternative, keep the **SHIFT** button pressed, and press the **ASSIGNABLE SWITCH** you want to program.
- 2 Assign the **Melody/Voice Remover** function to one of the **Switch** parameters.



- 3 If you want this assignable switch to remain programmed in the same way, even if you select a different Keyboard Set or SongBook Entry, lock this page.

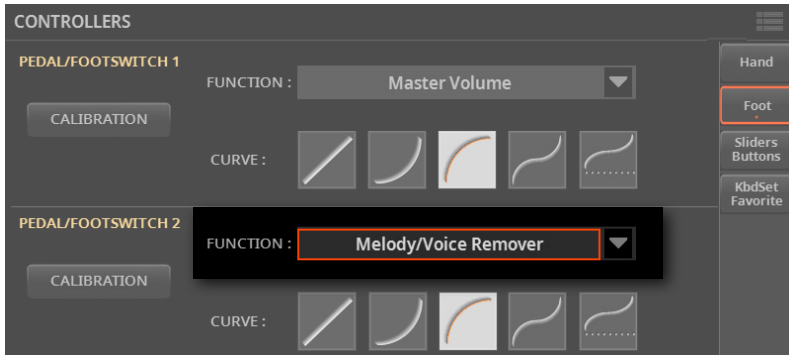


- 4 If you want this as the setup at startup, keep the **MY SETTING** button pressed for about one second, and touch OK to confirm saving the **My Setting** Keyboard Set.

Programming a footswitch

You can assign the **Melody/Voice Remover** and/or **Drum&Bass Mode** functions to a footswitch.

- 1 Go to the **Settings > Menu > Controllers > Foot** page.
- 2 Assign the **Melody/Voice Remover** function to the **Pedal/Footswitch** parameters corresponding to the footswitch connected to the instrument.



The changes will be automatically saved to the global settings.

Using the switch or footswitch to mute the melody or singer's voice

- 1 While an Song is playing, press the programmed assignable switch or footswitch to remove the melody or singer's voice.
- 2 Press the **same switch** or footswitch again to let the melody or singer's voice reappear.

11

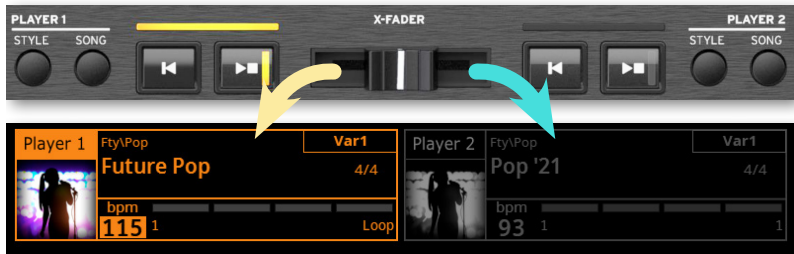
**Lyrics,
Chords,
Markers,
Score**

Lyrics and chords

Choosing one of the Players

- > While in the **Lyrics, Score** or **Markers** page, you can touch either the **Player 1** or **Player 2** button in the title bar to select the corresponding Player.
- > During playback, move the **X-FADER** slider to mix the two Players.
- > Move the **X-FADER** slider fully to the left to only listen to Player 1, fully to the right to only listen to Player 2. Move it to the center to balance the two Players.

The indicator over the corresponding Player section will turn on.



Where are lyrics and chords contained?

- > **Inside the MIDI Songs.** Lyrics and chords may be contained inside MIDI Songs as MIDI events.
- > **Inside the MP3 Songs.** Lyrics may be contained into MP3 Songs as **ID3/Lyrics3** and **ID3/Frames** tags.
- > **In TXT files associated to Styles or Songs.** Lyrics and chords may be contained in a TXT file having the same name of a Style, a MIDI or MP3 Song, and residing in the same folder. You can also load a text file while playing a Style or a Song.
- > **In TXT files linked to SongBook Entries.** A TXT file can be linked to a SongBook Entry.

Reading the lyrics and chords contained in a Song

Lyrics and chords may be contained in a MIDI Songs as Lyrics MIDI events. This is the best way to use them, since synchronization with the Song is automatic.

Reading lyrics and chords

- **Open the Lyrics page**

> Press the **LYRICS** button on the control panel. The **Lyrics** page will appear, and you will see the lyrics assigned to the selected Player.

The screenshot displays the Lyrics page for the song "The best day". At the top, it shows the song title, a key signature of one sharp (F#), a tempo of 66 bpm, and a bar count of 6. The selected player is "Player1". The lyrics are displayed with chords: "D", "A", "A+ D E", "INTRODUCTION", "A", "We loaded up my old", "D", "Station wagon", "E", and "With a tent, a Coleman and". At the bottom, there are four keyboard sets: 1 Piano & Pad, 2 Real Nylon Gtr, 3 Electric Piano, and 4 Harmonica 1. A red line points from the "Keyboard Sets" caption to the bottom of the screen.

Keyboard Sets (from the latest Style or SongBook Entry)

■ Read the lyrics

- > While the Song is playing, lyrics contained in a MIDI or MP3 Song will automatically scroll in the display, in time with the music. Lyrics at the current position will be highlighted.

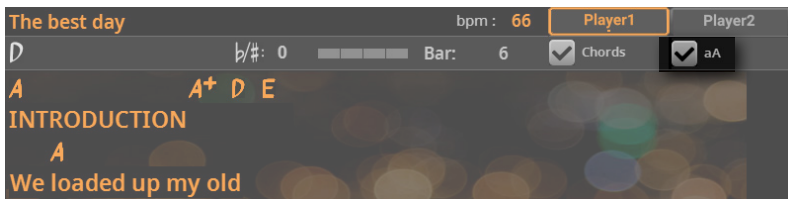
■ Exit from the Lyrics page

- > When done with the lyrics, press either the **LYRICS** or the **EXIT** button.

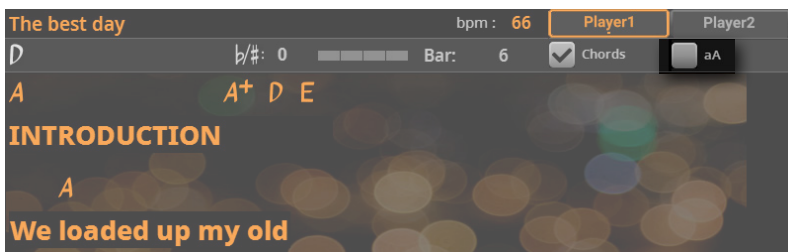
Changing the text size

You can switch between two text sizes. Use the **aA** checkbox in the **Lyrics** page to change the font size.

- > Select the **aA** checkbox to choose a smaller font and see more text in one page.

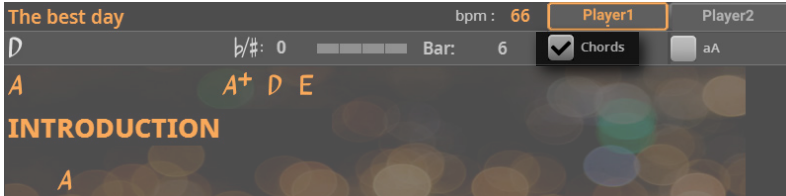


- > Deselect the **aA** checkbox to choose a bigger font, and make the lyrics more readable at a distance.



Showing/hiding chords

You can show or hide the chord symbols that might be included as Lyrics events in the MIDI Songs. Use the **Chord** checkbox in the **Lyrics** page.



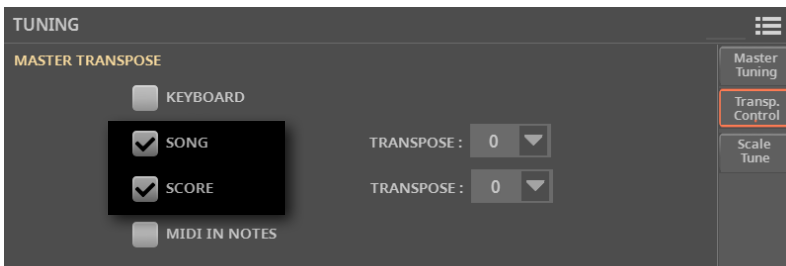
- > Select the **Chord** checkbox to see the chord symbols. Chord symbols (if any) will appear above the lyrics, in time with the music.
- > Deselect the **Chord** checkbox to hide the chord symbols.

Chord transposition

When using the **TRANPOSE** buttons, chord symbols may also be transposed, depending on the Master Transpose settings. To let the chord symbols be transposed, go to the **Settings > Menu > Tuning > Transpose Control** page, and be sure one of the following settings is selected.

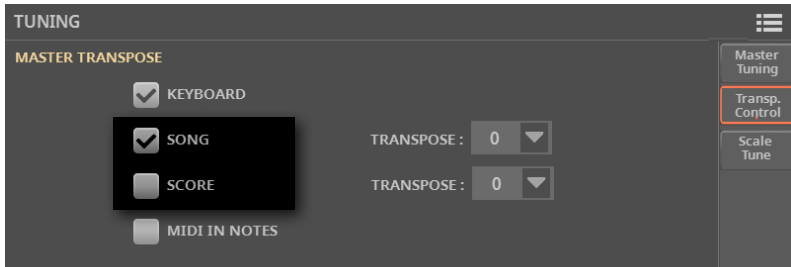
■ Chord symbols transposed with the Songs

- > Select both the **Song** and **Score** checkboxes.



■ Songs transposed, but not the Chord symbols

- 1 Select the **Song** checkbox. Leave the **Score** checkbox not selected.



For more information about transposing the chord symbols, see [Transposing the score and the chord symbols](#) on page 467.

Reading the lyrics and chords loaded as a text file

Lyrics and chords may be loaded as text (TXT) file, either as a file having the same name of the Style or Song, linked from a SongBook Entry, or by loading it on-the-fly. They will have to be scrolled by using manual controls on the display, with a switch or a footswitch.

See [Creating text files on a personal computer](#) on page 253 for more information on how to create correctly formatted text files.

Loading a text file with the same name of the Song

Lyrics and chords may be contained in a TXT file having the same name of a Style, a MIDI or MP3 Song. For example, if a 'MySong.txt' file exists in the same folder as the 'MySong.mid' file or 'MySong.mp3' file, loading this latter will load the TXT Lyrics file as well.

We recommend not to copy text files into a KST folder. If you want to add a text file to a Style, please copy the Style to an ordinary folder into one of the drives, together with the associated text style.

Please note that this text will prevail over any Lyrics event contained in the MIDI Song.

Linking text files to SongBook Entries

Lyrics and chords may be contained in a text (TXT) file linked from a SongBook Entry. The Entry maybe be either Style- or Song-based. See the chapter dedicated to editing a SongBook Entry.

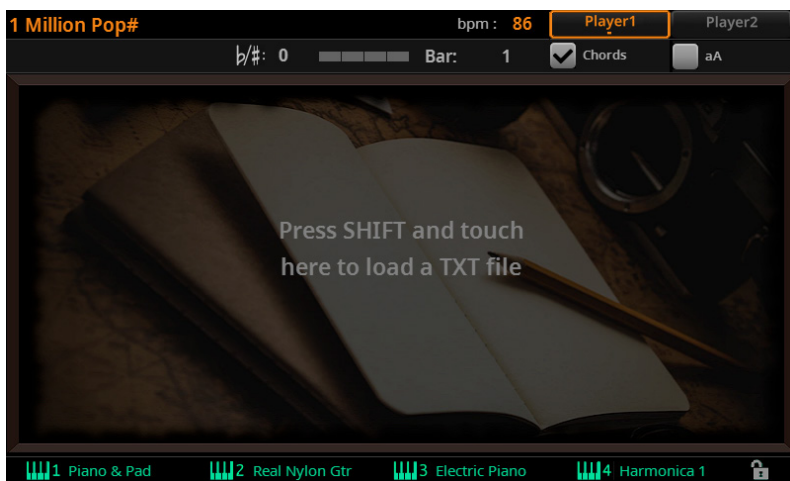
On-the-fly loading of Lyrics and chords from an external text file

When no lyrics or chords are contained or associated to the Style or Song, you can load a text (TXT) file after having chosen a Style or Song.

■ Load a TXT file on-the-fly

An empty **Lyrics** page with a message will appear when you press the **LYRICS** button in one of the following cases:

- > The Song does not contain lyrics and chords.
- > No external text file is associated to the Style or the Song.
- > No text file is linked from a SongBook Entry.



In this case, do the following:

- 1 Keep the **SHIFT** button pressed and touch the **center of the display**.
- 2 The **Select** window will appear, and will let you choose a TXT file to be loaded.
- 3 With a TXT file selected, choose the **Load** command from the **page menu** to load it.
- 4 Press the **EXIT** button to return to the **Lyrics** page.

Manually scrolling the text

If the text has been linked or loaded as a text (TXT) file, it will not scroll automatically while the Song is playing back. You can manually scroll it in one of the following ways.

■ Scroll the text on the display

- > Scroll the text by using the **VALUE** controls or the **vertical scrollbar**.

■ Scroll the text with a switch, footswitch or Control button

1 Assign the **Text Page Down** command to a physical controller. If you want, you can also assign the **Text Page Up** command to a different controller, to move the text back.

- > If you want to assign it to an assignable switch, go to the **Home > Menu > Switches > Switches** page.
- > If you want to assign it to a footswitch, go to the **Settings > Menu > Controllers > Foot** page.
- > If you want to assign it to a Control button, go to the **Settings > Menu > Controllers > Sliders/Buttons** page.

2 Return to the **Lyrics** page, and scroll the text by using the programmed physical controller.

Please note that programming an assignable switch will tie the page scroll command to a particular Keyboard Set or SongBook Entry, dedicated to a particular Song based on an external text file. On the contrary, programming the footswitch or Control button will offer a global option, that will not change when choosing a different Keyboard Set or SongBook Entry.

Creating text files on a personal computer

Choosing the correct text file format

By using the Unicode text encoding, Pa5X can support lyrics in several languages. The file must be a plain/normal text file, with Unicode UTF-8 (with BOM) encoding, and Windows-compliant end of line (CRLF).

To create a TXT file with the correct encoding, you can use a Windows PC or Mac with an advanced text editor. The two free applications we suggest you use are Don Ho's [Notepad++](#) for Windows and Bare Bone's [BBEdit](#) for Mac.

Language Text Encoding

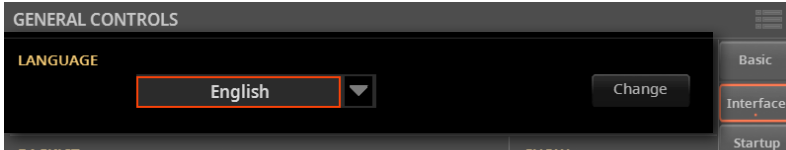
When creating or editing a text file, we suggest you use the UTF-8 with BOM encoding. If this is not possible, please choose one of the following text encodings when saving the file, being sure it is matching the language selected in Pa5X. Choosing a codeset for your text file is always recommended, being an added safety.

Language	Encoding (Notepad++)	Encoding (BBEdit)
Dutch	Western European > Windows-1252	Western (Windows Latin 1)
English	Western European > Windows-1252	Western (Windows Latin 1)
Estonian	Baltic > Windows-1257	Baltic (Windows)
French	Western European > Windows-1252	Western (Windows Latin 1)
German	Western European > Windows-1252	Western (Windows Latin 1)
Greek	Greek > Windows-1253	Greek (Windows)
Italian	Western European > Windows-1252	Western (Windows Latin 1)
Polish	Central European > Windows-1250	Central European (Windows Latin 2)
Russian	Cyrillic > Windows-1251	Cyrillic (Windows)
Spanish	Western European > Windows-1252	Western (Windows Latin 1)
Turkish	Turkish > Windows-1254	Turkish (Windows Latin 5)

Setting the language on Pa5X

To correctly read text on your Pa5X, be sure to set the **Language** parameter to your language.

- 1 Go to the **Settings > Menu > General Controls > Interface** page.
- 2 Use the **Language** pop-up menu to select one of the available languages.

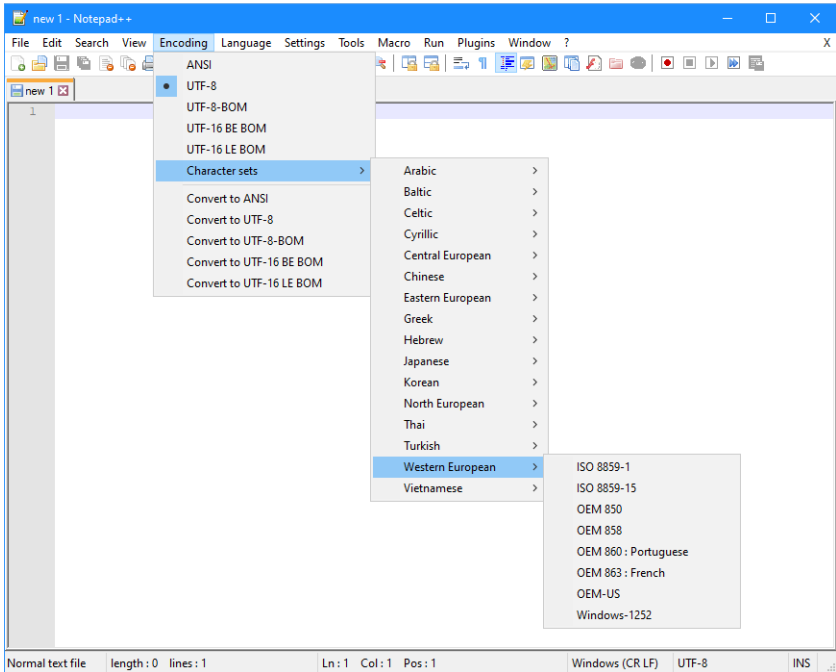


- 3 Touch the **Change** button to apply the selected language.

Please note that with text files encoded in ASCII (instead of Unicode), mismatches between the instrument's selected language and the text file language may happen. In this case, we suggest to resave the text file with the correct encoding from a personal computer. As a (not recommended) alternative, you can change the instrument's language, and reload the text file.

Editing the TXT file on a Windows PC

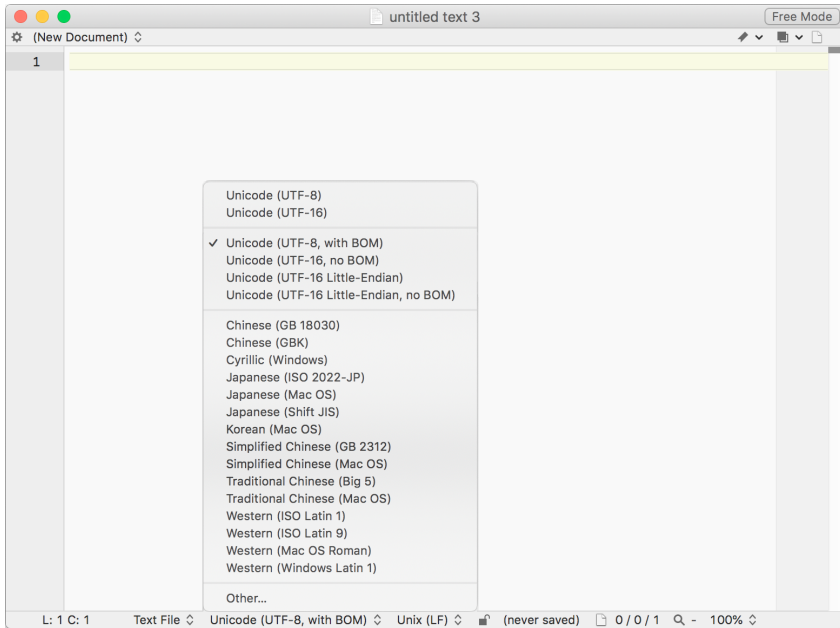
- 1 Launch Notepad++.
- 2 Open the original TXT file.
- 3 Choose **File > New** to open a new tabbed window containing the new TXT file.
- 4 Choose **Encoding > Character sets > [Your Language] > [Encoding]**.



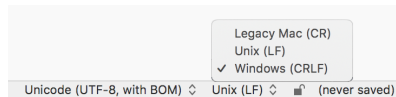
- 5 Click on the tab containing the original TXT file.
- 6 Select all and copy the selected text.
- 7 Click on the tab containing the new TXT file.
- 8 Paste the copied text.
- 9 Save and assign a name to the new TXT file.
- 10 Load the file into your instrument, and check it.

Editing the TXT file on a Mac

- 1 Launch BBEdit.
- 2 Open the original TXT file.
- 3 In the status bar (in the lower part of the window) find the **Document Text Encoding** parameter (it usually defaults to **Unicode UTF-8**). Click it to open the popup menu, and choose **Unicode (UTF-8, with BOM)**.



- 4 Next to it in the status bar, find the **Line Break Type** parameter, usually defaulting to **Unix (LF)**. Click it to open the popup menu, and choose **Windows (CRLF)**.



- 5 Save a copy of the file by choosing **File > Save As**. Give the new file a name, and be sure that the **Save As** dialog box shows the correct Line breaks and Encoding.
- 6 Load the file into your instrument, and check it.

Formatting text for the Pa-Series instruments

While in a text editor, text files must be formatted with non-proportional fonts (like Courier, Courier New, Letter Gothic, Lucida Sans, Menlo, Monaco, Vera Sans, or any other monospaced font). Up to 41 characters can fit a single line of text when using the smaller font size in the Pa, 24 when using the bigger font size.

- Small font in a text editor and the Pa:

```

1
2 Lyrics using small font
3 (max. 41 characters)
4 -----
5 12345678901234567890123456789012345678901
6 When I see your face
7 I see the shadow of your smile
  
```

length:188 Ln:2 Col:1 Sel:0|0 Doc:Windows ANSI INS

```

UnpluggedBallad 1 J= 94
Kno chord? HIT: 0 PL:-- ABC
Lyrics using small font
(max. 41 characters)
-----
12345678901234567890123456789012345678901
When I see your face
I see the shadow of your smile
1 Nylon Guitar 2 Distortion Gtr 3 Trumpet & M 4 Electric Piano
  
```

- Big font in a text editor and the Pa:

```

1
2 Lyrics using big font
3 (max. 24 characters)
4 -----
5 123456789012345678901234
6 When I see your face
7 I see the shadow
8 of your smile
  
```

length:155 Ln:2 Col:1 Sel:0|0 Doc:Windows ANSI INS

```

UnpluggedBallad 1 J= 94
Kno chord? HIT: 0 PL:-- ABC
Lyrics using big font
(max. 24 characters)
-----
123456789012345678901234
When I see your face
1 Nylon Guitar 2 Distortion Gtr 3 Trumpet & M 4 Electric Piano
  
```

Using imported text as a memo

Importing text files may be useful not only to load Lyrics, but also to load notes on the show. Please find below an example of playlist and gid outline.

```

1 -- Tonight Show Playlist ----
2 ** Introduction **
3 - Song 1
4 - Song 2
5 ** Karaoke **
6 - Song 3
7 ** Ballroom **
8 - Song 4, etc.
  
```

length:120 Ln:1 Col:1 Sel:0|0 Doc:Windows ANSI INS

```

UnpluggedBallad 1 J= 94
Kno chord? HIT: 0 PL:-- ABC
-- Tonight Show Playlist ----
** Introduction **
- Song 1
- Song 2
** Karaoke **
- Song 3
** Ballroom **
- Song 4, etc.
1 Nylon Guitar 2 Distortion Gtr 3 Trumpet & M 4 Electric Piano
  
```

The Markers

Choosing the Markers from the display

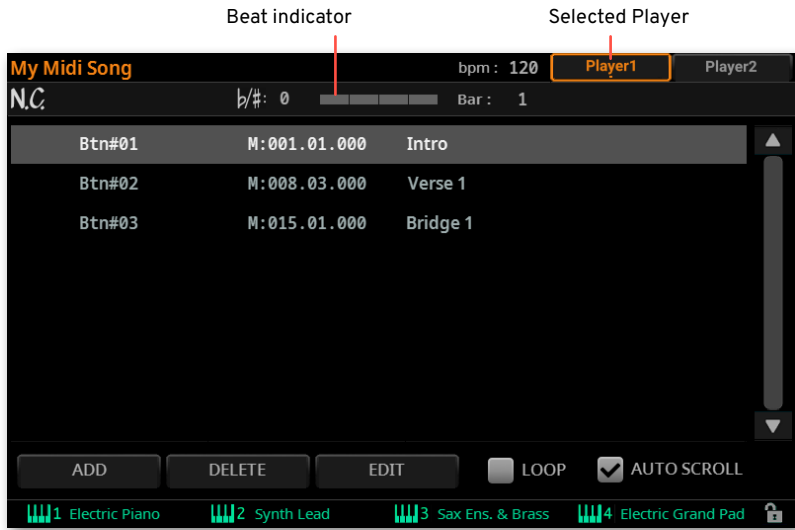
The Markers allow for jumping to a saved point in a MIDI Song. Song Marker events contained in a MIDI Song can be read by Pa5X. You can also create your own Markers.

You can select the Markers from the **Markers** page on the display, or from the **MARKERS** buttons on the control panel.

- > The **MARKERS** buttons on the control panel let you quickly access the Markers of the current Player. You can still access the Markers while, for example, reading the Lyrics on the display.
- > The **Markers** page allows to select the Markers for the current Player, but also allow for pre-selecting Markers or Style Elements in the other Player while not yet selected. If a Style is assigned to the other Player, you will be able to pre-select Style Elements instead.

■ Access the Markers page

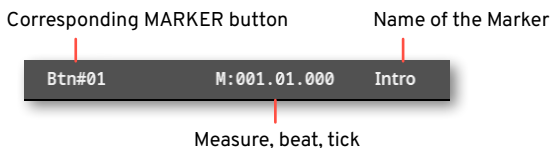
- 1 Assign a MIDI Song to one or both Players.
- 2 Press the **STYLE ELEMENT / MARKER** button to open the **Markers** window.



Keyboard Sets (from the latest Style or SongBook Entry)

When accessing this page, the current Player appears selected on top of the page. If it is playing, you can see it progressing in the **beat indicator**.

Each of the Markers in the list corresponds to one of the **MARKER** buttons on the control panel.



■ Make the markers list scroll automatically

Select the **Auto Scroll** parameter, to let the markers list scroll automatically during playback, and always let the current marker be shown in the display.

If this parameter is not selected, the list will not scroll with the Song.

■ Select a Marker in the current Player

> While the Markers of the **current Player** appear in the display, touch one of them to select it. At the beginning of the next measure, the Song will jump to the saved position.

■ Pre-select a Marker in the other Player

1 Touch the button corresponding to the **other Player** on top of the page.

If the other Player has a Style assigned, the corresponding page will show the Style Elements instead of the Markers.

When switching to the other Player, the **beat indicator** shows the activity of the newly selected Player. If it is in stop, there is no activity shown.

2 Choose one of the **Markers** from the other Player to pre-select it.

3 When moving the **X-FADER** to select the other Player, you will find the selected Marker ready to play.

4 If the newly selected Player is stopped, press the corresponding **PLAY/STOP** (▷◻) button to start it.

You can see the activity of the selected Player in the **beat indicator**.

5 If you want, press the **PLAY/STOP** (▷◻) button corresponding to the older Player to stop it.

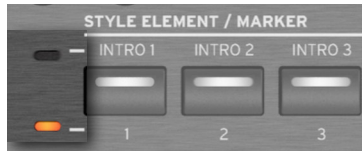
Choosing the Markers from the control panel

You can use the **buttons** in the **STYLE ELEMENT / MARKER** section on the control panel to choose the Markers. The **lower indicator** on the left of the buttons will show that the Markers can be selected.

The buttons corresponding to the Markers are shown in the **Markers** page.

You can access the first 15 Markers from the **MARKER** buttons. Any additional Marker has to be selected from the display.

1 Be sure the **lower indicator** of the **STYLE ELEMENT / MARKER** section is turned on, showing you can select the Markers.



2 If a button indicator is white, it means that it corresponds to a Marker. If it is dark, no Marker is associated with that button.



3 Press **one of the buttons** in the **MARKER** section on the control panel to jump to the corresponding Marker.

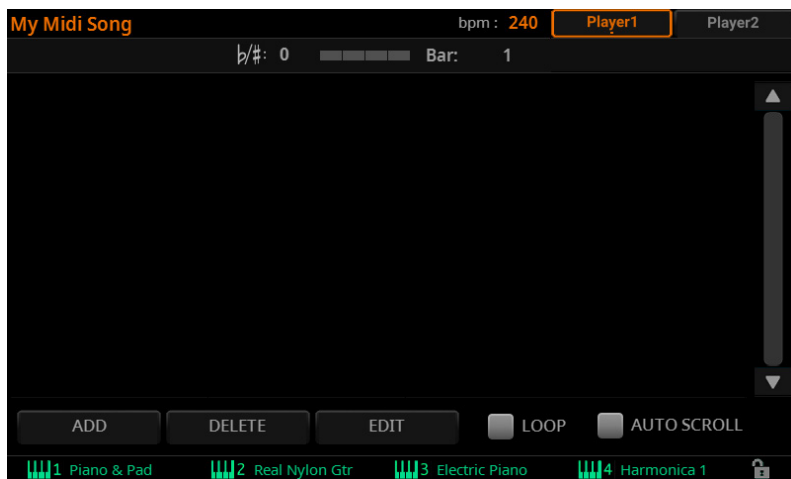
At the beginning of the next measure, the Song will jump to the saved position. The button indicator will become orange (Player 1) or blue (Player 2) depending on the selected Player.

Creating and editing markers

You can add your own Markers to a MIDI Song, then save them into the MIDI Song.

■ Open the Markers page

> While a MIDI Song is assigned to the current Player, press the **MARKER** button. If there are no Markers in the Song, you will see an empty list.



■ Add Markers

1 Start the Player by pressing the **PLAY/STOP** (▷◻) button.

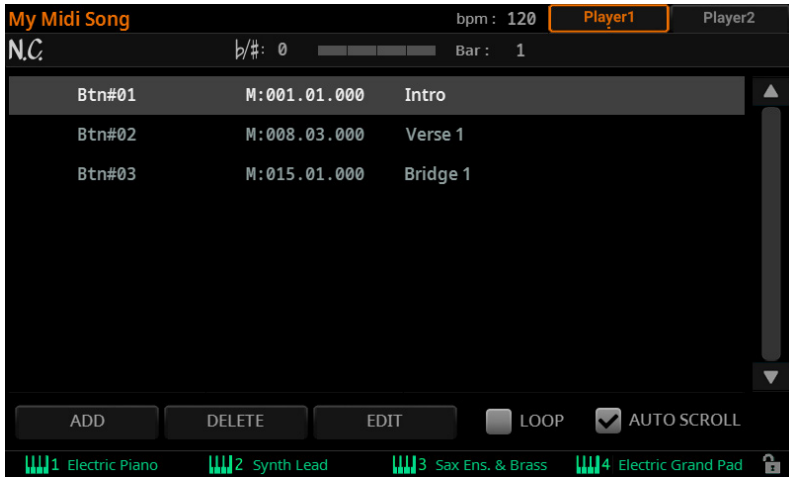
Markers can be added even while the Player is not running, but adding them while the Song is running is easier.

2 When you reach the position you want to save as a marker, touch the **Add** button.

> If you touch **Add** within the **early beats** of the measure, the beginning of the current measure is saved as a marker.

> If you touch **Add** within the **last beat** of the measure, the beginning of the following measure is saved as a marker.

- 3 Do the same for any of the following markers.



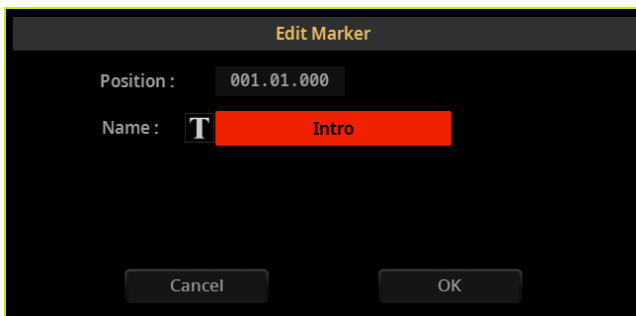
- 4 Stop the Player by pressing the **PLAY/STOP** (▷◻) button.

■ Delete Markers

- 1 Touch the Marker to be deleted in the Markers list.
- 2 Touch the **Delete** button to delete the selected Marker.
- 3 Save the Markers (as described below).

■ Edit the name and position of a Marker

- 1 Touch the Marker to be edited in the markers list.
- 2 Touch the **Edit** button to start editing the marker. The **Edit Marker** window will appear.



- 3 While in the **Edit Marker** window, edit the position and name of the selected Marker.
- 4 Save the Markers (as described below).

■ **Save the Markers in the MIDI Song**

- 1 Press the **EXIT** button to exit from the **Markers** page.
- 2 Choose the **Save Song** command from the **page menu**.

Looping a Song section

You can use the Markers to repeat a passage you need practicing.

- 1 Start the Player.
- 2 When you reach the **beginning** of the point you need practicing, touch the **Add** button to create a first Marker.

Usually, you will create the marker one or two measures before the actual starting point.

- 3 When you reach the **end** of the point you need practicing, touch the **Add** button to create a second Marker.
- 4 Select the first marker, then select the **Loop** checkbox to repeat (loop) between the first and second marker.
- 5 If you no longer need them, delete the Markers. In any case, they will be automatically removed when choosing a different Song or turning off the instrument, if you don't save the Song.

The Score

Reading the music score

With MIDI Songs, you can have a music score of one of the tracks. This will let you read the score on the display or an external monitor (if connected).

Intelligent display of the score

Score generation is smart enough to 'clean-up' a track with automatic quantization, syncopation, key and clef generation. Even non-quantized tracks will be shown in a very readable way.

Displaying the music score

■ Show the music score

- 1 Choose a **MIDI Song** to play with the selected Player.
- 2 Press the **SCORE** button to open the **Score** page. A score of the selected track will be generated.

Depending on the content of the track, notes, chords and lyrics are shown in the staff.

The screenshot shows the music score interface for a song titled "Floating Song". The interface includes the following elements:

- Song name:** Floating Song
- Chord symbols:** E/F# (circled in red), G#m7, A, C#m7
- Tempo:** bpm : 120
- Selected Player:** Player1 (highlighted in orange), Player2
- Staff 1:** Musical notation starting at measure 15. Lyrics: PERS OF SOME QUIET CONVERSA TION
- Staff 2:** Musical notation starting at measure 13. Lyrics: I HEAR THE DRUMS ECHO IN THE NIGHT SHE HEARS ONLY WHIS
- Chord symbols for Staff 2:** D#m7, G#m, G#m7/F#, A/E
- Bottom Control Bar:**
 - Lyrics
 - Chords
 - Notes
 - Treble (Clef)
 - M (Mute)
 - S (Solo)
 - Trk 4 (Selected track)

Red lines and circles highlight specific features: the E/F# chord symbol, the first staff, the lyrics "I HEAR THE DRUMS ECHO IN THE NIGHT", and the Trk 4 button.

■ Choose a track

- > Choose a track to be seen as music score by using the **Trk** pop-up menu. Usually (but not always), the melody is Track #4.

■ Choose the clef

- > Choose a different clef by using the **Clef** pop-up menu.

Usually, the correct clef is automatically assigned by the score generator.

Clef	Meaning
Treble	Standard Treble clef.
Treble+8	Treble clef with transposition one octave upper.
Treble-8	Treble clef with transposition one octave lower.
Bass	Standard Bass clef.
Bass-8	Bass clef with transposition one octave lower.

■ Exit from the Score page

- > When done with the score, press either the **SCORE** or the **EXIT** button.

Following the Song

You can always see where you are in the score by watching at these indicators:

- > A red vertical line on the left side of the score, showing indicating the current staff in play.
- > A red up-pointing triangle, showing the current position.

Showing lyrics, chords, note names

■ Read the Lyrics

- > Touch the **Lyrics** button to make the lyrics (if available) appear or disappear.

■ Read the chords

- > Touch the **Chord** button to make the chord symbols (if available) appear or disappear.

■ Read the note names

- > Touch the **Note** button to make the note name appear or disappear next to each note.

Muting or soloing the selected track

Mute the track if you are going to play or sing it live. This will avoid overlapping between your playing or singing and the internal Sounds.

Solo it if you want to listen to it in isolation.

- > Touch the **Mute** button to listen or mute the selected track.
- > Touch the **Solo** button to listen the selected track alone or together with the others.



You can save the Mute status by saving the song.

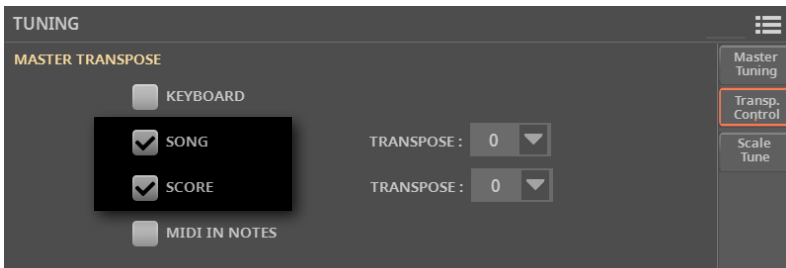
You can also keep the selected track muted for all the subsequent Songs, by activating the **Song Track Play/Mute** parameter in the **Settings > Menu > General Controls > Lock** page.

Music score and transposition

When using the **TRANPOSE** buttons, the music score and chord symbols in the **Score** page may be transposed in various ways. To decide if and how they are transposed, go to the **Settings > Menu > Tuning > Transpose Control** page, and be sure one of the following settings is selected.

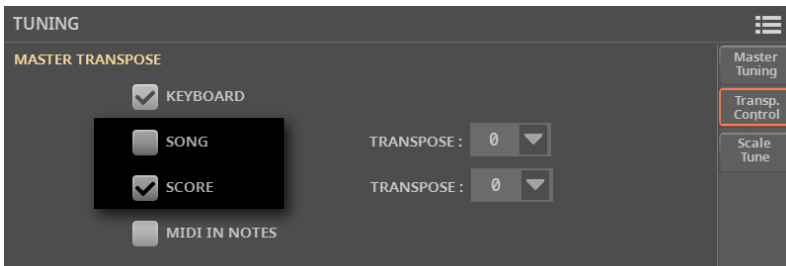
■ Transpose the score with the Songs

- > Select the **Song** and **Score** checkboxes.



■ Transpose the score, but not the Songs

- > Select the **Score** checkbox, and deselect the **Song** one.



For more information about transposing the score and chord symbols, see [Transposing the score and the chord symbols](#) on page 467.

12

The SongBook

Using the SongBook

What is the SongBook?

The basic idea behind the SongBook is that you always start from a song. By choosing an Entry from the SongBook, you choose a template for that song. Everything you need (Style, Song, Sounds, Mic and Guitar effects, Lyrics, Key, Tempo value) is there at the touch of a single button.

In other words, the SongBook is the onboard music database, allowing you to organize, sort and filter the Styles and Songs for easy retrieving. Each Entry of this database (a ‘song’) may include information like the artist, title, genre, number, key, tempo, and meter (time signature) of a specified song.

When choosing one of the Entries, the associated Style, MIDI or MP3 Song is automatically recalled. The Master Transpose value is automatically set. The Mic and Guitar Presets might also be recalled.

You can add your own Entries to the SongBook, as well as edit the existing ones. KORG already supplies some hundred Entries as standard. You can assign four Pads, four Keyboard Sets and a Chord Sequence to each Entry. You can replace Sounds, Effects and Tempi, to get a different version of the same Style or Song without having to duplicate them.

Also, you can link a TXT file to any Entry, to be used as the Lyrics of a song, even if there are no Lyrics inside the linked MID or MP3 file, or if you prefer to play the song live with the backing of the Styles.

Furthermore, to help you organize your show, the SongBook allows you to create various Set Lists, that are collections of Entries that will suit your different types of show, and you can choose with the dedicated buttons on the display.

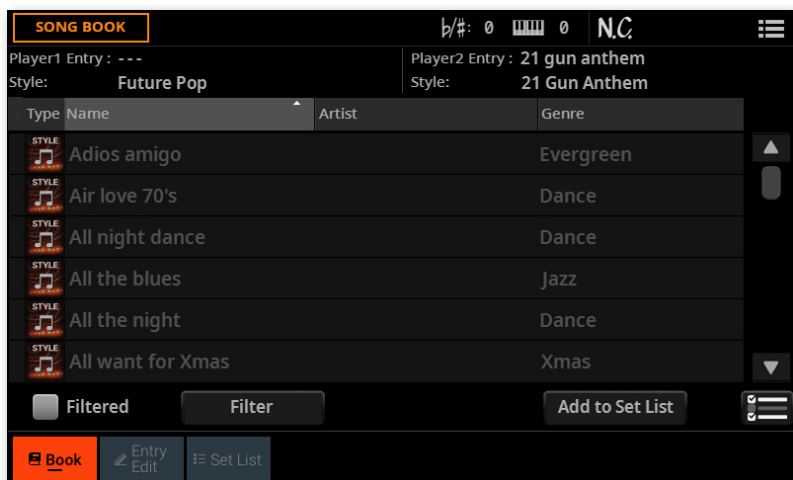
Choosing the SongBook Entries

Choosing the SongBook Entries from the Book list

A large database is already included with the instrument. You may browse through this database and choose a SongBook Entry.

■ Choose a SongBook Entry

- 1 Press the **BOOK** button in the **SONGBOOK** section to open the **Book** page.



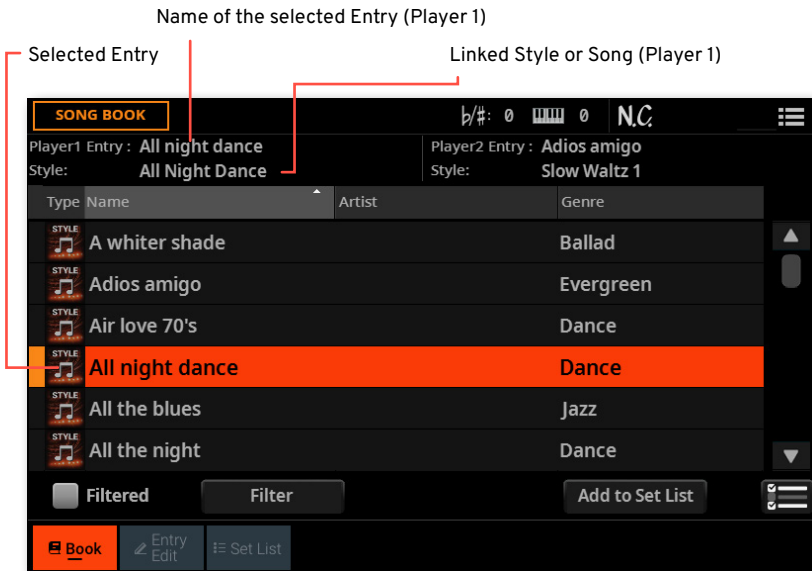
- 2 Browse through the Entries.

Use the **scrollbar** in the display, or the **DIAL** or **UP/DOWN** controls to scroll.

Keep the **SHIFT** button pressed and touch one of the **arrows** of the scrollbar to jump to the previous or next alphabetical section.

- 3 When the Entry you are looking for appears in the display, touch it to assign it to the selected Player.

After choosing the Entry, its name will appear just under the title bar (**Player 1 or 2 Entry**), just above the name of the associated **Style** or **Song**. The name of the **Entry** in the list will appear highlighted.






The linked Style and/or Song will be recalled. If at least one of the Players is playing, a Style will be assigned to the selected Player, while a Song will be assigned to other Player.

Pads and Keyboard Sets will also be recalled. If the **Style to Keyboard Set** function is activated, Keyboard Set #1 will be selected. Any TXT file linked to the Entry will be shown in the **Lyrics** page. A Mic and a Guitar Preset will also be recalled. A Chord Sequence might be also loaded.

Identifying the Entries by type

The icons in the **Type** column will help you identify the Entry.

Type	Meaning
	Style-based Entry. When chosen, it will select a Style.
	MIDI Song-based Entry. When chosen, it will select a Song.
	MP3 Song-based Entry. When chosen, it will select a Song.

Playing the SongBook Entries

You can play the selected Entry by using the same Player controls you would use to play a Style or a Song.

■ Play and pause the Style or Song

- > Press the **PLAY/STOP** (▷◻) button to start the SongBook's song. The button's indicator will turn on.
- > Press the **PLAY/STOP** (▷◻) button again to stop it. If it is a MIDI or MP3 Song, it will stop at the current position. The button's indicator will turn off.

■ Fast Forward the MIDI or MP3 Songs

- 1 Press the **USER** mode button in the **CONTROL** section.
- 2 As per factory programming, **BUTTON #4** is the **Fast Forward** command.
 - > Touch the **FAST FORWARD** (≫) button once to jump to the next measure (MIDI Song) or to the next second (MP3 Song).
 - > Keep touching the **FAST FORWARD** (≫) button to scroll the Song continuously. Release it when you have reached the desired position.

■ Rewind the MIDI or MP3 Songs

- 1 Press the **USER** mode button in the **CONTROL** section.
- 2 As per factory programming, **BUTTON #5** is the **Fast Rewind** command.
 - > Touch the **FAST REWIND** (≪) button once to jump to the previous measure (MIDI Song) or to the previous second (MP3 Song).
 - > Keep touching the **FAST REWIND** (≪) button to scroll the Song continuously. Release it when you have reached the desired position.

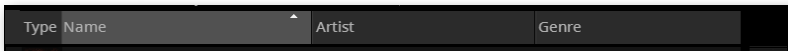
■ Stop the MIDI or MP3 Song and return to the beginning

- > If the SongBook Entry is linked to a MIDI or MP3 Song, press the **STOP/GO TO START** (⏮) button to stop the Player and move to the beginning of the Song. The button's indicator will turn off.

Sorting and filtering the SongBook Entries

Sorting by label/column

On top of the list you can find some labels, each one corresponding to a column of data. Depending on the preferences, you can see a set chosen between Type, Name, Artist, Genre, Key, BPM, Meter, Number. You can choose one of the labels to sort the list according to that type of data.



Please note that the **Artist** and **Key** fields of all the supplied Entries have been intentionally left empty.

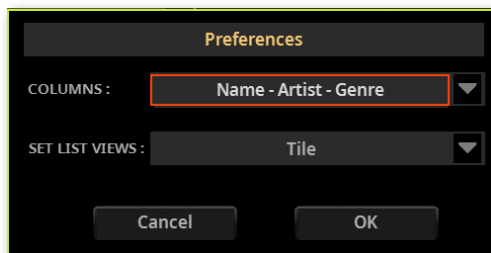
■ Change the order of the list

- > Reorder the items according to a different **sorting criterion** by touching the corresponding **label** on top of the list.
- > By touching the label again, the order of the items will switch between **ascending** and **descending**.

■ Choose which columns to show

To make the information easier to read, only some of the columns are shown at the same time. You can decide what to show.

- 1 Choose the **Preferences** command from the **page menu** to open the **Preferences** dialog.



- 2 Use the **Columns** menu to choose one of the predefined sets of columns to be shown.
- 3 When done, touch the **OK** button to close the dialog.

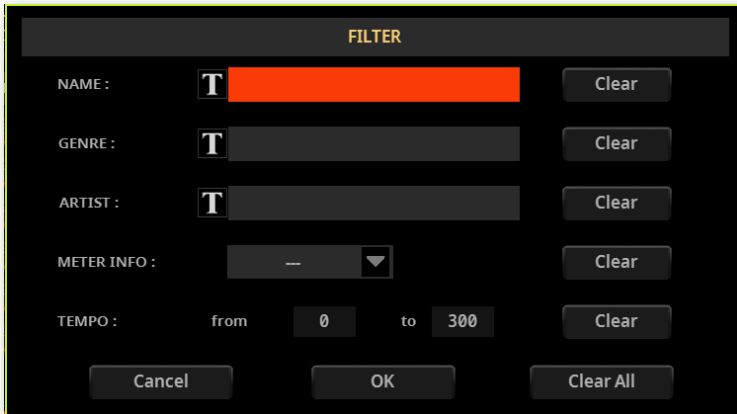
Filtering the Entries

When you are looking for a particular artist, genre or other categories, you may 'filter' the list to only see the type of Entries you are looking for. The more database fields (or 'tags') are filled in an Entry, the more accurate filtering will be.

Please note that you can also find items inside the SongBook database by pressing the **SEARCH** button on the control panel, but while the **Search** function only searches for names, the **Filter** function allows for a more refined search on multiple parameters at the same time.

■ Open the Filter dialog

> While in the **SongBook > Book** page, touch the **Filter** button to open the **Filter** dialog.



The screenshot shows a dark-themed dialog box titled "FILTER". It contains several input fields and buttons:

- NAME :** A text input field with a "T" icon on the left and a "Clear" button on the right. The field contains an orange-red bar.
- GENRE :** A text input field with a "T" icon on the left and a "Clear" button on the right.
- ARTIST :** A text input field with a "T" icon on the left and a "Clear" button on the right.
- METER INFO :** A dropdown menu with a "--" symbol and a downward arrow, and a "Clear" button on the right.
- TEMPO :** A range input field with "from" and "to" labels. The "from" field contains "0" and the "to" field contains "300". There is a "Clear" button on the right.

At the bottom of the dialog, there are three buttons: "Cancel", "OK", and "Clear All".

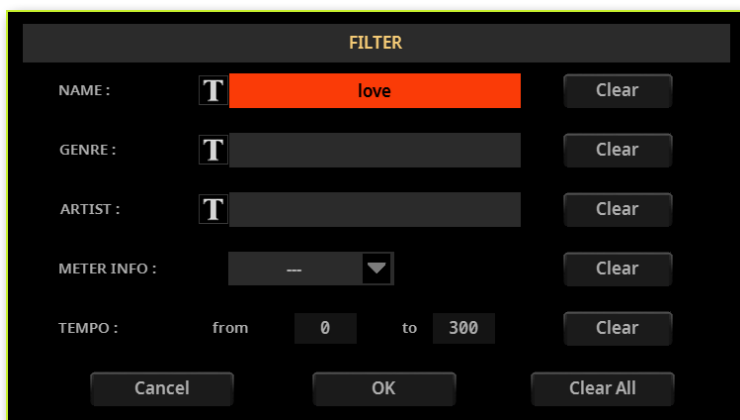
■ Edit the filter criteria and activate the filters

1 Touch the **Text Edit (T) (T)** button next to the **field** you want to edit, to open the **virtual keyboard** and type the **text string** you are looking for.

For example, you may want to find all songs containing the word 'love' in the title (in any position in the string). If so, select the Name criterion, and enter the word 'love'. Capitals are not relevant for the search.



When done editing the name, confirm by touching the **OK** button under the **virtual keyboard**.



2 Repeat the above step for all the fields you want to include in your filter.

3 If you like, select a **Meter** and/or a range of **Tempo** values to be included in your filter criteria.

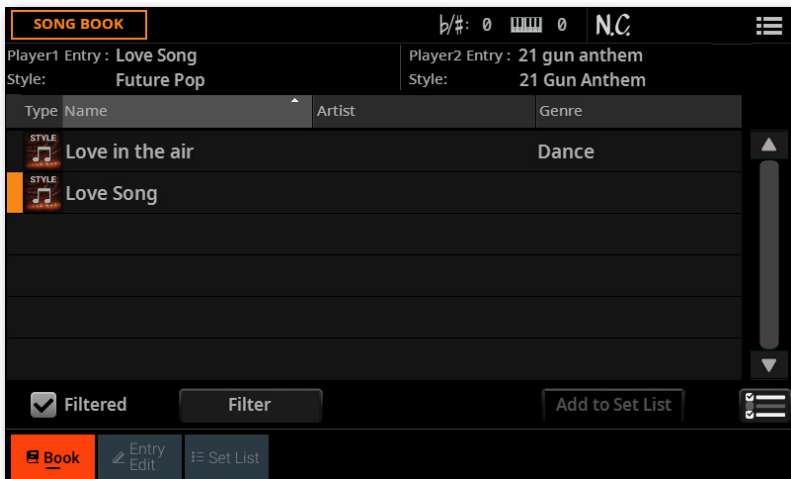
■ Delete the filter criteria you don't need

- > Touch the **Clear** button to delete the text string or reset the parameter to a default value.
- > Touch the **Clear All** button to reset all filter criteria.

■ Confirm the filters

- > When done editing the filter parameters, touch the **OK** button to close the **Filter** dialog and return to the **Book** page.

The **Filtered** checkbox will be automatically selected, and the filter will be activated. Only the Entries matching the entered criteria will be seen in the **Book** list.



■ Deactivate the filters and see all the Entries again

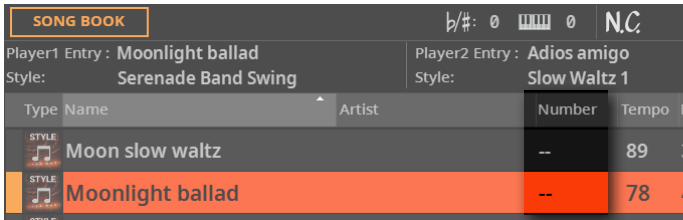
- > Touch the **Filtered** checkbox to deselect it.

Choosing the SongBook Entries by Song Number

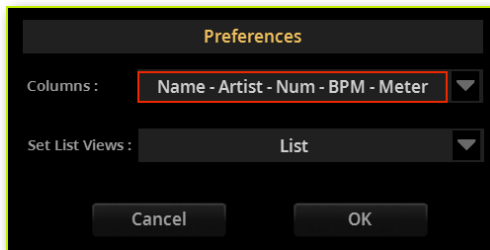
You can select a SongBook Entry by entering its unique **Song ID Number**. Numbers associated with each Entry can be programmed in any of the SongBook Entry edit pages. (See [Editing the Song Selection Number](#) on page 292 for more information).

To help you find a SongBook Entry by ID number, you can export a song list using the **Export Book as Text File** command from the **page menu**, and use it as a reference.

1 To see the numbers while in the **Book** page, be sure the **Number** column is shown.



If it is not shown, choose the **Preferences** command from the **page menu**, then use the **Columns** menu to choose one of the options including the **Num** column.



2 To select a SongBook Entry by entering its ID number, press the **BOOK** button again while you are in any page of the SongBook. The **numeric keypad** will appear, allowing you to enter the **ID number** corresponding to the desired Entry.

Please note that you can choose an Entry by ID number even if the **Number** column is not shown.

Quick creation of a new SongBook Entry

Preparing the SongBook Entry

You can save a snapshot of the current status of the instrument in a new SongBook Entry, to be included into the SongBook database.

■ Choose the Style or Song

- > Choose a **Style** or **Song** to be assigned to one of the Players.

■ Choose the Tempo, Sounds and the Effects

- > You can choose a different Tempo for the Style.
- > You can choose different Sounds and Effects for the Style tracks.
- > Changes to a MIDI Song's Sounds will not be saved to the SongBook Entry. Only the data included in the MID file will be used. If you want to change them, edit the MID file in **Song Edit** mode.

■ Adjust the other performance settings

- > Select the Style Element to be automatically recalled.
- > Set the Volume levels and the Play/Mute status for the Style and MIDI Song tracks.

■ Choose the Mic and Guitar Presets

- > Choose a **Mic Preset** and/or a **Guitar Preset**, and adjust their parameters.

■ **Choose the Pads**

- > Assign the Pads to the **PAD** buttons.
-

■ **Choose the Chord Sequence**

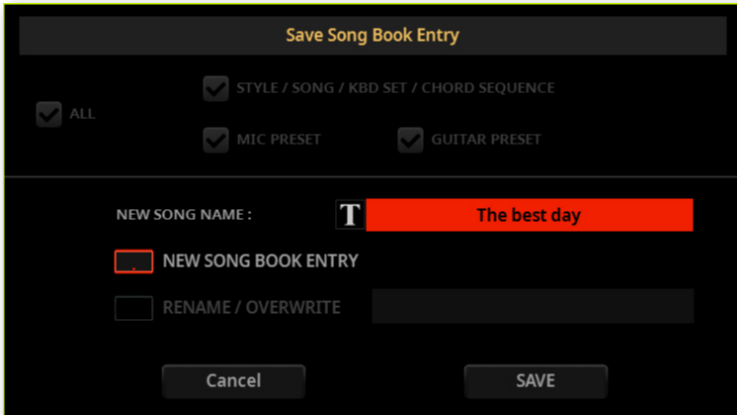
- > Choose a **Chord Sequence**, or record a new one that will be saved in the Entry.

Saving the SongBook Entry

You can quickly save the settings into a new SongBook Entry.

1 Keep the **BOOK** button pressed for about one second to create a new SongBook Entry. The **Save SongBook Entry** dialog will appear.

As an alternative, go to one of the SongBook pages, and choose the **Save Book Entry** command from the **page menu**.



2 If both options are offered (because you had selected a SongBook Entry from the list before editing it), decide if you want to create a new Entry (**New SongBook Entry**), or overwrite the selected one (**Rename/Overwrite**).

3 While in the **Save SongBook Entry** dialog, touch the **Text Edit (T)** button next to the **New Song Name** parameter, to open the virtual keyboard and edit the name of the Entry.

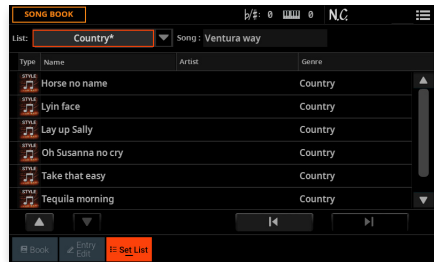
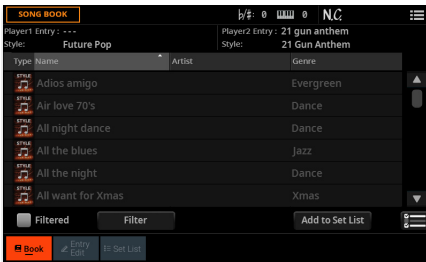
4 After the virtual keyboard has been closed, touch the **OK** button to save the Entry to the SongBook database.

Editing the SongBook

Editing the SongBook Entries

Choosing an existing SongBook Entry

- Choose a SongBook Entry from the **SongBook > Book** or **SongBook > Set List** page.



Choosing the Sounds and the Effects

You can exit the SongBook, and repeat the same operations seen while creating a new SongBook Entry (see [Preparing the SongBook Entry](#) above).

In particular, you can choose a different Keyboard Set, different Keyboard Sounds, the Effects, and all the settings for the Sounds.

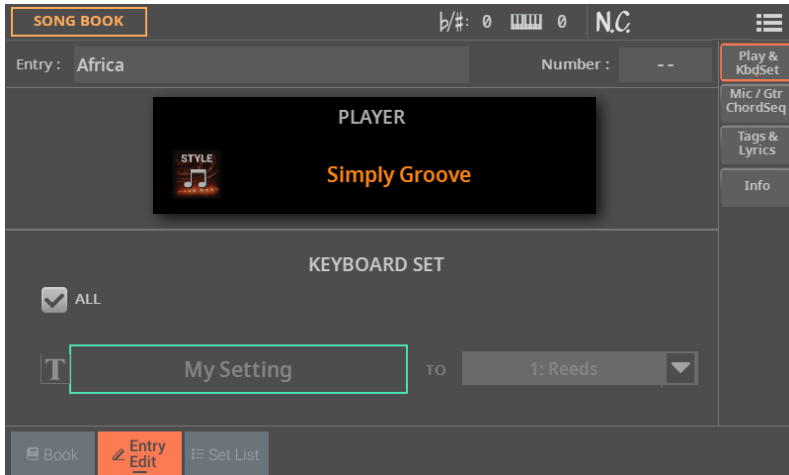
You can save up to four Keyboard Sets into the **KEYBOARD SETS** buttons under the X-FADER.

All the other elements saved into a SongBook Entry can be edited from the display, as seen in the following pages.

Choosing the Style or Song

With each SongBook Entry, a reference to a Style or Song is saved. When editing an Entry, you can change it with a different Style or Song.

- 1 Choose the **SongBook Entry** to be edited.
- 2 Go to the **SongBook > Entry Edit > Play & KbdSet** page.



- 3 Touch the **Player** button to open the **Select** window.
- 4 Choose a different Style or Song.

Choosing the Style controls

The selected Style Element, and the status of the Synchro and Memory functions, will be memorized when saving the SongBook Entry.

Choosing the Keyboard Sets

With each SongBook Entry, four Keyboard Sets are saved. When editing an Entry, you can replace the older Keyboard Sets with new ones.

■ Set the starting point

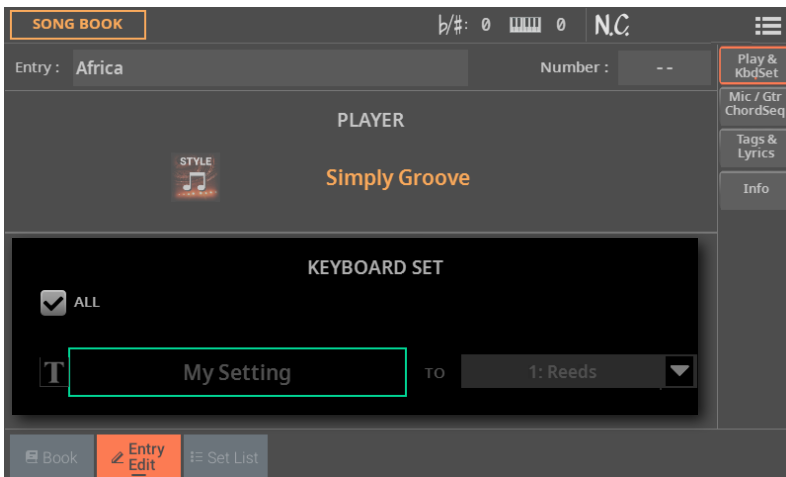
- Choose the **SongBook Entry** to be edited.

■ Edit the Keyboard Sets

- 1 If you want to edit the Keyboard Sets, press the **EXIT** button to exit the SongBook. Don't select a different SongBook Entry!
- 2 If you want, choose a different Keyboard Set from the library.
- 3 Edit the Keyboard Set, by choosing the Sounds, the Effects and the various performing parameters.
- 4 Save the Keyboard Set to the library.

■ Save the Keyboard Sets into the Entry

- 1 Press the **BOOK** button to access the SongBook again.
- 2 Go to the **SongBook > Entry Edit > Play & KbdSet** page.

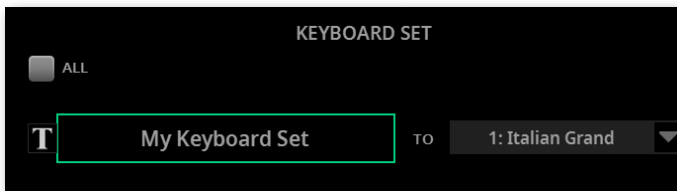


- 3 Use the **Keyboard Set** area to choose the Keyboard Set(s) to save with the SongBook Entry.

4 Use the **All** checkbox to decide if you want to save all the Keyboard Sets (up to four), or just one.

All	Meaning
On	The four Keyboard Sets contained in the KEYBOARD SET buttons under the X-FADER will be saved in the SongBook Entry.
Off	Only the selected Keyboard Set will be saved into the target button.

5 If you deselected the **All** checkbox, choose a **single Keyboard Set location** to save the Keyboard Sounds to the selected Keyboard Set inside the SongBook Entry.



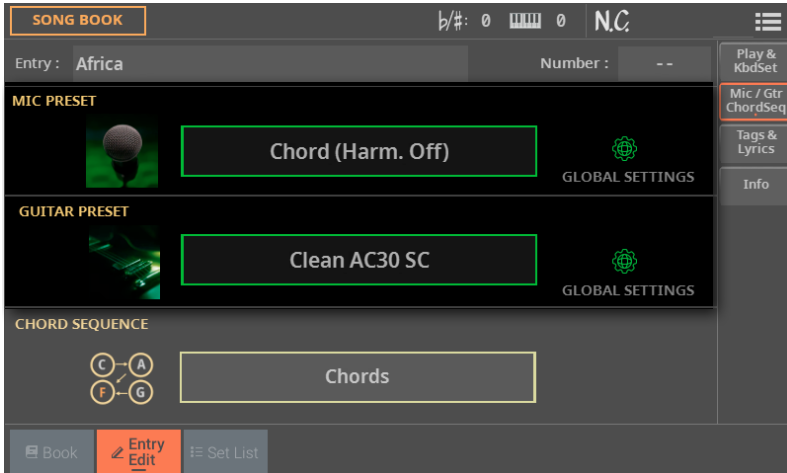
6 After choosing the target location, you can touch the **Text Edit (T)** button and give the Keyboard Set a new name.

7 If you want to save more Keyboard Sets, repeat the above procedure for the other Keyboard Set locations inside the SongBook Entry.

Choosing the Mic Preset and Guitar Preset

With each SongBook Entry are saved references to a Mic Preset and a Guitar Preset. When editing an Entry, you can replace them.

- 1 Choose the **SongBook Entry** to be edited, then go to the **SongBook > Entry Edit > Mic/Gtr/ChordSeq** page.

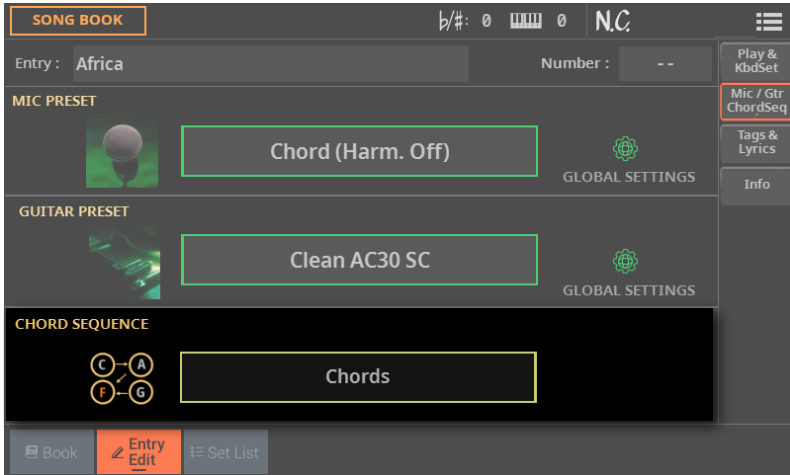


- 2 Touch the **name of the Mic Preset or the Guitar Preset** to open the **Select** window, and choose a preset.
- 3 Select the **Global Settings** checkbox if you want to use the presets chosen in the **Settings > Mic/Guitar Setup > Setup** pages.

Choosing the Chord Sequence

A SongBook Entry may contain a Chord Sequence, to have a sequence or chords good for the song ready.

- 1 Choose the **SongBook Entry** to be edited, then go to the **SongBook > Entry Edit > Mic/Gtr/ChordSeq** page.

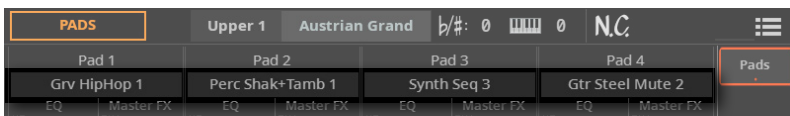


- 2 Touch the **name of the Chord Sequence** to open the **Select** window, and choose a Chord Sequence.

Choosing the Pads

With each SongBook Entry, four Pads are saved. When editing an Entry, you can save or replace the selected Pads.

- 1 Choose the **SongBook Entry** to be edited, and press the **EXIT** button to exit the SongBook. Don't select a different SongBook Entry!
- 2 Go to the **Home > Menu > Pads** page, and touch the **names of the Pads** to choose up to four Pads.



- 3 Press the **BOOK** button to return to the **SongBook** pages.

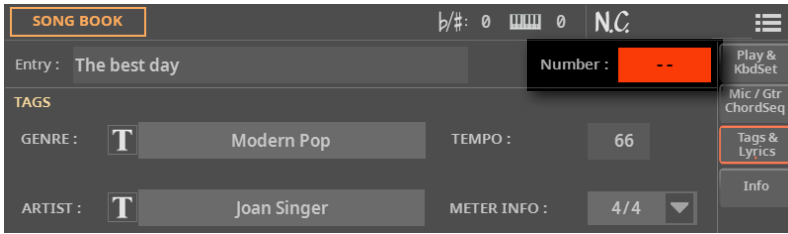
Editing the Song Selection Number

Each SongBook Entry can have a unique ID number (up to 9,999). You can type them to quickly recall an Entry (see [Choosing the SongBook Entries by Song Number](#) on page 282 for more information).

Assigning a number is not mandatory, but may help in quickly recalling the Entries, and as an alternative way of organizing them. For example, you may use the different 100s to create a different way of categorizing your entries by genre or age.

To help you find a SongBook Entry by ID number, you can export a song list using the **Export as Text File** command from the **page menu**, and print it.

- 1 Choose the **SongBook Entry** to be edited.
- 2 Go to the **SongBook > Tags & Lyrics** page.

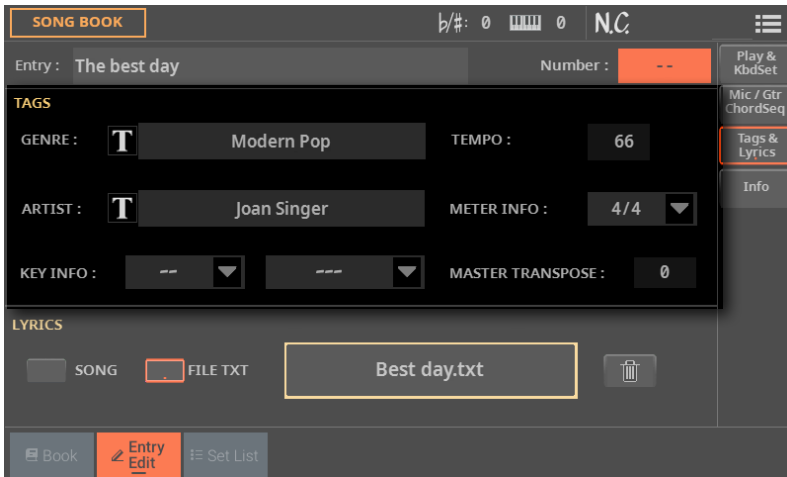


- 3 Touch the **Number** parameter to open the virtual numeric keypad, and enter the ID number.

Editing the database tags

The SongBook is a database. You can add to each SongBook Entry special archival data, or tags, that will later help in retrieving specific types of songs by using the **SongBook > Book > Filter** function.

- 1 Choose the **SongBook Entry** to be edited.
- 2 Go to the **SongBook > Tags & Lyrics** page.



3 Edit the SongBook Entry's **database tags**.

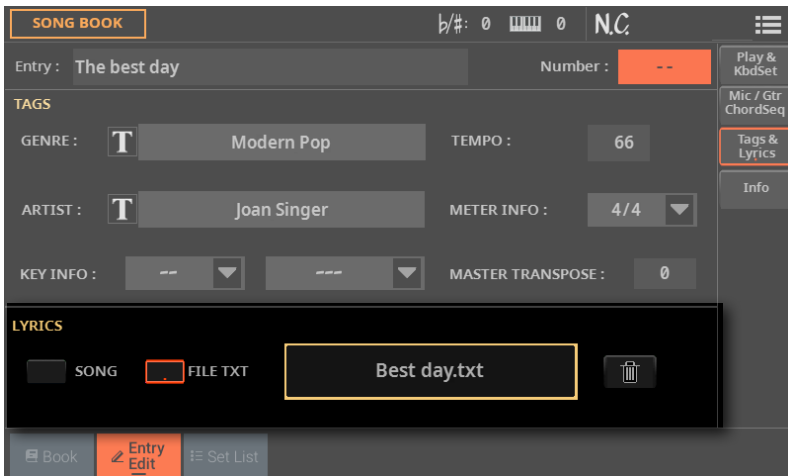
Tag	Style-based Entry	MID-based Entry	MP3-based Entry
Genre	Music genre associated with the Entry.		
Artist	Name of the artist of the song associated with the Entry.		
Key Info	Original key of the Entry. The first field is the Root, the second one is the Major/minor mode.		
Tempo	Song's Tempo. This may change, if a Tempo Change event is included within the associated resource. You can manually change this value by using the TEMPO buttons on the control panel. Any change will only be shown after saving the Entry.		
	Original Tempo of the Style.	Original starting Tempo of the MID file.	Always zero (original Tempo of the MP3 Song).
Meter Info	Song's Meter (or 'Time Signature'). This may change, if a Meter Change event is included within the associated resource.		
Master Transpose	Song's Master Transpose value. When the Entry is selected, the Master Transpose of the whole instrument is automatically changed (unless it is not locked). The Master Transpose value saved in the SongBook Entry overrides any Master Transpose setting contained in the associated resource. You can manually change this value by using the TRANSPOSE buttons on the control panel. Any change will only be shown after saving the Entry.		

Linking a text file to the SongBook Entry

You can add Lyrics to any Entry as a linked TXT file. Since there is no automatic synchronization between this type of Lyrics and the associated Style or Song, you must scroll them manually (as explained in [Reading the lyrics and chords loaded as a text file on page 250](#)).

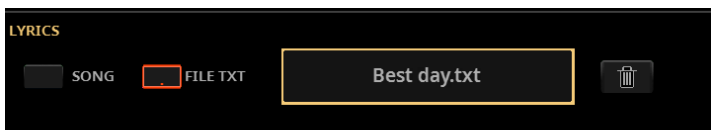
■ Link Lyrics as a TXT file

- 1 Choose the **SongBook Entry** to be edited.
- 2 Go to the **SongBook > Tags & Lyrics** page.




- 3 Touch the **name of the TXT file** to open the file selector, and choose a TXT file to be linked to the current SongBook Entry.

After having been selected, the name of the linked text file will appear.



- 4 Use the **Song/File TXT** radio-button to choose whether the Lyrics have to be read from the internal MIDI file data, or from the linked TXT file. This selection is only allowed if both types of Lyrics are available.

■ Unlink the TXT file

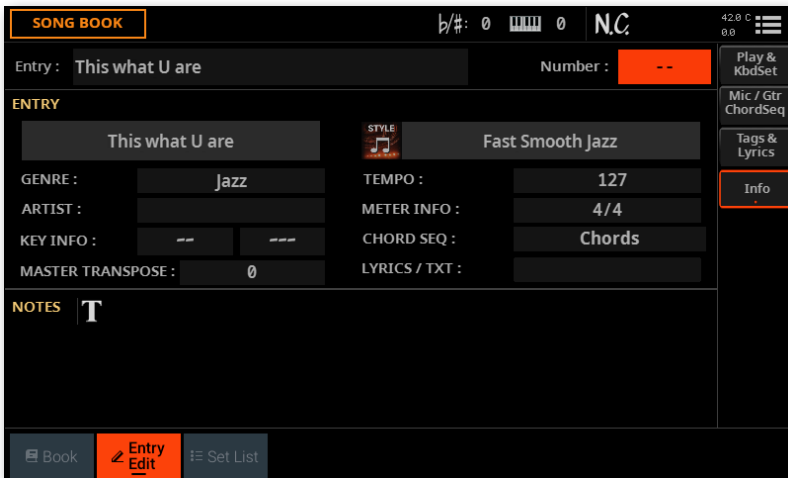
> While in the same page, touch the **Delete** () button.

Checking the Information for the SongBook Entry

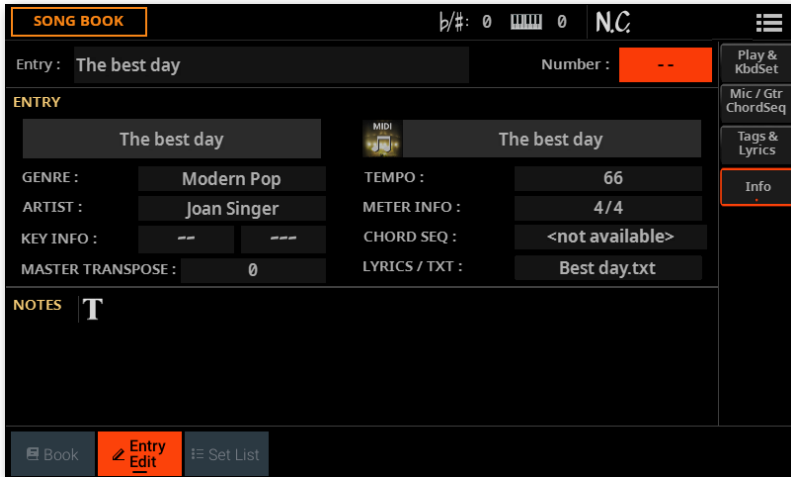
You can see some information on the selected SongBook Entry, to check, for example, the name of the Entry, the linked Style or Song, Chord Sequence and TXT file (if any).

- 1 Choose the **SongBook Entry**.
- 2 Go to the **SongBook > Entry Edit > Info** page.

If you selected a **Style-based Entry**:



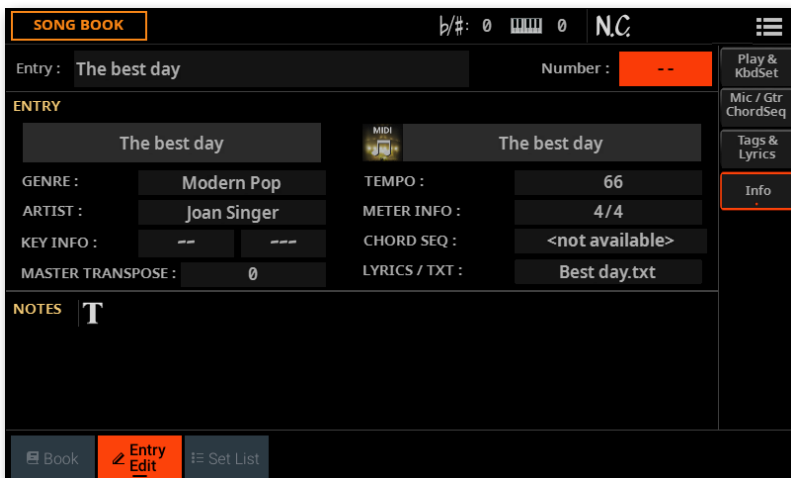
If you selected a **Song-based Entry**:



Adding notes to a SongBook Entry

You can add written notes to the entry.

- 1 Choose the **SongBook Entry** to be edited.
- 2 Go to the **SongBook > Entry Edit > Info** page.

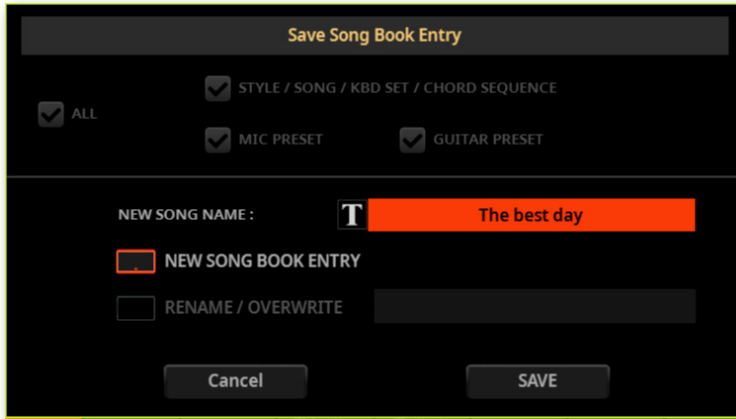


- 3 Touch the **Text Edit (T)** button to add the written note.
- 4 When done, touch the **OK** button to confirm the entered note.

Saving the SongBook Entry

You can save your edits over a new or existing SongBook Entry.

1 Choose the **Save Book Entry** command from the **page menu**. The **Save SongBook Entry** dialog will appear.



2 Choose whether you want to create a new Entry (**New SongBook Entry**), or overwrite the one you just edited (**Rename/Overwrite**).

3 Touch the **Text Edit (T)** button next to the **New Song Name** parameter, to open the virtual keyboard and edit the name of the Entry.

4 After the virtual keyboard has been closed, touch the **OK** button to save the Entry to the SongBook database.

Managing the SongBook Entries

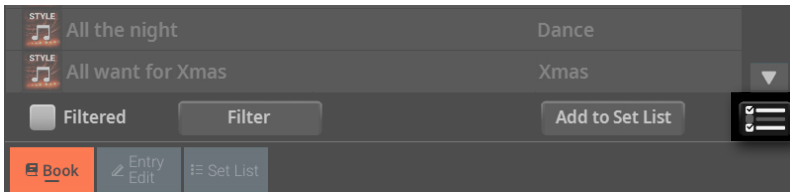
Selecting the SongBook Entries

Multiple selection of SongBook Entries

While in the **Book** page of the **SongBook**, you can select several Entries at the same time before executing an operation.

■ Set the Select mode

> While in **Book** page, use the **Selection Mode** button to decide either to select the Entries in a consecutive or separate way.



Selection Mode

Meaning



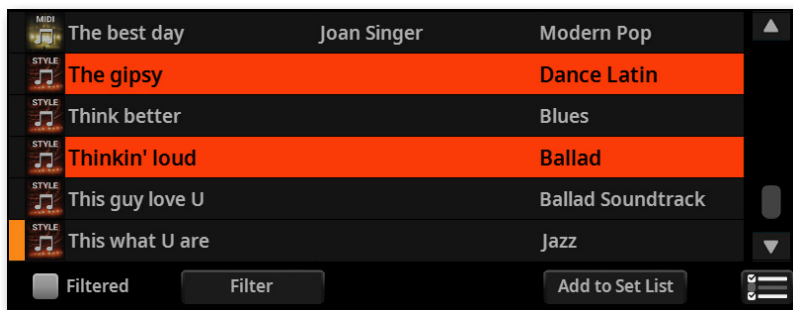
Choose this option to select the target Entries separately (i.e., with other non-selected Entries in the middle).



Choose this option to select the target Entries consecutively (i.e., all in a row).

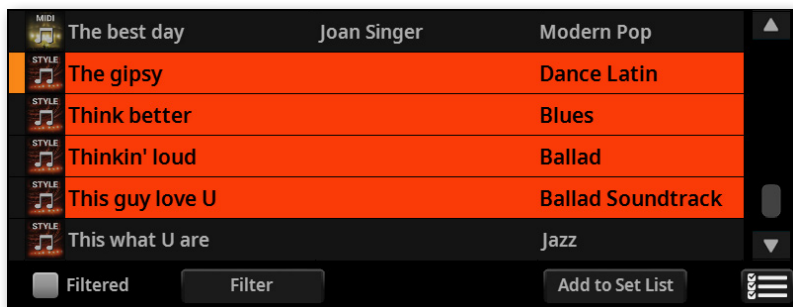
■ Select multiple Entries separately

- 1 Touch the **Select Mode** button to choose the **SHIFT** function.
- 2 Select the first Entry to be selected.
- 3 Press and keep the **SHIFT** button pressed.
- 4 Select a second Entry to be selected.
- 5 While keeping the **SHIFT** button pressed, continue selecting the other Entries to be selected.
- 6 Release the **SHIFT** button.



■ Select multiple Entries consecutively

- 1 Touch the **Select Mode** button to choose the **SHIFT** function.
- 2 Select the first Entry to be selected.
- 3 Press and keep the **SHIFT** button pressed.
- 4 Select the last Entry to be selected.
- 5 Release the **SHIFT** button.



■ Deselect the Entries

- > To deselect one or more Entries, without deselecting everything, keep **SHIFT** pressed and touch the items to be deselected.
- > To deselect everything, select any other Entry. All selected Entries will be deselected.

Selected and active SongBook Entries

In the **Book** and **Set List** pages (**List View** mode), an Entry that is selected in the list and active is shown with a vertical line next to its name. Orange if it is assigned to Player 1, blue if assigned to Player 2.



If you select a different Style or Song, the Entry remains selected in the list, but it is no longer active, since its content has been replaced by a different Style or Song. The vertical line disappears.



If the Entry is still active, but you have deselected it (by keeping the **SHIFT** button pressed and touching the Entry's name), the vertical line is still shown, but the Entry's name is no longer highlighted. Any operation on the list will have no effect on this Entry.



Deleting the SongBook Entries

- 1 While in the **SongBook > Book** page, select the song (or songs) to be deleted.
- 2 Choose the **Delete Book Entry/Entries** command from the **page menu**, then confirm.

Deleting all the SongBook Entries and Set Lists

You may want to create you own Book list, after removing all the existing Entries and Set Lists.

- 1 Go to any of the **SongBook** pages.
- 2 Choose the **Delete Whole Book** command from the **page menu**, then confirm.

Please note that this operation will permanently delete all the Entries and the Set Lists. To preserve the data you ware going to delete:

- > A copy of the original factory data is always stored in a protected area of the internal memory. You can recover them by using the **Factory Restore** command in the **File > Menu > Factory Restore** page, and only selecting the **SongBook** as the type of data to restore.
- > You can make a copy of an edited SongBook. For more information, see [The SongBook](#) on page 271.

Using the Set Lists

What are the Set Lists?

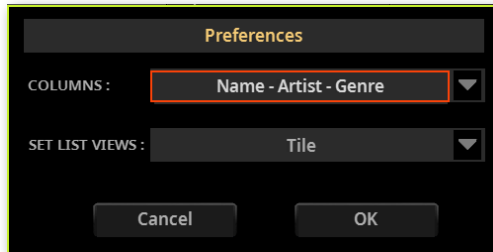
Set Lists are selections from the full Book list. They allow for smaller, customized lists, suitable for a single gig or your own music preferences. We already included some sample lists, that you can use for your own shows.

Choosing the Tile or List View

Set Lists can be used in Tile View or in List View. In Tile View, songs are shown as pages of tiles that you can quickly select by touching them. In List View, all songs are shown in a plain list, that you might prefer when playing the songs in a list one after the other.

■ Switch between Tile View and List View

1 While in any **SongBook** page, choose the **Preferences** command from the **page menu** to open the **Preferences** dialog.



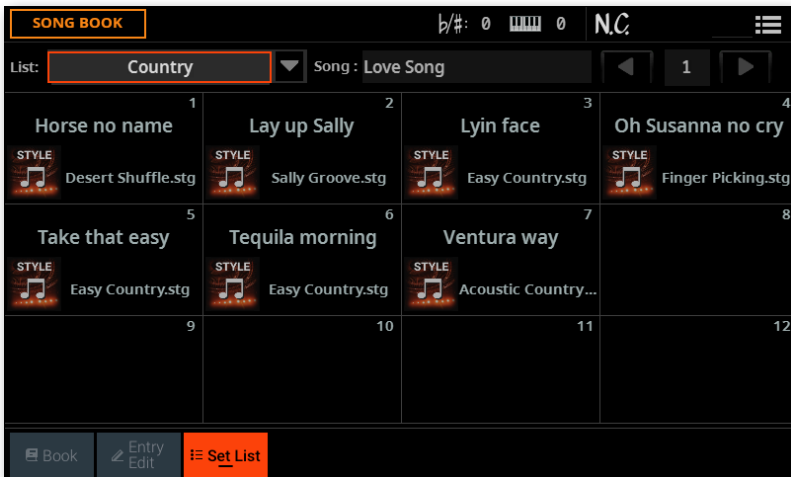
- 2 Use the **Set List Views** menu to switch between the Tile View and List View.
- 3 When done, touch the **OK** button to close the dialog.

Playing a Set List from the Tile View

The **Tile View** shows the selected Set List as a set of songs assigned to the **SET LIST** buttons in the display.

■ Choose the Set List

- 1 Go to the **SongBook > Set List** page. You can press the **SET LIST** button to open this page.
- 2 Be sure you are in **Tile View**, otherwise choose the **Preferences** command from the **page menu** to open the **Preferences** dialog, and select it.



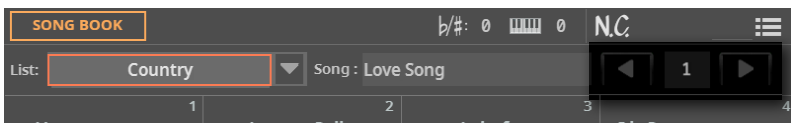
- 3 Use the **List** pop-up menu to select one of the available Set Lists.

The songs in the selected set are assigned to the **SET LIST** buttons in the display.

■ Choose a page

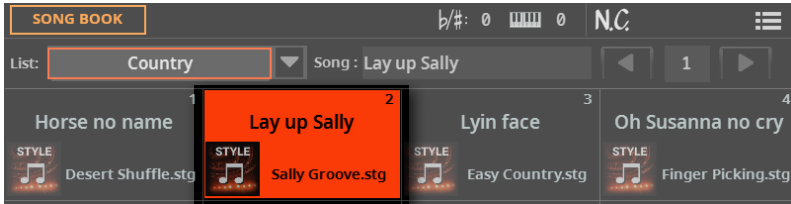
The songs in the selected Set List are organized in 'pages' of twelve.

- > Use the **page indicator** in the top right corner of the page to go to a different page inside the selected Set List.



■ Choose a SongBook Entry

- 1 Be sure you are in the **SongBook > Set List** page.
- 2 Touch one of the **tiles** in the display, to choose the corresponding song. The selected song will appear highlighted.



■ Play the Set List

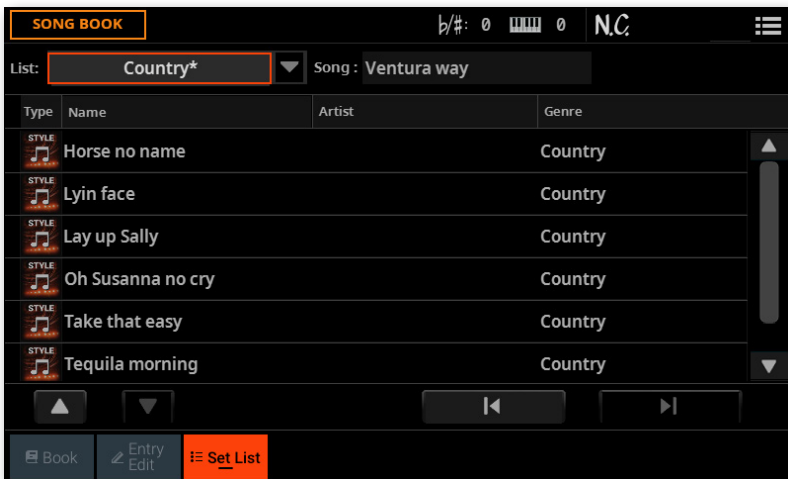
- > Use the **PLAY/STOP** (▷◻) button to start and stop playback of the selected Style or Song.
- > Use the standard **Player controls** to start, pause or stop the Styles or Songs.
- > Move to a different song by touching the corresponding **tile**.

Playing a Set List from the List View

The **List View** shows the selected Set List as a plain list of songs.

■ Choose the Set List

- 1 Press the **SET LIST** button to open the **SongBook > Set List** page.
- 2 Be sure you are in **List View**, otherwise choose the **Preferences** command from the **page menu** to open the **Preferences** dialog, and select it.

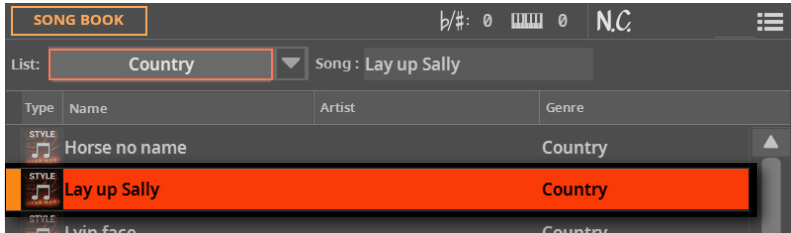


- 3 Use the **List** pop-up menu to select one of the available Set Lists. The list of songs in the selected Set List will appear.

■ Choose a SongBook Entry

- 1 Be sure you are in the **SongBook > Set List** page.
- 2 Browse through the Entries in the list.

3 Touch the **name of the Entry** you want to choose. The selected song will appear highlighted.



■ Play the Set List

- > Use the **PLAY/STOP** (▷◻) button to start and stop playback of the selected Style or Song.
- > Use the standard **Player controls** to start, pause or stop the Styles or Songs.
- > Select a different song by touching the corresponding **name** in the list.
- > If you want to immediately jump to the previous or next song, use the dedicated **Select Previous** and **Select Next** buttons under the list.



The color of the selection will always let you know if the song is assigned to Player 1 (orange) or Player 2 (blue).

Editing the Set Lists

Creating a new Set List

Creating or editing a Set List

> Go to the **SongBook > Set List** page, then choose the **New Set List** command from the **page menu**.

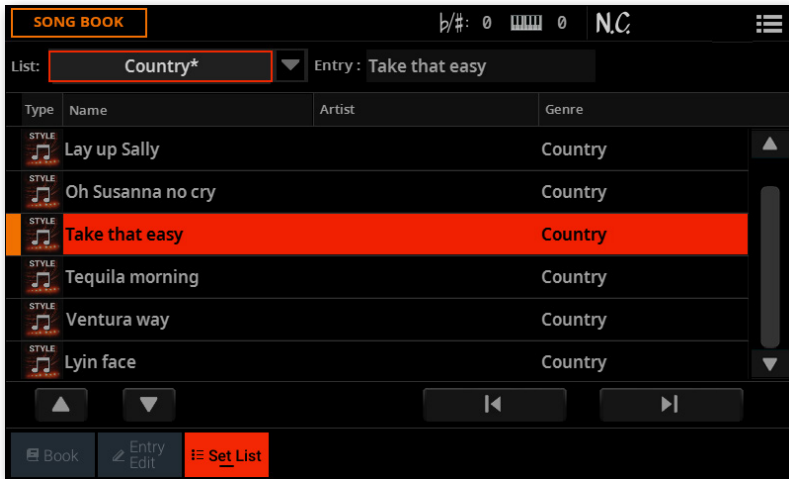
A new, blank list will be created and automatically selected.

Editing the Set Lists

You can add, delete or reorder items from a Set List. The name of a modified Set List shows an asterisk (*) after the name.

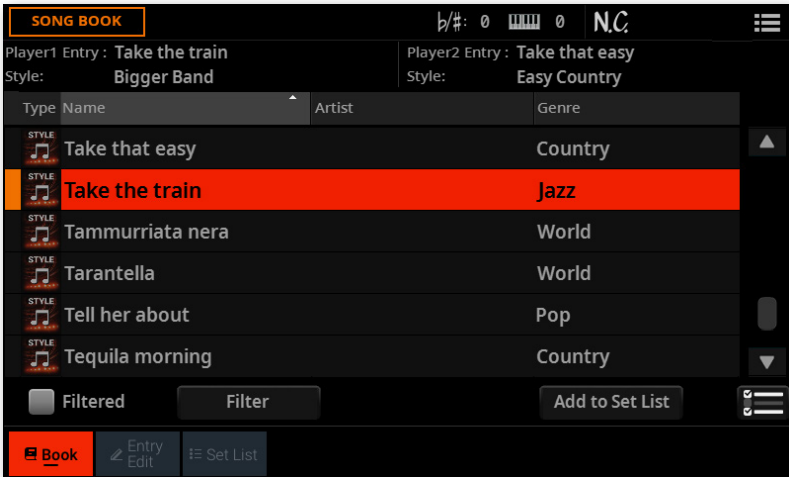
Selecting a Set List for editing

- 1 Go to the **SongBook > Set List** page. Choose either the List View or Tile View.
- 2 Use the **List** pop-up menu to select the Set List to edit.



Adding songs to the selected Set List

- 1 Go to the **SongBook > Book** page.
- 2 Browse through the songs in your SongBook database.
- 3 When you see the **song** you are looking for, touch it. If you want to select multiple songs at the same time, keep the **SHIFT** button pressed, and select the songs.

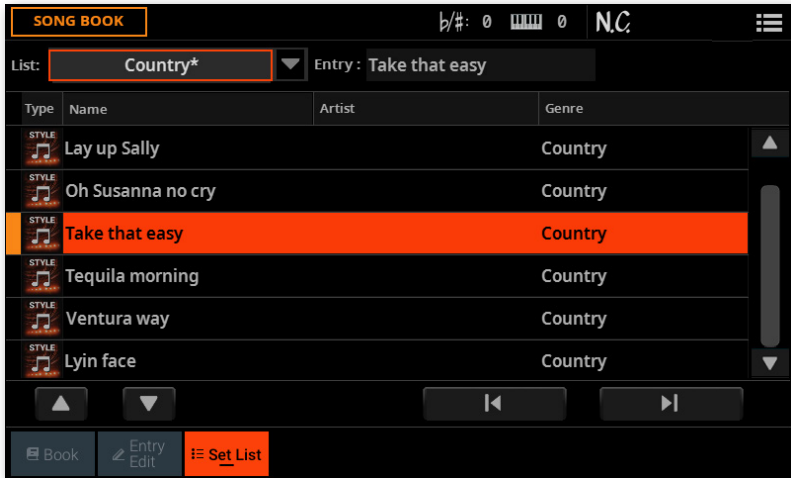


- 4 Touch the **Add to Set List** button to add the selected song(s) to the selected Set List.

Rearranging the songs in the list

If the order of the songs added to the list is not the desired one, rearrange them. This can be done while in List View.

- 1 Go to the **SongBook > Set List** page, and choose the Set List you want to edit.



- 2 Touch the **song** you want to move.
- 3 Use the **Move > Up** (▲) and **Move > Down** (▼) buttons on the display to move the selected song to a different position in the list.

Deleting unwanted songs from the list

- 1 Go to the **SongBook > Set List** page, and choose the Set List you want to edit.
- 2 Touch the **song** you want to delete from the list.
- 3 Choose the **Delete Set List Entry** command from the page menu, then confirm.

The song will be deleted from the Set List, but it will not be deleted from the Book list.

Saving a Set List

1 While in the **SongBook > Set List** page, choose the **Save Set List** command from the page menu to open the **Save List** dialog.



2 Choose the **Rename/Overwrite** option to save over the selected Set List. If you prefer to create a new Set List, choose the **New List** option instead.

3 Touch the **Text Edit (T)** button if you want to assign the Set List a different name. Edit the name and confirm to return to the **Save List** dialog.

4 When done, touch the **OK** button to confirm saving the list.

Deleting a Set List

1 While in the **SongBook > Set List** page, use the **List** pop-up menu to select the Set List to delete.

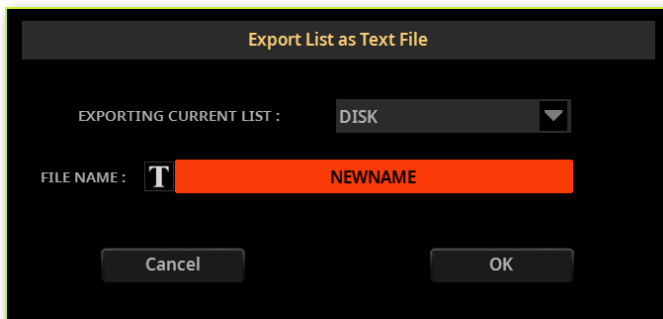
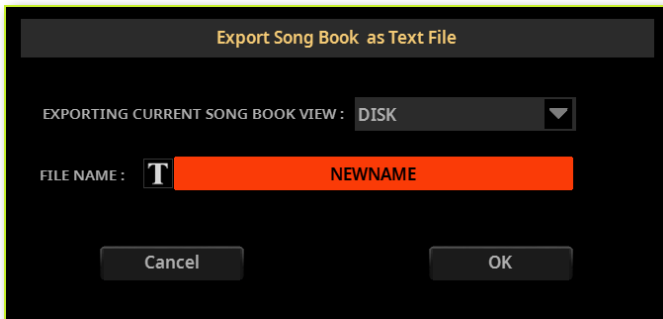
2 Choose the **Delete Set List** command from the **page menu**, then confirm.

The songs contained in the list will not be deleted from the Book list.

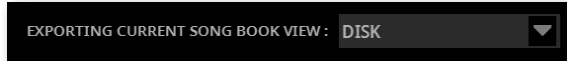
Exporting the Book and Set Lists as a text file

A list of the songs contained inside the Book and Set Lists can be exported, to be used as the playlist of the show.

- 1 While you are in the **SongBook > Book** or **Set List** page, choose the desired list order and filtering.
- 2 Choose the **Export Book/Set List as Text File** command from the **page menu** to open the **Export as Text File** dialog.



3 Use the **Device** pop-up menu to choose a device where to save the list as a TXT file. The file will be saved in the device's root.



4 You may change the **name** of the list. Touch the **Text Edit (T)** icon to open the **virtual keyboard** and edit the name. When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

5 When back at the **Export as Text File** dialog, confirm exporting by touching the **OK** button.

A TXT file containing the filtered data will be created. If a file with the same name already exists on the target device, it will be overwritten without waiting for confirmation.

To correctly display and print the list on a personal computer, use a fixed size (i.e., non-proportional) character in your text editor.

Using the SongBook with a tablet or personal computer

Choosing the SongBook Entries via MIDI

SongBook Entries can be remotely selected via MIDI. In addition, MIDI messages can be sent via MIDI when choosing a SongBook Entry. This is useful to synchronize Pa5X to a digital music sheet reader (for example, a dedicate app running on a tablet).

When using Pa5X with a tablet, you should also program the app on the tablet. Please refer to the app's user manual for more information. The supplied MIDI Preset is a starting point for setting the various parameters, but you may have to adapt them to the software.

Choosing the Tablet MIDI Preset

The **Tablet** MIDI Preset programs MIDI channel #16, so that it is used to send MIDI messages when selecting the SongBook Entries, or to receive MIDI messages to selecting them from an external device.

> Go to the **Settings > Menu > MIDI > General Controls** page and choose the **Tablet** MIDI Preset.

Editing an existing MIDI Preset

You can program or edit your own MIDI Preset for selecting SongBook Entries. A special MIDI channel used as the Control channel is needed to send MIDI messages to select the SongBook Entries, or to receive MIDI messages when selecting them.

■ Configure the Control channel

- 1** Go to the **Settings > Menu > MIDI > General Controls** page and choose a MIDI Preset to be used as a starting point.
- 2** Go to the **Settings > Menu > MIDI > Midi In Channel** page, and assign the Control option to one of the sixteen available MIDI channels (usually one of the higher-numbered ones, for example #16).
- 3** Go to the **Settings > Menu > MIDI > Midi Out Channel** page, and assign the Control option to one of the sixteen available MIDI channels (the same as on the MIDI IN will work fine).
- 4** Go to the **Settings > Menu > MIDI > Filters** page, and be sure no needed type of data is filtered out..
- 5** When done, save these settings to a new or existing MIDI Preset, by choosing the **Save Midi Preset** command from the **page menu**.

Selecting the SongBook Entries via MIDI

At this point, Pa5X must receive on the special Control channel the NRPN Control Change messages #99 (MSB, with value 2) and #98 (LSB, with value 64) in fast succession, as an initialization string. This string must be sent only once, unless another NRPN control is sent on the same MIDI channel before selecting a different SongBook Entry.

After the initialization string has been sent, you must send the selection string, made of two Control Change messages: CC#06 (Data Entry MSB) for the thousands and hundreds, and CC#38 (Data Entry LSB) for the tens and units. The range of the Data Entry controls, in this case, is 0~99 (instead of the typical 0~127).

The following examples show some typical situations.

- > Send the following string to select SongBook Entry #77:

Data 1	Data 2	
NRPN MSB	2	Initialization string (CC#99, 98)
NRPN LSB	64	
DataEnt MSB	0	Thousands and hundreds (00xx)
DataEnt LSB	77	Tens and units (xx77)

- > Send the following string to select SongBook Entry #100:

Data 1	Data 2	
NRPN MSB	2	Initialization string (CC#99, 98)
NRPN LSB	64	
DataEnt MSB	1	Thousands and hundreds (01xx)
DataEnt LSB	0	Tens and units (xx00)

- > Send the following string to select SongBook Entry #2563:

Data 1	Data 2	
NRPN MSB	2	Initialization string (CC#99, 98)
NRPN LSB	64	
DataEnt MSB	25	Thousands and hundreds (25xx)
DataEnt LSB	63	Tens and units (xx63)

Sending MIDI messages when selecting SongBook Entries

When the special Control channel is assigned to one of the MIDI OUT channels, MIDI messages are sent on this channel when choosing a SongBook Entry. The messages sent when selecting a SongBook Entry are the following (as seen in the previous section):

- > An initialization string, made of the NRPN Control Change messages #99 (MSB, with value 2) and #98 (LSB, with value 64) in fast succession.
- > A selection string, made of the two Control Change messages CC#06 (Data Entry MSB) for the thousands and hundreds, and CC#38 (Data Entry LSB) for the tens and units. The range of the Data Entry controls, in this case, is 0~99 (instead of the typical 0~127).

13

The Matrix

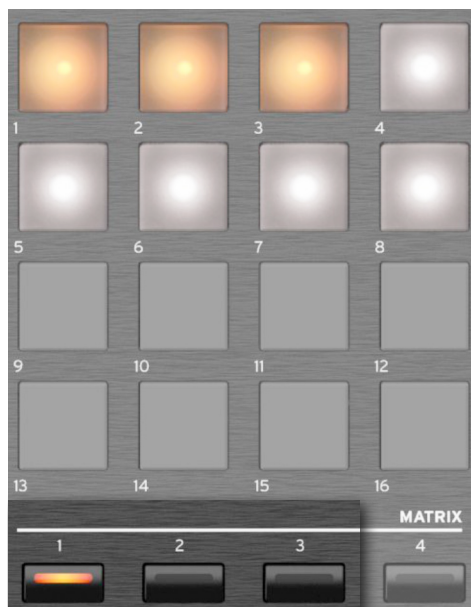
Using the Matrix

The **Matrix** lets you create up to three sets of **Matrix Pads**, that you can quickly select by choosing one of the **Matrix Presets 1-3**. It also offers a set of **Mute** controls.

The Pads are illuminated according to the color of the current Player (orange for Player 1, blue for Player 2).

Using the Matrix Pads from the control panel

1 While in any of the **Home** pages, press one of the **Matrix Preset 1-3** buttons under the **Matrix Pads**, to select the corresponding set of Pads.



2 Press one of the **Matrix Pads** to trigger the corresponding Pad. If it is a looping sequence, press it again to stop it.

Using the Matrix Pads from the display

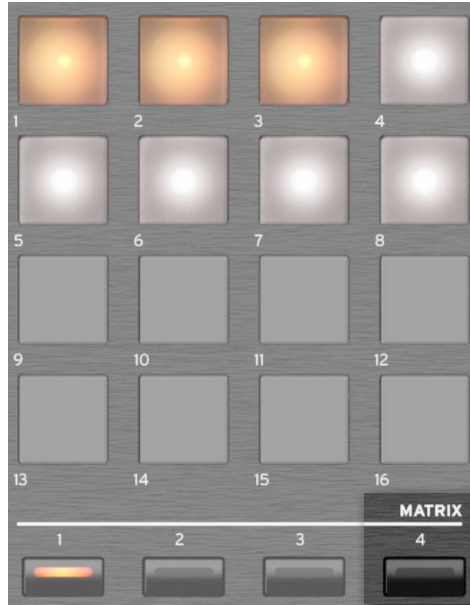
- 1 While in the **Home** page, touch the **Matrix** tab to open the corresponding pane.



- 2 Touch one of the **Pads 1-3** buttons to activate the corresponding set of Pads.
- 3 Touch one of the **Matrix Pads** to trigger the corresponding Pad. If it is a looping sequence, press it again to stop it.

Using the Matrix Mute buttons from the control panel

1 While in any of the **Home** pages, press the **Matrix Preset 4** button under the **Matrix Pads**, to select the **Matrix Mute buttons**.



2 Press one of the **Matrix Pads** to enable the corresponding Mute. Press it again to unmute the corresponding track.

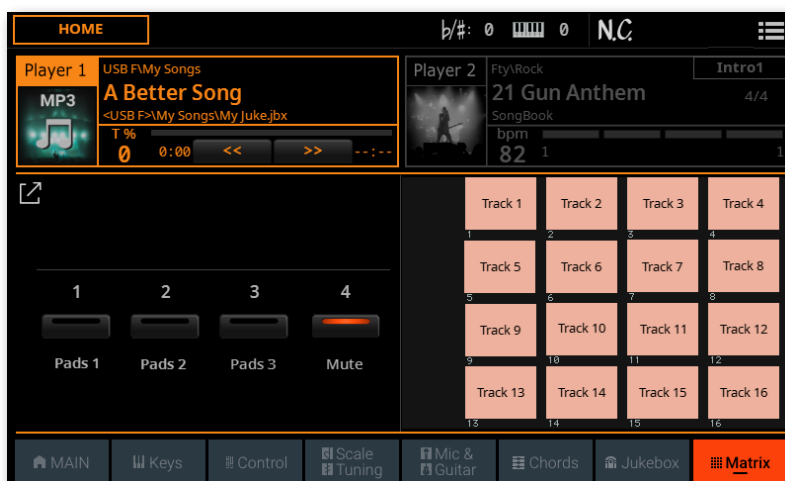
You can see the corresponding tracks in the **Home > Control** pane.

Using the Matrix Mute buttons from the display

- 1 While in the **Home** page, touch the **Matrix** tab to open the corresponding pane.



Matrix Mute with a Style selected



Matrix Mute with a MIDI Song selected

- 2 Touch the **Pads 4** button to activate the **Matrix Mute** buttons.
- 3 Touch one of the **Matrix Pads** to enable the corresponding Mute. Touch it again to unmute the corresponding track.

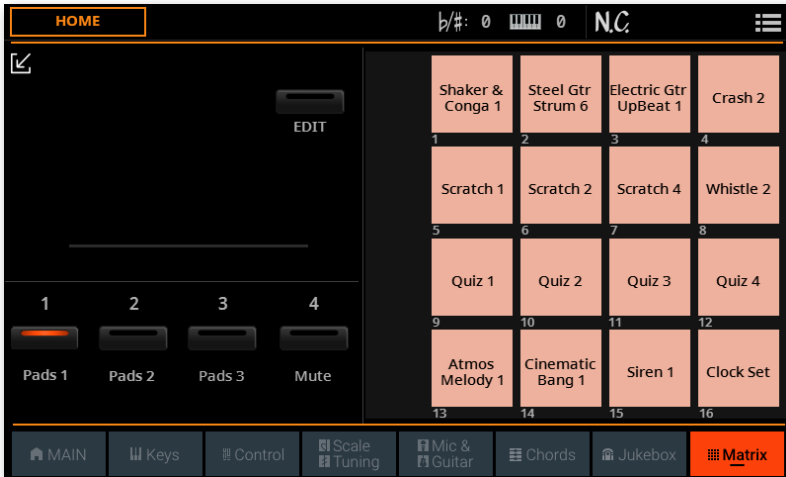
Programming the Matrix

While the Mute set is fixed, you can program the three Matrix Pad sets.

- 1 While in the **Home** page, touch the **Matrix** tab to open the corresponding pane.
- 2 Choose one of the **Pads 1-3** sets.



- 3 Touch the **Expand** (📄) button to see the Expanded view of the **Matrix** pane.



- 4 Touch the **Edit** button to put the set in edit mode.



5 While in edit, you can touch one of the **Matrix Pads** to open the **Pad Select** window.



6 Select the **Pad** to be assigned to the selected **Matrix Pad**, then press the **EXIT** button to return to the **Matrix** pane.



7 If you want to remove one of the Pads, touch the **Delete** (X) button in the top right corner of the Matrix Pad.

8 Touch the **Edit** button again to exit the edit mode.

9 Touch the **Collapse** (🔍) button to return to the Normal view of the **Matrix** pane.



Changes to your programming will be saved automatically as global settings.

In case you want to restore the original factory settings, use the **Factory Restore** command you can find in the **File > Menu > Restore** page.

WARNING: This operation will overwrite all the User data!

CUSTOMIZE

14

**Editing
and saving
the Sound
combinations**

Editing the Sound combinations

What is a 'Sound combination'?

In Pa5X, Sounds are organized into groups sounding together. To call these group with a collective noun, we call them 'Sound combinations'. They can be saved to a common structure that can later be recalled at once.

The available combinations are the Keyboard Sounds, the Pad Sounds, the Style Sounds, the MIDI Song Sounds. The corresponding structures where you can save them into are the Keyboard Set, the Style, the MIDI Song, the SongBook Entry.

A - Choose a Sound combination

Sound combinations are groups of Sounds that are selected all at the same time. They can be found in the following places. Please note that you can only edit and save User elements (Factory elements are protected).

Sound combination	Type
Keyboard Sets (from the library)	Sounds assigned to the keyboard, saved in the KEYBOARD SET LIBRARY.
Keyboard Sets (from a Style)	Sounds assigned to the keyboard, saved in the KEYBOARD SET section and selected with the Styles.
Keyboard Sets (from a SongBook Entry)	Sounds assigned to the keyboard, saved in the KEYBOARD SET section and selected with a SongBook Entry.
Style Sounds (from a Style)	Sounds of the Style tracks. You can save them with the Style, but they might be automatically changed by the Program Change messages contained inside the Style's MIDI sequences. You can edit and save these messages in Style Edit mode.
Style Sounds (from a SongBook Entry)	Sounds of the Style tracks, selected with a SongBook Entry.
Song Sounds (from a MIDI Song)	Sounds or a MIDI Song tracks. You can save them with the Song, but they might be automatically changed by the Program Change messages contained inside the MIDI Song. You can edit and save these messages in Song Edit mode.

Sound combination	Type
Song Sounds (from a SongBook Entry)	Sounds of a MIDI Song tracks, selected with a SongBook Entry.
Pad Sounds (from the library)	Sounds assigned to the Pads.
Pad Sounds (from a SongBook Entry)	Sounds of the Pad tracks, selected with a SongBook Entry.

Choosing a Keyboard Set from the library

- > Choose from the **KEYBOARD SET LIBRARY** section the **Keyboard Set** whose Sounds you want to edit.



Choosing a Keyboard Set from the current Style

- > Choose a **Style**, then the **Keyboard Set** (from the **KEYBOARD SET** section under the X-FADER) whose Sounds you want to edit.



Choosing a Style from the Library

- > Choose the **Style** whose Sounds you want to edit. Please note that you can only save the changes into the User Styles (not the Factory ones).



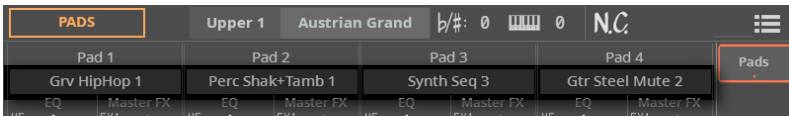
Choosing a MIDI Song

- > Choose the **MIDI Song** whose Sounds you want to edit.



Choosing a Pad from the library

- > Choose a Pad in the **Home > Menu > Pads** page.



Choosing a Keyboard Set, a Pad, a Style or a MIDI Song by selecting a SongBook Entry

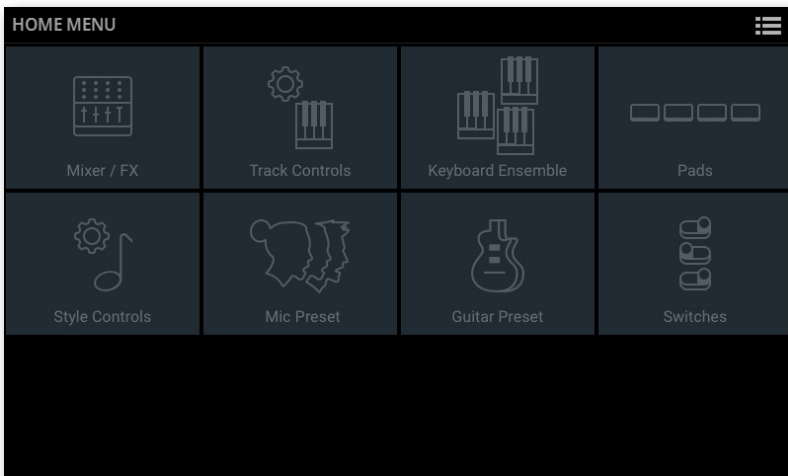
- > Press the **BOOK** or **SET LIST** button, and choose a SongBook Entry containing the Keyboard Set, the Pad, the Style or the MIDI Song whose Sounds you want to edit.



B – Access editing

The edit pages can be accessed by pressing the **MENU** button. They are organized in sections.

- 1 Be sure to be in the **Home** mode (the one appearing when turning the instrument on). If not, press the **EXIT** button to get there.
- 2 Press the **MENU** button to access editing and see the **Home mode's edit menu**. You will see the **edit sections** as big buttons.



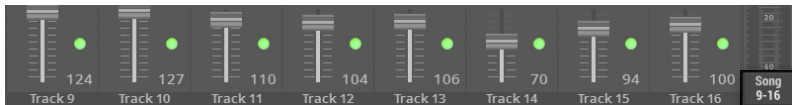
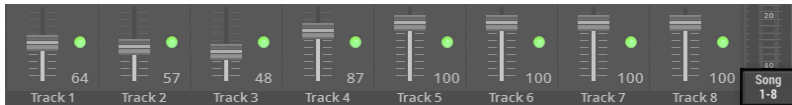
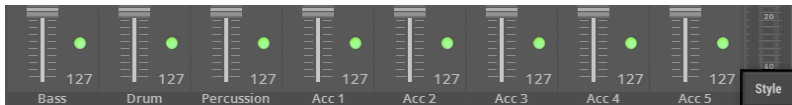
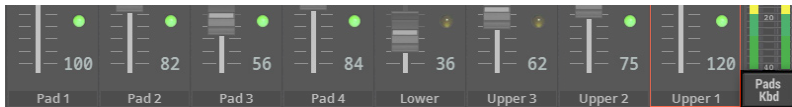
- 3 Choose an **edit section** and **edit page** to access the parameters.

C – Choose a Sound to edit

Most editing is done on the selected Sounds. These can be Sounds playing on the keyboard, or from a Pad, a Style or a MIDI Song.

Switching between the Keyboard, Pad, Style and MIDI Song Sounds

- > Repeatedly touch the **TRACK SELECT** button in the lower right corner of the page. The display will cycle between the Keyboard and Pad, and the Style or Song Sounds.



Selecting the track/channel containing the Sound to be edited

- Touch the **individual track/channel** to select it.



D – Save the changes

- > When finished editing, save the changes to a Sound combination. It can be a Keyboard Set, a Pad, a Style, a MIDI Song, a SongBook Entry. The following pages details how to do.

Saving a Keyboard Set

Keyboard Sets can store the chosen Keyboard Sounds and settings. You can save your Keyboard Sets into the dedicated library, or into the Keyboard Sets inside a User Style.

Saving the Keyboard Sets to the library

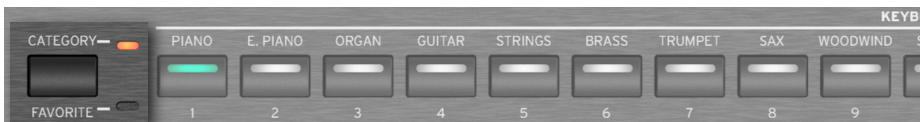
The library is where you organize the Keyboard Sets by type and category, independently from a Style or SongBook Entry. You can recall these Keyboard Sets by using the **KEYBOARD SET LIBRARY** buttons, or from the **Home > Main** page.

Factory Keyboard Sets can't be overwritten. If you want to edit and save a Factory Keyboard Set, copy it into the User area.

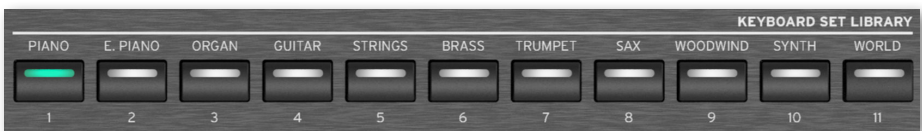
Note: All changes will be lost when choosing a different Keyboard Set, unless you save them.

■ Open the Save dialog from the control panel

1 Switch the **KEYBOARD SET LIBRARY** section to the **CATEGORY** view mode.

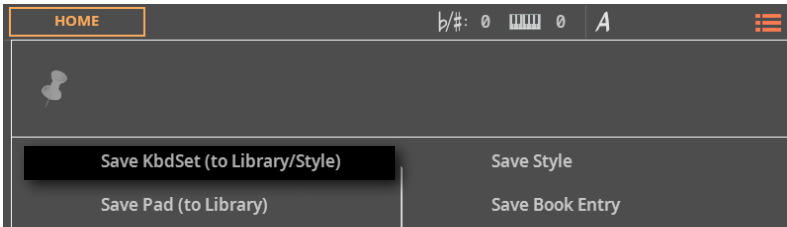


2 Keep **any** of the **KEYBOARD SET LIBRARY** buttons pressed for about one second.

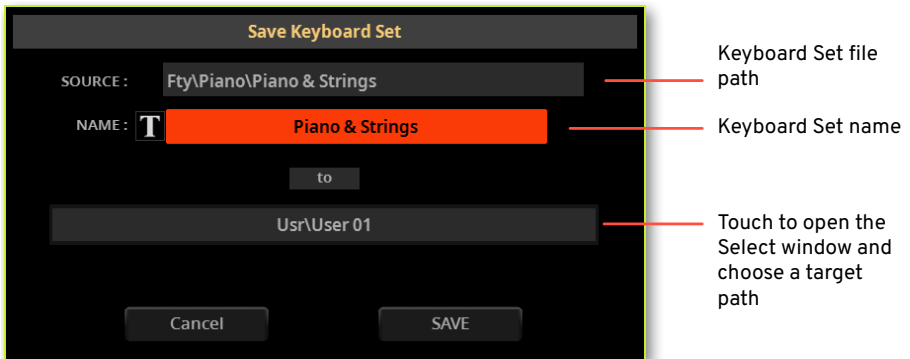


■ Open the Save dialog from the display

- > Choose the **Save KbdSet (to Library/Style)** command from the **page menu**.



The **Save Keyboard Set** dialog will appear. If the selected Style is a **Factory** one, and you can't save on it, you will only be allowed to save into the **Keyboard Set Library**.

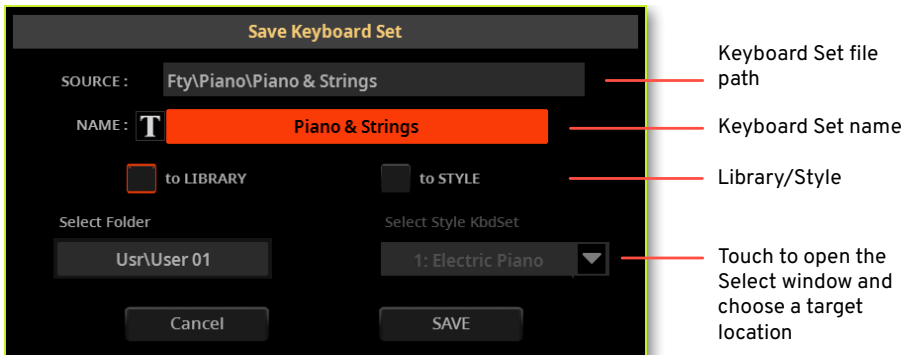


Keyboard Set file path

Keyboard Set name

Touch to open the Select window and choose a target path

If the selected Style is a **User** one, you will be allowed to choose whether to save into one of the **Style's Keyboard Sets** or into the **Keyboard Set Library**.



Keyboard Set file path

Keyboard Set name

Library/Style

Touch to open the Select window and choose a target location

■ Save over the same User Keyboard Set

> If you want to overwrite the current User Keyboard Set, just touch the **Save** button.

■ Rename the Keyboard Set

While in the **Save Keyboard Set** dialog, you may change the **name** of the Keyboard Set.

1 Touch the **Text Edit** (**T**) button to open the **virtual keyboard** and edit the name.

2 When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

■ Save to a different place

1 If you want to save to a different folder, touch the **To (target path)** or **Select Folder** button in the **Save Keyboard Set** dialog, and open the **Save To** window.



- 2 Touch the **folder** where you want to save the new Keyboard Set.



- 3 To save a new file, don't touch any of the Keyboard Sets in the folder (shown in the right side of the window). On the contrary, if you want to overwrite one of the existing elements, touch it.
- 4 Press the **EXIT** button to close the **Save To** window and confirm your selection.
- 5 When back at the **Save Keyboard Set** dialog, confirm the Save operation by touching the **Save** button.

Saving Keyboard Sets into a Style

Styles can contain four Keyboard Sets. When choosing a Style, four Keyboard Sets working well with the selected Style are automatically selected. You can recall these Keyboard Sets by using the **KEYBOARD SET** buttons under the X-FADER.

You can save the changes you made to Sound selection, mixing and other settings into a User Style. Factory Styles can't be overwritten. If you want to edit and save a Factory Style, copy it into the User area.

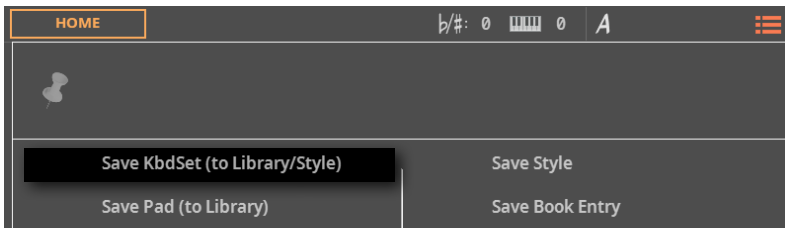
■ Open the Save dialog from the control panel

> Keep any of the **KEYBOARD SET** buttons under the X-FADER pressed for about one second.

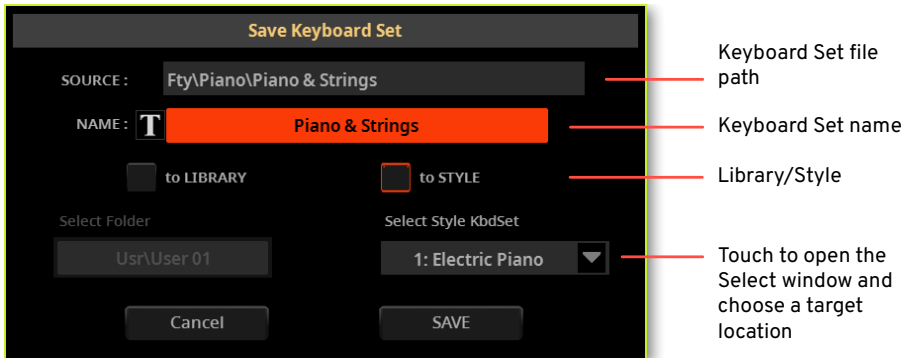


■ Open the Save dialog from the display

> Choose the **Save KbdSet (to Library/Style)** command from the **page menu**.



The **Save Keyboard Set** dialog will appear.



■ Rename the Keyboard Set

While in the **Save Keyboard Set** dialog, you may change the **name** of the Keyboard Set.

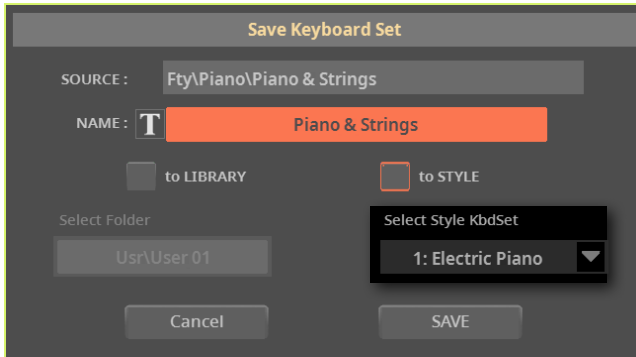
- 1 Touch the **Text Edit (T)** button to open the **virtual keyboard** and edit the name.
- 2 When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

■ Save over the Keyboard Set #1

- > Keyboard Set #1 is already selected, so just touch the **Save** button.

■ Save to a different Keyboard Set location

1 If you want to save the Keyboard Set to a different location inside the same Style, touch the arrow next to the **Select Style KbdSet** parameter to open a pop-up menu and choose a different location.



2 Confirm the Save operation by touching the **Save** button.

Saving Keyboard Sets into a SongBook Entry

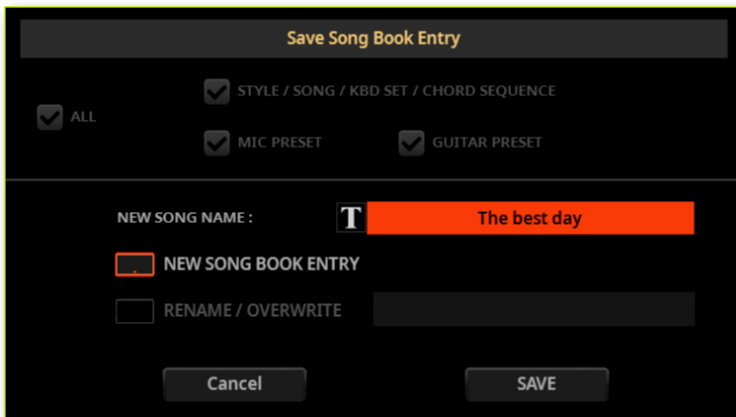
When choosing a SongBook Entry, four Keyboard Sets matching the selected Entry are automatically selected. You can then recall these Keyboard Sets by using the **KEYBOARD SET** buttons under the X-FADER. You can do your changes at these Keyboard Sets as well, and save them in the SongBook Keyboard Sets.

Saving Keyboard Sets to a new SongBook Entry

You can create a new SongBook Entry, and save four Style Keyboard Sets with it. You can later edit the Keyboard Sets saved with the Entry.

- 1 Choose the Style or Song the SongBook Entry will be based on. The Style includes four Keyboard Sets.
- 2 Keep the **BOOK** button pressed for about one second to create a new SongBook Entry. The **Save SongBook Entry** dialog will appear.

As an alternative, go to one of the SongBook pages, and choose the **Save Book Entry** command from the **page menu**.



- 3 If both options are offered (because you had selected a SongBook Entry from the list before editing it), decide if you want to create a new Entry (**New SongBook Entry**), or overwrite the selected one (**Rename/Overwrite**).
- 4 While in the **Save SongBook Entry** dialog, touch the **Text Edit (T)** button next to the **New Song Name** parameter, to open the virtual keyboard and edit the name of the Entry.

5 After the virtual keyboard has been closed, touch the **OK** button to save the Entry to the SongBook database.

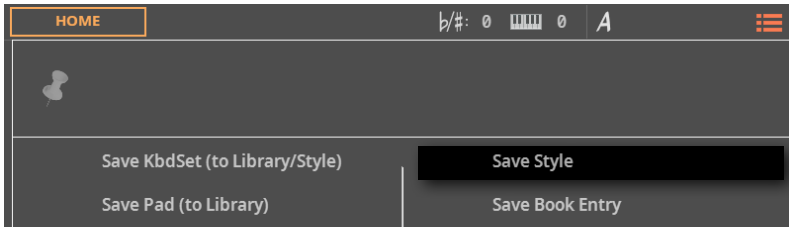
Together with the Keyboard Sets, the four Style Keyboard Sets have been saved.

Saving the current Style

You can save the changes you made to Sound selection, mixing and other settings into a User Style. Factory Styles can't be overwritten. If you want to edit and save a Factory Style, copy it into the User area.

Note: All changes will be lost when choosing a different Style, unless you save them.

- 1 Choose the **Save Style** command from the **page menu**.



- 2 Confirm saving.

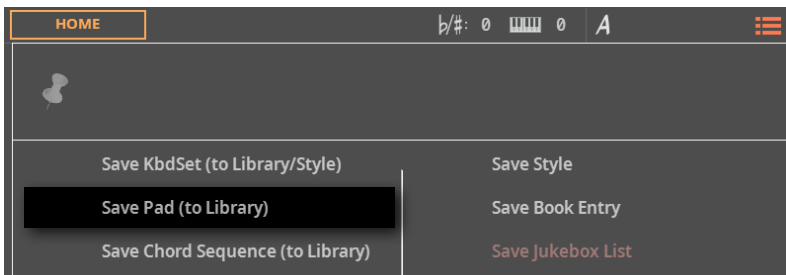
Saving a Pad

You can save the changes you made to EQ, Volume and FX Send into a User Pad. Factory Pads can't be overwritten. If you want to edit and save a Factory Pad, copy it into the User area.

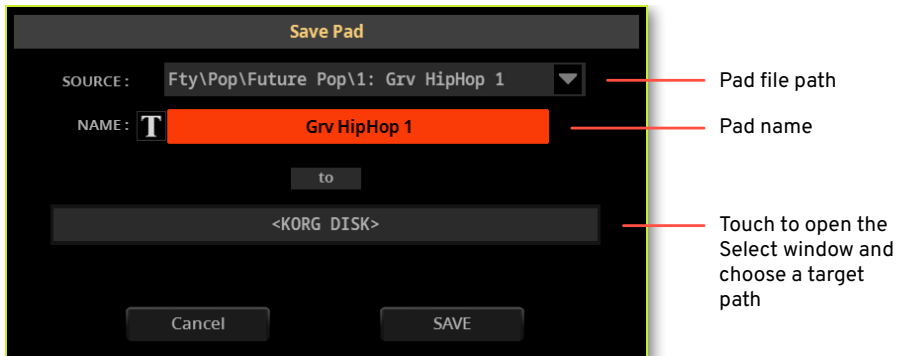
Note: All changes will be lost when choosing a different Pad, unless you save them.

■ Open the Save dialog from the display

> Choose the **Save Pad (to Library)** command from the **page menu**.



The **Save Pad** dialog will appear.



■ Save over the same User Pad

> If you want to overwrite the current User Pad, just touch the **Save** button.

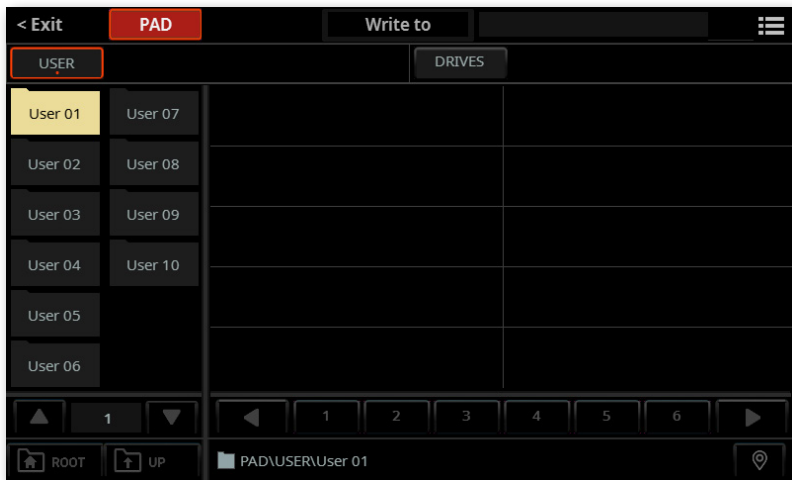
■ Rename the Pad

While in the **Save Pad** dialog, you may change the **name** of the Pad.

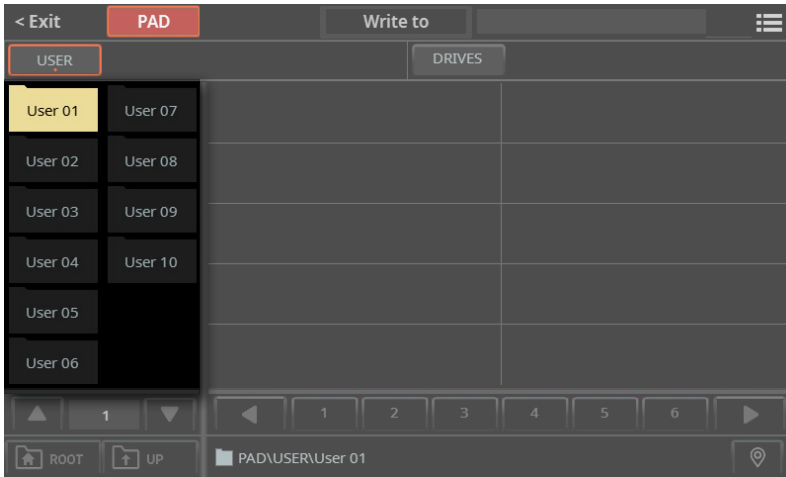
- 1 Touch the **Text Edit** (**T**) button to open the **virtual keyboard** and edit the name.
- 2 When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

■ Save to a different place

- 1 If you want to save to a different folder, touch the **To (target path)** button in the **Save Pad** window, and open the **Save To** window.



2 Touch the **folder** where you want to save the new Pad.



3 To save a new file, don't touch any of the Pads in the folder (shown in the right side of the window). On the contrary, if you want to overwrite one of the existing elements, touch it.

4 Press the **EXIT** button to close the **Save To** window and confirm your selection.

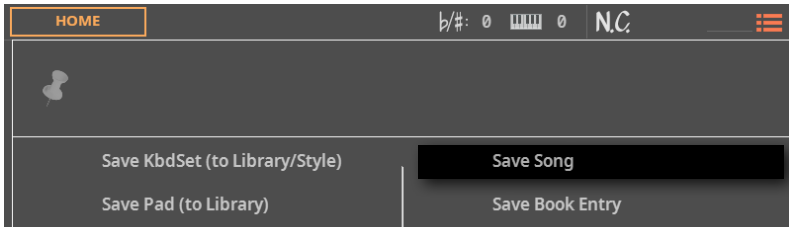
5 When back at the **Save Pad** dialog, confirm the Save operation by touching the **Save** button.

Saving the current MIDI Song

You can save different Sounds into the selected MIDI Song. Please note that any Program Change message contained in the Song can still change the Sounds during playback.

Note: All changes will be lost when choosing a different Song, unless you save them.

- 1 Choose the **Save Song** command from the **page menu**.



- 2 Confirm saving.

15

The Mixer and the Effects

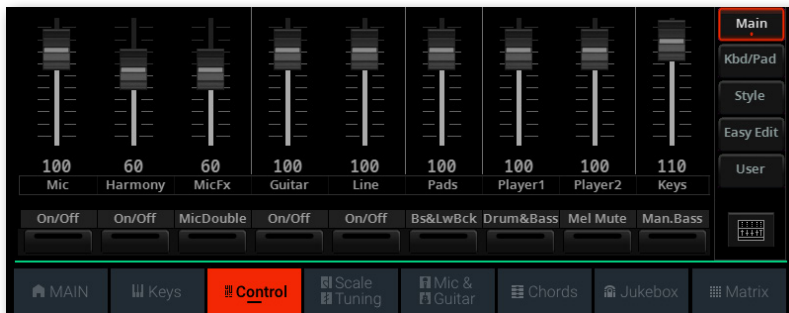
The Mixer

Mixing the Sounds

Mixing from the Home > Control pane

The **Control** pane of the **Home** page contains a selection of mixing controls. Here, you can quickly balance the volume of the Sounds and mute/unmute them.

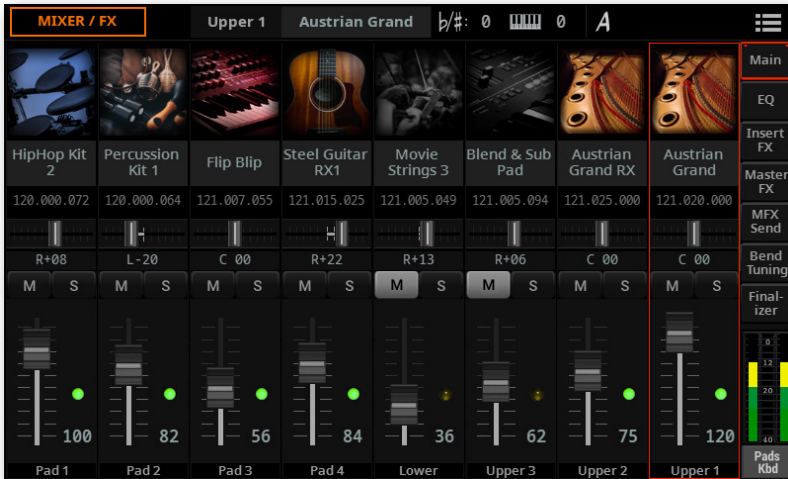
- > Go to the **Home** page (the one you see when turning the instrument on), and touch the **Control** tab to see the corresponding pane.




Mixing from the Mixer/FX pages

The **Mixer/FX** edit section is the internal digital mixer of the instrument.

- > Go to the **Home > Menu > Mixer/FX** edit section to access the mixing functions. You can also access this section from the **Style/Song Edit > Menu**.



- > You can also access this page by touching the **Mixer** () button in the **Home > Control** pane.



Checking which Sounds are playing

In the lowest area of various pages, an indicator shows which Sounds are playing.



This lets you see the source of the audio signal. When mixing, you can mute or solo the various channels, and see each Sound's contribution to the overall mix.

Color	Sound
Green	Keyboard or Pad
Orange	Style or Song from Player 1
Blue	Style or Song from Player 2

Metering the audio levels

While in the **Mixer/FX** edit section, a stereo level meter is always visible in the lower right side of the display.



Keep an eye on it while adjusting the volume and EQ levels, or the internal level of the effects. The color of the bars will warn about the risk of overloading and distort the final audio outputs.

Color	Meaning
Green	Audio level is fine.
Yellow	Audio level is fine, but it is running near the maximum. Be careful when increasing the level of the channel volume or an EQ band, or the internal volume of the effects.
Red	The audio output is being overloaded. If this happens occasionally on short peaks (like a percussion hit), it may still be fine. If it remains too long in the red, lower the channel volume, or find the offending EQ band or effect level.

Adjusting the Sounds' Volume and Pan

Adjusting the Volume from the control panel

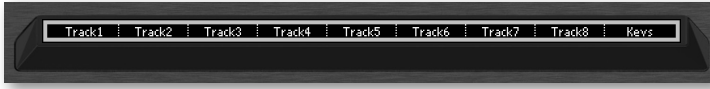
1 Use the mode buttons in the **CONTROL** section to select the groups of Sounds to control. By default, the **MAIN** group is selected, where you can control the audio inputs, the voice effects, and entire groups of Sounds with a single slider. These are the main audio sources of the instrument.



2 If you want to control the individual Sounds of the Style or the MIDI Song, press the **STYLE/SONG** mode button in the **CONTROL** section.



3 To see which function is assigned to each slider or button, check the **strip display** under the sliders. Press the **VIEW** button to alternate between the sliders and the buttons.



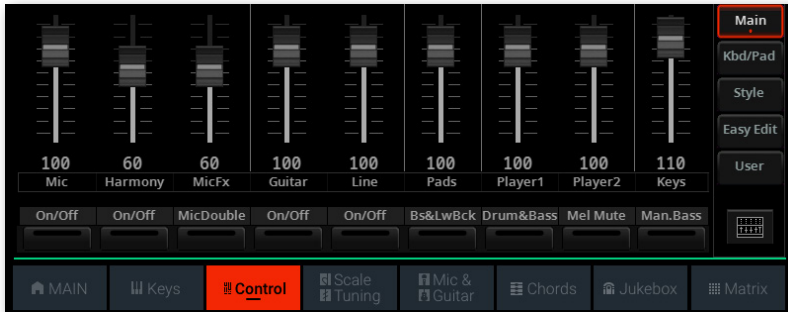
4 Press the **STYLE/SONG** button again to cycle between Song Tracks 1-8 and 9-16.

5 Use the **sliders** to adjust the volume.

Volume	Meaning
0...127	Volume level in MIDI values

Adjusting the Volume from the Home page

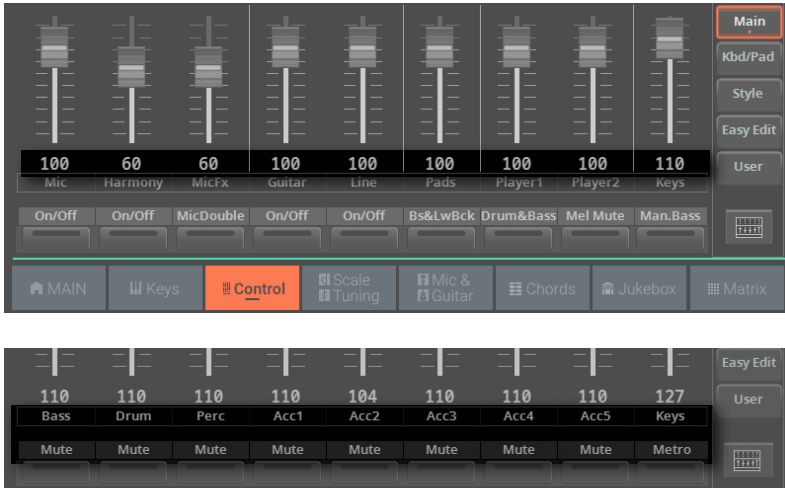
1 Go to the **Home > Control** pane. By default, the **Main** group is selected, where you can control the audio inputs, the voice effects, and entire groups of Sounds with a single slider.



2 If you want to control the individual Sounds of a Style or a MIDI Song, touch the **Style/Song** mode button.



3 To see which function is assigned to each slider or button, check the **legends** under the sliders.



4 If you are editing a MIDI Song, touch the **Song 1-8/9-16** mode button again to cycle between the Song's Tracks 1-8 and 9-16.

5 Use the **virtual sliders** to adjust the volume.

Volume

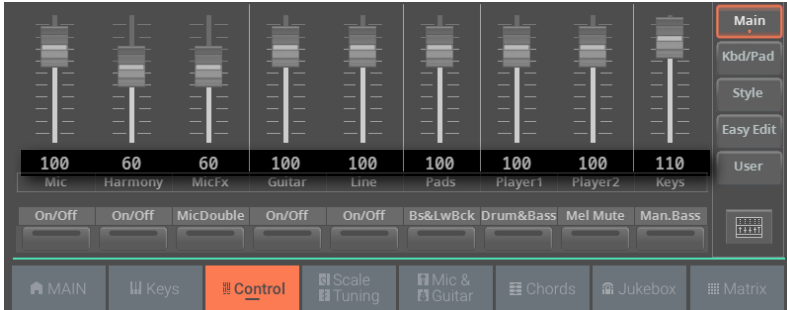
Meaning

0...127


Volume level in MIDI values

Checking the Volume value

When moving a slider, check the Volume value in the **strip display**, or in the display just **under the slider**. The value in the **strip display** is shown for a short time, to leave room to the slider and button legends.



Adjusting Volume and Pan from the Mixer/FX section

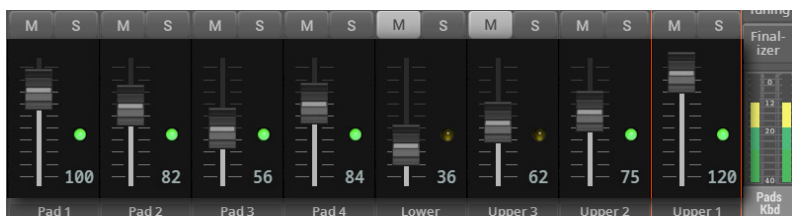
1 Go to the **Home > Menu > Mixer/FX > Main** page. You can also access this section from the **Style/Song Edit > Menu**, or from the **Mixer** () button in the **Home > Control** pane.



2 Touch the **TRACK SELECT** button to switch between the Sounds of the Keyboard and Pads, and the ones of the Style or the MIDI Song.



3 Use the **vertical sliders** to adjust the Volume.



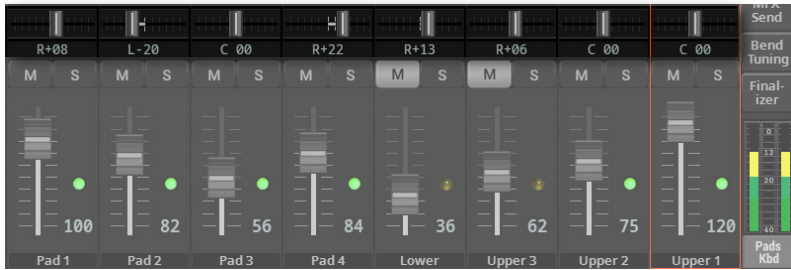
Volume

Meaning

0 ... 127

Volume value from silence to the loudest level.

4 Use the **horizontal sliders** to adjust the Pan (short for ‘panorama’, that is the Sound’s position in the stereo field).



Pan	Meaning
-----	---------

L-64 ... L-1	Left
--------------	------

C 00	Center
------	--------

R+1 ... R+63	Right
--------------	-------

Soloing and muting the Sounds

You can solo or mute the Sounds. Soloing can be useful to check how something sounds in isolation. Muting can be used to remove a Sound from a mix, either to check the final effect, or to replace it with a live player.

Muting from the control panel

1 Use the mode buttons in the **CONTROL** section to select the groups of Sounds to control. By default, the **MAIN** group is selected. Here you can mute the audio inputs and the voice effects, but not the internal Sounds.



2 If you want to mute the Sounds of a Style or a MIDI Song, press the **STYLE/SONG** mode button in the **CONTROL** section.



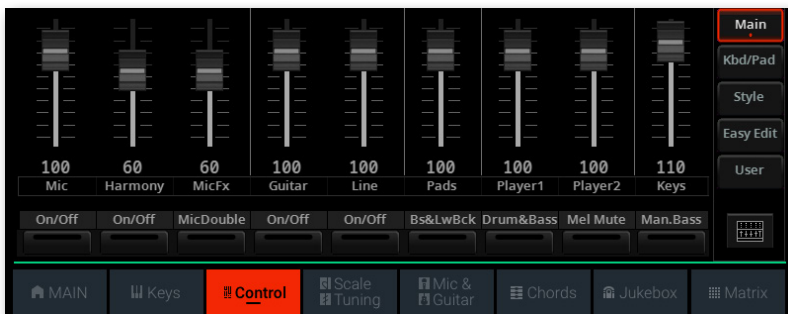
- 3 To see which function is assigned to each slider or button, check the **strip display** under the sliders. Press the **VIEW** button to alternate between the sliders and the buttons.



- 4 Press the **STYLE/SONG** button again to cycle between Song Tracks 1-8 and 9-16.
- 5 Use the **buttons** to mute/unmute the corresponding track's Sound.

Muting from the Home page

- 1 Go to the **Home > Control** pane. By default, the **Main** group is selected, and this mode doesn't contain Sound mute controls.



- 2 If you want to control the Sounds of the Style or the MIDI Song, touch the **Style/Song** mode button.



3 To see which function is assigned to each slider or button, check the **legends** under the sliders.



4 If you are editing a MIDI Song, touch the **Song 1-8/9-16** mode button again to cycle between the Song's Tracks 1-8 and 9-16.

5 Use the **virtual buttons** to mute/unmute the corresponding Sound.

Soling and muting from the Mixer/FX section

1 Go to the **Home > Menu > Mixer/FX > Main** page. You can also access this section from the **Style/Song Edit > Menu**, or by touching the **Mixer** () button in the **Home > Control** pane.




2 Touch the **TRACK SELECT** button to switch between the Sounds of the Keyboard and Pads, and the ones of the Style or the MIDI Song.

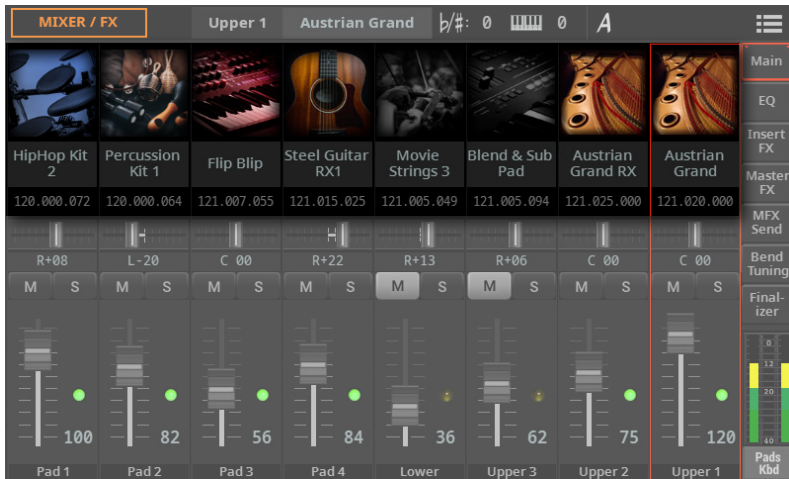


3 Use the Mute (**M**) and Solo (**S**) buttons to mute or solo the corresponding Sound.

Viewing and choosing the Sounds

The Mixer/FX edit section also allows for choosing Sounds for the Keyboard, Pads, Style and MIDI Songs.

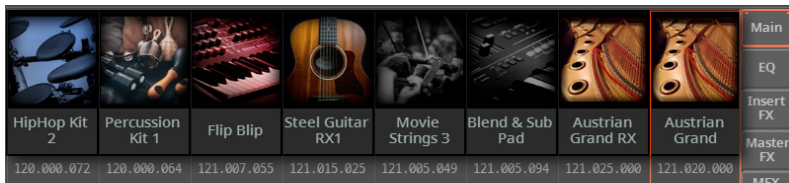
1 Go to the **Home > Menu > Mixer/FX > Main** page. You can also access this section from the **Style/Song Edit > Menu**, or by touching the **Mixer** () button in the **Home > Control** pane.



2 Touch the **TRACK SELECT** button to switch between the Sounds of the Keyboard and Pads, and the ones of the Style or the MIDI Song.



3 Touch the **name of the Sound** you want to replace, and choose a different Sound.



Equalizing the Sounds

Pa5X includes three-band channel equalization (EQ) on each individual mixer channel. Each Sound can be individually equalized.

The equalizer is a powerful tool to shape your sound. Be careful not to overdo, since excessive boost can overload the audio outputs and distort the sound. Sometimes, it is better to attenuate a band instead of boosting, to make other sounds emerge through the mix.

Adjusting the EQ gain

- 1 Go to the **Home > Menu > Mixer/FX > EQ** page. You can also access this section from the **Style/Song Edit > Menu**.



- 2 Keep the **EQ Gain knob** held on the screen, and move it to the desired level. As an alternative, use the **DIAL** or **UP/DOWN** controls to change the value of the selected knob.

EQ Gain	Meaning
HF (High Frequency)	
-18 ... +18dB	High frequency equalization. This is a shelving curve filter.
MF (Middle Frequency)	
-18 ... +18dB	Middle frequency equalization. This is a bell curve filter.
LF (Low Frequency)	
-18 ... +18dB	Low frequency equalization. This is a shelving curve filter.

Enabling or disabling the EQ

Each Channel EQ can be turned on or off. This can also be useful to check its effect while editing.

- 1 Go to the **Home > Menu > Mixer/FX > EQ** page. You can also access this section from the **Style/Song Edit > Menu**.




- 2 Use the **On/Off** button on top of the EQ to enable or disable the Channel EQ.

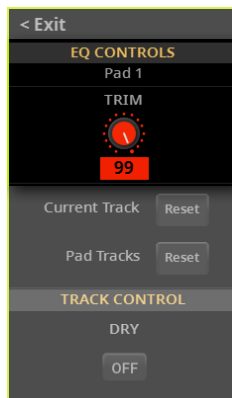
Adjusting the EQ input sensitivity

Extreme equalization gains can overload the audio circuits and lead to distortion. You can, however, trim down the input to avoid overloading.

- 1 Go to the **Home > Menu > Mixer/FX > EQ** page. You can also access this section from the **Style/Song Edit > Menu**.



- 2 Touch the **gear** () button to open the **EQ Controls** dialog.



- 3 Use the **Trim** knob to attenuate the level of the signal passing through the equalizer.

Input Trim

Meaning

0 ... 99

Attenuation value.


- 4 When done, press the **EXIT** button to close the dialog.

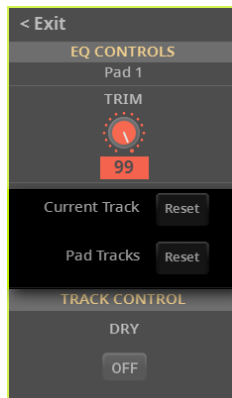
Resetting the EQ

You can reset the EQ to the default (that is, 'flat') status.

- 1 Go to the **Home > Menu > Mixer/FX > EQ** page. You can also access this section from the **Style/Song Edit > Menu**.



- 2 Touch the **gear** () button to open the **EQ Controls** dialog.



- 3 Reset the current track's EQ, or all the EQs of the group of tracks, as described below.
- 4 When done, press the **EXIT** button to close the dialog.

■ Reset the EQ on the selected track

- > Touch the **Current Track Reset** button.

■ Reset the EQ on a group of tracks

- > Touch the **KbdSet/Pad/Style/Song Tracks Reset** button.

Saving the Mixer settings

You can save the mixer settings into a User Keyboard Set, Pad, Style, or a MIDI Song, a SongBook Entry.

- > Choose the **Save Keyboard Set (to Library/Style)** command from the **page menu** to save the settings to a User Keyboard Set.
- > Choose the **Save Pad** command from the **page menu** to save the settings to a User Pad.
- > Choose the **Save Style** command from the **page menu** to save the settings into the current Style. Only User Styles can be overwritten.
- > Choose the **Save Song** command from the **page menu** to save the settings into the current MIDI Song.
- > Choose the **Save Book Entry** command from the **page menu** to save the settings into a SongBook Entry.

The Insert and Master Effects

All the effects of Pa5X

Pa5X includes a powerful multi-effect processor for the internal Sounds. These effects contribute in making the final sound of the instrument, adding vibe and a sense of space. There are up to twenty-three Insert and nine Master Effects, to which the Sounds can be sent from their internal mixer channel.

A separate Finalizer module for each of the Players, with EQ and limiting, takes care of the volume leveling and the sound shaping. The sound coming from a Style or a Song is therefore already perfectly balanced before the final output stage.

The final mastering effects on the audio outputs, making the instrument's sound 'blended' and 'produced', are the result of KORG's long-term cooperation with Waves Audio®, the world reference in studio mastering effects. The included Waves MaxxAudio® suite of effects delivers sound that is louder, clearer, fuller, and more polished.

In addition to the above, Pa5X also includes a multi-effect processor for the microphone and guitar inputs, respectively called the Mic and the Guitar Processor. These incredible effects can be accessed directly from the controls of Pa5X, without having to patch-in any external effect processor.

The FX processors

Pa5X includes Insert and Master Effects ('effect' is often abbreviated as FX).

➤ Insert Effects (IFX) are assigned to a single Sound, and process the whole signal passing through. The most common Insert Effects are amp simulators, chorus or flanger, overdrive and distortion pedals, compressors, etc. Insert Effects are pre-fader, so the volume level of the mixer channel will not change the level of the signal entering the effect.

> Master Effects (MFX) are effects shared by several different Sounds, that can be mixed in at different levels. The most common Master Effects are delays and reverbs. Master Effects are post-fader, so the volume level of the mixer channel will change the level of the signal entering the effect.

Each group of Sounds can go to a different group and number of effects.

Sounds	FX Group	Insert FX	Master FX
Keyboard	FX B	Three (3), shared between all the Sounds.	Three (3), common to all the Sounds.
Pad	FX A	-	Three (3), common to all the Sounds.
Player 1	FX A (+B)	Up to ten (10), freely assignable to any Sound. Up to three (3) effects can be assigned to a single Sound.	Three (3), common to all the Sounds. With MIDI Songs, you can also use the ones left unused from Group B.
Player 2	FX A (+B)	Up to ten (10), freely assignable to any Sound. Up to three (3) effects can be assigned to a single Sound.	Three (3), common to all the Sounds. With MIDI Songs, you can also use the ones left unused from Group B.
Drum Families	FX A	Up to seven (7), freely assignable to any Drum Family. Up to two (2) effects can be assigned to a single Drum Family. The individual Drum Families can be processed by their own Insert FXs. The full Drum Kit can then be further processed by its channel Insert FXs.	Three (3), shared between all Sounds. The individual Drum Families have their own send level to the Master FXs. Then, the full Drum Kit has its own general send levels.

You can assign to the Master Effects processors any type of available effects, but we found it convenient to arrange them, most of the times, in the following way:

Master FX	Type of effect
A FX1	Reverb processor for the Pads, Style and MIDI Song Sounds.
A FX2	Modulating FX processor for the Pads, Style and MIDI Song Sounds.
A FX3	Delay processor for the Pads, Style and MIDI Song Sounds.
B FX1	Reverb processor for the Keyboard Sounds
B FX2	Modulating FX processor for the Keyboard Sounds
B FX3	May change

Choosing the FX Group

With the Keyboard, Pad and Style Sounds, the FX Group is fixed and cannot be changed (you can only see it).

With MIDI Songs, you can freely choose between FX Group A and B for each of the Song tracks. Using Group A is usually recommended, to avoid overlapping with the Keyboard Sounds. Also, Group B effects can be changed when choosing a different Keyboard Set, and this would impact on the Song. However, for more advanced programming of MIDI Songs, you are free to use both FX Groups.

1 Go to the **Home > Menu > Mixer/FX > Insert FX** page. You can also access this section from the **Style/Song Edit > Menu**.

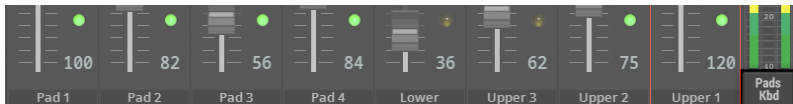


Keyboard group shown



MIDI Song group shown

2 Touch the **TRACK SELECT** button to switch between the Sounds of the Keyboard and Pads, and the ones of the Style or the MIDI Song.



3 If it is allowed, choose an **FX Group** for each of the tracks.

The Insert Effects

Each Sound can go to one or more Insert Effects processors.

Activating the Insert Effects

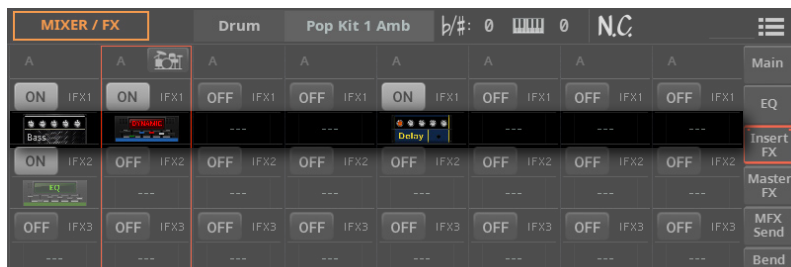
1 Go to the **Home > Menu > Mixer/FX > Insert FX** page. You can also access this section from the **Style/Song Edit > Menu**.



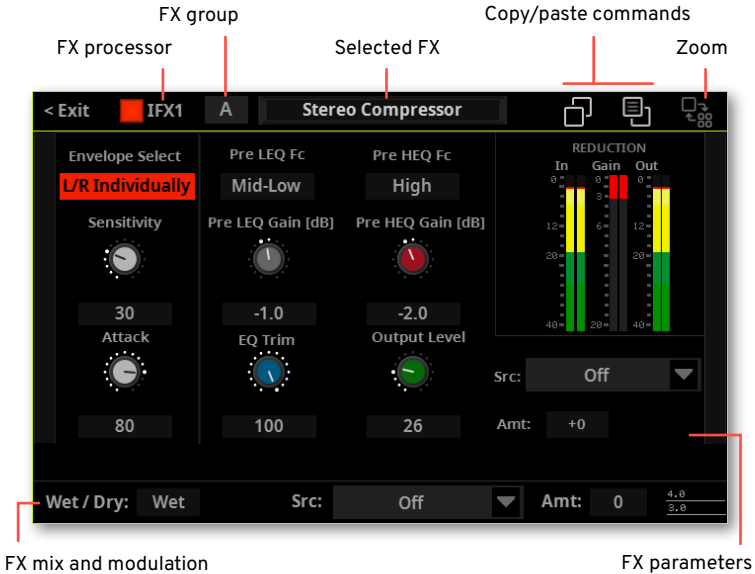
2 Use the **On/Off** buttons to enable or disable the Insert Effects.

Choosing the Insert Effects

1 Go to the **Home > Menu > Mixer/FX > Insert FX** page. You can also access this section from the **Style/Song Edit > Menu**.



- 2 Touch the icon of the **effect type** to open the **FX Edit** window.



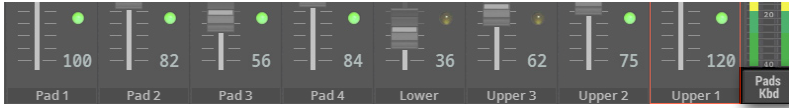
- 3 Touch the **name of the selected effect** on top of the dialog to open the **FX Select** window, and choose an effect.
- 4 If needed, edit the various parameters, as described in the part of the User Manual dedicated to the [Effects for the Sounds](#).
- 5 You can adjust the **Wet/Dry** mix of the Insert Effects.
- 6 When finished editing, press the **EXIT** button to return to the previous page.

The Insert Effects on the Drum track

On the Drum track, you can access a separate window, and add Insert Effects to each Drum Family. The full Drum Kit is then sent to the Insert Effects of the mixer channel for further processing. This double layer of effects allows for finer shaping of the sound.

- 1 Go to the **Home > Menu > Mixer/FX > Insert FX** page. You can also access this section from the **Style/Song Edit > Menu**.

2 Touch the **TRACK SELECT** button to switch between the Sounds of the Keyboard and Pads, and the ones of the Style or the MIDI Song, until you see the Drum track.



3 Locate the Drum track, showing the **Drum Family** button.



4 Touch the **Drum Family** button to access the **Drum Family IFX** window.

IFX 1 and 2 on each Drum Family



Drum Families

5 Use the **On/Off** button to enable or disable the Insert Effects.

6 Touch the icon of the **effect type** to open the **FX Edit** window.

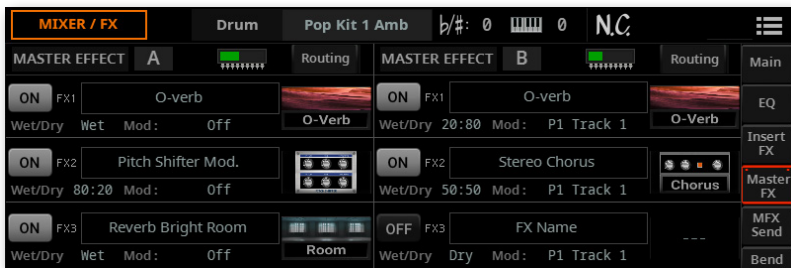
7 When finished editing, press the **EXIT** button to return to the previous page.

The Master Effects

Each Sound can send its audio signal to one or more Master Effects.

Activating the Master Effects

1 Go to the **Home > Menu > Mixer/FX > Master FX** page. You can also access this section from the **Style/Song Edit > Menu**.



2 Use the **On/Off** button to enable or disable the Master Effects.

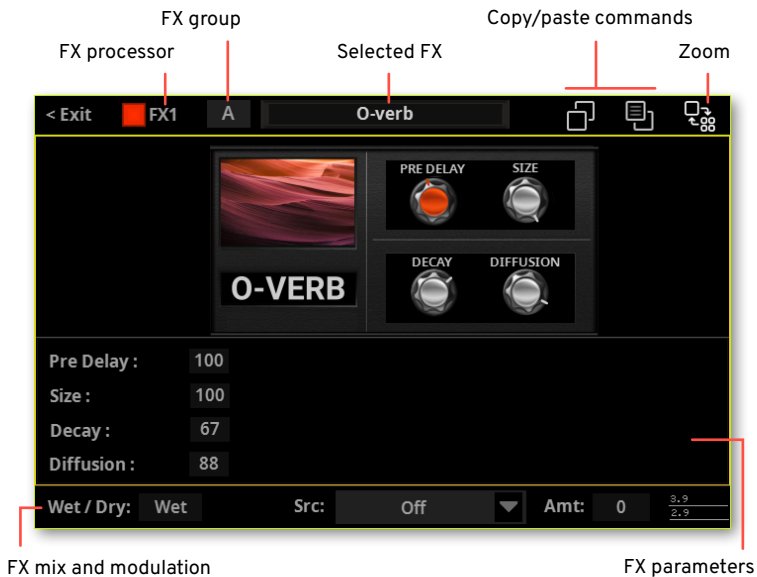
Please keep in mind that Master Effects are assigned to all the Sounds of the same group. **FX Group A** is assigned to the Style and MIDI Song Sounds; **FX Group B** is assigned to Keyboard and Pad Sounds (but can also be assigned to selected MIDI Song Sounds).


Choosing the Master Effects

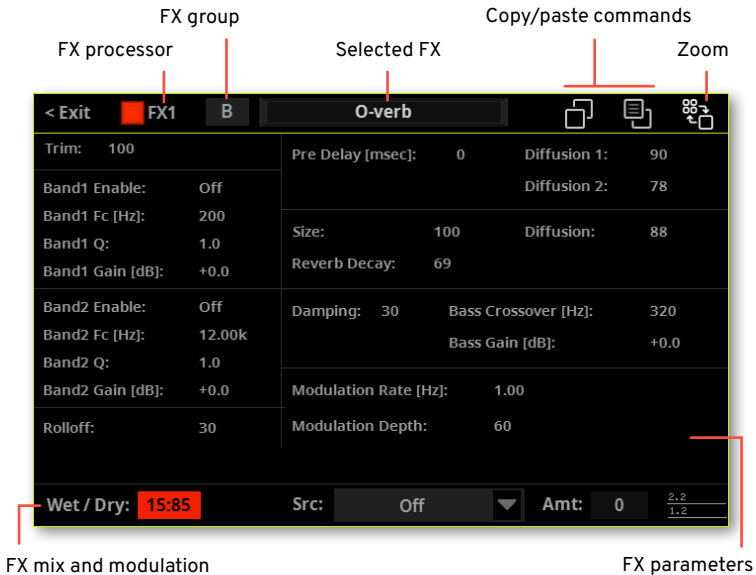
1 Go to the **Home > Menu > Mixer/FX > Master FX** page. You can also access this section from the **Style/Song Edit > Menu**.




2 Touch the icon of the **effect type** to open the **FX Edit** window.



- 3 Touch the **Zoom In** () button to see the detailed parameters of the effect.



- 4 Touch the **Zoom Out** () button to return to the main parameters of the effect.
- 5 Touch the **name of the selected effect** on top of the dialog to open the FX Select window, and choose an effect.
- 6 If needed, edit the various parameters, as described in the part of the User Manual dedicated to the [Effects for the Sounds](#).
- 7 You can adjust the **Wet/Dry** mix of the Insert Effects. To set the amount of effect, use the individual channels' send level instead (as explained below).
- 8 When finished editing, press the **EXIT** button to return to the previous page.

Checking the effect's resource usage

Pa5X uses high-quality algorithms to generate effects. Some of them may be very heavy on the main processor. Therefore, we added an indicator showing the pressure on the processing resources next to each group of Master Effects.

1 Go to the **Home > Menu > Mixer/FX > Master FX** page. You can also access this section from the **Style/Song Edit > Menu**.



2 Check the resource pressure indicator next to each FX Group.

3 If the resources are starting to get short, or are already overloading, replace the most resource-heavy Insert or Master Effects with nearly equivalent, but lighter ones.

Routing the Master Effects

The Master Effects of each group usually work in parallel. You can, however, set them into a serial chain, with FX2 and FX3 going into FX1.

- 1 Go to the **Home > Menu > Mixer/FX > Master FX** page. You can also access this section from the **Style/Song Edit > Menu**.



- 2 Touch the **Routing** button to open the **Master Effects Routing** window for the corresponding FX Group.



- 3 Use the **FX2** and **FX3** knobs to send their output to the input of **FX1**.
- 4 When finished editing, press the **EXIT** button to return to the previous page.

Adjusting the send level to the Master Effects

You can adjust the level of the direct (dry) signal sent from each Sound to the Master Effects.

- 1 Go to the **Home > Menu > Mixer/FX > MFX Send** page. You can also access this section from the **Style/Song Edit > Menu**.



- 2 On each mixer channel, use the **FX** knobs to control the level of the direct (dry) signal sent to the corresponding Master FX processor (inside the selected FX Group, A or B).

Master 1, 2, 3

Meaning

0...127

FX Send level in MIDI values

Adjusting the send level to the Master Effects on Drum-type tracks

On tracks set to Drum mode (usually the Drum and Percussion tracks), you can access a separate mixer, and finely adjust the level of the direct (dry) signal sent from each Drum Family.

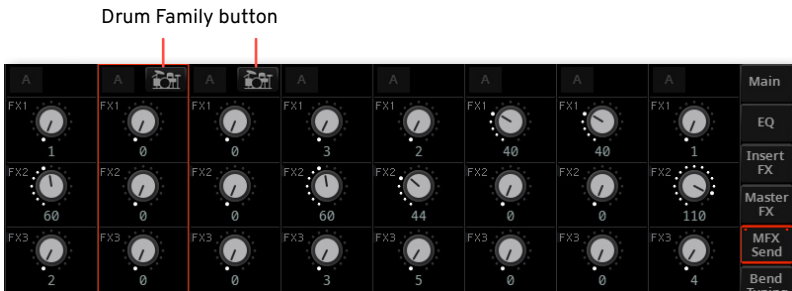
The send level of the full Drum or Percussion mixer channel is also adjusted in the main mixer. These are two separate layers of send controls, working in parallel. So, we suggest to lower to zero the Drum and Percussion tracks send level in the main mixer, to avoid overloading the signal on the Master Effects.

1 Go to the **Mixer/Tuning > FX Send** page. You can also access this section from the **Style/Song Edit > Menu**.

2 Touch the **TRACK SELECT** button to switch between the Sounds of the Keyboard and Pads, and the ones of the Style or the MIDI Song, until you see the Drum and Percussion tracks.

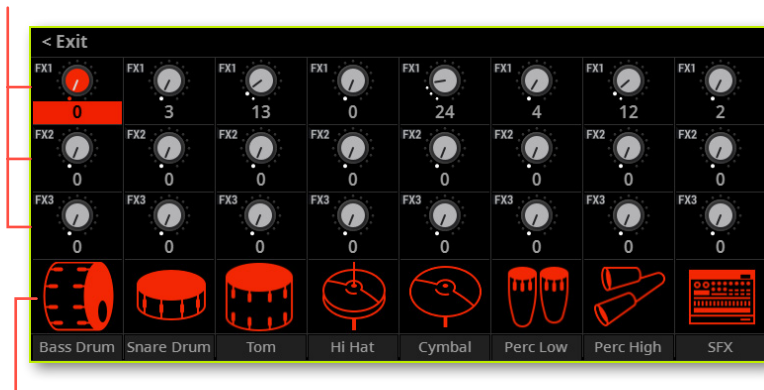


3 Locate the Drum track, showing the **Drum Family** button.



- 4 Touch the **Drum Family** button to access the **Drum Family MFX** window.

MF1, 2 and 3 on each Drum Family



Drum Families

- 5 On each Drum Family strip, use the **FX** knobs to control the level of the direct (dry) signal sent to the corresponding Master FX processor (inside the selected FX Group, A or B).

Master

Meaning

0...127

FX Send level in MIDI values

- 6 When finished editing, press the **EXIT** button to return to the previous page.

Including the dry (direct) signal in the Master Effects

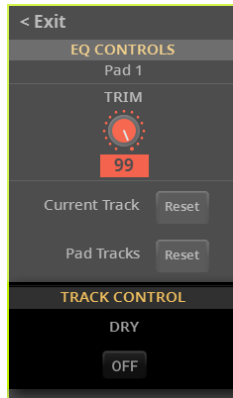
The dry (or 'direct') signal is the raw sound, without the effects. It should normally be included in the signal coming out from the Master Effects, to give a sense of presence and position of the sound's source.

This parameter is not needed for the Insert Effects, since they always include the dry signal.

- 1 Go to the **Home > Menu > Mixer/FX > EQ** page. You can also access this section from the **Style/Song Edit > Menu**.

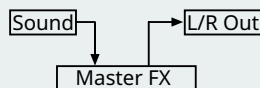
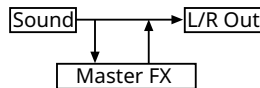


- 2 Touch the **gear** (⚙️) button to open the **EQ Controls** dialog.



- 3 Use the **On/Off** button to enable or disable the **Dry** signal of the current track.

Dry	Meaning
On	The direct signal is sent to the outputs, mixed with the Master Effects.
Off	The direct signal is removed from the audio outputs, that will only contain the effected signal. With stereo effects, the effected signal will still be positioned according to the Pan value. This will work in a way similar to an Insert Effects, where the full dry signal is always processed.



Copying the Insert and Master Effects


To speed up programming, you can copy the individual Insert or Master Effects. You can copy them between different elements (for example, between Styles and Song, or Keyboard Sets and Sounds).

The Copy/Paste operation only copies the parameters contained in the **FX Edit** window.


The **Copy/Paste** commands are contained in the **FX Edit** window itself.



■ Copy the effect

- 1 Select the **source element** (Keyboard Set, Style, Song or Sound).
- 2 Go to the **Mixer/Tuning > Insert FX** page to copy an Insert Effects, or to the **Master FX** page to copy a Master Effects.
- 3 Touch the **name of the effect** to be copied, to open the corresponding **FX Edit** window.
- 4 Touch the **Copy Effect** () button.
- 5 Press the **EXIT** button to exit.

■ Paste the effect

- 1 Select the **target element** (Keyboard Set, Style, Song or Sound).
- 2 Go to the **Mixer/Tuning > Insert FX** page to paste an Insert Effects, or to the **Master FX** page to paste a Master Effects.
- 3 Touch the **name of the effect** to be pasted, to open the corresponding **FX Edit** window.
- 4 Choose the **Paste Effect** () button.
- 5 Press the **EXIT** button to exit.

Saving the Insert and Master Effects settings

You can save the Insert and Master Effects settings into a User Keyboard Set, Pad, Style, a MIDI Song, a SongBook Entry.

- > Choose the **Save Keyboard Set (to Library/Style)** command from the **page menu** to save the settings to a User Keyboard Set.
- > Choose the **Save Pad** command from the **page menu** to save the settings to a User Pad.
- > Choose the **Save Style** command from the **page menu** to save the settings into the current Style. Only User Styles can be overwritten.
- > Choose the **Save Song** command from the **page menu** to save the settings into the current MIDI Song.
- > Choose the **Save Book Entry** command from the **page menu** to save the settings into a SongBook Entry.

The Finalizer

Accessing the Finalizer

The Finalizer gives to the sound of a song a clear and punchy finish, before being sent to the mastering effects on the audio outputs. It also warrant a balanced level between all the Styles and Songs you will play.

There is a Finalizer for each of the Players. The Pads are processed according to the selected Player. Keyboard Sounds are not affected by the Finalizer. The settings are saved into each Style or SongBook Entry.

The included effects are a four-band parametric equalizer and a limiter. These are studio-grade mastering effects, with a pleasant, warm analog sound, comparable to the best 'outboard' effects found in professional recording studios.

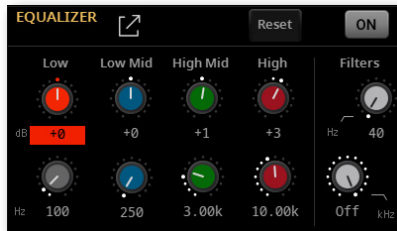
➤ Go to the **Home > Menu > Mixer/FX > Finalizer** page. You can also access this section from the **Style/Song Edit > Menu**.



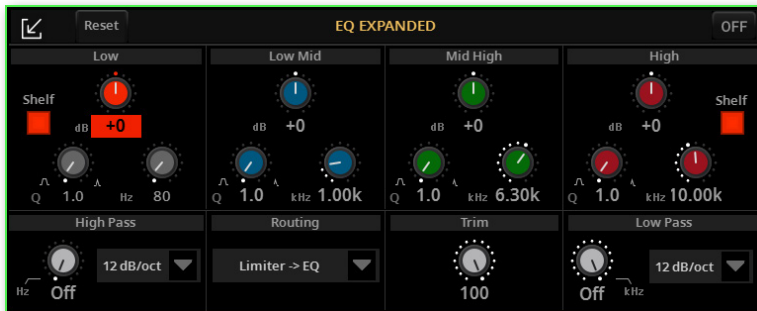
Editing the Equalizer

Standard and expanded view

You can edit the main parameters of the equalizer from the main page.



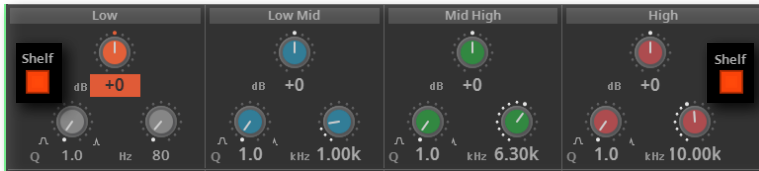
However, you can touch the **Expand** (🔍) button to access more parameters.



After having edited the parameters, you can go back to the reduced size by touching the **Collapse** (🔍) button.

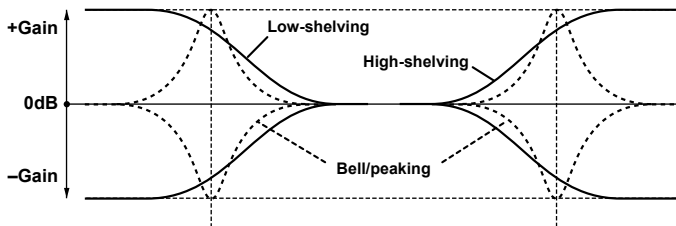
Shelving- or bell-type EQ curves

The **Shelf** button in the Low and High bands is usually enabled, making them low- or high-shelving EQ curves. You can disable it to make them bell/peaking-type EQ curves.



A **Low Shelf EQ** allows for attenuating or boosting the level of the frequency range below the selected frequency. A **High Shelf EQ** allows for attenuating or boosting the level of the frequency range above the selected frequency.

A **Bell/Peaking EQ** allows for cutting or boosting the level of the frequency range around the selected center frequency.



Setting the EQ

Use the **EQ** section to shape the sound.



- > Use the **dB** knob to set each EQ band's gain.

dB (Gain)	Meaning	Value
All bands	Cuts or boost the selected EQ band.	-18 ... +18 dB

- > Use the **Q** knob to set each EQ band's 'quality' or width.

Q (Width)	Meaning	Value
All bands	Quality or bandwidth. Higher values make the band narrower, therefore the EQ more precise and focused on a single frequency. Lower values make the band larger, 'coloring' a wider range or frequencies.	1 ... 10

- > Use the **Hz** knob to set the center frequency.

Hz (Frequency)	Meaning	Value
Low	Center frequency of the EQ band.	20 Hz ... 1.00 kHz
Low Mid		50 Hz ... 5.00 kHz
Mid High		300 Hz ... 10.00 kHz
High		500 Hz ... 20.00 kHz

Setting the High Pass and Low Pass filters

In addition to the EQ bands, you can set an high-pass and a low-pass filter.

A **High-Pass Filter** cuts out the lower frequencies, letting you remove any rumble or excessive bass that may result from adding many instruments in the lower range.

A **Low-Pass Filter** cuts out the higher frequencies, making the sound somewhat 'softer'. It may also be used to remove any hiss or piercing sound that may be in some samples (like the sound of the violin bow on the strings, or a guitar's feedback), or that may be emphasized when using effects boosting the higher range.



Filter	Meaning	Value
Hz (High-Pass)	Frequency from which the filter starts to cut the sound.	Off, 20Hz ... 1.00kHz
Hz (Low-Pass)		500Hz ... 20.00kHz, Off
dB/octave	The intensity of the filter depends on the attenuation per octave, or 'slope'. With 6 dB/octave, intensity is halved in the octave above the selected frequency. With 12 dB/octave it is reduced four times, and so on.	6 ... 24 dB/octave

Internal routing of the signal

You can choose if the Limiter or the EQ comes first in the Finalizer's effect chain. You can put the Limiter first to tame any signal peak, and then add high-frequency 'shimmer' back to the signal with the EQ. Or you can put the EQ first to cut uneven frequencies, and then let the Limiter smooth out the resulting sound.



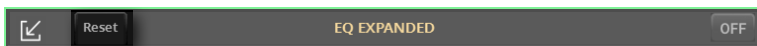
Trimming the output gain

Use the **Trim** control to adjust the EQ's output gain. The Finalizer's output goes to the Mastering effects, and too loud a signal may overload their input.



Resetting the EQ parameters

You can reset the EQ parameters by touching the **Reset** button.



Editing the Limiter

The Limiter

This parametric limiter allows for taming the volume peaks, giving an overall impression of ‘glue’ and ‘blend’ to the sound coming from the Player.



Check if the **In** indicator is going into the red. If it is, the signal before the Limiter is too high. If the EQ comes before the Limiter, try reducing the EQ's **Trim** control. If the Limiter comes first, check the signal chain before the Finalizer to see at which stage the signal is too 'hot'.

While adjusting the Limiter's parameters, check the **Out** indicator to see if the signal going out of the Limiter is clipping (red). If it is, reducing the **Gain** can solve the issue.

The **Gain Reduction (GR)** indicator shows the amount of limiting going on. Usually, just a hint of limiting may make the signal smoother, without reducing the overall naturalness of the sound. But you may want to limit more aggressively for special effects, and you can do so by lowering the **Threshold** level.

Limiters	Meaning	Value
Ratio	This is the amount of reduction operated by the limiter once the Threshold level has been reached. For example, '2:1' means that the level is halved.	1.0:1 ... 50.0:1, Inf:1
Threshold (dB)	This is the level over which the limiter will start compressing the signal. Lower values mean that the limiter will start working more often.	-40 ... 0 dB
Attack	This is the speed at which the limiter starts operating when the Threshold level is exceeded. Too fast an attack might cut the sound's initial transients. Too slow, it can let 'bursts' of signal pass.	1 ... 100 ms
Release	This is the speed at which the limiter ends operating after the signal is returned again below the Threshold level. Too fast the release might cut the sound's tail, and the sudden release may cause 'pumping'. In EDM music, this may be a desired effect. On the other side, a longer release time may affect parts of the audio that should remain unaffected, for example low-level sounds like reverb tails or mechanical noises.	1 ... 100 ms
Gain Adjust (dB)	Limiting may cause loss of overall volume level, so you may want to 'make-up' the output level with this control.	-Inf, -38 ... +24

Saving the Finalizer settings

You can save the Finalizer settings into a User Style, a MIDI Song, a SongBook Entry.

- > Choose the **Save Style** command from the **page menu** to save the settings into the current Style. Only User Styles can be overwritten.
- > Choose the **Save Song** command from the **page menu** to save the settings into the current MIDI Song.
- > Choose the **Save Book Entry** command from the **page menu** to save the settings into a SongBook Entry.

16

The Track parameters

Tuning

Transpose

You can transpose each Sound by one or more semitones. This can be used, for example, to transpose a Sound when playing with the split keyboard, or to double a Sound by the octave.

- 1 Go to the **Home > Menu > Mixer/FX > Bend/Tuning** page.
- 2 Use the **b/#** knobs to set the semitone transposition for each Sound.



Transpose

Meaning

0 Standard tuning.

-36 ... +36 Transpose value (in semitones). Twelve semitones = one octave.

Fine tuning

You can fine-tune each Sound. This can be useful to create a sense of realism and depth, replicating the slight lack of tuning precision typical of a real performer.

- 1 Go to the **Home > Menu > Mixer/FX > Bend/Tuning** page.
- 2 Use the **Detune** knobs to set the fine tuning for each Sound.



Detune

Meaning

0	Standard tuning.
-64 ... +63	Sound pitch (in cents of a semitone).

Routing and polyphony

Using the internal or external Sounds

Usually, Pa5X plays the Sounds generated by the internal sound engine. However, you can choose to let it play the sounds of an external device (a sound module, a virtual instrument running on a personal computer).

- 1 Go to the **Home > Menu > Track Control > Mode** page.

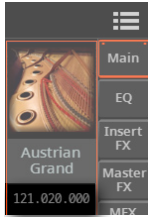


- 2 Use the **Internal/External** parameter to connect the corresponding track to the internal and/or external sound generation.

Int/Ext	Meaning
Both	The track plays both the internal sounds and an external instrument connected to the MIDI OUT or USB DEVICE port.
Internal	The track only plays the sounds generated by the internal sound generator.

Int/Ext	Meaning
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External	<p>The track only plays an external instrument connected to the MIDI OUT or USB DEVICE port. The connected device must receive data on the MIDI channel associated with this track on Pa5X.</p> <p>Pa5X can select sounds on the external device; the Program Change bundle is shown in the Home > Menu > Mixer/FX > Main page.</p>
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None	<p>The track is not connected to the internal sound generator, nor to an external one.</p>
------	--

Choosing the polyphony mode

Sounds can play polyphonically or monophonically, or behave as Drum Kits.

- 1 Go to the Home > Menu > **Track Control** > **Mode** page.



- 2 Use the **Type** parameter to choose the polyphony mode.

Type	Meaning
Drum	Drum/Percussion track. This is typically assigned to the Drum and Percussion tracks of the Styles and MIDI Songs. Set a Keyboard Sound to Drum mode, if you don't want it to be transposed (it will behave as a Drum Kit, even if it is an ordinary Sound). Also, set it to Drum mode if you wish to separately adjust the volume and set a different output for each percussive family of a Drum Kit. Drum Kits are never transposed, whichever the type of track they are assigned to. This parameter cannot be edited, if the track has already been set to Drum or Percussion mode in Style Edit mode.
Poly	Tracks of this type are polyphonic, meaning they can play more than one note at the same time.
Mono	Tracks of this type are monophonic, meaning each new note stops the previous note.
Mono Right	A Mono track, with priority assigned to the rightmost (highest) note.
Mono Left	A Mono track, with priority assigned to the leftmost (lowest) note.

Quick editing of Sounds and Drum Kits

Quick editing of Sounds

You can edit the main parameters or a Sound. These changes are offset to the original values. They will be saved to a Sound combination (User Keyboard Set, User Style, SongBook, etc.), and not directly into a Sound. For deeper editing, please access Sound Edit.

Editing the Sounds

- 1 Go to the **Home > Menu > Track Controls > Sound Edit** page.
- 2 Select the track containing the Sound to be edited.



- 3 If you like, start the Style or Song to listen to the changes during playback.
- 4 Use the Mute (**M**) and Solo (**S**) buttons to mute or solo the track you are editing, to isolate it from the other tracks.

5 Use the **knobs** to edit the corresponding parameters. All the values are offsets referred to the value of the original Sound.

Sound parameter	Meaning	Value
Attack	Attack time. This is the time during which the sound goes from zero (at the moment when you strike a key) to its maximum level.	
Decay	Decay time. Time to go from the final Attack level to the minimum level.	
Release	Release time. This is the time during which the sound goes from the sustaining phase, to zero. The Release is triggered by releasing a key.	-64 ... +63 (offset)
Cutoff	Filter cutoff. This sets the sound brightness.	
Resonance	Use the Filter Resonance to boost the cutoff frequency.	
LFO Depth	Intensity of the Vibrato (LFO).	
LFO Speed	Speed of the Vibrato (LFO).	
LFO Delay	Delay time before the Vibrato (LFO) begins, after the sound starts.	

Setting Portamento

Portamento is a smooth sliding transition from a note to the following one.

- > Select the **Portamento > On** checkbox to turn portamento on, or uncheck it to turn it off.
- > Use the **Portamento > Time** knob to adjust the speed of portamento.

Resetting the parameters

■ Reset a track

- > Touch the **Reset Current Track** button to reset all changes to the selected track.

■ Reset all tracks

- > Touch the **Reset Keyboard Set Tracks** or **Reset Style Tracks** button to reset all edited values in all the corresponding tracks.

Quick editing of Drum Kits

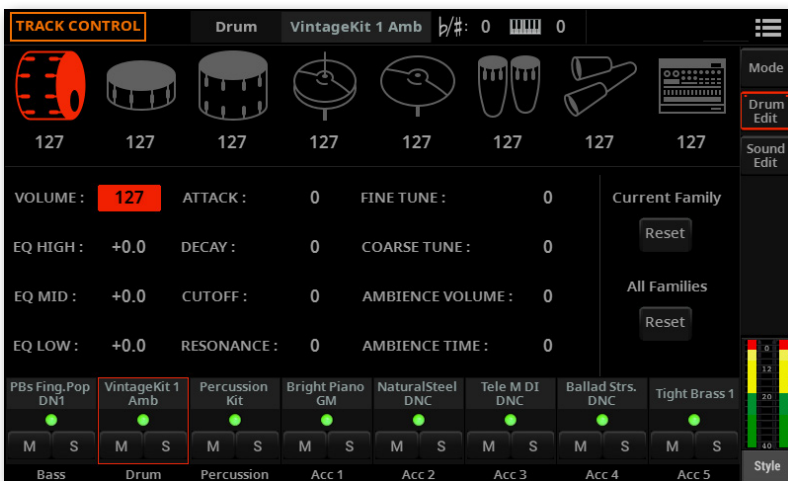
You can edit the main parameters or a Drum or Percussion Kit. These changes are offset to the original values. They will be saved to a Sound combination (User Keyboard Set, User Style, SongBook Entry, etc.), and not directly into a Drum or Percussion Kit. For deeper editing, please enter Sound Edit.

In this page, you can adjust the volume and edit the main parameters for each family of Drum and Percussion instrument for the selected track. A list of families is shown below.

These parameters can be accessed only on tracks set to the Drum mode in the **Track Controls > Mode** page. Use them on tracks with a Drum Kit assigned, or you will not be able to hear any change.


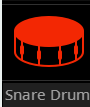

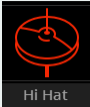
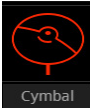
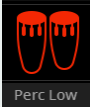
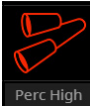
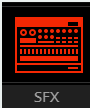
Editing the Drum Kits

- 1 Go to the **Home > Menu > Track Controls > Drum Edit** page. You can also access this section from the **Style Edit > Menu**.
- 2 Select a track set to the Drum mode (usually the **Drum** or **Percussion** track). The **Drum Family** icons on top of the page can now be selected.



- 3 If you like, start the Style or MIDI Song to listen to the changes during playback.
- 4 Use the Mute (**M**) and Solo (**S**) buttons to mute or solo the track you are editing, to isolate it from the other tracks.

5 Select one of the Drum **Family** icons on top of the page.

Drum Family icon	Drum family
 Bass Drum	Kick drums
 Snare Drum	Snare drums
 Tom	Toms
 Hi Hat	Hi-Hat cymbals
 Cymbal	Ride, Crash and other cymbals
 Perc Low	Low-pitched percussions
 Perc High	High-pitched percussions
 SFX	Special effects

6 Check the value of the selected parameter for all the Drum families. An overview of the current parameter can be seen under the icons of the Drum Families.

This will let you compare the value of the selected family with all the others. The values appear dimmed (non-editable).



7 Select and edit the parameters. Most of the values are offsets referred to the value of the original Drum Kit.

DK parameter	Meaning	Value
Volume	Instrument's family volume.	0 ... 127
EQ Hi	Equalization, High band.	-18 ... +18
EQ Mid	Equalization, Middle band.	
EQ Low	Equalization, Low band.	
Attack	Attack time. This is the time during which the sound goes from zero (at the moment when you strike a key) to its maximum level.	
Decay	Decay time. Time to go from the final Attack level to the minimum level.	
Cutoff	Filter cutoff. This sets the sound brightness.	
Resonance	Use the Filter Resonance to boost the cutoff frequency.	-64 ... +63 (offset)
Fine Tune	Fine instrument tuning.	
Coarse Tune	Coarse instrument tuning.	
Ambience Volume	Volume of the Ambience effects (environment and mechanical noise).	
Ambience Time	Length of the Ambience effects (environment and mechanical noise).	

Resetting the parameters

■ Reset a Drum family

> Touch the **Reset Current Family** button to reset all edited values.

■ Resetting a track

> Touch the **Reset All Families** button to reset all changes to the selected track.

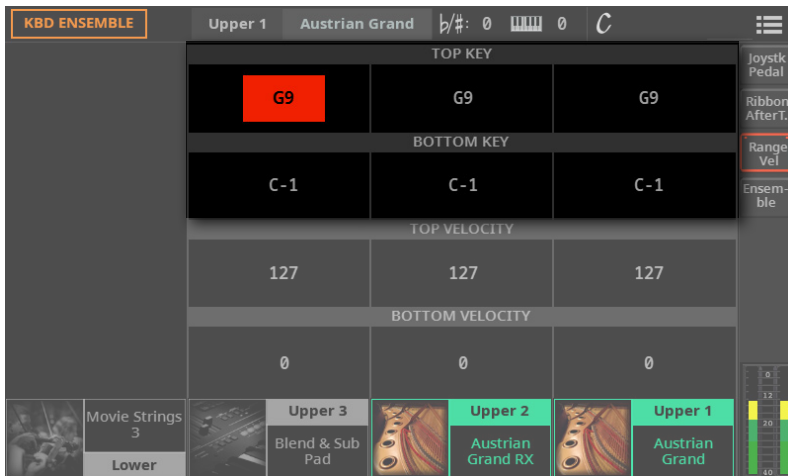
Setting the key and velocity range

You can program a key and velocity zone for each of the Keyboard Sounds. These can create separate zones for different Sounds.

Setting the Key Range

Key range is useful to create a set of Keyboard Sounds playing in different zones of the keyboard. For example, you may have French Horns and Woodwinds playing in the center range of the keyboard, while only Woodwinds play on the higher range.

- 1 Go to the **Home > Menu > Keyboard/Ensemble > Range/Velocity** page.
- 2 Select the Keyboard Sound to be edited.



- 3 Use the **Top Key** and **Bottom Key** parameters to set the Top and Bottom limits of the Sound's Key zone.

Key

Meaning

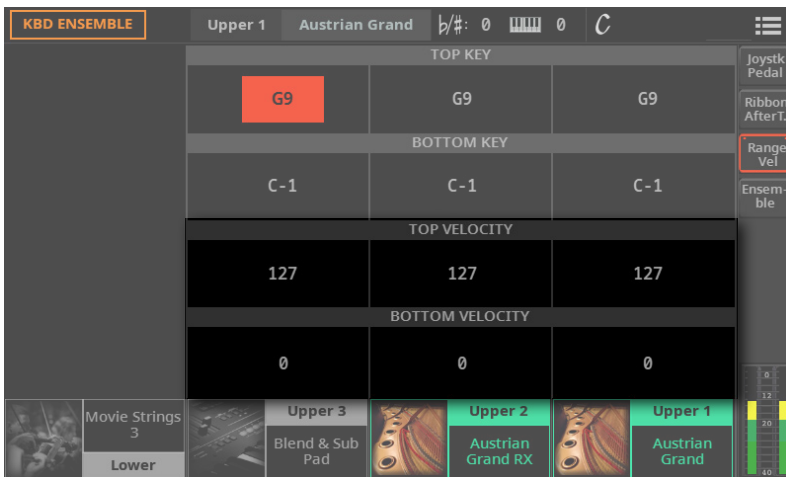
C-1 ... G9

Selected key. The Top value is always higher than the Bottom value.

Setting the Velocity Range

Velocity range is useful to create a sound made of up to three dynamic layers, assigning each of the Upper Sounds to a different velocity zone. As an example, you may choose **MK II Suitcase** as the Upper 1 Sound, and **MK I Dyno** as the Upper 2 Sound. Then, set Upper 1 to Bottom=0, Top=80, and Upper 2 to Bottom=81, Top=127. The **MK II Suitcase** will play when playing softer, the **MK I Dyno** when playing louder.

- 1 Go to the **Home > Menu > Keyboard/Ensemble > Range/Velocity** page.
- 2 Select the Keyboard Sound to be edited.



- > Use the **Top Velocity** and **Bottom Velocity** parameters to set the Top and Bottom limits of the Sound's Velocity zone.

Velocity	Meaning
0 ... 127	Velocity value. The Top value is always higher than the Bottom value.

Saving the Track settings

You can save the Track settings into a User Keyboard Set, Pad, Style, a MIDI Song, a SongBook Entry.

- > Choose the **Save Keyboard Set (to Library/Style)** command from the **page menu** to save the settings to a User Keyboard Set.
- > Choose the **Save Pad** command from the **page menu** to save the settings to a User Pad.
- > Choose the **Save Style** command from the **page menu** to save the settings into the current Style. Only User Styles can be overwritten.
- > Choose the **Save Song** command from the **page menu** to save the settings into the current MIDI Song.
- > Choose the **Save Book Entry** command from the **page menu** to save the settings into a SongBook Entry.

17

Digital Drawbars

The Digital Drawbars

What are the Digital Drawbars?

Digital Drawbars are special Sounds emulating the classic tonewheel organs. Settings for the Digital Drawbars are memorized in a Keyboard Set, a Style or a MIDI Song, and may be considered the equivalent of an organ's preset.

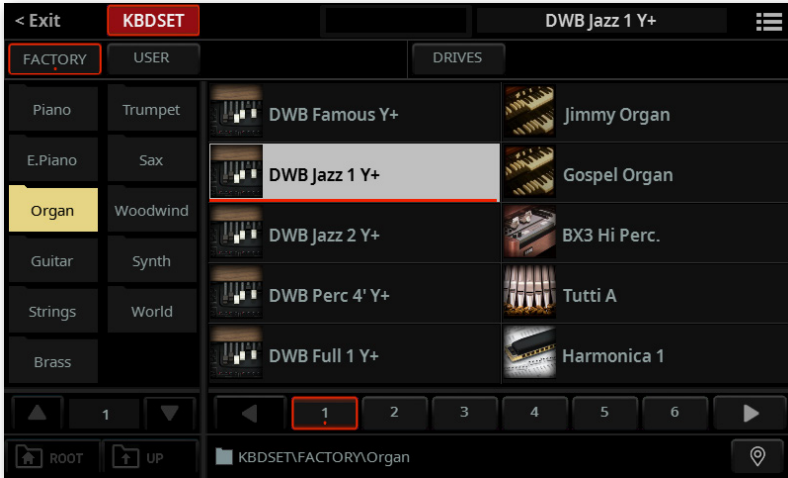
A single Digital Drawbars Sound can be assigned to the keyboard, and only one to the Style. A single Digital Drawbars Sound can be assigned to Tracks 1-8, and a single one to Tracks 9-16 or a MIDI Song.

You can assign the same Sound to different tracks in the same block (for example, two different Accompaniment tracks in a Style). On the contrary, if you need the different manuals of an organ, you can assign each of them to a different block (for example, the Upper manual to one of the Tracks 1-8, and the Lower manual to one of the Tracks 9-16).

Choosing Digital Drawbars Sounds

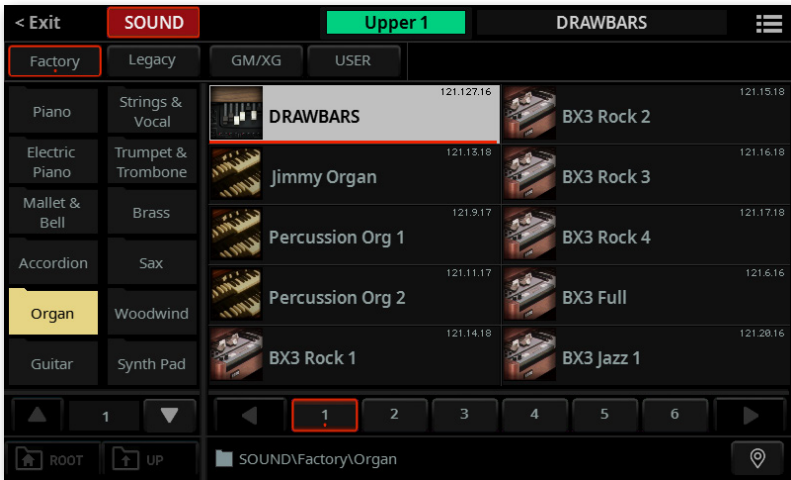
By choosing a Keyboard Set

- 1 Open the **Keyboard Set Select** window.
- 2 Open the **Organ** category, and choose a Keyboard Set whose name begins with the 'DWB' (Drawbars) abbreviation.



By choosing a Sound

- 1 Open the **Sound Select** window.
- 2 Open the **Organ** category, and choose the **DRAWBARS** Sound.



When choosing a Digital Drawbars Sound alone, we suggest to check the **Use IFX** option in the **page menu** of the **Sound Select** window. This will force selection of the effects included with the Sound (for the DRAWBARS, they are Organ Vibrato, CX-3 Amp e CX-3 Rotary Speaker).



Controlling the Digital Drawbars

Controlling the drawbars from the control panel

- 1 Select a **Digital Drawbars** Sound, or a Keyboard Set marked as **DWB**.
- 2 Use the mode buttons in the **CONTROL** section to select the **DWB** mode.



- 3 To see which function is assigned to each slider or button, check the **strip display** under the sliders. Press the **VIEW** button to alternate between the sliders and the buttons.



- 4 Use the sliders and the buttons to change the drawbars registration and enable or disable the various features.

Controlling the drawbars from the display

- 1 Select a **Digital Drawbars** Sound, or a Keyboard Set marked as **DWB**.
- 2 Go to the **Home > Control** pane, and select the **Drawbars** mode from the side tabs.



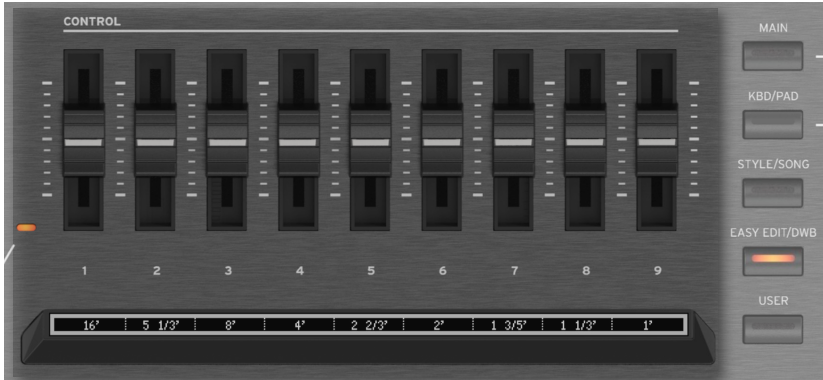
- 3 Use the **virtual sliders** and the **buttons** in the display to change the drawbars registration and enable or disable the various features.

Changing the drawbars registration

Drawbars registration is the combination of the drawbars positions, and affects the harmonic content of the organ sound.

To adjust the position of the corresponding drawbars:

- Use the **CONTROL sliders** on the control panel.



- Drag the **virtual sliders** in the display.



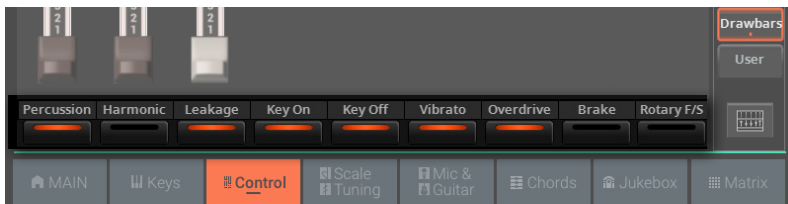
Turning the switches on/off

To enable or disable the sound parameters, or to trigger the controls, do as follows.

- Use the **CONTROL buttons** on the control panel.



- Use the **soft buttons** in the display.



Please note that Vibrato/Chorus, Overdrive, Brake and Rotary Slow/Fast controls will be only working if the following Insert FXs are recalled and enabled for the Digital Drawbars Sound: Organ Vibrato/Chorus, CX-3 Amp, one of the Rotary Speakers.

■ Percussion

Percussion adds a pronounced percussive sound to the attack segment of the organ sound. You can turn it on or off.

■ Harmonic

You can change the harmonic content to the percussive attack. When the indicator is on, the second harmonic is selected. When it is off, the third one is selected.

■ Leakage

Leakage increases the bleed of signal between adjacent tonewheels, with signal from other tonewheel entering an unwanted pickup. This makes the sound 'dirtier', but also richer. You can turn it on or off.

■ Key On and Key Off

The organ keyboard can produce a click noise when pressed (Key On) or released (Key Off). You can turn this noise on or off.

■ Vibrato/Chorus

This is a combined chorus and vibrato effect. How it behaves depends on the selected options in the Sound. You can turn it on or off.

■ Overdrive

The overdrive simulator recreates the amp distortion, increasing realism. You can turn it on or off.

■ Brake

When enabling this control, the rotary speaker gradually slows down, and then stops entirely. When disabling it, the rotary speaker starts rotating again.

■ Rotary Fast/Slow

The rotary speaker can run slow or fast. Turn this button on to make it run fast, turn it off to make it run slow.

Editing the Digital Drawbars

Digital Drawbars and the effects

When editing a Digital Drawbar Organ, we suggest you start from one of the supplied Keyboard Sets and use the effect routing we created for you.

If you prefer to create an entirely new set, please remember that some insert effects must be activated on the same track of the DRAWBARS Sound. To be sure they are automatically selected, check the **Use IFX** option from the **page menu** of the **Sound Select** window.

DWB FX	IFX
Vibrato	Organ Vib/Chorus
Amplifier/Overdrive	CX-3 Amp
Rotor	Rotary Speaker, Rotary Speaker OD, CX-3 Rotary Speaker

Accessing the Digital Drawbars Edit page

Accessing the edit page from the control panel

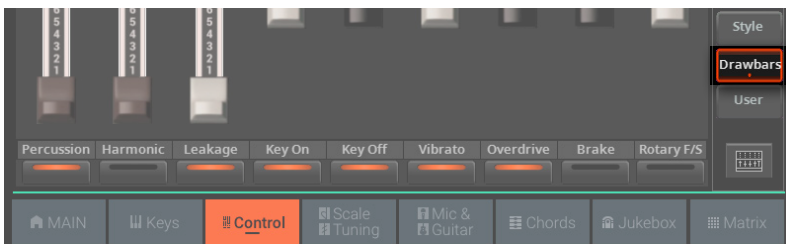
- 1 Choose a Keyboard Set containing a Digital Drawbars Sound, or a Digital Drawbars Sound.
- 2 Press the **EASY EDIT/DWB** button on the control panel, then press it a second time to access editing.



- 3 Press the **EASY EDIT/DWB** button again, or press the **EXIT** button, to exit from the edit page.

Accessing the edit page from the display

- 1 Choose a Keyboard Set containing a Digital Drawbars Sound, or a Digital Drawbars Sound.
- 2 Touch the **Drawbars** button in the **Home > Control** page, then touch it a second time to access editing.



- 3 Touch the **Drawbars** button again, or press the **EXIT** button, to exit from the edit page.

Editing the Digital Drawbars parameters

Editing the parameters

The **Digital Drawbars Edit** page lets you edit in depth the various parameters of the organ's sound.



Please note that Vibrato/Chorus, Overdrive, Brake and Rotary Slow/Fast controls will be only working if the following Insert FXs are recalled and enabled for the Digital Drawbars Sound: Organ Vibrato/Chorus, CX-3 Amp, one of the Rotary Speakers.

Vibrato/Chorus

This effect simulates the vibrato and chorus circuitry (also called the Vibrato Scanner) of a vintage organ.



Parameters

Meaning

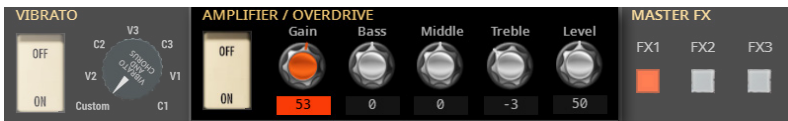
On/Off	Use this switch to enable or disable Vibrato/Chorus.
V1, V2, V3	Selects one of the variations of vibrato.
C1, C2, C3	Selects one of the variations of chorus.
Custom	Allows your own programming of the parameters.

Amplifier

This is a detailed model of the amp of a classic tone-wheel organ, producing a warm, fat tone. With the addition of the 3-band EQ, this amp simulation will allow you to create a very versatile distortion.

Please note that these parameters can only be accessed if the CX-3 Amp effect is selected.

HINT: When the Organ amp is select, you should choose Bypass as the cabinet. This would prevent having at the same time the organ's own cabinet and a guitar cabinet. However, you are free to experiment with any combination.



Parameters	Values	Meaning
On/Off	On, Off	Use this switch to enable or disable the Amplifier.
Gain	0...100	This adjusts the preamp gain, therefore the overdrive. With higher Gain values, you can reach heavy distortion; with Gain = 0, the amp will always remain clean. If an Expression pedal is connected, you can use it to control the amount of overdrive and distortion (by assigning it the Drawbars Overdrive function).
Bass	-10...10	Adjusts the bass frequencies.
Middle	-10...10	Adjusts the middle frequencies.
Treble	-10...10	Adjusts the treble frequencies.
Level	0...100	Amp's output level.

Master Effects (FX1-3)

You can use the **FX1**, **FX2** and **FX3** buttons to enable or disable the corresponding send to the master effects.



Percussion

Percussion adds a percussive sound to the attack segment of the organ sound.



Parameters	Meaning
On/Off	Use this switch to enable or disable the percussion.
Volume	Volume level of the percussive sound. Soft makes percussion less perceivable.
Decay	Decay speed of the percussive sound (Fast or Slow).
Harmonic	Selects a percussion harmonic between the Second and Third one.
Mode	If All, the percussive attack is played on all notes of a chord. If 1st, the percussive attack is played only on the first note of a chord or a group of held notes. Release all notes to trigger the percussion again.

Tone

Tone is the waveshape of the drawbars, producing the raw timbre.



Tone	Meaning
Mellow	A mellower-sounding wave.
Normal	A harder-sounding wave.

Noise

Here you can enable/disable and set the level of **Leakage**, **Key On** and **Key Off**.



Noise	Meaning
On/Off	Use these switches to enable or disable the corresponding effect.
Leakage	Sets the level of Leakage, increasing the bleed of signal between adjacent tonewheels, with signal from other tonewheel entering an unwanted pickup. This makes the sound 'dirtier', but also richer.
Key On	Set the level of the click noise produced by the organ keyboard when pressed (Key On) or released (Key Off).
Key Off	

Rotor

The Rotary Speaker's rotation speed, and the balance between horn and rotor, can be edited.

Please note the individual parameters can only be accessed if one of the insert effects (IFX) or master effects MFX has the Rotary Speaker effect assigned and activated. In case there isn't, some or all of the parameters in this section might not be accessible.



Rotor	Value	Meaning
Rotor On/Off	On, Off	Use this switch to start or stop the rotating speaker.
Speed	Slow, Fast	Use this slider to switch the rotating speaker's speed (from slow to fast, or vice-versa).
Rotor/Horn Balance	Rotor, 1...99, Horn	Adjusts the balance between the low-frequency rotor and the high-frequency horn.

Drawbars

Drag the drawbars to create the raw sound of the tonewheels. Each drawbar corresponds to an organ's stop, corresponding to a harmonic, as in the following table. Pull a drawbar out to increase its volume, push it in to reduce it.



Stop	Meaning
16'	An octave below the fundamental frequency (sub-octave).
5 1/3'	One third below the fundamental frequency (sub-third).
8'	Fundamental frequency (unison).
4'	An octave over the fundamental frequency (first harmonic).
2 2/3'	One twelfth over the fundamental frequency (third harmonic).
2'	Two octaves over the fundamental frequency (second harmonic).
1 3/5'	One seventeenth over the fundamental frequency (fifth harmonic).
1 1/3'	One nineteenth over the fundamental frequency (sixth harmonic).
1'	Three octaves over the fundamental frequency (eight harmonic).

18

Global settings and preferences

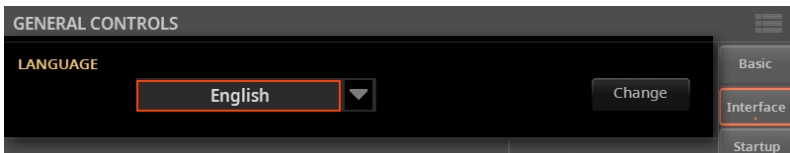
Customizing the user interface

Display and control panel preferences

Choosing the chords and alphanumeric keyboard language

You can choose the language used to show chord names and the characters that can be inserted using the alphanumeric virtual keyboard. Please note that some of the characters can only be used when editing SongBook Entry names.

- 1 Go to the **Settings > Menu > General Controls > Interface** page.
- 2 Use the **Language** pop-up menu to select one of the available languages.

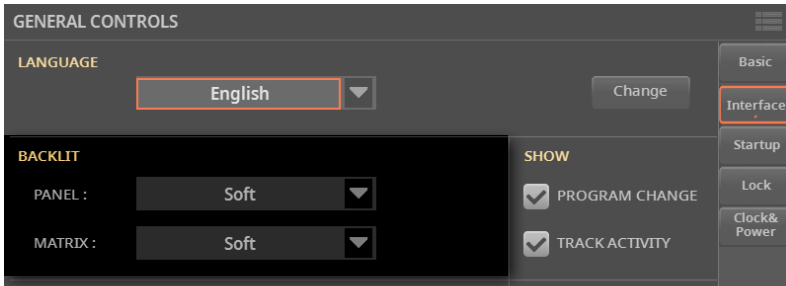


- 3 Touch the **Change** button to apply the selected language.

Control panel and Matrix illumination

You can adjust the brightness of the control panel's button indicators, to adapt the control panel glowing/luminosity to the ambient light. A separate control allows for adjusting the Matrix buttons luminosity.

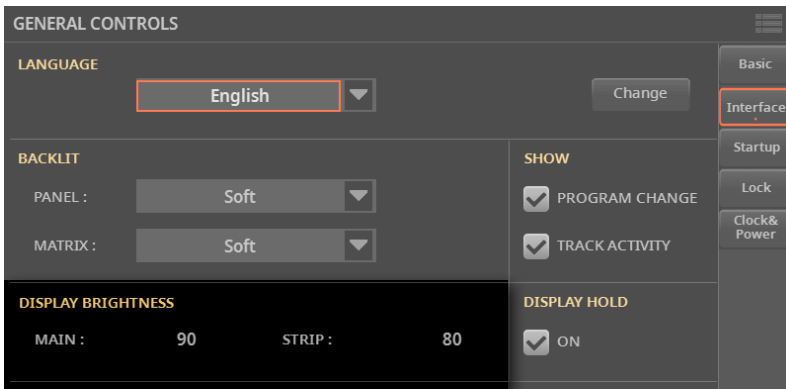
- 1 Go to the **Settings > Menu > General Controls > Interface** page.
- 2 Use the **Backlit > Panel** and **Matrix** pop-up menus to select one of the available luminosity degrees.



Main display and strip display illumination

You can adjust the luminosity of the main display and strip display.

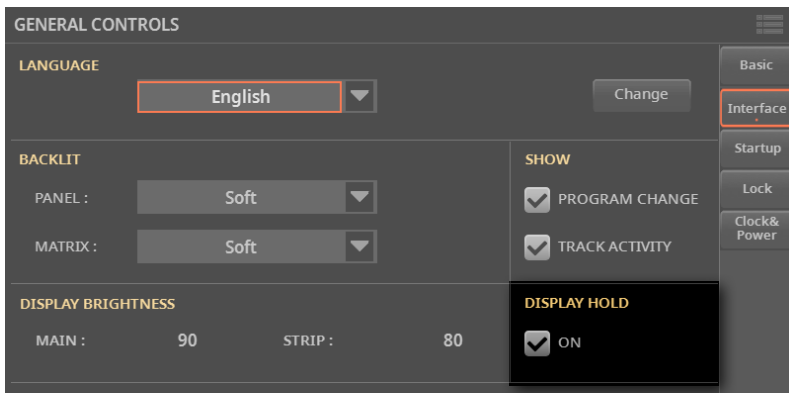
- 1 Go to the **Settings > Menu > General Controls > Interface** page.
- 2 Use the **Display Brightness > Main** and **Strip** controls to adjust the corresponding luminosity.



Automatically closing the Select windows

You may prefer to leave a Select window open after you have chosen a Sound, Keyboard Set, Style, Song, Pad, Chord Sequence, Mic or Guitar Preset, to continue trying other elements in that window. Or, you may prefer it automatically closes after you have completed your choice. This is determined by the **Display Hold** parameter.

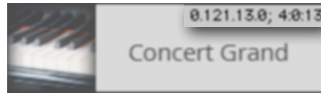
- 1 Go to the **Settings > Menu > General Controls > Interface** page.
- 2 Select the **Display Hold** checkbox to let the Select windows remain open until you press the **EXIT** button. Deselect it to let the Select windows automatically close after you choose an element.



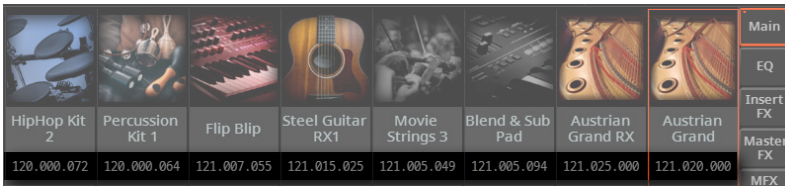
Program Change and activity indicators

Showing/Hiding the Program Change number

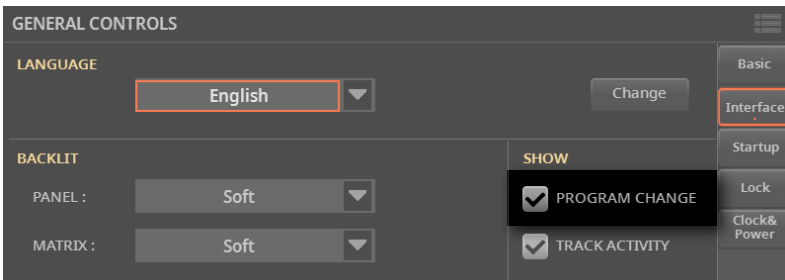
You can make Program Change numbers be shown next to Sound names in the **Sound Select** window.



Please note that Program Change numbers are always shown in the **Home > Menu > Mixer/FX > Main** page.

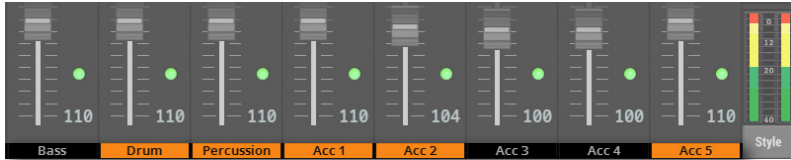


- 1 Go to the **Settings > Menu > General Controls > Interface** page.
- 2 Select/deselect the **Show > Program Change** checkbox.



Showing/Hiding the track's activity

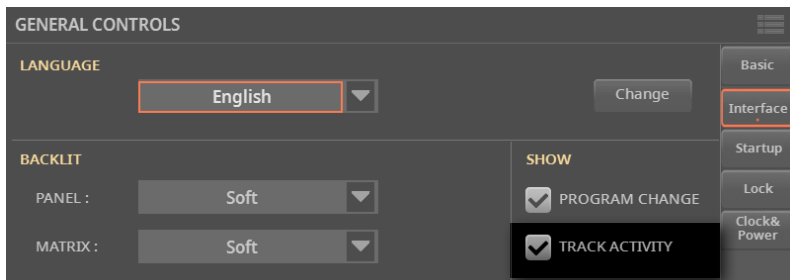
You can turn on/off the Track Activity display. When it is turned on, you can monitor events coming from the internal Sounds or the MIDI messages. Incoming events are shown by the color changing on each track's label.



This lets you see the source of the audio signal. When mixing, you can mute or solo the various channels, and see each Sound's contribution to the overall mix.

Color	Sound
Green	Keyboard
Orange	Style, Song or Pad from Player 1
Blue	Style, Song or Pad from Player 2

- 1 Go to the **Settings > Menu > General Controls > Interface** page.
- 2 Select/deselect the **Show > Track Activity** checkbox.



Automatic selection and locking

Automatically choosing Styles and Keyboard Sets

When the **Auto Select** option is activated, the latest Style or Keyboard Set you selected in a category will be automatically chosen when touching the name of that category. If no Style or Keyboard Set has been selected for that category, the first item it contains will be automatically chosen.

This way, you can select a Style or Keyboard Set at the press of a button, or the touch of a single icon.

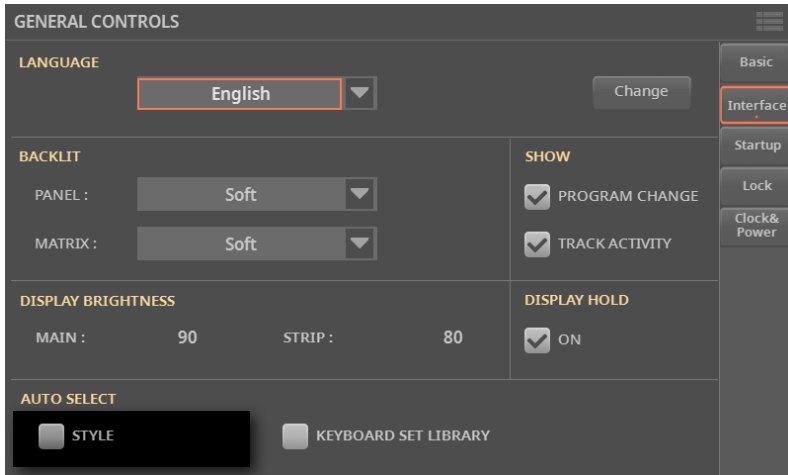
Automatically selecting the Styles

When the **Auto Select > Style** parameter is activated, touching the **name of a Style category** in the **Select** window will automatically select the Style you latest selected in that category.

The **Select** window will still appear, so that you can select a different item if desired.

- 1 Go to the **Settings > Menu > General Controls > Interface** page.

- 2 Select the **Auto Select > Style** checkbox.



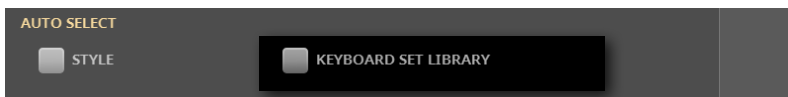
The assigned Styles are memorized when turning the instrument off.

Automatically selecting the Keyboard Sets from the library

When the **Auto Select > Keyboard Set Library** parameter is activated, pressing one of the **KEYBOARD SET LIBRARY** buttons, or touching the **name of a Keyboard Set category** in the **Select** window, will automatically select the Keyboard Set you latest selected in that category.

The **Select** window will still appear, so that you can select a different item if desired.

- 1 Go to the **Settings > Menu > General Controls > Interface** page.
- 2 Select the **Auto Select > Keyboard Set Library** checkbox.




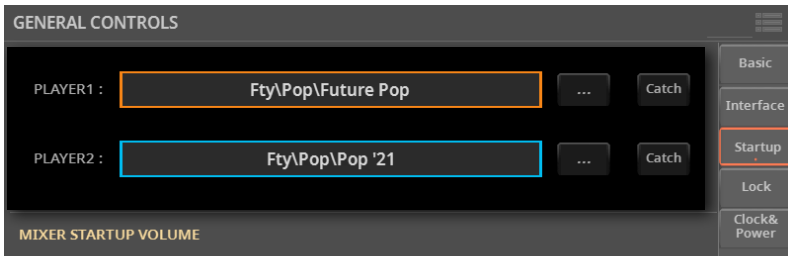
The assigned Keyboard Sets are memorized when turning the instrument off.

Assigning startup elements to the Players

You can assign to the Players a Style or a Song to be automatically selected when turning the instrument on. This way, you will be immediately ready to start your performance.

You can also select a Jukebox (.jbx) file, so that you can have background music playing before the show begins.

- 1 Go to the **Settings > Menu > General Controls > Startup** page.
- 2 Touch the **Select** () button corresponding to each of the Players to select a Style or a Song.

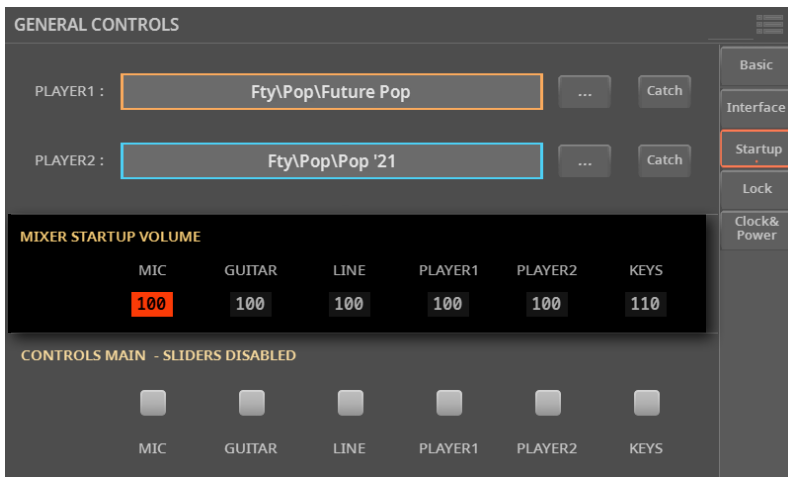


- 3 If you want to choose the Style or Song currently assigned to the Players, touch the corresponding **Catch** button.

Settings a startup level for the audio inputs, the Players and the keyboard

You can assign a startup volume to the audio inputs, the Players and the keyboard when turning the instrument on. This way, you will be sure all the elements are well balanced when beginning your performance.

- 1 Go to the **Settings > Menu > General Controls > Startup** page.
- 2 Use the parameters in the **Mixer Startup Volume** section to set the startup levels.



Preventing level change for the audio inputs, the Players and the keyboard

You can prevent the volume of the sensitive controls for the audio inputs, the Players and the keyboard, to be accidentally changed.

- 1 Go to the **Settings > Menu > General Controls > Startup** page.
- 2 Use the checkboxes in the **Controls Main – Sliders Disabled** section to disable the relevant sliders in the **CONTROL** section.

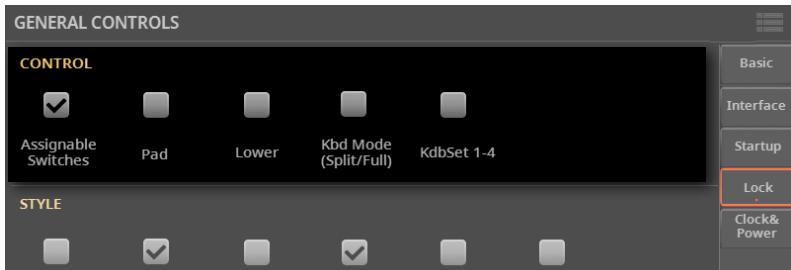


Locking parameters to prevent changes

In various pages, next to some parameters, you can find a **lock (🔒) icon**. All these locks are collected in the **Settings > Menu > General Controls > Lock** pages for easy access.

Locking the Control parameters

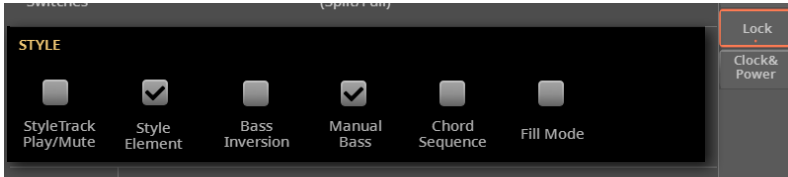
The **Control** section includes the Keyboard Sounds, Pads and Assignable Switches on the control panel.



Control lock	Meaning
Assignable Switches	When locked, selecting a Keyboard Set will not change the functions assigned to the Assignable Switches.
Pad	When locked, selecting a Style or SongBook Entry will not change the Pads.
Lower	<p>When this lock is closed, the Lower Sound (and its play/mute status) remains unchanged when a different Keyboard Set or Style is selected. As expected, the Lower Sound will disappear when you switch from the Split to the Full keyboard mode.</p> <p>Hint: If you want the same Lower settings to be used during all your shows, save your preferred Lower settings to the MY SETTING Keyboard Set (automatically selected on startup), and close this lock.</p>
Keyboard Mode (Split/Full)	<p>When this lock is closed, the status of the SPLIT button (therefore of the keyboard mode) remains unchanged when a different Keyboard Set is selected.</p> <p>Hint: If you want the same Lower settings to be used during all your shows, save your preferred Lower settings to the MY SETTING Keyboard Set (automatically selected on startup), and close this lock.</p>
Keyboard Set 1-4	<p>When this lock is closed, the four currently selected Keyboard Sets are preserved, when choosing a different Style or SongBook Entry.</p> <p>With this lock open, selecting a Style or SongBook Entry will select the four Keyboard Sets they contain.</p>

Locking the Style parameters

The **Style** section includes controls for the Styles.



Style locks	Meaning
Style Tracks Play/Mute	When this lock is closed, choosing a Style does not change the Play/Mute status of the Style tracks. This way, you can, for example, turn the bass track off during a whole show, to allow your bassist to play the part live. Also, you could mute all the Acc tracks, to only play with the Drum and Bass tracks.
Style Element	When this lock is closed, choosing a Style does not change the selected Style Element (Variation, Intro...). This lock does not apply to the Fills and Break. This lock has no effect on the Styles that are automatically selected when choosing a SongBook Entry. In this case, the Style Element memorized in the SongBook Entry is always selected.
Bass Inversion	When locked, choosing a Keyboard Set will not change the Bass Inversion status.
Manual Bass	When locked, choosing a Keyboard Set will not change the Manual Bass status.
Chord Sequence	When locked, choosing a Style or SongBook Entry will not change the Chord Sequence in memory.
Fill Mode	When locked, the selected Fill Mode will not change when choosing a different Style or SongBook Entry.

Locking the Songs parameters

The **Song** section includes a single control for the MIDI Songs.



Style locks

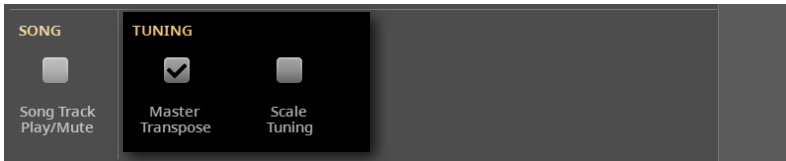
Meaning

Song Tracks Play/
Mute

When this lock is closed, choosing a MIDI Song does not change the Play/Mute status of the Song tracks. This way, you can, for example, turn the solo track off during the whole show, to let you play or sing it live.

Locking the Tuning parameters

The **Tuning** section includes controls for Transpose and Scale.



Tuning lock

Meaning

Master Transpose

Prevents Master Transpose from changing when choosing a SongBook Entry. It also prevents transposing when loading a Standard MIDI File created by Pa5X or any instrument of the KORG Pa-Series.

Scale Tuning

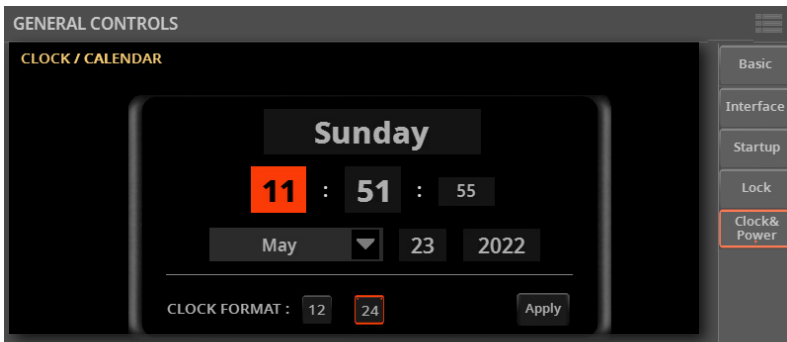
Prevents the Scale settings from changing when choosing a Keyboard Set or SongBook Entry.

System preferences

Setting the date and time for the files

Pa5X includes a battery-backed system calendar and clock. This allows for automatically adding a time-stamp to the files, when they are created or edited.

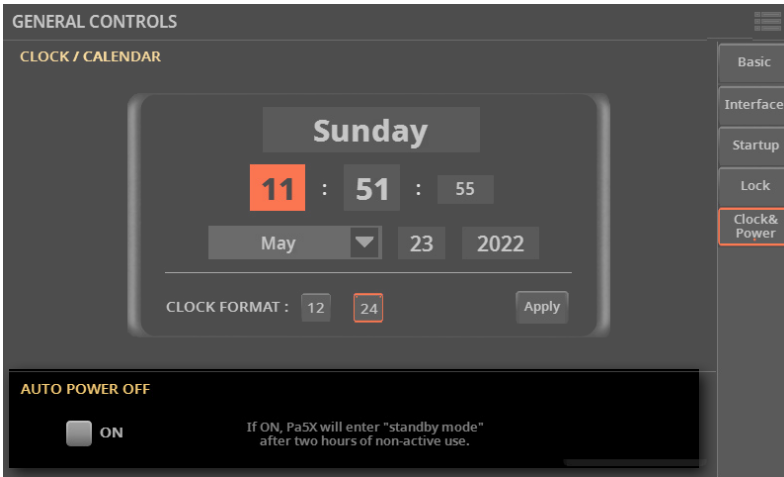
- 1 Go to the **Settings > Menu > General Controls > Clock & Power** page.
- 2 Set the **Time** and **Date**. Input the **Time** as 'hour : minute : second'. Input the **Date** as 'Month / Day / Year'.
- 3 Choose whether you prefer the 12- or 24-hour time format using the **Clock Format** parameter.
- 4 After having edited all the parameters, touch the **Apply** button to apply the changes.



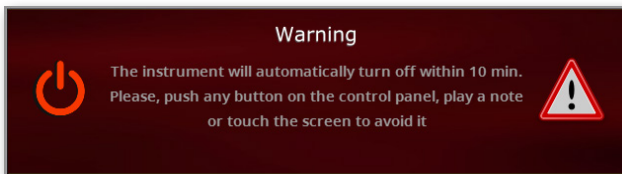
Automatic power off

Pa5X can automatically enter standby after two hours of not being used, to save energy and help preserving the environment.

- 1 Go to the **Settings > Menu > General Controls > Clock & Power** page.
- 2 Select/deselect the **Auto Power Off** checkbox.



When this parameter is checked, a few minutes before automatic standby a message will warn you that the instrument is going to be put in standby. All unsaved data currently in edit will be lost.



At this message, you can let the instrument enter standby, or you can touch the display, press any button on the display, or play the keyboard to leave it turned on and continue using it.

19

Tuning and Scale

Master Transpose and Tuning

Master Tuning

You can fine tune the instrument (in cents of a semitone), to adapt it to an acoustic instrument that is not possible to tune (for example an acoustic piano without a professional tuner or the right tools, or a period instrument).

1 Go to the **Settings > Menu > Tuning > Master Tuning** page.

As an alternative, keep the **SHIFT** button pressed and press either or the **TRANPOSE** buttons.

2 Use the **Master Tuning** parameter to fine tune the instrument.



Tuning	Meaning
-100 cents	Lowest pitch (half a semitone down)
0 cents	Standard pitch (A4 = 440Hz)
+100 cents	Highest pitch (half a semitone up)

Master Transpose

Transposing the instrument as whole

The instrument's key can be transposed to make singing or playing together with another instrument more comfortable. The transpose value is usually shown in the status bar.



Master Transpose settings are also sent to any GM-compliant instrument connected to the **MIDI OUT** or **USB DEVICE** port.

■ Transpose down from the control panel

> Use the **TRANPOSE > FLAT (b)** button to lower the Master Transpose in steps of one semitone.

■ Transpose up from the control panel

> Use the **TRANPOSE > SHARP (#)** button to raise the Master Transpose in steps of one semitone.

■ Reset transposition

> Press both **TRANPOSE** buttons together.

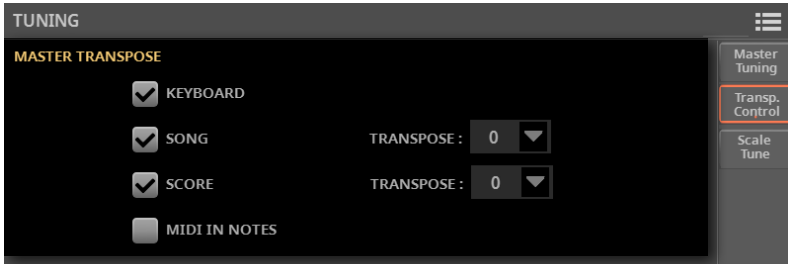
Choosing where to apply transposition

You can turn on or off the Master Transpose to any of the parts of the instrument.

1 Go to the **Settings > Menu > Tuning > Transpose Control** page.

As an alternative, keep the **SHIFT** button pressed and press either or the **TRANPOSE** buttons.

2 Use the **Master Transpose** section to turn each part on or off.



Part	Applies to...
Keyboard	All the Keyboard Sounds.
Song	MIDI and MP3 Songs. You can use the Transpose pop-up menu to choose an additional transpose value.
Score	Music score in the Score page. You can use the Transpose pop-up menu to choose an additional transpose value.
MIDI IN Notes	MIDI notes coming from the MIDI IN and USB HOST ports.

Transposing the Keyboard Sounds

When the **Master Transpose > Keyboard** option is selected in the **Settings > Menu > Tuning > Transpose Control** page, Master Transpose will be applied to the Keyboard Sounds.

Transposing the SongBook Entries

When saving a SongBook Entry, the current Master Transpose value is also saved. Master Transpose might therefore change when choosing a SongBook Entry. To avoid this to happen, you may lock the Master Transpose option in the **Settings Menu > General Controls > Lock > Tuning**.

Transposing the MP3 Songs

MP3 Songs can be transposed inside a range of -5...+6 semitones. This range is enough to cover all they keys, while avoiding excessive audio degradation. Any further transposing will be reversed to fit the range. So, you might see a +7 transpose value (Just Fifth Up) shown in the display, but the MP3 Song will actually play 5 semitones lower (Just Fourth Down).

Transposing the MIDI Songs

When saving a MIDI Song, the Master Transpose value is saved with the Song. This value is preserved when choosing the Song again.

When choosing a MIDI Song containing Master Transpose data, the instrument's Master Transpose is modified. This may cause problems with other Songs or when playing the Styles. To avoid this to happen, you may lock the Master Transpose in **Settings > Menu General Controls > Lock > Tuning**.

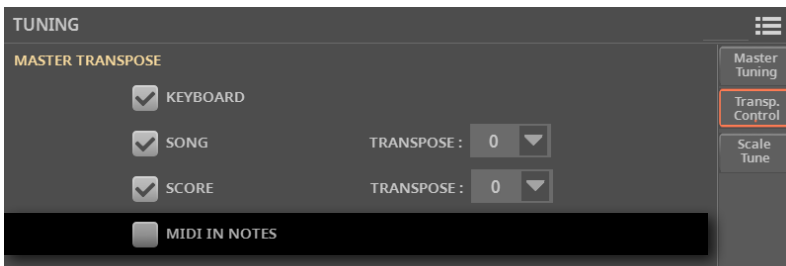
Transposing the notes coming from the MIDI IN

Master Transpose can be applied or prevented on the notes entering the **MIDI IN** or **USB HOST** or **DEVICE** ports.

1 Go to the **Settings > Menu > Tuning > Transpose Control** page.

As an alternative, keep the **SHIFT** button pressed and press either or the **TRANSCOPE** buttons.

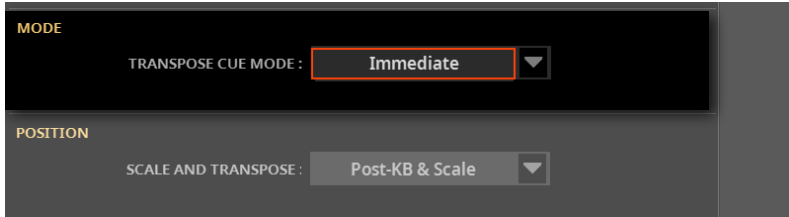
2 Use the **MIDI IN Notes** option to activate/deactivate transpose on the incoming MIDI notes.



When is Master Transpose applied?

You can decide when the Master Transpose will take effect.

- 1 Go to the **Settings > Menu > Tuning > Transpose Control** page.
- 2 Use the **Transpose Cue Mode** pop-up menu to choose when transposition will be applied.

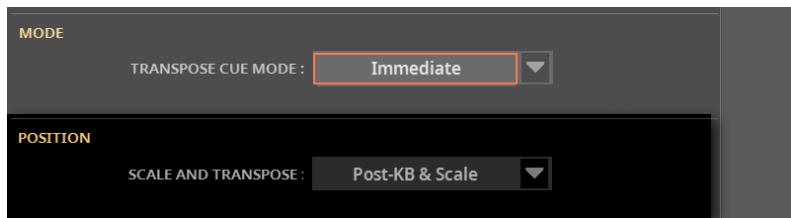


Transpose	Meaning
Next Measure	When you press either of the TRANSPOSE buttons, the new transpose setting will not take effect until the first beat of the next measure is reached.
Immediate	When you press either of the TRANSPOSE buttons, the new transpose setting will immediately occur when the next note is played by the Keyboard or Song, and on the next chord change by the Style. If, for example, you play a note on the keyboard when the Style is still playing a chord, only the Keyboard Sounds will be transposed, and the Style Sounds will only be transposed at the next chord.

Master Transpose and Scale

You can define the relation between the Scale and the Master Transpose.

- 1 Go to the **Settings > Menu > Tuning > Transpose Control** page.
- 2 Use the **Position > Scale and Transpose** pop-up menu to choose where transposition will be applied in relation to the Scale.



Transpose position

Meaning

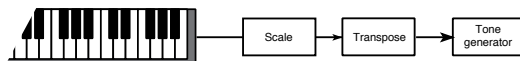
Post-KB/Pre-Scale

When this option is selected, notes will be transposed immediately after they leave the keyboard. The Scale will be applied to the transposed notes. For example, if you altered an E, and then set the Master Transpose to +1, the E key will play a real F, and the altered key will still be E (that will play an altered E).



Post-KB & Scale

When this option is selected, all notes are transposed immediately before they enter the internal tone generator, or are sent to the MIDI OUT or USB DEVICE port, and after the Scale. For example, if you altered an E, and set the Master Transpose to +1, the altered key will still be E (that will play an altered F).



Drum Kits and Master Transpose

Drum Kits are never transposed. If you want an ordinary Sound not to be transposed as well, assign it to a track set to **Drum** mode in the **Home > Menu > Track Controls > Mode** page.

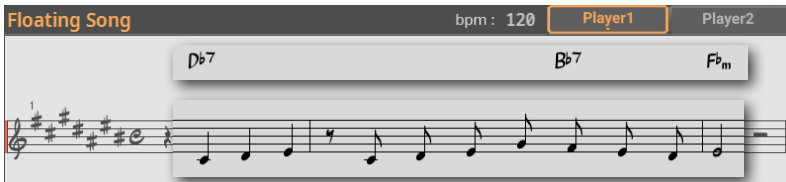
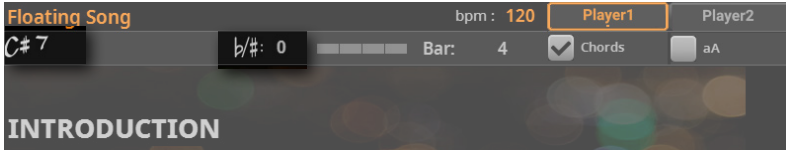
Transposing the score and the chord symbols

Where is transposition applied?

When using the **TRANSCOPE** buttons, the music score and chord symbols may also be transposed in the **Lyrics** and **Score** pages, depending on the Master Transpose settings. You can combine the transpose options in the following three ways. These options are detailed in the following pages.

Transpose options	Score and Chord symbols
A Keyboard: On Song: On Score: Off	Score and Chord symbols are not transposed. The song can be read and played by the keyboard player, but not by a musical partner. The key you will hear is different from the one you will play.
B Keyboard: Off Song: On Score: On	Score and Chord symbols are transposed now. The song can be read and played by both the keyboard player and the musician partner. The key you will hear is the same as the one you will play.
C Keyboard: On Song: Off Score: On	Score and Chord symbols are transposed as well. The song can be read and played by the keyboard player but not by the musician partner. The key you will hear is different from the one you will play.

When no transposition is applied, the score and chord symbols always appear as in the original file.



Score and chord symbols can be read in the internal display and/or an external monitor. They can be useful for you – the keyboard player – and/or your musician partner (a singer, a guitar player, a sax player...).

A) Transposing the Keyboard and Songs, but not the Score and the Chord symbols

Choose this option to let Pa5X transpose what you play live, together with the songs, to a key that is more comfortable for your musician partner. You will be the one to read the (non-transposed) score and chord symbols.

For example you may want to play a song in the original C# Maj key, because you learned it in that key. Your musician partner, on the contrary, prefers to play it in D Maj, that might be more comfortable for her/him.

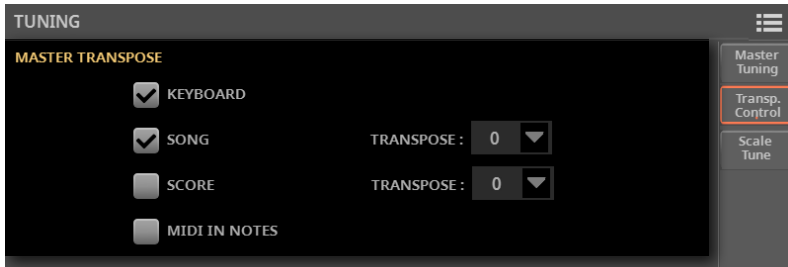
By choosing a transpose value of +1, the songs will be transposed to D Maj. You will play in C# Maj, but your notes will be transposed to D Maj. This means, as a reference, when playing the keyboard, a C will be transposed to sound as a C#.

The score and chord symbols will not change, so you will still be able to read and play the score in the original key of C#.

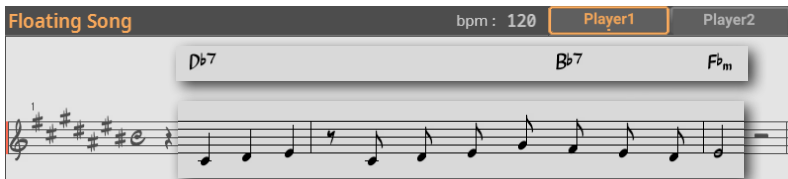
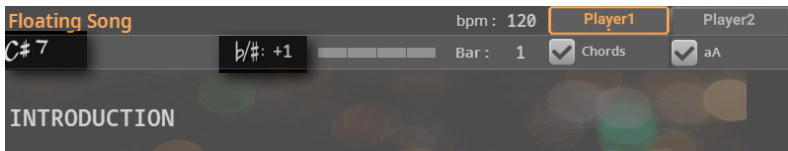
1 Go to the **Settings > Menu > Tuning > Transpose Control** page.

As an alternative, keep the **SHIFT** button pressed and press either or the **TRANPOSE** buttons.

2 Select the **Keyboard** and **Song** checkboxes. Leave the **Score** checkbox not selected.



When changing the **Master Transpose** value, the keyboard and the songs will be transposed. The score and chord symbols will NOT be transposed.



B) Transposing the Songs, Score and Chord symbols, but not the Keyboard

Choose this option when you want to let Pa5X transpose the songs to a key that is more comfortable for you and your musician partner. Both of you will play in the transposed key. You and your musician partner will be able to read the (transposed) score and chord symbols.

For example, both you and your musician partner want to play a song, originally in the key of C# Maj, in D Maj, because it is easier for both of you.

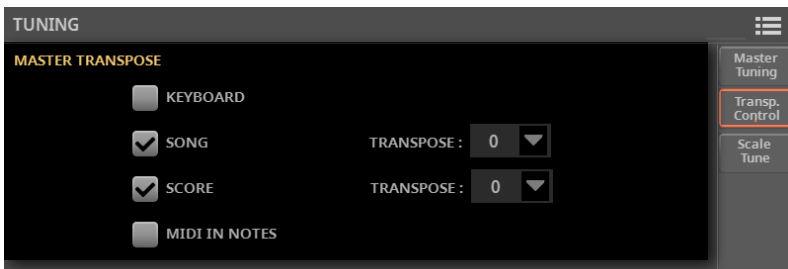
By choosing a transpose value of +1, the songs will be transposed to D Maj. The keyboard will not be transposed, so you will play right in D Maj. This means, as a reference, that when playing the keyboard, a C will still be a C.

The score and chord symbols will change, so you will be able to read and play the score in the transposed key of D Maj.

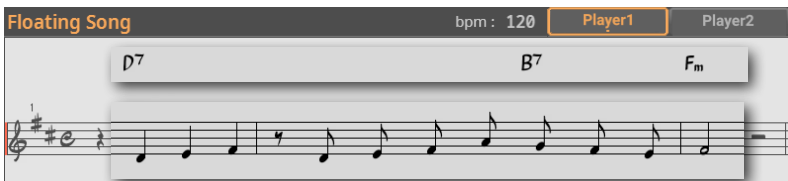
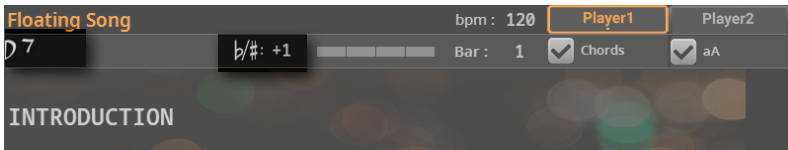
1 Go to the **Settings > Menu > Tuning > Transpose Control** page.

As an alternative, keep the **SHIFT** button pressed and press either or the **TRANSPOSE** buttons.

2 Select the **Song** and **Score** checkboxes. Leave the **Keyboard** checkbox not selected.



When changing the **Master Transpose** value, the keyboard will NOT be transposed, while the songs, score and chord symbols will be transposed.



C) Transposing the Keyboard, Score and Chord symbols, but not the Songs

Choose this option to transpose what you play live to a more comfortable key, and let your musician partner play in the original key. You will be the one to read the (transposed) score and chord symbols.

For example, if you find a song in C# Maj too difficult to play, you can play it in C Maj. By choosing a transpose value of +1, what you play on the keyboard will be transposed to C# Maj. This means, as a reference, that when playing the keyboard, a C will be transposed to sound as a C#.

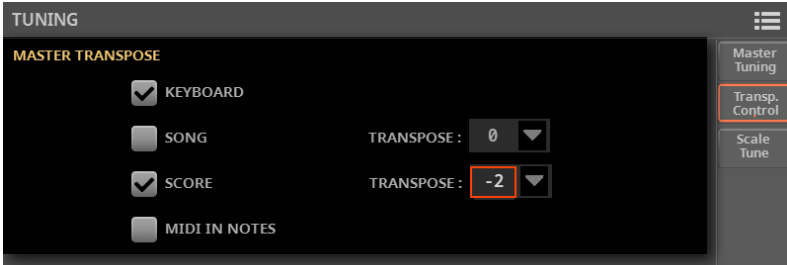
The score and chord symbols will have a transpose value of -2, so that you can read them in the altered key.

The songs will not be transposed, so your musician partner will be in tune with them, but will not be able to read the correct score or the chords, because they are transposed for you, the keyboard player.

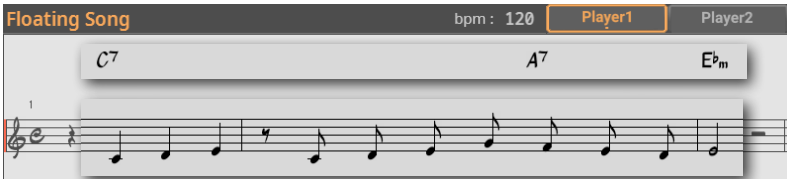
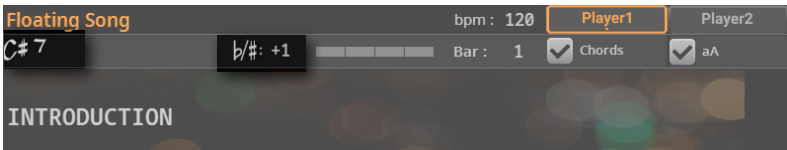
1 Go to the **Settings > Menu > Tuning > Transpose Control** page.

As an alternative, keep the **SHIFT** button pressed and press either or the **TRANSPOSE** buttons.

2 Select the **Keyboard** and **Score** checkboxes. Leave the **Song** checkbox not selected.



When changing the **Master Transpose** value, the keyboard, score and chord symbols will be transposed. The songs will NOT be transposed.



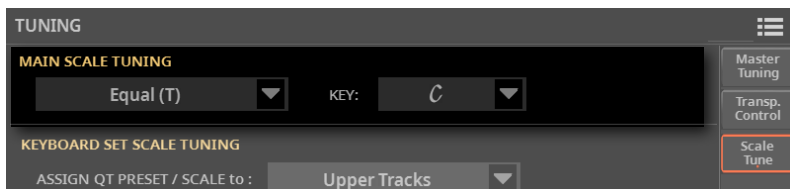
Scale

Choosing the Main Scale

The main scale is usually applied to all or most of the Sounds. Some Sounds may use an alternative sub-scale. Some Style Elements may use alternative sub-scales. The main scale is used wherever there is no sub-scale assigned.

■ Choose the main scale

- 1 Go to the **Settings > Menu > Tuning > Scale/Tune** page.
- 2 Use the **Main Scale/Tune** pop-up menu to choose the main scale of the instrument.



All Sounds, apart for those for which a different sub-scale has been selected when choosing a Keyboard Set, will use this scale.

■ If needed, choose a root key

- > Use the **Key** parameter (needed with some scales) to set the scale root (therefore, the Sound's tuning).

Scales list

Scale	Description
Equal	Equal tuning, the standard scale for modern Western music. It is made of 12 identical semitones.
Pure Major	The main major chords in the selected key are perfectly tuned.
Pure Minor	The main minor chords in the selected key are perfected tuned.
Arabic	An Arabic scale, using quarters of tone. Set the Key parameter as follows: C – for the 'rast C/bayati D' scale D – for the 'rast D/bayati E' scale F – for the 'rast F/bayati G' scale G – for the 'rast G/bayati A' scale A# – for the 'rast Bb/bayati C' scale
Pythagorean	Pythagorean scale, based on the music theories of the great Greek philosopher and mathematician Pythagoras. It is most suitable for melodies with an ancient flavor.
Werckmeister	Late Baroque and early Classic age scale. Very suitable for 18th Century music.
Kirnberger	Harpsichord scale, very common during the 18th Century.
Slendro	Scale of the Indonesian Gamelan. The octave is divided in five notes (C, D, F, G, A). The remaining notes are tuned as in the Equal tuning.
Pelog	Scale of the Indonesian Gamelan. The octave is divided in seven notes (all white keys, when Key is = C). The black keys are tuned as in the Equal tuning.
Stretch	Simulates the 'stretched' tuning of an acoustic piano. Basically an equal tuning, the lowest notes are slightly lower, while the highest notes are slightly higher than the standard.
User	User scale, only available as a sub-scale. The User scale can be saved to a Keyboard Set. You can't select it as the main scale in the Settings.

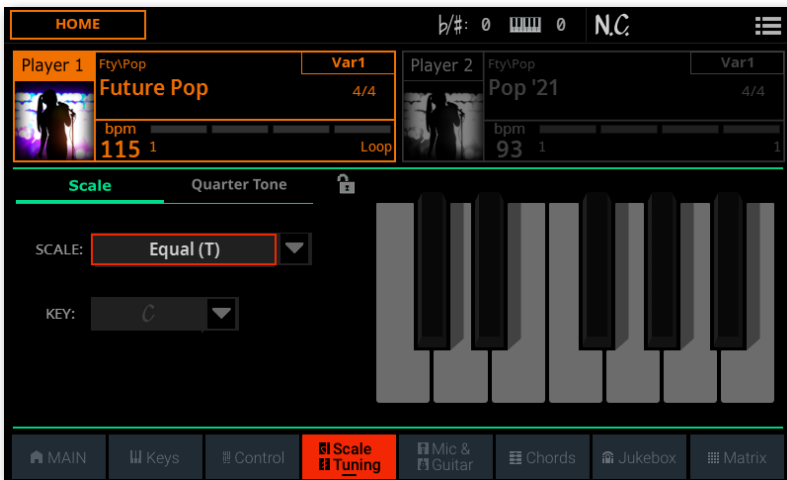
Choosing a Sub-Scale (Keyboard and Style Sounds)

You can assign a scale different from the main scale (therefore, a sub-scale) to the Keyboard Sounds. This will allow, for example, to play a piano solo with the Stretch tuning, while the backing tracks continue to play in the Equal tuning. A different sub-scale can be saved into each Keyboard Set.

You can also assign a sub-scale to all the Sounds of the Style, separately from the Sounds of a MIDI Song (that will still use the main scale). So, you will be able to play the Styles with a sub-scale, and the Songs with the main scale.

■ Choose a sub-scale

1 Go to the **Home > Scale/Tuning** pane.

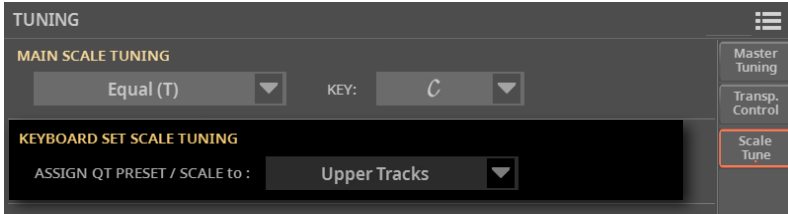


2 Use the **Scale** pop-up menu to choose the sub-scale. See above for a list of the available scales.

> If needed, use the **Key** parameter (requested by some scales) to set the preferred key.

■ Assign the sub-scale to the Keyboard and/or Style Sounds

1 Go to the **Settings > Menu > Tuning > Scale/Tune** page.



2 Use the **Assign QT Preset/Scale to** pop-up menu to choose the Sounds to which the sub-scale is applied. All the other Sounds will use the main scale.

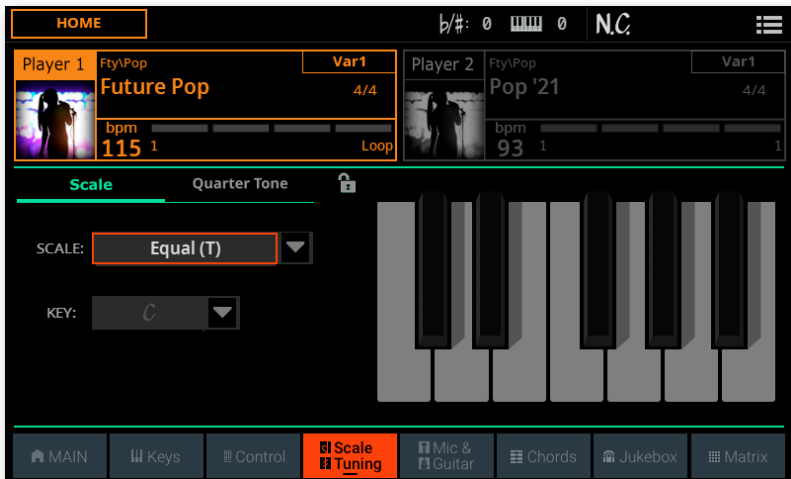
Scale Mode	Meaning
KbdSet Tracks	The sub-scale will affect all the Keyboard Sounds
Upper Tracks	The sub-scale will only affect the Upper 1-3 Keyboard Sounds
KbdSet+Style Tracks	The sub-scale will affect the Keyboard Sounds and the Style Sounds. It will not affect the MIDI Song Sounds.

Choosing and editing the User Sub-Scale (Keyboard and Style Sounds)

In addition to the supplied scales, you can program your own User sub-scale. The User sub-scale can then be saved to a Keyboard Set or Style, to allow for a different scale fitting that particular musical style.

■ Choose the User sub-scale

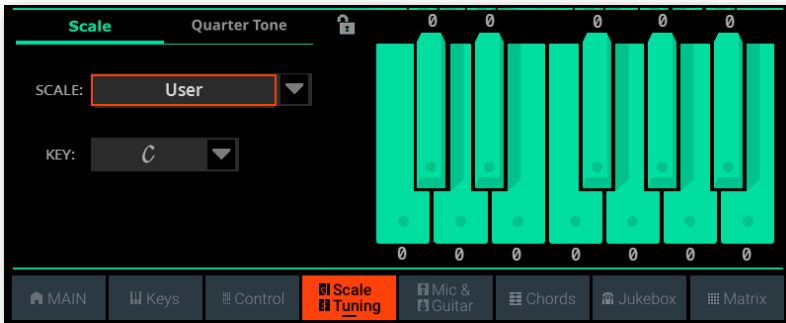
- 1 Go to the **Home > Scale/Tuning** pane.



- 2 Use the **Scale** pop-up menu to choose the **User** sub-scale.

■ Edit the User sub-scale

When the **User** sub-scale is selected, the keyboard diagram will become active, letting you program a custom scale.



> Use the **numbers** appearing next to each note of the keyboard diagram to fine tune each note pitch. Detuning is referred to Equal tuning considered as ‘zero detune’.

Detuning

-99 ... +99

Meaning

Note detuning in cents or a semitone. Zero is no detuning (Equal tuning), ± 50 is a full quarter tone up or down, ± 99 is nearly one whole semitone up or down.

■ Save the User sub-scal

> Save the changes to a Keyboard Set or a Style.

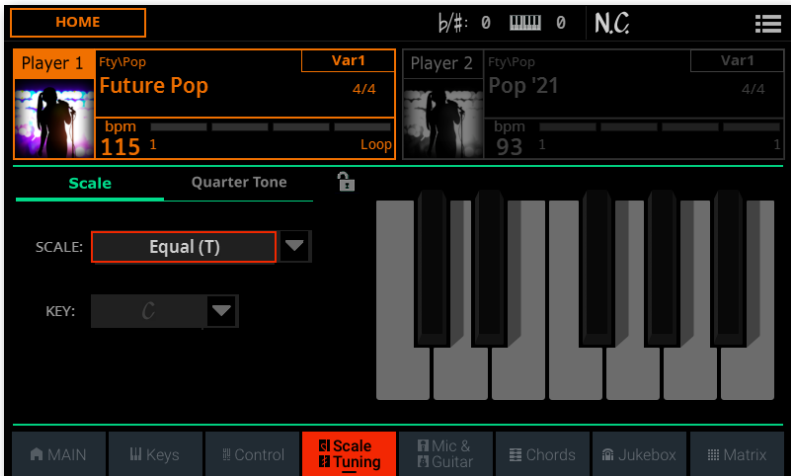
Using the Scale Presets

Choosing the Scale Presets from the display

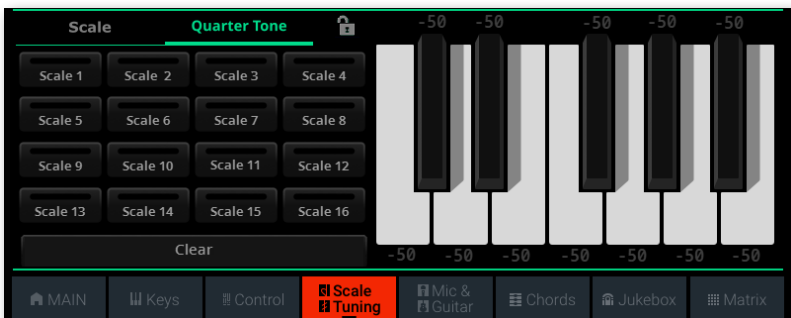
You can instantly recall a Quarter Tone sub-scale, by just choosing one of the Scale Presets.

- **Activate the Quarter Tone sub-scale**

- 1 Go to the **Home > Scale/Tuning** pane.

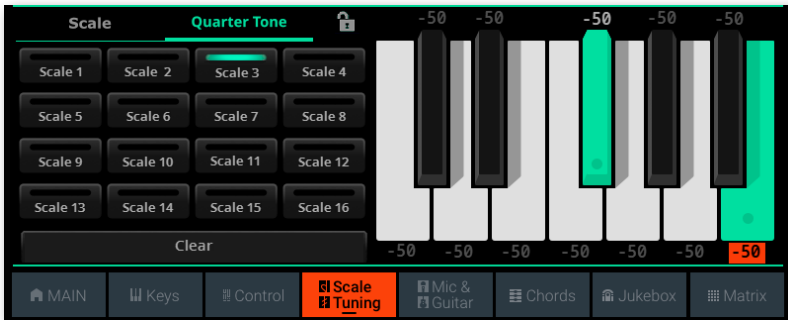


- 2 Touch the **Quarter Tone** tab on top of the pane. The **Scale Preset** buttons will appear.



■ Choose a Scale Preset

- > Touch one of the **Scale** buttons to choose the corresponding **Scale Presets**. The saved Quarter Tone sub-scale will be selected.



- > Touch the same **Scale** button to deactivate the selected scale.

■ Use the Quarter Tone sub-scale

- > Touch any note in the scale diagram whose pitch you want to lower, making it turn green (selected).
- > Touch the note again to make it return white, and reset to standard tuning.

Scale alterations made in this page are momentary and are not memorized. They is only meant to allow for quick scale alteration while playing.

■ Deactivate the Quarter Tone sub-scale

- > Touch the **Scale** tab on top of the pane. The **Scale Preset** buttons will disappear. The main scale will be in use again.

Choosing a Scale Preset by using a button or footswitch

You can select a Scale Preset by assigning it to a switch or footswitch.

- > Go to the **Settings > Menu > Controllers > Sliders/Buttons** page, and assign the **Quarter Tone** function to one of the **CONTROL** buttons when in User mode.
- > Go to the **Settings > Menu > Controllers > Foot** page, and assign the desired Scale Preset to the footswitch.

Please note that programming an assignable switch will tie the Scale Preset selection to a particular Keyboard Set, Style's Keyboard Set, or SongBook Entry. This means that you can prepare it for a particular song, requiring a particular scale.

On the contrary, programming the footswitch or a Control button will offer a global option, that will not change when choosing a different Keyboard Set, Style or SongBook Entry.

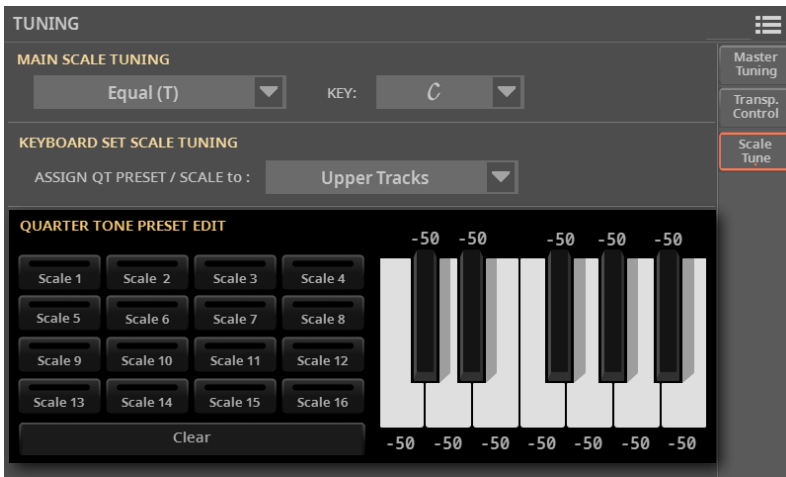
Editing the Scale Presets

Quarter Tone scales (Scale Presets) are custom scales where detuning can be activated or deactivated while playing. Changing note tuning while playing is typical of Turkish and Middle East/Arabic music. The detuned interval is usually next to a quarter tone.

You can save up to sixteen Quarter Tone scales into the Scale Presets. The Scale Presets are global and do not change with Keyboard Sets, Styles or Songs.

■ Program a Quarter Tone scale

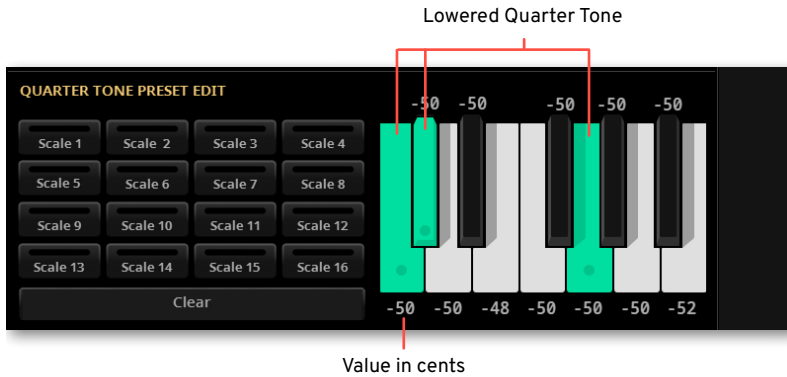
- 1 Go to the **Settings > Menu > Tuning > Scale/Tune** page.



- 2 Touch one of the **Scale** buttons to choose a **Scale Preset** to be edited.

When no preset is selected, a default scale is automatically recalled. This scale assigns a -50 cent value (equivalent to a quarter tone down) to all the notes, and turns all scale degrees off. With no keys pressed, it is equivalent to the Equal tuning.

3 Program the **User Quarter Tone** sub-scale.



- > Touch one of the **keys** in the scale diagram to lower the corresponding scale degree by -50 cents (equivalent to one quarter tone). Touch it again to return to the standard tuning.
- > Use the **numbers** appearing next to each note of the keyboard diagram to fine tune each note pitch. Detuning is referred to Equal tuning considered as 'zero detune'.

Detuning

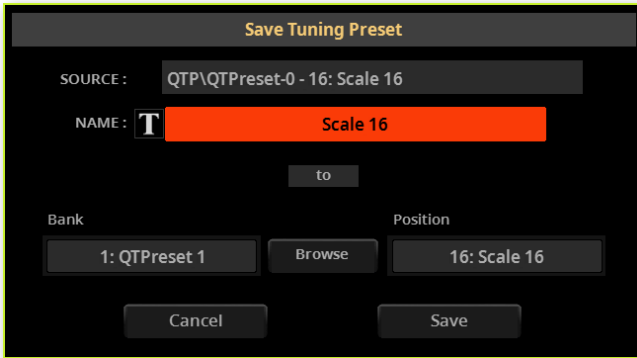
Meaning

-99 ... +99

Note detuning in cents or a semitone. Zero is no detuning, ± 50 is a full quarter tone up or down, ± 99 is nearly one whole semitone up or down.

■ Save the new Quarter Tone sub-scale into a Scale Preset

1 Choose the **Save Tuning Preset** command from the page menu to open the **Save Tuning Preset** dialog.



2 Touch the **Text Edit (T)** button if you want to assign the Scale Preset a new name. When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

3 Choose one of the **Scale Preset** locations to save the new scale, then confirm by touching the **OK** button.

Realtime Quarter Tone

To make realtime tuning changes faster, you can assign the Quarter Tone function to an assignable switch, a footswitch, or a Control button. This will make those sudden scale changes, typical of the Turkish and Middle East/Arabic music, quick and easy.

Since these realtime changes are not saved anywhere, the scale is easily ‘wiped-out’ when selecting a different Keyboard Set, or when pressing the Quarter Tone switch again.

Programming a switch, button or footswitch as the Quarter Tone switch

- > Go to the **Home > Menu > Switches > Switches** page, and assign the **Quarter Tone** function to one of the assignable switches.
- > Go to the **Settings > Menu > Controllers > Sliders/Buttons** page, and assign the **Quarter Tone** function to one of the **CONTROL** buttons when in User mode.
- > Go to the **Settings > Menu > Controllers > Foot** page, and assign the **Quarter Tone** function to the footswitch.

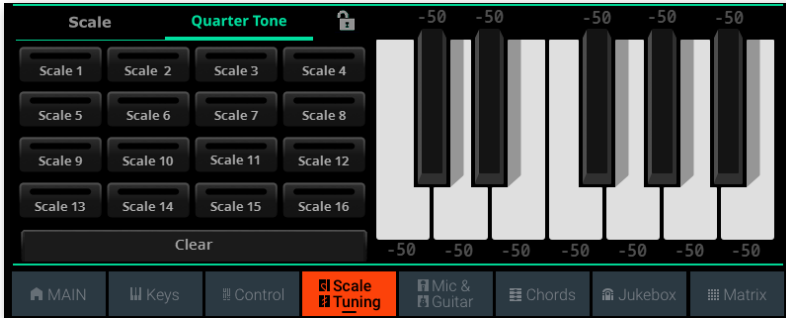
Please note that programming an assignable switch will tie the Quarter Tone function to a particular Keyboard Set, Style’s Keyboard Set, or SongBook Entry. This means that you can program them for a particular song, requiring a particular scale.

On the contrary, programming the footswitch or a Control button will offer a global option, that will not change when choosing a different Keyboard Set, Style or SongBook Entry.

Using the Quarter Tone function

1 If you want to check what is happening, go to the **Home > Scale/Tuning** pane, and select the **Quarter Tone** view.

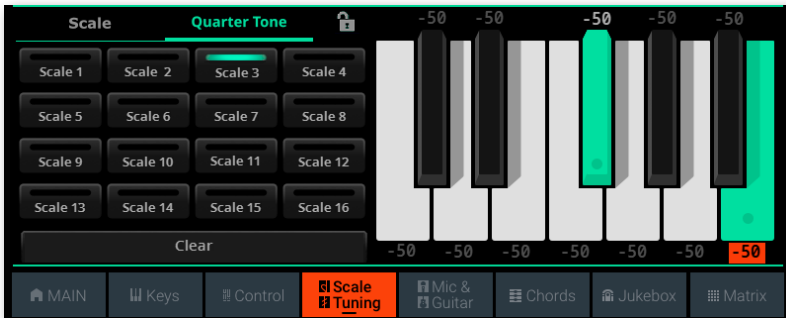
In any case, the Quarter Tone function will be activated even if you are in any other page.



2 Lower some note pitches.

Keep the Quarter Tone switch, button or footswitch pressed. The keyboard will not play at this time. Press the notes whose pitch you want to lower. Release the switch, button or footswitch.

The detuned notes will appear in green in the keyboard diagram.



3 Play with your new scale. The pitch of the notes you have pressed are now lowered.

4 Reset the original scale.

Press and release the Quarter Tone switch, button or footswitch again, without playing any note. All the pitches will be reset, and the original scale will be recalled.

20

Controllers

User settings for the Control sliders and buttons

Using the sliders and buttons

The sliders and the buttons in the **CONTROL** section are always accessible, whichever the page you are in.



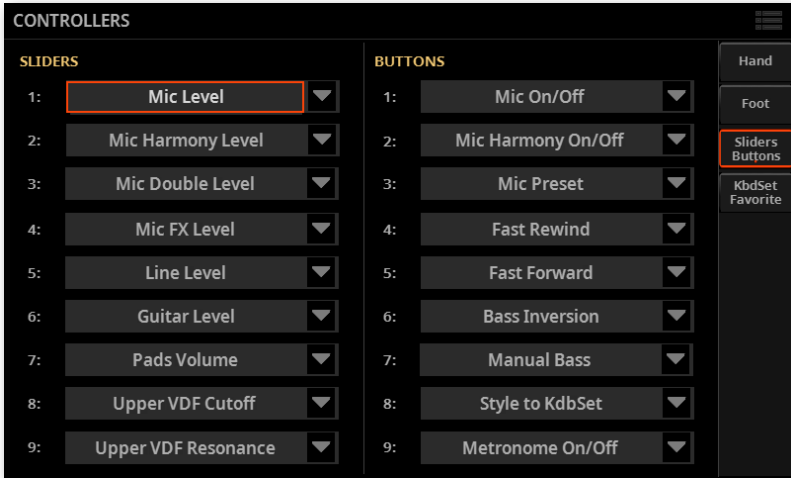
The way they work is chosen via the **mode buttons** on the right of the controls. How they work is explained in the dedicated section at the beginning of the manual. For more information see [The Control section](#) on page 116.

The **User** mode controls the parameters that you are free to assign to the sliders and the buttons. This is a global setting, that is automatically saved.

Programming the sliders and buttons

You can program a set of User Controls, and save them into a Keyboard Set.

- 1 Go to the **Settings > Menu > Controllers > Sliders/Buttons** page.



- 2 Use the pop-up menus to program the **Sliders** and the **Buttons**.

For a list of the assignable controls, see [Assignable functions](#) on page 505.

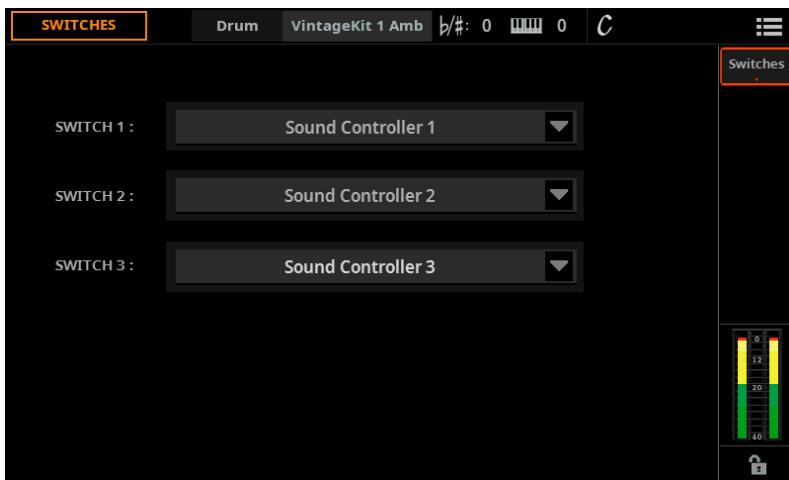
Assignable Switches

Programming the assignable switches

Assigning a function to the assignable switches

You can program the **ASSIGNABLE SWITCHES** in a different way for each Keyboard Set. Choosing a different set of Sounds may therefore also change the controls assigned to these switches, to match the different types of Sounds.

- 1 Go to the **Home > Menu > Switches** page.



- 2 Use one of the **Switch 1...3** menus to choose a command to be assigned to the corresponding switch.
- 3 Save the changes to a Keyboard Set.
- 4 If you want the programming is not changed when choosing a different Keyboard Set, close the **lock** (🔒) in the lower-right corner of the page.

For a list of the assignable controls, see [Functions assignable to the buttons and footswitches](#) on page 507.

Using the assignable switches

Depending on the chosen Keyboard Set and the assigned functions, these controllers can do different things. With the DNC Sounds, the switches can either ‘book’ a function, that will be triggered while playing, or enable (or disable) it by pressing the button to ‘toggle’ it. In other cases, these switches can ‘toggle’ or ‘trigger’ the assigned function.

Indicator status	Meaning
Off	No DNC function assigned.
Purple steady	Booking DNC function available.
Purple blinking	Booking DNC function waiting to be executed. Then, it will return steady.
Light green steady	Toggle DNC function available.
Light green blinking	Toggle activated. Press it again to disable it.

Hand controllers

Programming the joystick

Assigning functions to the joystick

The **left/right (X-, X+)** movement of the joystick usually controls **Pitch Bend**. It can, however, control a **Sound parameter**, depending on the Sound programming.

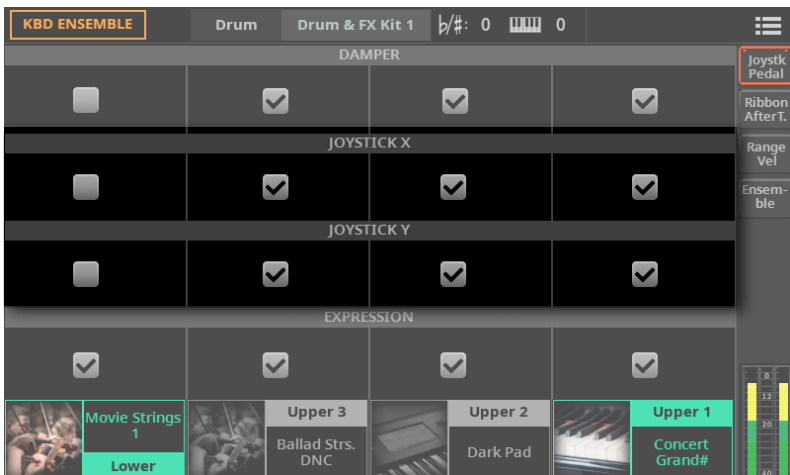
The **up/forward movement (Y+)** is usually **Modulation**, and sometimes a different **Sound parameter**, depending on the Sound programming. The **down/backward movement (Y-)** can be assigned to **various controls**, or is left unused.

Assigning Sound parameters to the joystick can be done in **Sound Edit**.

Assigning the joystick to the Sounds

You can activate/deactivate the Joystick on each Keyboard Sound.

- 1 Go to the **Home > Menu > Keyboard/Ensemble > Joystick/Pedal** page.

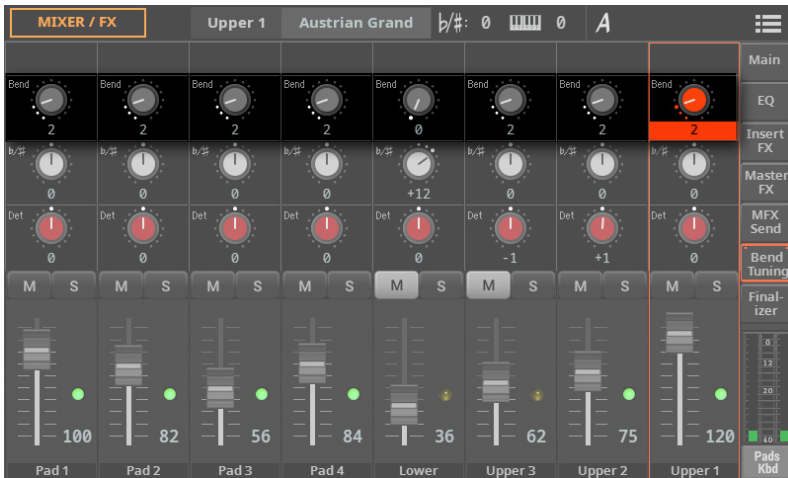


- 2 Use the **Joystick X** checkbox to turn the left/right Joystick movements on/off on each Sound.
- 3 Use the **Joystick Y** checkbox to turn the up/down Joystick movements on/off on each Sound.
- 4 Save the changes to a Keyboard Set.

Setting the Pitch Bend range

The Pitch Bend range is defined for each combination of Sounds, and can change with different Keyboard Sets, Styles, MIDI Songs or SongBook Entries.

- 1 Go to the **Home > Menu > Mixer/FX > Bend/Tuning** page.
- 2 Use the **Bend** knobs to set the Pitch Bend range for each Sound.



Bend

Meaning

0	No pitch bend allowed.
1 ... 12	Maximum up/down pitch bend range (in semitones). 12 = ± 1 octave.

- 3 Save the changes to a Keyboard Set, a Style, a MIDI Song or a SongBook Entry.

Programming the keyboard's Velocity and After Touch

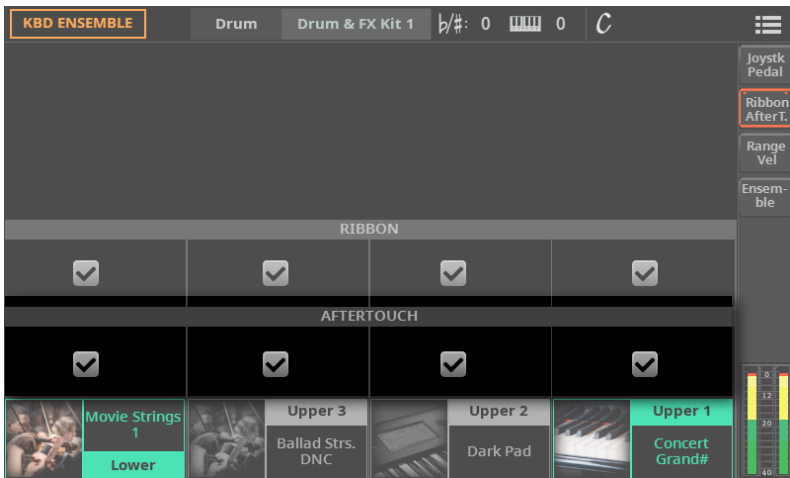
Assigning functions to Velocity and After Touch

Velocity usually controls the Sound's **loudness**, while **After Touch** controls **modulation**. However, they can be assigned to other roles by each individual Sound. Assigning Sound parameters can be done in **Sound Edit**.

Assigning After Touch to the Sounds

You can activate/deactivate After Touch on each Keyboard Sound.

- 1 Go to the Home > Menu > **Keyboard/Ensemble** > **Ribbon/After Touch** page.

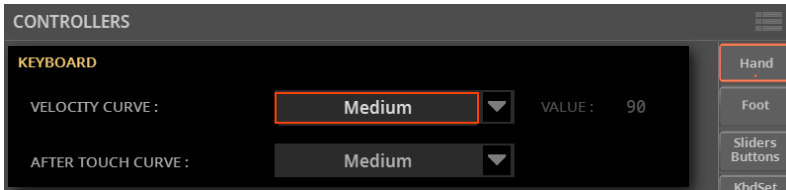


- 2 Use the **After Touch** checkbox to turn the After Touch on/off on each Keyboard Sound.
- 3 Save the changes to a Keyboard Set.

Adjusting the Velocity and After Touch sensitivity

You can define how the keyboard responds to your striking velocity and After Touch pressure.

- 1 Go to the **Settings > Menu > Controllers > Hand** page.
- 2 Use the **Velocity Curve** parameter to set the sensitivity of the keyboard to your playing strength.



Velocity Curve	Meaning
Fixed	No dynamic control available. Dynamic values are fixed, as in classic organs. When this option is chosen, you can set the fixed velocity value.
Soft3 ... Hard3	Curves, from the lightest one to the hardest one.

- 3 Use the **After Touch Curve** parameter to set the sensitivity of the keyboard to the pressure you apply after playing a key.

After Touch Curve	Meaning
Soft3 ... Hard3	Curves, from the lightest one to the hardest one.
Off	The After Touch is turned off.

Programming the ribbon controller

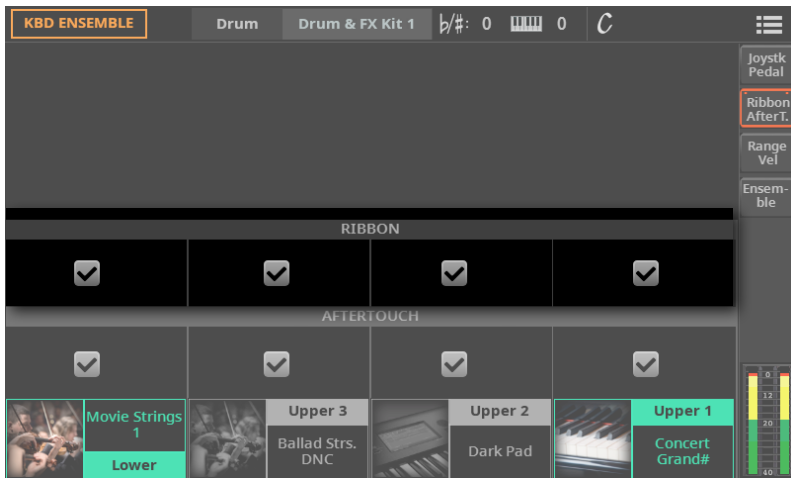
Assigning functions to the ribbon controller

The function controlled by the ribbon depends on the selected Sounds. Assigning Sound parameters to the ribbon controller can be done in **Sound Edit**.

Assigning the ribbon controller to the Sounds

You can activate/deactivate the ribbon on each Keyboard Sound.

- 1 Go to the **Home > Menu > Keyboard/Ensemble > Ribbon/After Touch** page.

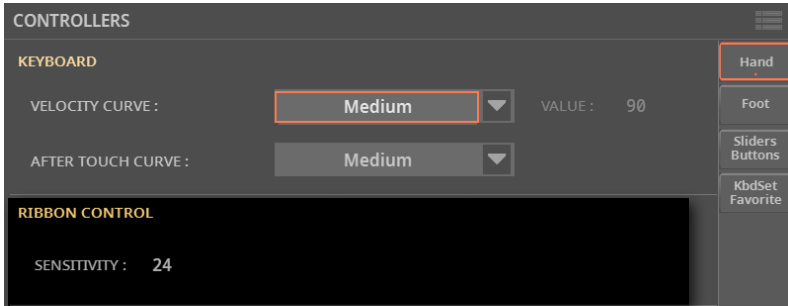


- 2 Use the **Ribbon** checkbox to turn the ribbon on/off on each Sound.
- 3 Save the changes to a Keyboard Set.

Adjusting the ribbon controller's sensitivity

You can define how sensitive is the ribbon controller to your finger's swipe.

- 1 Go to the **Settings > Menu > Controllers > Hand** page.



- 2 Use the Ribbon > **Sensitivity** parameter to set the ribbon's response.

Foot controllers

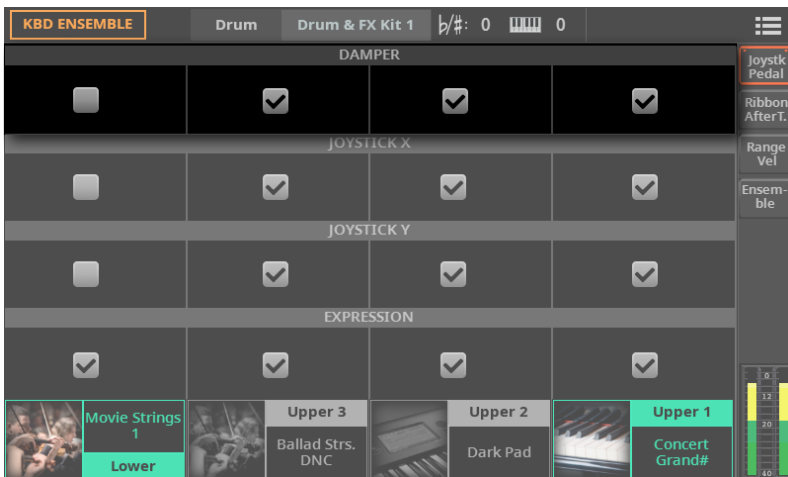
Programming the Damper pedal

You can connect a footswitch, or a dedicated damper pedal, to the **PEDAL > DAMPER** connector on the back of the instrument. This pedal always works as a Damper pedal.

Assigning the Damper pedal to the Sounds

You can activate/deactivate the damper pedal on each Keyboard Sound. This is useful, for example, to only sustain some Upper Sounds and not the others.

- 1 Go to the **Home > Menu > Keyboard/Ensemble > Joystick/Pedal** page.



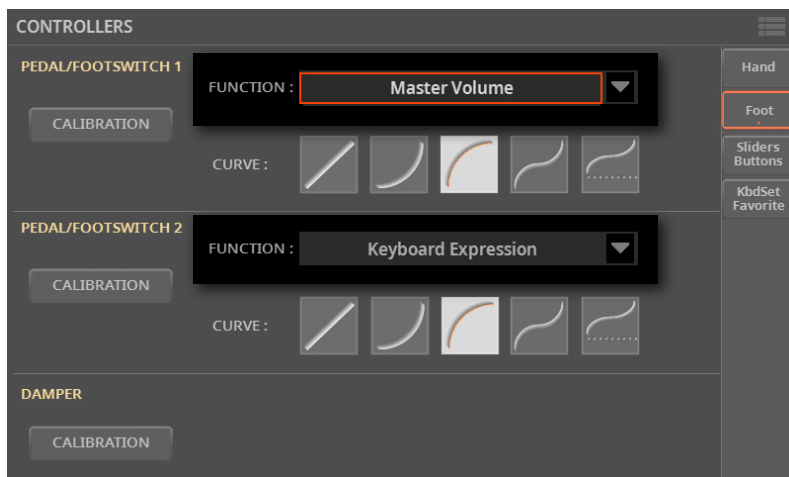
- 2 Use the **Damper** checkbox to turn the Damper pedal on/off on each Keyboard Sound.
- 3 Save the changes to a Keyboard Set.

Programming the pedals/footswitches

Assigning a function to the pedals/footswitches

You can connect a footswitch or expression pedal to each of the two **PEDAL > ASSIGNABLE** connectors on the back of the instrument. Depending on the connected type of pedal, you will choose a suitable function.

- 1 Connect the pedal or footswitch to one of the **PEDAL > ASSIGNABLE** connectors.
- 2 Go to the **Settings > Menu > Controllers > Foot** page.



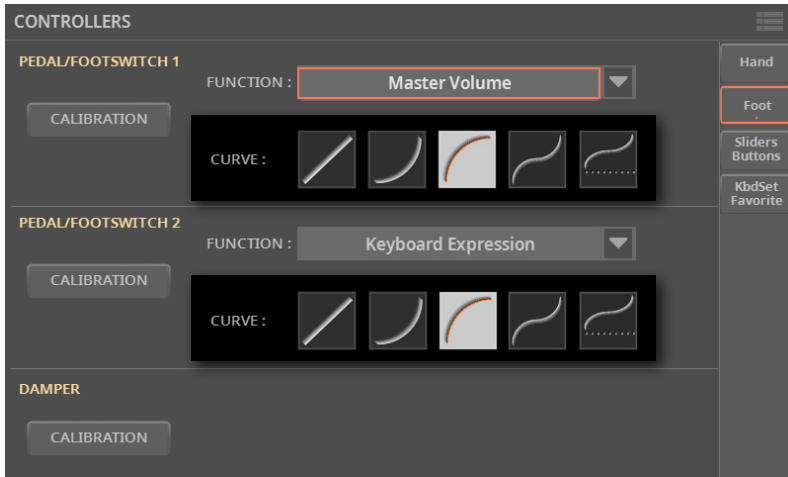
- 3 Use the **Function** pop-up menu to choose a control function.

For a list of the assignable controls, see [Assignable functions](#) on page 505.

Choosing a curve presets for the expression pedal

With some functions assigned to an expression pedal, you can choose a curve, shaping the response of the function to the pedal.

- 1 Be sure to have connected an expression pedal, calibrated it, and selected a function.
- 2 Go to the **Settings > Menu > Controllers > Foot** page.



- 3 Touch one of the **Curve** buttons to select a curve preset.

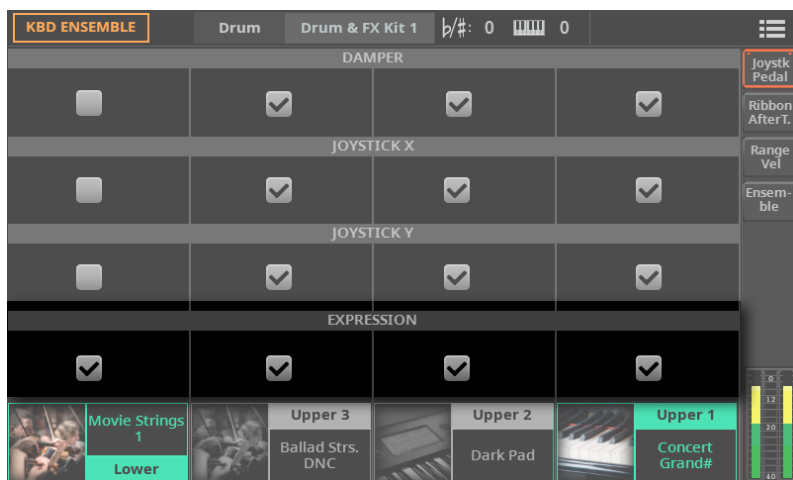
Curve	Meaning
	Linear response.
	Exponential response. The function value will change faster toward the top of the pedal range.
	Logarithmic response. The function value will change slower toward the top of the pedal range.
	S-shaped response. The function value will change faster toward the bottom and the top of the pedal range, and will be smoother in the middle.
	S-shaped with offset response. As the previous one, but starting from a value higher than zero.

Assigning the Expression pedal to the Sounds

Expression is a relative level control, always subtracted from the Volume value. It can be assigned to any continuous pedal (also called a Volume/Expression pedal).

As an example, imagine you have a Piano sound assigned to Upper 1, and a Strings sound assigned to Upper 2. If you turn the Expression switch on on Upper 2, and off on Upper 1, you can use a continuous pedal to control only the Strings' volume, while the Piano's volume remains unchanged.

- 1 Go to the **Home > Menu > Keyboard/Ensemble > Joystick/Pedal** page.

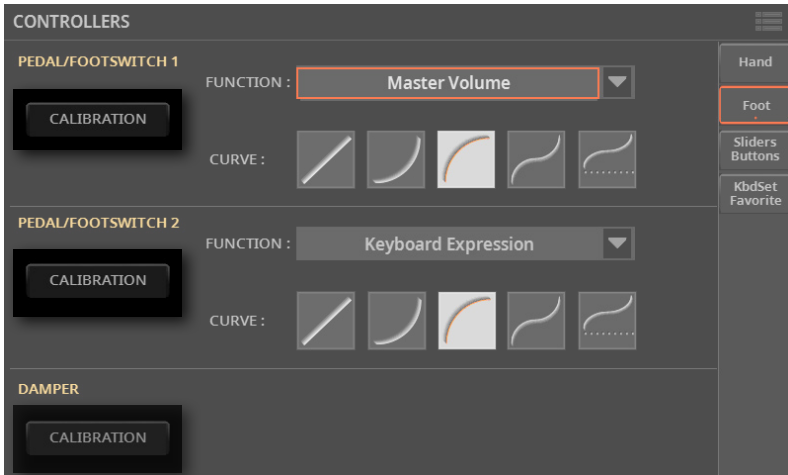


- 2 Use the **Expression** checkbox to turn the Expression pedal on/off on each Keyboard Sound.
- 3 Save the changes to a Keyboard Set.

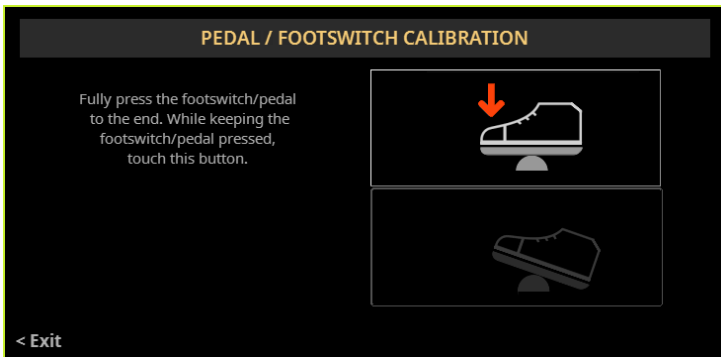
Calibrating the pedals and setting their polarity

If needed, you might have to calibrate the pedals to use their full range of values, without any 'dead spot'. Also, this procedure allows to choose a pedal's polarity, in case you are using a pedal working in reverse.

- 1 Go to the **Settings > Menu > Controllers > Foot** page.

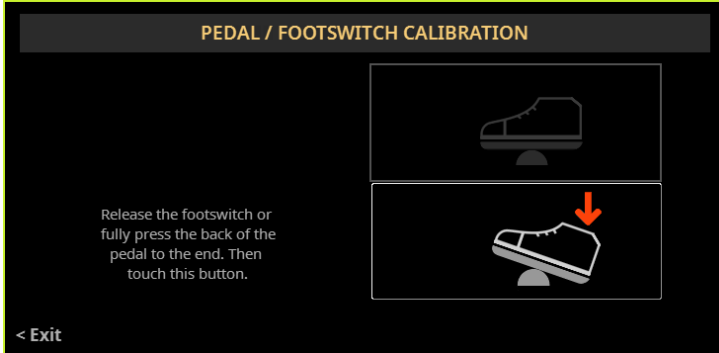


- 2 Touch the **Calibration** button in the area of the pedal to calibrate, to make the **Pedal/Footswitch Calibration** dialog appear.



- 3 Fully press the pedal down, and while continuing to press touch the **top** (highlighted) button to confirm the maximum value.

- 4 When the following dialog appears, release the pedal.



- 5 Touch the **lower** (now highlighted) button in the display to confirm the minimum value. Check if the pedal is working properly. In case it isn't, repeat the procedure.
- 6 Press the **EXIT** button to return to the previous page.

Assignable functions

Functions assignable to the sliders and continuous pedals

The following are the functions assignable to the **sliders** of the **CONTROL** section (**SLD**) and to the **volume/expression pedals** (**PDL**).

Continuous function	Meaning	SLD	PDL
Off	No function assigned.	✓	✓
Master Volume	Master Volume control.	✓	✓
Keyboard Expression	Volume of the Keyboard Sounds relative to the general volume.	✓	✓
Style Drum&Perc. Vol. (Gbl)	Volume of the Style's Drum & Percussion tracks.	✓	
Style Bass Vol. (Gbl)	Volume of the Style's Bass tracks.	✓	
Style Accomp. Vol. (Gbl)	Volume of the Style's Accompaniment tracks.	✓	✓
KbdSet Volume	Volume of all the Keyboard Sounds.	✓	
Kbd Upper 1...3 Volume	Volume of the corresponding Keyboard Sound.	✓	
Kbd Lower Volume		✓	
Player 1 Volume	Volume of Player 1.	✓	✓
Player 2 Volume	Volume of Player 2.	✓	✓
Pads Volume	Volume of the Pads.	✓	✓
Pad 1...4 Volume	Volume of the corresponding Pad.	✓	
Track 1...8 Volume	Volume of the corresponding MIDI Song track.	✓	
Track 9/Sty Bass Volume	Volume of the corresponding MIDI Song or Style track.	✓	
Track 10/Sty Drum Volume		✓	
Track 11/Sty Perc Volume		✓	
Track 12/Sty Acc 1 Volume		✓	
Track 13/Sty Acc 2 Volume		✓	
Track 14/Sty Acc 3 Volume		✓	
Track 15/Sty Acc 4 Volume		✓	
Track 16/Sty Acc 5 Volume		✓	

Continuous function	Meaning	SLD	PDL
Joystick X+	Replicates the joystick movement to the right.		✓
Joystick X-	Replicates the joystick movement to the left.		✓
Joystick Y+	Replicates the joystick forward movement.		✓
Joystick Y-	Replicates the joystick backward movement.		✓
Upper VDF Cutoff	Filter cutoff (for the Upper Sounds).	✓	✓
Upper VDF Resonance	Filter resonance (for the Upper Sounds).	✓	✓
Mic Level	Main Volume of the Mic input.	✓	✓
Mic Lead Level	Level of the Lead Voice.	✓	✓
Mic Delay/Reverb Level	Level controls for the Mic FXs.		✓
Mic FX Level			✓
Mic Harmony Level	Level of the Harmony effect.	✓	✓
Mic Double Level	Level controls for the Mic FXs.	✓	✓
Mic Filter Level		✓	✓
Mic Mod Level		✓	✓
Mic Delay Level		✓	✓
Mic Reverb Level		✓	✓
Mic EQ Gain Low	Mic EQ controls.	✓	
Mic EQ Gain Mid		✓	
Mic EQ Gain High		✓	
Guitar Level	Continuous controls assigned to the Guitar Processor.	✓	✓
Guitar Preset FX1 Level		✓	✓
Guitar Preset FX2 Level		✓	✓
Guitar Preset FX3 Level		✓	✓
Guitar Preset FX4 Level		✓	✓
Line Level	Volume of the Line Input.	✓	✓
FX CC12 Ctrl	Standard FX controllers, used as DMS modulations.	✓	✓
FX CC13 Ctrl	How they work depends on the Effects programming.	✓	✓

Functions assignable to the buttons and footswitches

The following are the functions assignable to the **buttons** of the **CONTROL** section (**BTN**), to the **ASSIGNABLE SWITCHES (ASW)** and to the **footswitches (FSW)**.

Switch function	Meaning	BTN	ASW	FSW
Off	No function assigned	✓	✓	✓
Play Player 1	Starts the Style or Song assigned to Player 1.			✓
Play Player 2	Starts the Style or Song assigned to Player 2.			✓
Stop Player 1	Stops the Style or Song assigned to Player 1. The Song returns to the beginning.			✓
Stop Player 2	Stops the Style or Song assigned to Player 2. The Song returns to the beginning.			✓
Chord Seq. Record	Starts recording a Chord Sequence.			✓
Chord Seq. Play	Starts playing a Chord Sequence.			✓
Ritardando	Slowing down or making the Tempo faster, according to the curves programmed in the Settings > General Controls > Basic page.	✓	✓	✓
Accelerando		✓	✓	✓
Synchro Start	Make the Player start or stop when playing something on the keyboard.			✓
Synchro Stop				✓
Tap Tempo/Reset	Sets the Tempo value by 'tapping' it on the assigned controller.			✓
Tempo Lock	Prevents the Tempo value from changing.			✓
Tempo Up	Change the Tempo value.			✓
Tempo Down				✓
Intro 1...3/Count In	Selects the corresponding Intro.			✓
Ending 1...3	Selects the corresponding Ending.			✓
Fill 1...4	Selects the corresponding Fill.			✓
Break	Selects the Break.			✓
Variation 1...4	Selects the corresponding Variation.			✓
Variation Up	Selects the next Variation.			✓
Variation Down	Selects the previous Variation.			✓
Fade In/Out	Starts or stops the Player(s) with a smooth fade.			✓
Style to Kbd Set	Makes the first Keyboard Set be selected when choosing a Style.	✓	✓	✓
Kbd Set 1...4	Selects the corresponding Keyboard Set from the KEYBOARD SET section under the X-FADER.			✓

Switch function	Meaning	BTN	ASW	FSW
Kbd Set Up	Selects the next Style's Keyboard Set from the KEYBOARD SET section under the X-FADER.			✓
Kbd Set Down	Selects the previous Style's Keyboard Set from the KEYBOARD SET section under the X-FADER.			✓
Sound Up	When a Sound is selected, chooses the next one in the list.	✓	✓	✓
Sound Down	When a Sound is selected, chooses the previous one in the list.	✓	✓	✓
Transpose (b)	Transposes the instrument one semitone down or up.			✓
Transpose (#)				✓
Upper Octave Up	Transposes the Upper Sounds one octave down or up.			✓
Upper Octave Down				✓
Kbd Upper 1...3 Mute	Mute/unmute the corresponding Sound.			✓
Kbd Lower Mute				✓
Track 1...8 Mute	Mute/Unmute the corresponding MIDI Song track.	✓	✓	✓
Track 9/Sty Bass Mute	Mute/Unmute the corresponding MIDI Song or Style track.	✓	✓	✓
Track 10/Sty Drum Mute		✓	✓	✓
Track 11/Sty Perc Mute		✓	✓	✓
Track 12/Sty Acc 1 Mute		✓	✓	✓
Track 13/Sty Acc 2 Mute		✓	✓	✓
Track 14/Sty Acc 3 Mute		✓	✓	✓
Track 15/Sty Acc 4 Mute		✓	✓	✓
Track 16/Sty Acc 5 Mute		✓	✓	✓
Melody/Voice Remover	Mutes the melody track in a MIDI Song, or removes the lead voice from a MP3 Song. (A track can be set as the Melody track in the Settings > Preferences > Song page).	✓	✓	✓
Drum&Bass Mode	Mutes all the Style or MIDI Song tracks, except for the Bass and Drum tracks (as set in the Settings > Preference > Song page). It doesn't work on MP3 Songs.	✓	✓	✓
Solo Selected Track	Turns track solo on/off.	✓	✓	✓
Damper Pedal	Damper function. Corresponds to the right pedal of an acoustic piano. It holds the notes played when the pedal is pressed down.			✓
Soft Pedal	Soft function. Corresponds to the 'una corda' pedal of an acoustic piano. Makes the sound softer.			✓

Switch function	Meaning	BTN	ASW	FSW
Sostenuto Pedal	Sostenuto function. Corresponds to the left pedal of a grand piano. It holds the notes already held when pressing the pedal down.			✓
Manual Bass	Let's you freely play the bass on the keyboard.	✓	✓	✓
Bass Inversion	Makes the bass note be recognized when you play an inverted chord.	✓	✓	✓
Bass&Lower Backing	When the Style is not playing and the keyboard is in Split mode, you can play the Lower Sound with your left hand, while the Bass still plays the chord root.	✓	✓	✓
Quarter Tone	Turns Quarter Tone function on/off.	✓	✓	✓
Quarter Tone Preset 1...16	Selects one of the presets shown in the Home > Scale/Tuning > Quarter Tone pane.			✓
Ensemble	Turns the Ensemble function on/off.			✓
Chord Latch	Holds the recognized chord until the pedal is released.			✓
Glide	When the pedal is pressed, affected notes on Upper tracks are bent down, according to settings for the Pitch Bend on the same tracks. When the pedal is released, notes return to the normal pitch, at the speed defined in the Settings > General Controls > Basic page.			✓
Mic On/Off	Turns the Microphone input on/off.	✓	✓	✓
Mic Lead Mute	Mutes the Lead voice.	✓	✓	✓
Mic Talkover	Turns the Mic Talkover function on/off.	✓	✓	✓
Mic Filter On/Off	Turns the Mic Processor Filter section on/off.	✓	✓	✓
Mic Mod On/Off	Turns the Mic Processor Mod section on/off.	✓	✓	✓
Mic Delay On/Off	Turns the Mic Processor Delay section on/off.	✓	✓	✓
Mic Harmony On/Off	Turns the Mic Processor Harmony section on/off.	✓	✓	✓
Mic Double On/Off	Turns the Mic Processor Double section on/off.	✓	✓	✓
Mic Reverb On/Off	Turns the Mic Processor Reverb section on/off.	✓	✓	✓
Guitar On/Off	Turns the Guitar input on/off.	✓	✓	✓
Guitar FX1 On/Off	Turns the Guitar Processor FX1 section on/off.	✓	✓	✓
Guitar FX2 On/Off	Turns the Guitar Processor FX2 section on/off.	✓	✓	✓
Guitar FX3 On/Off	Turns the Guitar Processor FX3 section on/off.	✓	✓	✓
Guitar FX4 On/Off	Turns the Guitar Processor FX4 section on/off.	✓	✓	✓
Line In On/Off	Turns the Lin input on/off.	✓	✓	✓

Switch function	Meaning	BTN	ASW	FSW
Rotor Brake On/Off	Triggers the Rotary Speaker's Brake (rotary speaker stopping).	✓	✓	✓
Rotary Spkr Fast/Slow	Switches between the Rotary Speaker's Fast and Slow rotation speed.	✓	✓	✓
Drawbars Perc On/Off	Turns the Drawbar Percussion on/off.	✓	✓	✓
Drawbars Perc Harmonic	Turns the Drawbar Percussion Harmonic on/off.	✓	✓	✓
Drawbars Leakage	Turns the Drawbar Leakage on/off.	✓	✓	✓
Drawbars Key On	Turns the Drawbar Key On noise on/off.	✓	✓	✓
Drawbars Key Off	Turns the Drawbar Key Off noise on/off.	✓	✓	✓
Drawbars Overdrive	Turns the Drawbar Overdrive on/off.	✓	✓	✓
Text Page Up	These options let you move to the previous or next page, when reading a text file automatically loaded with a Song or SongBook Entry, or manually loaded from the Lyrics page.	✓	✓	✓
Text Page Down		✓	✓	✓
Set List Next	Selects the next SongBook Entry in the selected Set List.	✓	✓	✓
Set List Prev	Selects the previous SongBook Entry in the selected Set List.	✓	✓	✓
Memory	Turns the Memory function on/off.			✓
Split	Turns the Split on/off.			✓
Pad 1...4 Sel	Opens the Pad Select window for the corresponding Pad.	✓	✓	✓
Pad 1...4	Starts/Stops the corresponding Pad.			✓
All Pads On/Off	Starts/Stops all the Pads.	✓	✓	✓
Upper 1...3 Sound Sel	Opens the Sound Select window for the corresponding Upper Sound.	✓	✓	✓
Lower Sound Sel	Opens the Sound Select window for the Lower Sound.	✓	✓	✓
Metronome On/Off	Turns the Metronome on/off.	✓	✓	✓
Mic Preset	Opens the Mic Preset Select window.	✓	✓	✓
Guitar Preset	Opens the Guitar Preset Select window.	✓	✓	✓
FX CC12 Switch	Standard FX switches. How they work depends on the Effects programming.	✓	✓	✓
FX CC13 Switch		✓	✓	✓
Sound Controller 1...3	DNC Sound Controllers (CC#80, CC#81 and CC#82). They control the function assigned in Sound Edit in DNC Sounds.	✓	✓	✓

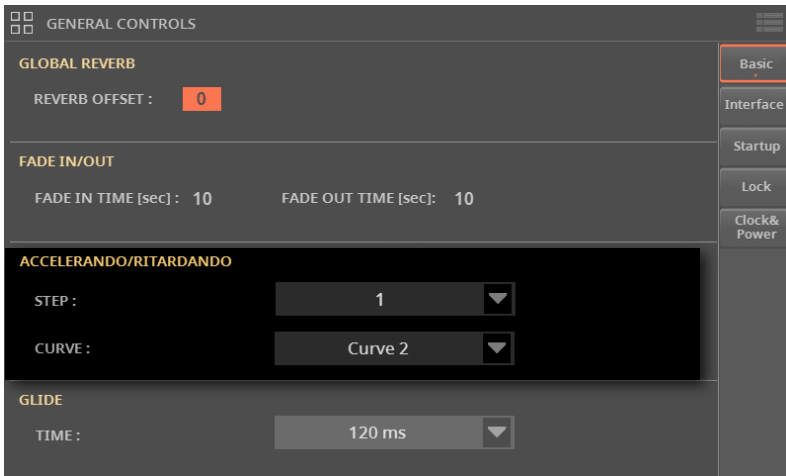
Switch function	Meaning	BTN	ASW	FSW
Track Select	While in a page where all the tracks are shown, switches between the Pads/Kbd and the Style view, and between the Pads/Kbd, Song 1-8 and Song 9-16 view.	√	√	
Fast Forward	Moves forward the selected song.	√	√	
Fast Rewind	Moves backward the selected song.	√	√	
Jukebox Previous	Selects the previous Jukebox entry.	√	√	
Jukebox Next	Selects the next Jukebox entry.	√	√	

Additional programming

Setting the Accelerando/Ritardando times

Accelerando and Ritardando are controls you can assign to an assignable switch or footswitch. When the switch is pressed, Tempo will start gradually speeding up or down.

- 1 Go to the **Settings > Menu > General Controls > Basic** page.



- 2 Use the **Accelerando/Ritardando > Step** parameter to set the speed of Tempo change (from 1 to 6).

With higher values, the step change will be greater, and the speed will change faster. With lower values, the step change will be smaller, and the speed will change more slowly.

- 3 Use the **Accelerando/Ritardando > Curve** parameter to set the curve of Tempo change (from 1 to 3).

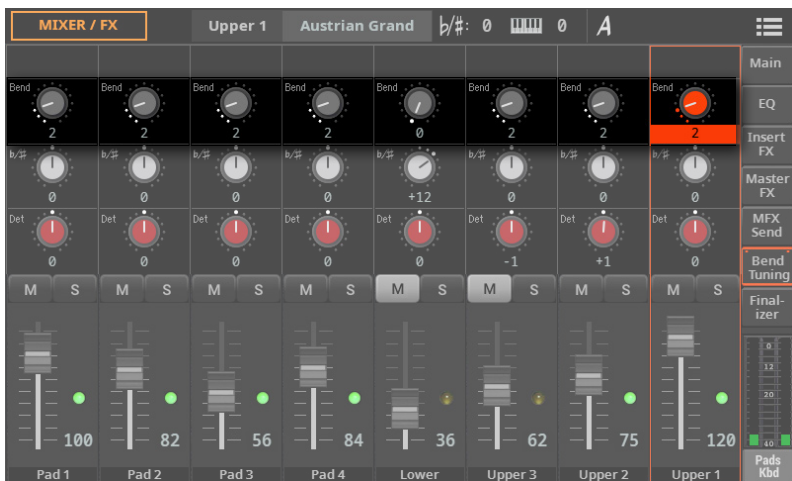
Experiment the various options, to see the one that best fits your taste.

Setting the Glide time

Glide is a control you can assign to a footswitch. When the footswitch is pressed, affected notes on the Upper parts are bent down, according to the Pitch Bend settings. When the footswitch is released, the notes return to the normal pitch, at the speed defined by the **Glide Time** parameter.

■ Change the Pitch Bend values

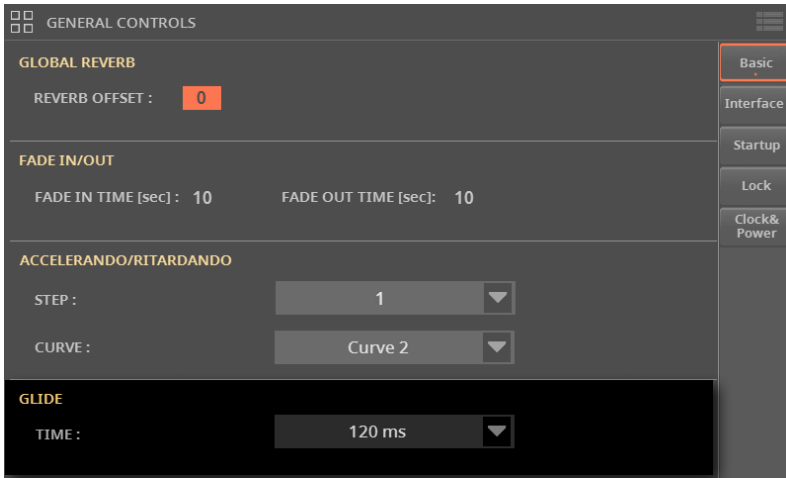
- 1 Go to the **Home > Menu > Mixer/FX > Bend/Tuning** page.



- 2 Use the **Bend** parameter to set the Pitch Bend range (in semitones).
- 3 Save the changes to a Keyboard Set.

■ Change the Glide time

1 Go to the **Settings > Menu > General Controls > Basic** page.



2 Use the **Glide > Time** parameter to set the time needed to return to the standard pitch.

21

MIDI

Introduction to MIDI

Ports, channels, messages

What is MIDI?

MIDI stands for **Musical Instruments Digital Interface**. This interface lets you connect two (or more) musical instruments, or a computer and various musical instruments.

From a software point of view, MIDI is a protocol that describes messages for playing notes and controlling them. It is sort of a grammar to let different instruments and computers speak the same language, and let the one tell the other what to do.

From a physical point of view, MIDI messages travel across the classic **MIDI interface** or the **USB** port, a connector replacing the MIDI ports with a single port and cable. Personal computers, tablets and external controllers can be connected with a single USB cable.

Pa5X can be connected to a Windows or Mac computer with no need of special software. However, for full and easy use of all its MIDI features, we suggest that you install the **KORG USB MIDI Driver**, a special software that you can download from our web site (www.korg.com).

No audio signal is transmitted through MIDI. MIDI only consists of control messages.

Channels and messages

Basically, a MIDI or USB cable transmits **16 channels** of data. Think to each MIDI channel as a TV channel: the receiver must be set on the same channel of the transmitter. The same happens with MIDI messages: when you send a Note On message on channel #1, it will be received on channel #1 only. This allows the instruments to be multitimbral: you can have more than one sound playing on the same MIDI instrument – one for each MIDI channel.

There are various messages, but here are the most commonly used ones:

MIDI Message	CC#	Meaning
Note On		This message instructs an instrument to play a note on a specific channel. Notes have both a name (C4 standing for the center C) and a number (60 being the equivalent for C4). A Note Off message is used to say the note has been released. Together with the Note On message, a Velocity value is always sent. This value tells the instrument how loud the note must play.
Pitch Bend (PB)		You can generate this message acting on the joystick (X direction). The pitch is 'bent' up or down.
Program Change (PC)		When you select a Sound, a Program Change message is generated on the channel. Use this message, together with Control Change #00 and #32, to remotely select Pa5X data from a sequencer or a master keyboard.
Control Change (CC)		This is a wide array of messages, controlling most of the instrument parameters. Some examples:
Bank Select MSB	00	This message pair is used to select a Sound Bank. Together with the Program Change message, they are used to select a Sound.
Bank Select LSB	32	
Modulation	01	This is the equivalent of pressing up the joystick. A vibrato effect is usually triggered on.
Volume	07	Use this controller to set the channel's volume.
Pan	10	This one sets the channel's position on the stereo front.
Expression	11	Use this controller to set the relative volume of a track, with the maximum value matching the current setting of the CC07 control.
Damper Pedal	64	Use this control to simulate the Damper pedal.

Tempo

Tempo is a global MIDI message, that is not tied to a particular channel. Each MIDI Song includes Tempo data.

Lyrics

Lyric Meta Events are intended to display text together with the music. Pa5X can read many of the available Lyrics format on the market.

MIDI standards

Standard MIDI Files

Standard MIDI Files (abbreviated as SMF) are a practical way of exchanging songs between different instruments and computers. Pa5X uses the SMF format as its default MIDI Song format, so reading a song from a computer, or saving a song that a computer software can read, is not a problem at all.

The internal Players are compatible with SMFs format 0 (all data in one track; it is the most common format) and 1 (multitrack). Pa5X can read SMFs from the Home page, and modify/save them in Song Edit mode. Songs are saved in SMF format 0.

Pa5X can also display SMF lyrics and chord abbreviations in various formats available on the market.

Standard MIDI Files usually have the .mid or .kar filename extension.

The General MIDI standard

In addition to the Standard MIDI File (SMF) format, the General MIDI Standard (GM) allows further standardization between musical instruments. This extension of the basic MIDI standard sets some basic rules for compatibility between instruments:

- > A minimum of 16 MIDI channels is required.
- > A basic set of 128 Sounds, correctly ordered, is mandatory.
- > The Drum Kit must follow a standard note configuration.
- > Channel 10 has to be devoted to the Drum Kit.

Pa5X is compatible with the GM1 and GM2 standards.

The XG™ standard

Pa5X is compatible with the Sounds and Drum Kits of the XG standard.

Global, Control and Chord channels

The Control channel

You can set a MIDI IN channel as the Control channel (in the **Settings > Menu > MIDI > MIDI IN Channels** page), to select Styles, Keyboard Sets and SongBook Entries from an external device (see the [Appendix](#) for a list of messages corresponding to the internal data of Pa5X). On this channel you can also send controls to start/stop the Players, and select the Style Elements (see later in this part).

A MIDI OUT channel set as the Control channel (set in the **Settings > Menu > MIDI > MIDI OUT Channels** page) can be used to send messages when selecting SongBook Entries.

The Global channel

Any MIDI channel can be set as a Global channel (in the **Settings > Menu > MIDI > MIDI IN Channels** page), and can simulate the Pa5X integrated keyboard. When Pa5X is connected to a master keyboard, transmission should usually take place over the Global channel of Pa5X.

MIDI messages received over a Global channel are affected by the status of the **SPLIT** button, as well as by the split point. Therefore, if the **SPLIT** button's indicator is lit up, notes arriving to Pa5X over this channel will be divided by the split point into the Upper (above the split point) and Lower (below the split point) parts.

Notes received on a Global channel are used for the chord recognition of the automatic accompaniment. If the **SPLIT** indicator is turned on, only the notes below (Lower scan mode) or above (Upper scan mode) the split point will be used.

The Chord 1 and Chord 2 channels

Two Chord channels (programmed in the **Settings > Menu > MIDI > MIDI IN Control** page) can be used to receive notes for the chord recognition. These notes will be combined with the notes received on the Global channel.

Contrary to the Global channel, the Chord channels are not affected by the split point. However, the status of the **SPLIT** button will change the way chords are recognized on the Chord channels:

Split status	Chord Recognition mode
On	Decided by the Chord Recognition parameter of the Settings > Menu > Preferences > Style page. You can play a single note to play a Major chord.
Off	Always Fingered or Expert, depending on the previous situation. You have to play at least three notes in order for the chord to be detected.

These two channels are especially useful for accordion players, that want to use a separate Chord channel for the chords, and another one for the bass played with the left hand. This way, chords and bass will both contribute to the chord recognition for the automatic accompaniment.

Connecting MIDI devices

Connecting to another device: an overview

You can use either the **MIDI** or **USB** ports to connect Pa5X to other devices. When a USB port is available, it is the easier (therefore preferred) connection.

After connecting to the other device, you can quickly configure Pa5X by choosing one of the supplied MIDI Presets. Or you can manually program all the MIDI parameters, and maybe save them into a new custom MIDI Preset.

Connecting Pa5X to a personal computer or tablet

You can use the **USB DEVICE** port to connect Pa5X to a personal computer or tablet. As an alternative, connect them through the **MIDI IN** and **OUT** connectors and a dedicated MIDI interface on the computer.

Connecting Pa5X to an external controller

You can use the **MIDI IN** port to connect external controllers (master keyboard, MIDI guitar, wind controller, MIDI accordion...) to Pa5X. You can also use the **USB HOST** port for a simpler connection to an external controller, like the KORG *nano* or *micro* series.

Connecting Pa5X to additional musical instruments

You can use the **MIDI OUT** port to connect additional musical instruments (for example, your preferred vintage sound expander) to be controlled from Pa5X.

What are the various connectors used for

- > Use the **USB DEVICE** port to communicate with a computer or tablet. Connect it to the other device's USB port (Type-A, sometimes named **TO DEVICE**).
- > Use the **USB HOST** port to receive data from an external controller. Connect it to the controller's USB port (Type-B, sometimes named **TO HOST**).
- > Use the **MIDI OUT** port to send MIDI data to another musical instrument or computer. Connect it to the other device's **MIDI IN** port.
- > Use the **MIDI IN** port to receive MIDI data from a controller or computer. Connect it to the other device's **MIDI OUT** port.

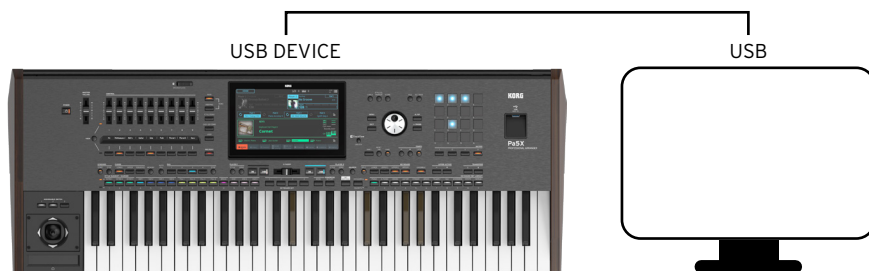
To know how to match Sounds and MIDI channels, see [Programming the MIDI channels](#) on page 550.

Connecting Pa5X to a personal computer or tablet

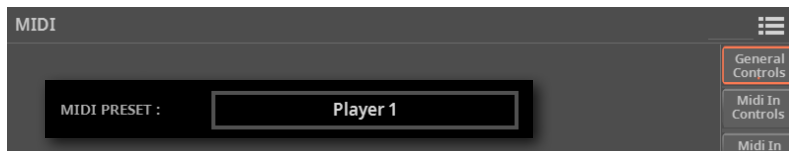
You can program a new song on a personal computer or tablet connected to Pa5X. The computer has to run sequencing or notation software. When a song is ready, you can transfer it to the internal drive of Pa5X, and read it with the internal Players.

Connection and settings

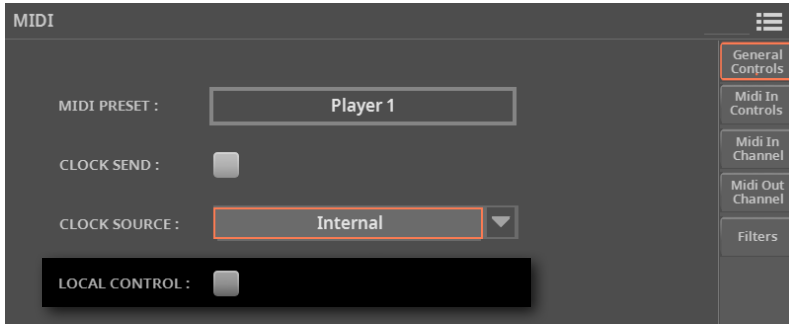
- 1 Install the KORG USB MIDI Driver, as explained in the following pages.
- 2 Connect Pa5X and the computer or tablet via the **USB DEVICE** port.



- 3 On the computer, activate the **MIDI Thru** function (please refer to the software's user manual).
- 4 In Pa5X, go to the **Settings > Menu > MIDI > General Controls** page and choose one of the **Player** or **Tablet** MIDI Preset.



- 5 Still in the **Settings > Menu > MIDI > General Controls** page, deselect the **Local Control** checkbox to put the instrument in the **Local Off** status.



- 6 Press the **EXIT** button to return to the **Home** page.
- 7 Play the keyboard.

Notes played on the keyboard will go from the USB port of Pa5X to the USB port of the computer or tablet. Notes generated by the computer are sent from the USB port of the computer to the USB port of Pa5X.

The Sounds

The song that is played back by the external sequencer can select Pa5X Sounds through the MIDI messages Bank Select MSB, Bank Select LSB (bank selection, two messages), and Program Change (Sound selection). See the list of Sounds and corresponding MIDI values in the [Appendix](#).

As a hint for people programming songs on a computer: even through this is not mandatory, for maximum compatibility you should set Bass on channel #2, Melody on channel #4, Drum Kit on channel #10, controls for the Harmonizer on channel #5.

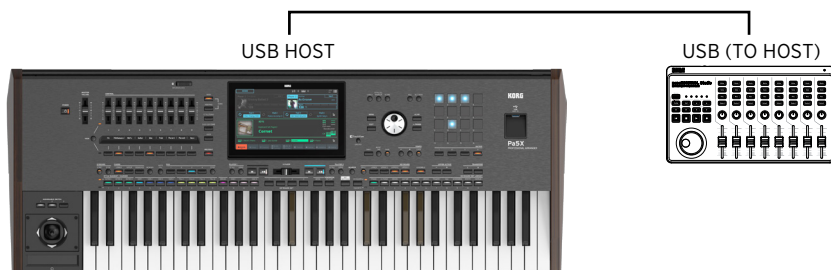
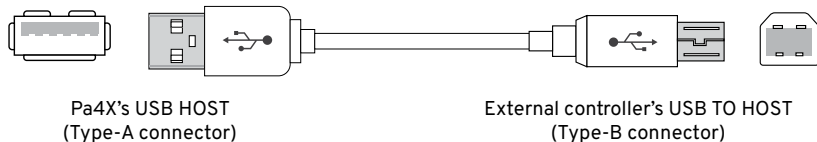
Connecting Pa5X to an external controller

You can control Pa5X with an external master controller, like a KORG synthesizer, a controller of the KORG micro or nano series, a digital piano, a wind or breath controller, a MIDI pedalboard, guitar or accordion. These devices allow for complete replacement of the internal keyboard, or for adding new controllers to play some of the Sounds while still using the internal keyboard. Some of the controllers allow for easier mixing, or for playing percussions and special effects on a dedicated device.

Connection through the USB HOST port

If your controller has a USB port, you can use it to connect it to Pa5X.

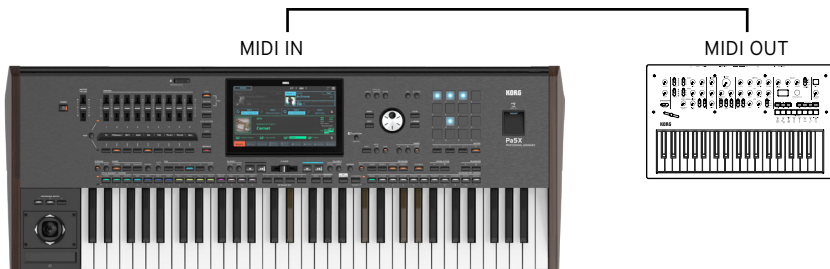
- > Connect the **USB HOST** port (Type-A) of Pa5X to the **USB** port of the master controller (Type-B, sometimes named **TO HOST**).



Connection through the MIDI ports

If your controller has a MIDI interface, you can use it to connect it to Pa5X.

- > Connect the **MIDI OUT** port of the master controller to the **MIDI IN** port of Pa5X.



Setting the MIDI channels

■ Program the master controller

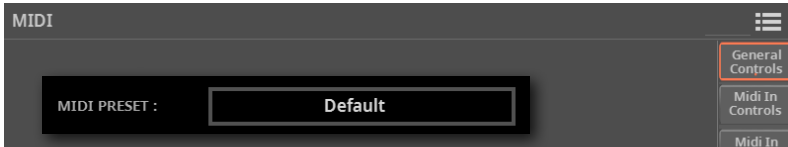
Match the MIDI channel(s) on which the master controller will send data with those on which Pa5X will receive data.

- 1 In the master controller, set the MIDI channel(s) on which data will be transmitted. Usually, channel #1 is the default setting.
- 2 If the master controller also includes a sound generator, set it to the Local Off status, to prevent it from sounding its own sounds and Pa5X's sounds at the same time on the same channel(s).

■ Program Pa5X

Configure the MIDI channels on Pa5X.

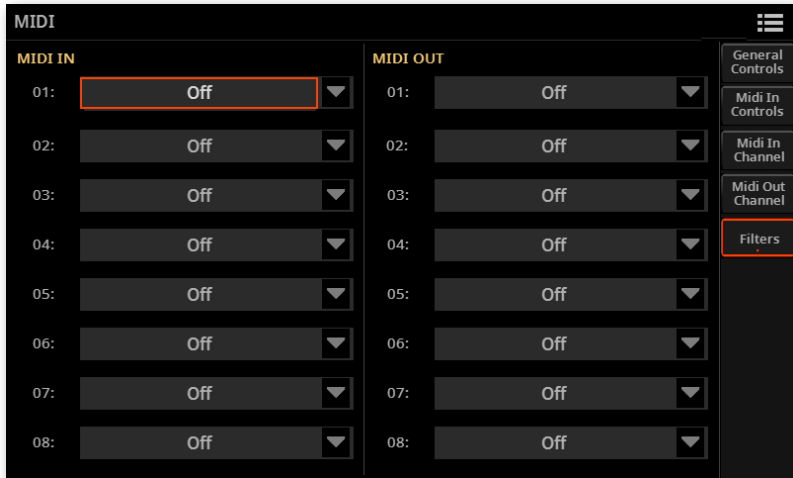
- 1 Go to the **Settings > Menu > MIDI** pages.
- 2 Either choose a MIDI Preset, or manually program the MIDI IN channels.
 - > If a MIDI Preset matching your type of connection exists, go to the **Settings > Menu > MIDI > General Controls** page and use the **MIDI Preset** pop-up menu to choose the MIDI Preset.



- > If no MIDI Preset matches your type of connection, go to the **Settings > Menu > MIDI > MIDI IN Channel** page and set the MIDI channels to match the incoming data. You can start from an existing MIDI Preset with some of the programming already set to your needs.



- > If needed, go to the **Settings > Menu > MIDI > Filters** page and set the MIDI filters. Some MIDI Presets may include filters that you have to deactivate, or you may need to filter out some types of data.



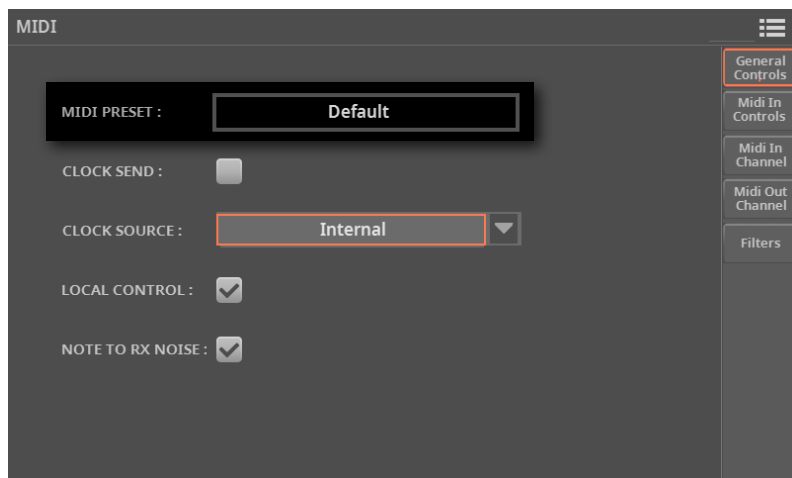
- > You might also want to check the parameters in the **Settings > Menu > MIDI > General Contros** and **MIDI IN Controls** pages, to set things like MIDI Clock or transposition.
- 3 After having set the MIDI channels, the filters and any other data, you can save the new configuration into a new MIDI Preset, by choosing the **Save MIDI Preset** command from the **page menu**.

Quick setup using the MIDI Presets

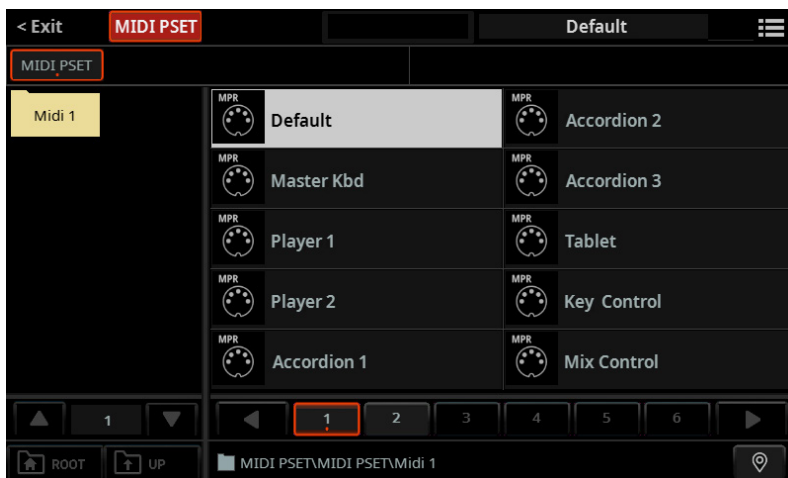
Choosing a MIDI Preset

Connecting an instrument to a master keyboard, an external controller, a personal computer or a tablet, usually requires some programming. To help you configure the MIDI channels, we have provided some MIDI Presets, that will automatically configure the MIDI parameters according to your needs.

- 1 Go to the **Settings > Menu > MIDI > General Controls** page.



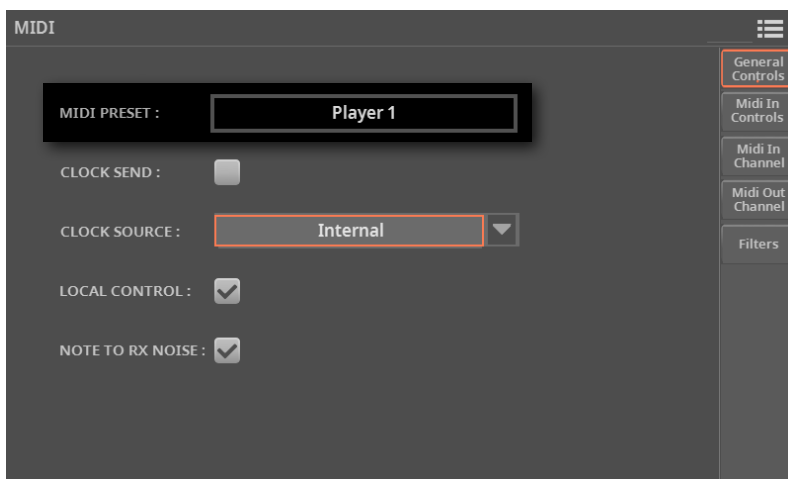
- 2 Touch the **MIDI Preset** button to open the **Select** window.



- 3 Browse through the files and folders, and choose one of the available **MIDI Presets**.
- 4 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** is turned on. See **Display Hold** on page 72.

- 5 The name of the selected preset will appear in the **MIDI Preset** field, and all the MIDI parameters will be automatically configured.



The MIDI Presets in detail

You will use the supplied MIDI Presets in the following cases:

MIDI Preset	Use
Default	Generic settings, good for most situations
Master Kbd	When connecting to an external master keyboard
Player 1	When using an external sound generator (an expander or a virtual instrument) driven by either Player 1 or Player 2. When programming a song on an external sequencer and Pa5X's Song Edit mode, and you want to use the much better sounds of Pa5X instead of the ones of the computer's internal generator.
Player 2	
Accordion 1	Play all the Upper parts with the right hand, the Lower part with the chord section, the Bass part with the bass section. Chords to the Style are sent with the chord+bass sections combined. If the selected Chord Scan mode is Upper or Upper+Lower, you can also play chords with the right hand.
Accordion 2	Play the Upper 1 part with the right hand, the Lower part with the chord section. Chords to the Style are sent with the chord+bass sections combined.
Accordion 3	Play the Upper 1 part with the right hand, the Lower part with the chord section, the Bass part with the bass section. Chords to the Style are sent from a single MIDI channel.
Tablet	When connecting to a tablet, to remotely select SongBook Entries, or send MIDI messages when selecting them.
Key Control	To play the Upper 3 Sound with an external keyboard.
Mix Control	To control the Volume and Pan of each Sound with an external controller.
Pad Control	To play percussive sounds or special effects (on the Upper 3) from an external set of pads. You can also use it to send chords to the internal arranger.
X/Y Control	To control two separate sound parameters on the Upper 1 with an external X/Y controller.
Studio Ctrl	To connect various controllers at the same time.
Breath Ctrl	To control one or more sound parameters on the Upper 1 with a breath controller.

Parameter	Default	Master Kbd	Tablet
MIDI IN Channel	1 Ply 1 Tr 1	Global	-
	2 Ply 1 Tr 2	Control	-
	3 Ply 1 Tr 3	-	-
	4 Ply 1 Tr 4	-	-
	5 Ply 1 Tr 5	-	-
	6 Ply 1 Tr 6	-	-
	7 Ply 1 Tr 7	-	-
	8 Ply 1 Tr 8	-	-
	9 Ply 1 Tr 9/Sty Bass	-	-
	10 Ply 1 Tr 10/Sty Drum	-	-
	11 Ply 1 Tr 11/Sty Perc	-	-
	12 Ply 1 Tr 12/Sty Acc1	-	-
	13 Ply 1 Tr 13/Sty Acc2	-	-
	14 Ply 1 Tr 14/Sty Acc3	-	-
	15 Ply 1 Tr 15/Sty Acc4	-	-
	16 Ply 1 Tr 16/Sty Acc5	-	Control
MIDI OUT Channel	1 Upper 1	Upper 1	-
	2 Upper 2	Upper 2	-
	3 Upper 3	Upper 3	-
	4 Lower	Lower	-
	5 -	-	-
	6 -	-	-
	7 -	-	-
	8 -	-	-
	9 -	-	-
	10 -	-	-
	11 -	-	-
	12 -	-	-
	13 -	-	-
	14 -	-	-
	15 -	-	-
	16 -	-	Control
Chord 1 Ch.	Off	1	Off
Chord 2 Ch.	Off	Off	Off
Mic Processor Ch.	5	5	5
Mic Processor Oct. Trp.	0	0	0
MIDI IN Up/Low Oct. Trp.	On	On	On
MIDI IN Velocity	Normal	Normal	Normal
MIDI IN Track Mute Active	-	On	On
MIDI Filters	All Off	SysEx In/Out	All Off

Parameter	Player 1	Player 2
MIDI IN Channel	1 Ply 1 Tr 1	Ply 2 Tr 1
	2 Ply 1 Tr 2	Ply 2 Tr 2
	3 Ply 1 Tr 3	Ply 2 Tr 3
	4 Ply 1 Tr 4	Ply 2 Tr 4
	5 Ply 1 Tr 5	Ply 2 Tr 5
	6 Ply 1 Tr 6	Ply 2 Tr 6
	7 Ply 1 Tr 7	Ply 2 Tr 7
	8 Ply 1 Tr 8	Ply 2 Tr 8
	9 Ply 1 Tr 9/Sty Bass	Ply 2 Tr 9/Sty Bass
	10 Ply 1 Tr 10/Sty Drum	Ply 2 Tr 10/Sty Drum
	11 Ply 1 Tr 11/Sty Perc	Ply 2 Tr 11/Sty Perc
	12 Ply 1 Tr 12/Sty Acc1	Ply 2 Tr 12/Sty Acc1
	13 Ply 1 Tr 13/Sty Acc2	Ply 2 Tr 13/Sty Acc2
	14 Ply 1 Tr 14/Sty Acc3	Ply 2 Tr 14/Sty Acc3
	15 Ply 1 Tr 15/Sty Acc4	Ply 2 Tr 15/Sty Acc4
	16 Ply 1 Tr 16/Sty Acc5	Ply 2 Tr 16/Sty Acc5
MIDI OUT Channel	1 Ply 1 Tr 1	Ply 2 Tr 1
	2 Ply 1 Tr 2	Ply 2 Tr 2
	3 Ply 1 Tr 3	Ply 2 Tr 3
	4 Ply 1 Tr 4	Ply 2 Tr 4
	5 Ply 1 Tr 5	Ply 2 Tr 5
	6 Ply 1 Tr 6	Ply 2 Tr 6
	7 Ply 1 Tr 7	Ply 2 Tr 7
	8 Ply 1 Tr 8	Ply 2 Tr 8
	9 Ply 1 Tr 9/Sty Bass	Ply 2 Tr 9/Sty Bass
	10 Ply 1 Tr 10/Sty Drum	Ply 2 Tr 10/Sty Drum
	11 Ply 1 Tr 11/Sty Perc	Ply 2 Tr 11/Sty Perc
	12 Ply 1 Tr 12/Sty Acc1	Ply 2 Tr 12/Sty Acc1
	13 Ply 1 Tr 13/Sty Acc2	Ply 2 Tr 13/Sty Acc2
	14 Ply 1 Tr 14/Sty Acc3	Ply 2 Tr 14/Sty Acc3
	15 Ply 1 Tr 15/Sty Acc4	Ply 2 Tr 15/Sty Acc4
	16 Ply 1 Tr 16/Sty Acc5	Ply 2 Tr 16/Sty Acc5
Chord 1 Ch.	Off	Off
Chord 2 Ch.	Off	Off
Mic Processor Ch.	5	5
Mic Processor Oct. Trp.	0	0
MIDI IN Up/Low Oct. Trp.	On	On
MIDI IN Velocity	Normal	Normal
MIDI IN Track Mute Active	-	-
MIDI Filters	All Off	All Off

Parameter	Accordion 1	Accordion 2	Accordion 3
MIDI IN Channel	1 Global	Upper 1	Upper 1
	2 Lower	Lower	Lower
	3 Ply 1 Tr 9/Sty Bass	-	Ply 1 Tr 9/Sty Bass
	4 -	Upper 2	Upper 2
	5 -	Upper 3	Upper 3
	6 -	-	-
	7 -	-	-
	8 -	-	-
	9 -	Ply 1 Tr 9/Sty Bass	-
	10 Ply 1 Tr 10/Sty Drum	Ply 1 Tr 10/Sty Drum	Ply 1 Tr 10/Sty Drum
	11 Ply 1 Tr 11/Sty Perc	Ply 1 Tr 11/Sty Perc	Ply 1 Tr 11/Sty Perc
	12 Ply 1 Tr 12/Sty Acc1	Ply 1 Tr 12/Sty Acc1	Ply 1 Tr 12/Sty Acc1
	13 Ply 1 Tr 13/Sty Acc2	Ply 1 Tr 13/Sty Acc2	Ply 1 Tr 13/Sty Acc2
	14 Ply 1 Tr 14/Sty Acc3	Ply 1 Tr 14/Sty Acc3	Ply 1 Tr 14/Sty Acc3
	15 Ply 1 Tr 15/Sty Acc4	Ply 1 Tr 15/Sty Acc4	Ply 1 Tr 15/Sty Acc4
	16 Ply 1 Tr 16/Sty Acc5	Ply 1 Tr 16/Sty Acc5	Ply 1 Tr 16/Sty Acc5
MIDI OUT Channel	1 Upper 1	Ply 1 Tr 1	Ply 1 Tr 1
	2 Upper 2	Ply 1 Tr 2	Ply 1 Tr 2
	3 Upper 3	Ply 1 Tr 3	Ply 1 Tr 3
	4 Lower	Ply 1 Tr 4	Ply 1 Tr 4
	5 -	Ply 1 Tr 5	Ply 1 Tr 5
	6 -	Ply 1 Tr 6	Ply 1 Tr 6
	7 -	Ply 1 Tr 7	Ply 1 Tr 7
	8 -	Ply 1 Tr 8	Ply 1 Tr 8
	9 -	Ply 1 Tr 9/Sty Bass	Ply 1 Tr 9/Sty Bass
	10 -	Ply 1 Tr 10/Sty Drum	Ply 1 Tr 10/Sty Drum
	11 -	Ply 1 Tr 11/Sty Perc	Ply 1 Tr 11/Sty Perc
	12 -	Ply 1 Tr 12/Sty Acc1	Ply 1 Tr 12/Sty Acc1
	13 -	Ply 1 Tr 13/Sty Acc2	Ply 1 Tr 13/Sty Acc2
	14 -	Ply 1 Tr 14/Sty Acc3	Ply 1 Tr 14/Sty Acc3
	15 -	Ply 1 Tr 15/Sty Acc4	Ply 1 Tr 15/Sty Acc4
	16 -	Ply 1 Tr 16/Sty Acc5	Ply 1 Tr 16/Sty Acc5
Chord 1 Ch.	2	2	2
Chord 2 Ch.	3	3	Off
Mic Processor Ch.	5	5	5
Mic Processor Oct. Trp.	0	0	0
MIDI IN Up/Low Oct. Trp.	On	On	On
MIDI IN Velocity	110	110	Normal
MIDI IN Track Mute Active	-	-	-
MIDI Filters	SysEx In/Out	SysEx In/Out	SysEx In/Out

Parameter	Key Control	Mix Control	Pad Control	
MIDI IN Channel	1	Upper 3	Ply 1 Pad 1	Upper 3
	2	-	Ply 1 Pad 2	-
	3	-	Ply 1 Pad 3	-
	4	-	Ply 1 Pad 4	-
	5	-	Lower	-
	6	-	Upper 3	-
	7	-	Upper 2	-
	8	-	Upper 1	-
	9	-	Ply 1 Tr 9/Sty Bass	-
	10	-	Ply 1 Tr 10/Sty Drum	-
	11	-	Ply 1 Tr 11/Sty Perc	-
	12	-	Ply 1 Tr 12/Sty Acc1	-
	13	-	Ply 1 Tr 13/Sty Acc2	-
	14	-	Ply 1 Tr 14/Sty Acc3	-
	15	-	Ply 1 Tr 15/Sty Acc4	-
	16	-	Ply 1 Tr 16/Sty Acc5	-
MIDI OUT Channel	1	-	-	-
	2	-	-	-
	3	-	-	-
	4	-	-	-
	5	-	-	-
	6	-	-	-
	7	-	-	-
	8	-	-	-
	9	-	-	-
	10	-	-	-
	11	-	-	-
	12	-	-	-
	13	-	-	-
	14	-	-	-
	15	-	-	-
	16	-	-	-
Chord 1 Ch.	Off	Off	16	
Chord 2 Ch.	Off	Off	Off	
Mic Processor Ch.	5	5	5	
Mic Processor Oct. Trp.	0	0	0	
MIDI IN Up/Low Oct. Trp.	On	On	On	
MIDI IN Velocity	Normal	Normal	Normal	
MIDI IN Track Mute Active	-	-	-	
MIDI Filters	All Off	All Off	All Off	

Parameter	X/Y Control	Studio Control	Breath Control
MIDI IN Channel	1	Upper 1	Upper 1
	2	-	Upper 2
	3	-	Upper 3
	4	-	Lower
	5	-	Pad 1
	6	-	Pad 2
	7	-	Pad 3
	8	-	Pad 4
	9	-	Drum
	10	-	Percussion
	11	-	Bass
	12	-	Acc 1
	13	-	Acc 2
	14	-	Acc 3
	15	-	Acc 4
	16	-	Acc 5
MIDI OUT Channel	1	-	-
	2	-	-
	3	-	-
	4	-	-
	5	-	-
	6	-	-
	7	-	-
	8	-	-
	9	-	-
	10	-	-
	11	-	-
	12	-	-
	13	-	-
	14	-	-
	15	-	-
	16	-	-
Chord 1 Ch.	Off	Off	Off
Chord 2 Ch.	Off	Off	Off
Mic Processor Ch.	5	5	5
Mic Processor Oct. Trp.	0	0	0
MIDI IN Up/Low Oct. Trp.	On	On	On
MIDI IN Velocity	Normal	Normal	Normal
MIDI IN Track Mute Active	-	-	-
MIDI Filters	All Off	All Off	All Off

Editing the MIDI Presets

- 1 Choose a **MIDI Preset** containing programming similar to what you want to achieve.
- 2 While in the **Settings > Menu > MIDI** pages, edit the various parameters.

MIDI Presets can be considered as a starting point that can be freely tweaked. Once you have selected the most appropriate MIDI Preset for the connection to be made, you can modify the parameters as needed.

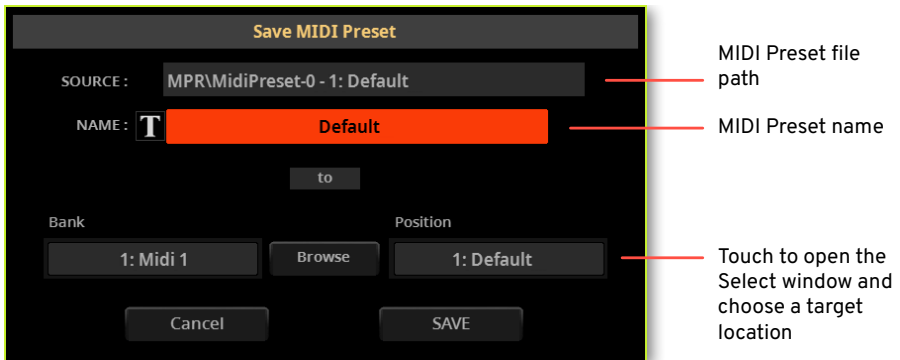
The parameters that will be saved to a MIDI Preset are the ones shown in the above table.

Saving a MIDI Preset

You can save a MIDI Preset, to create a library of quick settings for the different setups.

■ Open the Save MIDI Preset dialog

- 1 Go to the any page of the **Settings > MIDI** section.
- 2 Choose the **Save MIDI Preset** command from the **page menu**. The **Save MIDI Preset** dialog will appear.



■ Rename the MIDI Preset

While in the **Save MIDI Preset** dialog, you may change the **name** of the MIDI Preset.

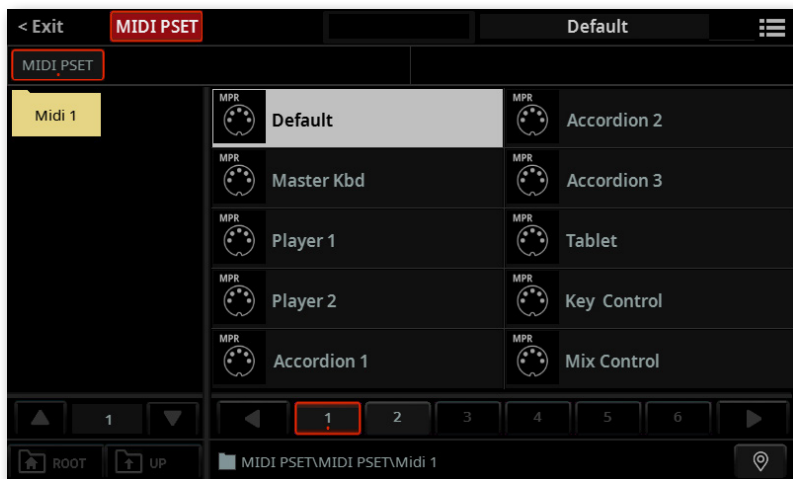
- 1 Touch the **Text Edit (T)** button to open the **virtual keyboard** and edit the name.
- 2 When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

■ Save over the same MIDI Preset

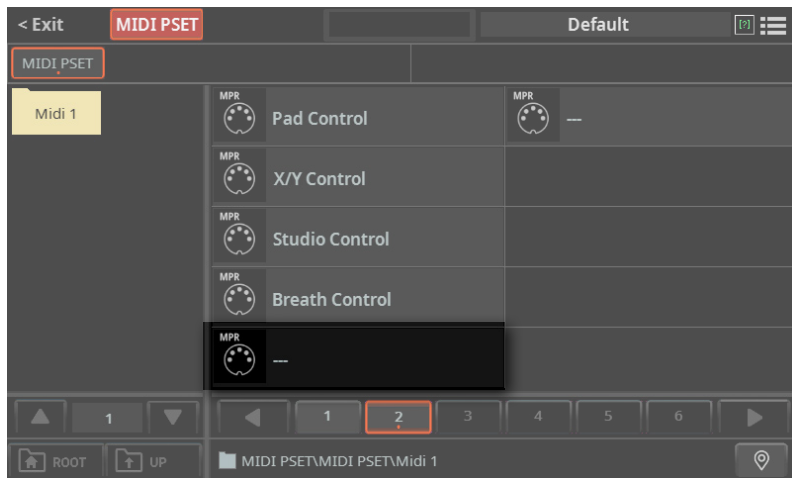
- > If you want to overwrite the current MIDI Preset, just touch the **Save** button.

■ Save to a different MIDI Preset location

- 1 If you want to save to a different location, touch the **Browse** button to open the **Select** window.
- 2 Touch the folder where you want to save the new MIDI Preset. Don't touch any of the existing MIDI Preset names, unless you want to overwrite them!



- 3 Find an empty location, shown as three hyphens ('---'), and touch it.



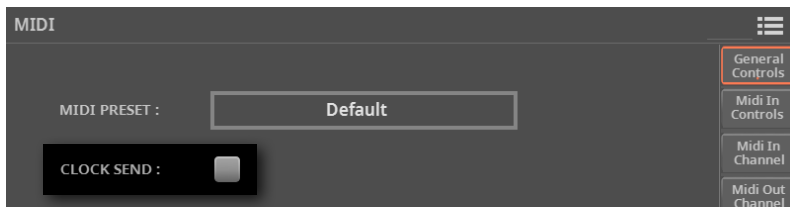
- 4 Press the **EXIT** button to close the **Select** window and confirm your selection.
- 5 When back at the **Save MIDI Preset** dialog, confirm the Save operation by touching the **Save** button.

Synchronizing with other instruments

Sending the MIDI Clock

The selected Player can send a MIDI Clock (Tempo synchronization) message to the other devices.

- 1 Go to the **Settings > Menu > MIDI > General Controls** page.



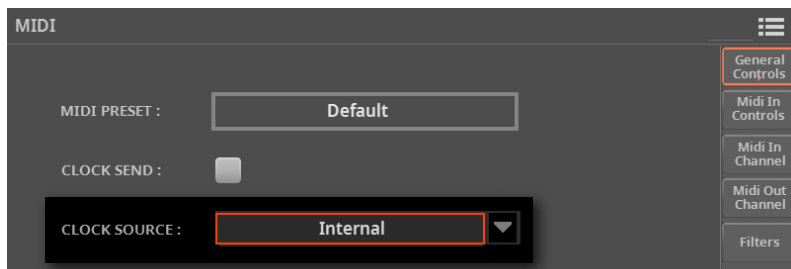
- 2 Select the **Clock Send** checkbox to send the internal MIDI Clock to the **MIDI IN** and **USB** ports.

When the MIDI Clock signal is sent, you can make another instrument play at the same Tempo of Pa5X, and be controlled by its Play/Stop commands.

Receiving the MIDI Clock

The Players can receive MIDI Clock (Tempo synchronization) messages from an external device.

- 1 Go to the **Settings > Menu > MIDI > General Controls** page.



- 2 Use the **Clock Source** pop-up menu to choose a MIDI Clock source for the internal Players.

Clock Source	Meaning
Internal	MIDI Clock is generated by Pa5X's internal Players.
External MIDI	MIDI Clock is received from the MIDI IN or USB port.
External USB	

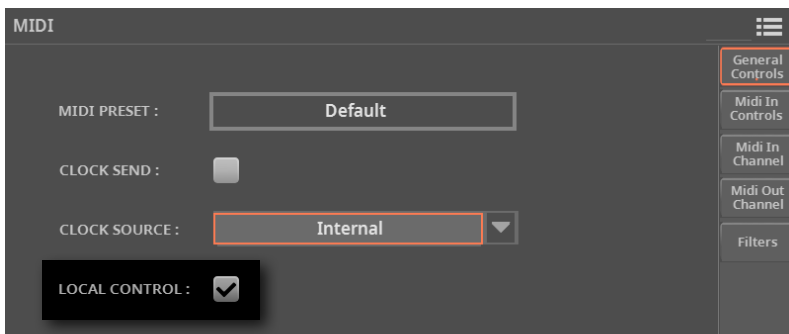
This parameter is automatically set to **Internal** each time the instrument is turned on.

Routing, processing and transposing

Connecting the keyboard to the internal or external sounds

The 'local' controls (keyboard, physical controllers) can be connected to the internal sounds directly, or echoed back from an external device.

- 1 Go to the **Settings > Menu > MIDI > General Controls** page.



- 2 Use the **Local Control** parameter to connect or disconnect the keyboard and controllers to the internal sounds.

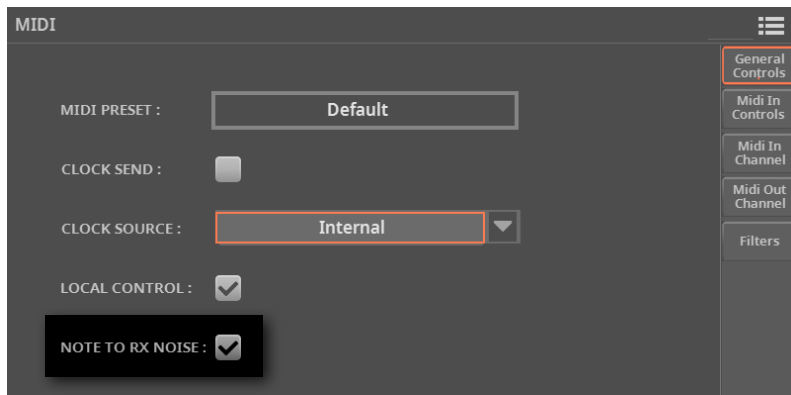
Local Control	Meaning
On	When you play the keyboard, MIDI data are sent to the internal sound generator. If Sounds are assigned to a MIDI OUT channel, data are also sent to the MIDI OUT and USB ports.
Off	The keyboard is connected to the MIDI OUT and USB ports, but cannot play the internal sound generator. This is very useful when working with an external sequencer, to send notes and various MIDI messages from the integrated keyboard and controllers to the external sequencer, and then let the sequencer send them back to the sound generator, without overlapping and MIDI echo effects.

This parameter is automatically activated each time the instrument is turned on.

Converting notes to RX Noises

RX Noises are special ambience or mechanical sounds that allow Sounds to be more realistic. They are usually located above C7, depending on the Sound.

- 1 Go to the **Settings > Menu > MIDI > General Controls** page.
- 2 Select the **Note to RX Noise** checkbox to convert incoming notes to RX Noises.



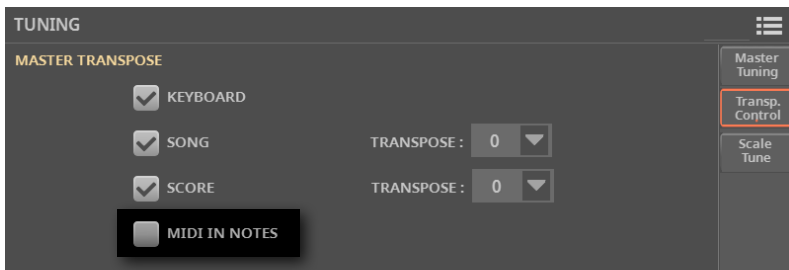
When this parameter is turned on, notes received from the **MIDI IN** or **USB** ports, or performed by the internal Players, in the RX Noises range, are recognized and converted to RX Noises.

This parameter is automatically activated each time the instrument is turned on.

Transposing the notes received

Applying master and octave transposition to the notes received

- 1 Go to the **Settings > Menu > Tuning > Transpose Control** page.
- 2 Use the **Master Transpose > MIDI IN Notes** checkbox to choose if notes received on the **MIDI IN** and **USB** ports have to be transposed.

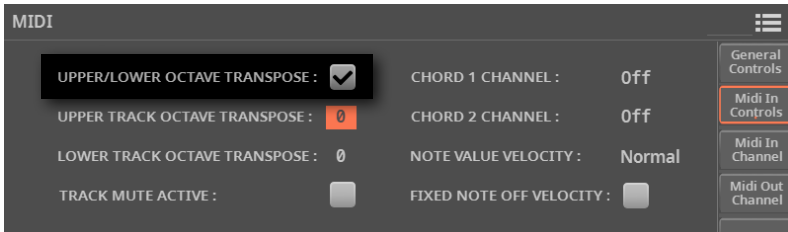


Midi In Transpose	Meaning
On	Notes received on the MIDI IN and USB ports are transposed according to the Master Transpose settings.
Off	Data received on the MIDI IN and USB ports are not transposed.

Applying octave transposition to the notes received

The **Upper/Lower Octave Transpose** parameter activates/deactivates the Octave Transpose values for the Upper and Lower Sounds.

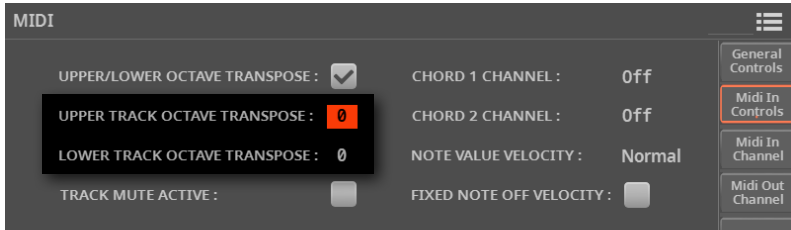
- 1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.
- 2 Use the **Upper/Lower Octave Transpose** checkbox to choose if notes received on the **MIDI IN** and **USB** ports have to be transposed when octave transposition is engaged.



Midi In Octave	Meaning
On	Notes received on the MIDI IN and USB ports are transposed according to the Octave Transpose setting for each Sound.
Off	Data received on the MIDI IN and USB ports are not transposed.

Applying octave transposition to the Keyboard Sounds

- 1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.
- 2 Use the **Upper Track Octave Transpose** and **Lower Track Octave Transpose** parameters to transpose the MIDI notes received on the Upper and Lower Sounds.



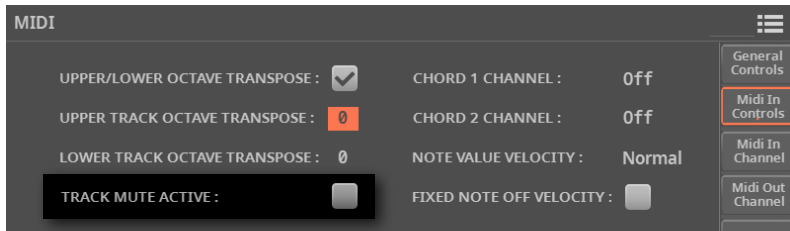
Upper/Lower Octave	Meaning
-2...0...+2	Notes received on the MIDI IN and USB ports are transposed by the number of selected octaves. For example, if you select the +1 value, a C4 received via MIDI will play a C5 in Pa5X.

These parameters may be useful to many MIDI accordion players, whose MIDI interface may be transmitting on an unexpected octave.

Playing muted tracks via MIDI

You can mute the internal Sounds when playing the internal keyboard. You can, however, still use these Sounds from an external controller (like a KORG microKEY). This will let you play one of the internal Sounds from an external keyboard, with no need for an additional sound generator and a mixer.

- 1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.
- 2 Use the **Track Mute Active** checkbox to choose if notes received on the **USB** port will play on muted tracks.

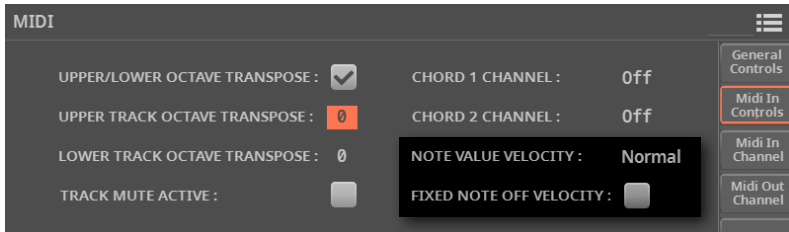


Track Mute Active	Meaning
On	No received MIDI data can play on muted tracks.
Off	Received MIDI data can play on muted tracks.

Choosing a fixed velocity value for the incoming notes

You can set a fixed velocity value for the notes received from MIDI.

- 1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.



- 2 Use the **Note Velocity Value** parameter to set a fixed Note On velocity value for all the notes received via MIDI. This is useful when playing Pa5X with a MIDI accordion, often sending a fixed velocity value.

Depending on the status of the **Fixed Note Off Velocity** parameter, this may also affect the Note Off Velocity value.

Note Velocity Value	Effect on the received Note On Velocity values
Normal	Received velocity values are left unchanged.
40 ... 127	All received velocity values are converted to the selected value.

- 3 Use the **Fixed Note Off Velocity** parameter to set a fixed Note Off velocity value for all the notes received via MIDI. This is useful when playing with a controller sending too high a Note Off velocity value, that may cause issues with the sounds of Pa5X.

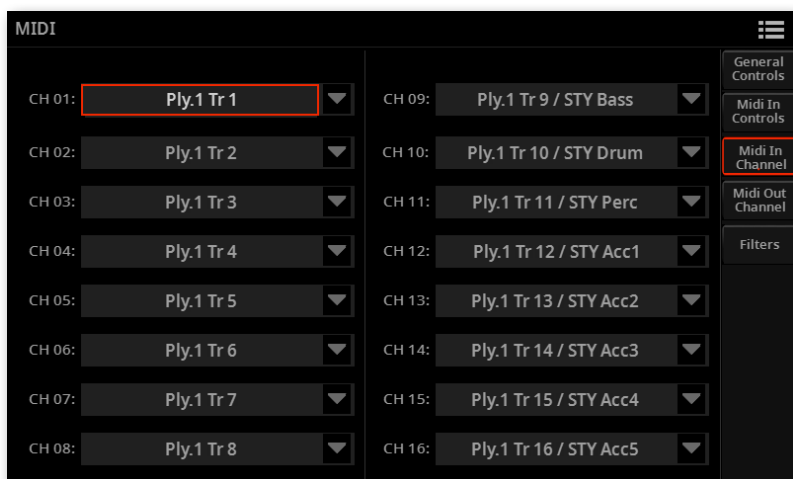
The effect of this parameter also depends on the status of the **Note Velocity Value** parameter.

Fixed Note Off Velocity	Note Velocity Value	Effect on received Note Off Velocity values
On	Any value	All Note Off Velocity values are set to 25.
Off	Normal	All values are left unchanged.
	40 ... 127	All values are set to the value specified by the Note Velocity Value parameter.

Programming the MIDI channels

Programming the MIDI IN channels

- 1 Go to the **Settings > Menu > MIDI > MIDI IN Channels** page.



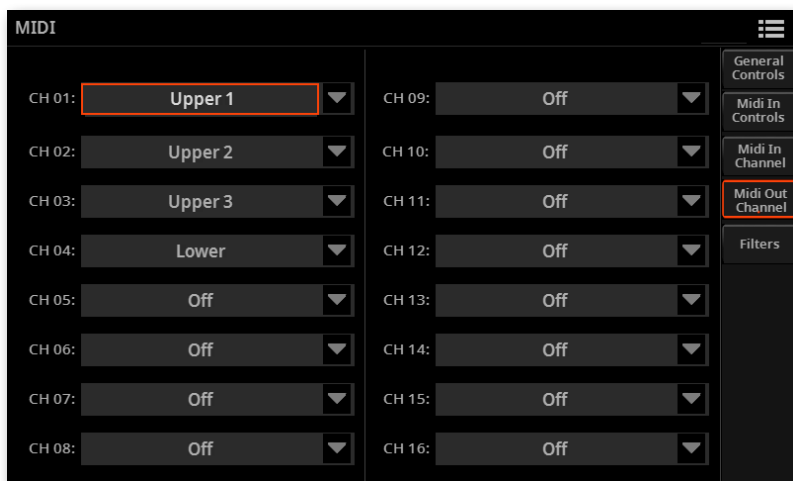
- 2 Use the **Channel** pop-up menus to assign an instrument's track to each MIDI channel. Please note that MIDI Song and Style tracks are combined.

Track	Meaning
Off	Nothing assigned
Lower	Keyboard's Lower Sound
Upper 1...3	One of the Keyboard's Upper Sounds
Sty Drum	Style's Drum Sound
Sty Percussion	Style's Percussion Sound
Sty Bass	Style's Bass Sound
Sty Acc 1...5	One of the Style's Accompaniment Sounds
Ply 1/2 Tr 01...16	One of the Players' tracks (Sounds).

Track	Meaning
Ply 1/2 Pad 1...4	One of the Pad Sounds
Global	Channel used to simulate Pa5X's integrated controllers (keyboard, pedals, joystick) with an external keyboard or controller. MIDI messages coming on this channel are seen as if they were generated by Pa5X's integrated controllers.
Control	On this channel, Pa5X receives MIDI messages to remotely select Keyboard Sets, Styles, Style Elements and SongBook Entries. See the tables in the Appendix, and later in this chapter, for more information about the data received.

Programming the MIDI OUT Channels

- 1 Go to the **Settings > Menu > MIDI > MIDI OUT Channels** page.



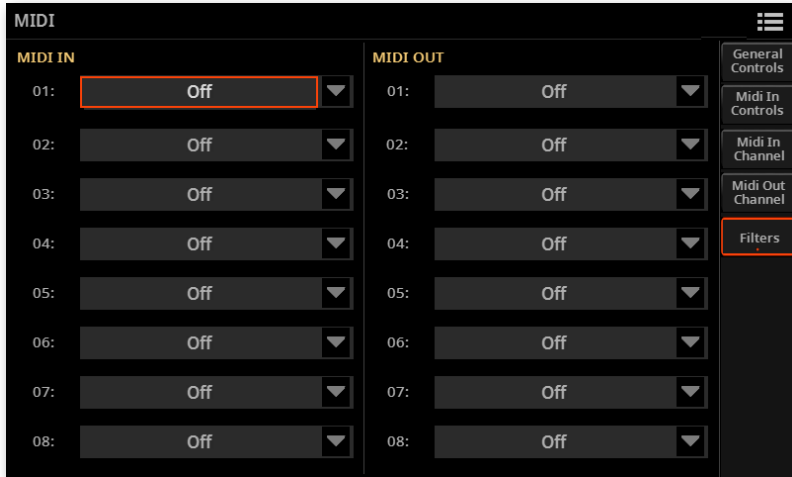
- 2 Use the **Channel** pop-up menus to assign an instrument's track to each MIDI channel. Please note that MIDI Song and Style tracks are combined.

Track	Meaning
Off	Nothing assigned
Lower	Keyboard's Lower Sound
Upper 1...3	One of the Keyboard's Upper Sounds
Sty Drum	Style's Drum Sound
Sty Percussion	Style's Percussion Sound
Sty Bass	Style's Bass Sound
Sty Acc 1...5	One of the Style's Accompaniment Sounds
Ply 1/2 Tr 01...16	One of the Players' tracks (Sounds).
Ply 1/2 Pad 1...4	One of the Pad Sounds
Chord	Use this channel to send notes recognized by the Chord Recognition engine to the MIDI OUT or USB port. This is useful, for example, to control an external Harmonizer playing on the Lower part (even if the part is muted).
Control	On this channel, Pa5X sends messages corresponding to the selected SongBook Entry.

Filtering out MIDI messages

You can set up to eight filters for the MIDI data received or sent. Filters are applied to all MIDI channels at the same time.

- 1 Go to the **Settings > Menu > MIDI > Filters** page.

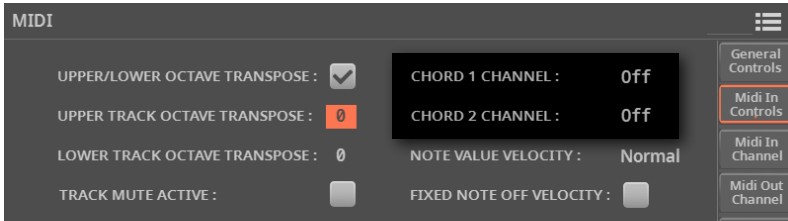


- 2 Use the **MIDI IN Filters** pop-up menus to choose filters on the data received.
- 3 Use the **MIDI OUT Filters** pop-up menus to choose filters on the data sent.

Filter	Meaning
Off	No filter
Pitch Bend	Pitch Bend
Mono Touch	Mono (or Channel) After Touch
Poly Touch	Poly After Touch
Prg. Change	Program Change
Sys. Exclusive	System Exclusive
All Ctrl. Ch.	All Control Change messages
0 ... 127	Control Change message #0...127. See the following pages for a list of the available Control Change messages.
Notes	Note events

Programming the Chord channels

- 1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.
- 2 Use the **Chord 1 Channel** and **Chord 2 Channel** parameters to assign the Chord channels to a MIDI channel.



Chord channel	Meaning
Off	Chord channel not activated.
1...16	Assigned Chord channel. Two Chord channels can be used to receive notes for chord recognition. These notes will be combined with the notes that go through the channel set as Global (depending on the Chord Scan settings, Global notes may be recognized only under or above the split point, if the SPLIT indicator is lit up).

Control Change messages

The following is a table including all Control Change messages, and their effect on various functions of the instrument.

CC#	CC Name	Pa5X Function
0	Bank Select MSB	Sound selection
1	Modulation 1 (Y+)	Joystick forward
2	Modulation 2 (Y-)	Joystick backward
3	Undefined Controller	
4	Foot Controller	CC#04
5	Portamento Time	Portamento Time
6	Data entry MSB	Data entry MSB
7	Volume	Sound/Track Volume
8	Balance	
9	Undefined Controller	
10	Pan	Sound/Track Panning
11	Expression	Expression
12	FX Controller 1	CC#12
13	FX Controller 2	CC#13
14-15	Undefined Controller	
16	General Purpose 1	Ribbon controller
17	General Purpose 2	CC#17
18	General Purpose 3	CC#18
19	General Purpose 4	CC#19
20	Undefined controller	CC#20
21	Undefined controller	CC#21
22-31	Undefined controller	
Control Change #32-63 are the LSB (Least Significant Byte) of Control Change #0-31, i.e. the MSB (Most Significant Byte), and are changed according to their MSB counterparts.		
64	Damper	Damper pedal
65	Portamento On/Off	Portamento On/Off

CC#	CC Name	Pa5X Function
66	Sostenuto	Sostenuto pedal
67	Soft	Soft pedal
68	Legato	
69	Hold 2	
70	Sound Controller 1	
71	Sound Controller 2	Filter resonance
72	Sound Controller 3	Release time
73	Sound Controller 4	Attack time
74	Sound Controller 5	Brightness (Filter cutoff)
75	Sound Controller 6	Decay time
76	Sound Controller 7	Vibrato speed
77	Sound Controller 8	Vibrato depth
78	Sound Controller 9	Vibrato initial delay
79	Sound Controller 10	
80	General Purpose 5	Pa5X Sound Controller 1
81	General Purpose 6	Pa5X Sound Controller 2
82	General Purpose 7	Pa5X Sound Controller 3
83	General Purpose 8	CC#83
84	Portamento Control	
85-90	Undefined Controller	
91	FX 1 Depth	A/B Master FX 1 (reverb) send level
92	FX 2 Depth	
93	FX 3 Depth	A/B Master FX 2 (modulation) send level
94	FX 4 Depth	A/B Master FX 3 (free) send level
95	FX 5 Depth	
96	Data Increment	
97	Data Decrement	
98	NRPN LSB*	See table below(*)
99	NRPN MSB*	See table below(*)
100	RPN LSB	See MIDI Implementation Chart
101	RPN MSB	See MIDI Implementation Chart
102-119	Undefined Controller	
120	All Sound Off	All Sound Off
121	Reset All Controllers	Reset All Controllers

CC#	CC Name	Pa5X Function
122	Local Control On/Off	
123	All Notes Off	All Notes Off
124	Omni Off	
125	Omni On	
126	Mono On	
127	Poly On	

(*) The following NRPN messages are used to control the Sound and Drum Kit parameters.

NRPN	CC#99 (MSB)	CC#98 (LSB)	CC#06 (Data Entry)
Vibrato Rate	1	8	0...127
Vibrato Depth	1	9	0...127 ^(a)
Vibrato Decay	1	10	0...127 ^(a)
Filter Cutoff	1	32	0...127 ^(a)
Resonance	1	33	0...127 ^(a)
EG Attack Time	1	99	0...127 ^(a)
EG Decay Time	1	100	0...127 ^(a)
EG Release Time	1	102	0...127 ^(a)
Drum Filter Cutoff	20	dd	0...127 ^(a)
Drum Filter Resonance	21	dd ^(b)	0...127 ^(a)
Drum EG Attack Time	22	dd ^(b)	0...127 ^(a)
Drum EG Decay Time	23	dd ^(b)	0...127 ^(a)
Drum Coarse Tune	24	dd ^(b)	0...127 ^(a)
Drum Fine Tune	25	dd ^(b)	0...127 ^(a)
Drum Volume	26	dd ^(b)	0...127
Drum Panpot	28	dd ^(b)	0...127 ^(a)
Drum Rev Send (FX 1)	29	dd ^(b)	0...127 ^(a)
Drum Mod Send (FX 2)	30	dd ^(b)	0...127 ^(a)
Drum Send #3 (FX 3)	31	dd ^(b)	0...127 ^(a)

(a). 64 = No change to the original parameter's value

(b). dd = Drum Instrument No. 0...127 (C0...C8)

(*) The following NRPN messages are used to remotely select the SongBook Entries with their assigned ID number.

NRPN	CC#99 (MSB)	CC#98 (LSB)	CC#06 (Data Entry MSB)	CC#38 (Data Entry LSB)
SongBook Entry	2	64	0...99	0...99

The Song Book Entry number is selected by combining the Data Entry MSB (CC#06) and LSB (CC#38) messages. You may think to SongBook Entries as organized in banks of 100 entries each, selected using the Data Entry MSB message. Then, you can use the Data Entry LSB message to select a SongBook Entry within the selected bank.

Controlling the Styles and Songs via MIDI

You can remotely control the Players via MIDI. Please note that the Program Change and Control Change numbers shown in this page follow the 0-127 numbering system.

Selecting the Style Elements

You can remotely select the various Style Elements, by sending Program Change messages on the Control channel.

PC	Style Element	PC	Style Element	PC	Style Element	PC	Style Element
80	Intro 1	81	Intro 2	82	Intro 3/Count In	83	Variation 1
84	Variation 2	85	Variation 3	86	Variation 4	87	Fill 1
88	Fill 2	89	Fill 3	90	Fill 4	91	Break
92	Ending 1	93	Ending 2	94	Ending 3	-	

Selecting the Player controls

You can remotely send various commands to the Players, by sending them Program Change messages on the Control channel.

PC	Control	PC	Control	PC	Control
95	Fade In/Out	96	Style to Kbd Set	97	Auto Fill
98	Memory	99	Bass Inversion	100	Manual Bass
101	Tempo Lock	103	-	104	Play/Stop (Player 1)
105	Play/Stop (Player 2)	106	Synchro Start	107	Synchro Stop

Selecting the Keyboard Sets (from a Style or SongBook Entry)

You can remotely select the Keyboard Sets of a Style or SongBook Entry (four buttons under the X-FADER).

After having selected a Style or a SongBook Entry, send a Program Change messages corresponding to the Keyboard Set (on the Control channel).

SongBook Entry	PC	SongBook Entry	PC
KbdSet #1	64	KbdSet #2	65
KbdSet #3	66	KbdSet #4	67

Controlling the Mic and Guitar Processors via MIDI

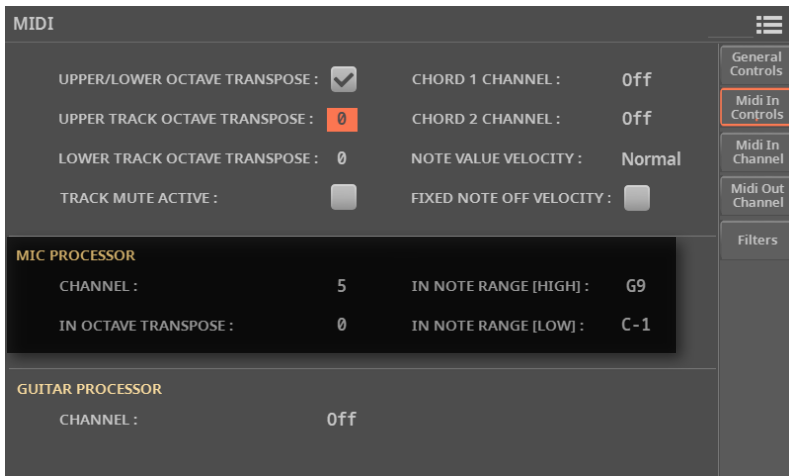
You can control the Mic and Guitar Processors via MIDI, for example by connecting a MIDI pedalboard to the **MIDI IN** port of Pa5X.

You can choose a **MIDI Preset** to automatically configure the MIDI parameters according to the connected controlling device, but you may also want to customize them.

Programming MIDI IN for the Mic Processor

You can choose the input channel, transposition and the note range.

- 1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.



- 2 Use the **Mic Processor > Channel** parameter to choose a MIDI channel on which to receive chords or notes for the harmonizer.

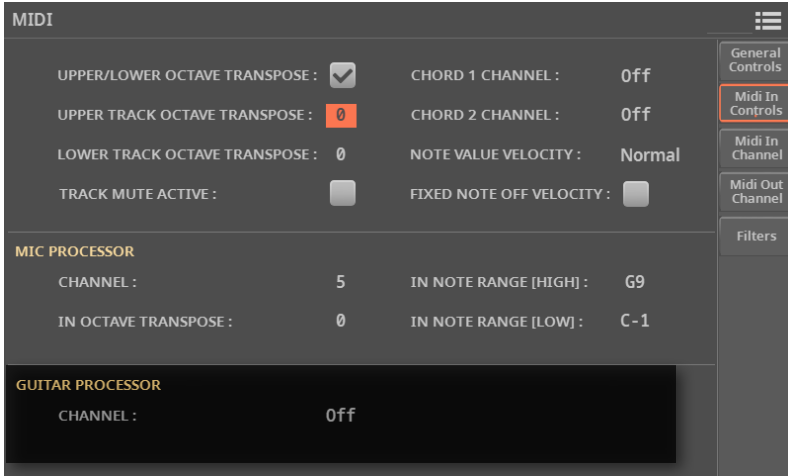
- 3 Use the **Mic Processor > In Octave Transpose** parameter to transpose the chords or the notes received.

4 Use the **Mic Processor > In Note Range High/Low** parameters to set a range or notes to be sent to the Harmony section of the Mic Processor.

Programming MIDI IN for the Guitar Processor

You can choose the input channel.

1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.



2 Use the **Guitar Processor > Channel** parameter to choose a MIDI channel on which to receive control messages for the various effects.

Choosing a Mic or Guitar Preset via MIDI

Mic and Guitar Presets can be selected by sending a series of messages on the MIDI channel assigned to the Mic/Guitar Processor.

- > Control Change #00 (Bank Select MSB) message with value '0'.
- > Control Change #32 (Bank Select LSB) message to choose the type of preset.

Type of Preset	CC32 Value
Factory	0
User	1
Local	2

- > Program Change message to choose the preset.

Preset	PC Number
Preset 1...112	0...111

Controlling the Guitar Processors volume

You can control the level of the Guitar Processors by using the Control Change #07 (Volume) message on the assigned MIDI channel.

Turning the Guitar effects on/off

Each of the effects in a Guitar Preset can be turned on or off, by sending a Control Change message on the Guitar Processor MIDI channel. (This does not work with the Mic Presets).

FX On/Off	CC Number
FX1	80
FX2	81
FX3	82
FX4	83

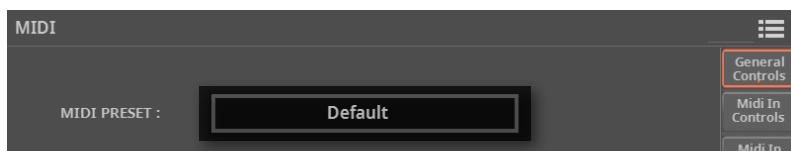
Receiving chords or notes for the voice harmonizer

If you are using an external device (sequencer, master keyboard, MIDI accordion...) to send chords or notes to the Mic Harmony section, you may want to set some MIDI parameters.

■ Choose an appropriate MIDI Preset

First of all, check if there is an appropriate MIDI Preset. You can learn more about the available presets in the chapter dedicated to MIDI (see [Quick setup using the MIDI Presets](#) on page 530).

- 1 Go to the **Settings > Menu > MIDI > General Controls** page.



- 2 Choose a **MIDI Preset** matching your MIDI configuration.

■ Program the MIDI parameters

If you want to make your own custom settings, change some parameters.

- 1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.
- 2 Use the **Mic Processor > Channel** parameter to choose a MIDI channel on which to receive chords or notes.
- 3 Use the **Mic Processor > In Octave Transpose** parameter to transpose the chords or the notes received.
- 4 Use the **Mic Processor > In Note Range High/Low** parameters to set a range or notes to be sent to the Harmony section of the Mic Processor.

Controlling other musical resources via MIDI

The SongBook can be deeply integrated with a tablet or personal computer. For detailed instructions see [Using the SongBook with a tablet or personal computer](#) on page 315.

22

Audio Outputs

Routing the internal Sounds to the outputs

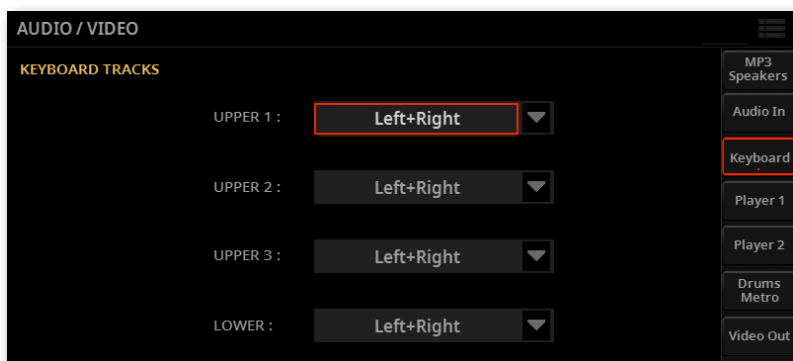
Connecting the audio outputs

Connect the audio outputs as described in [Connecting the audio outputs](#) on page 19. If installed, the (optional) **PaAS** amplification system will work in parallel with the main audio outputs.

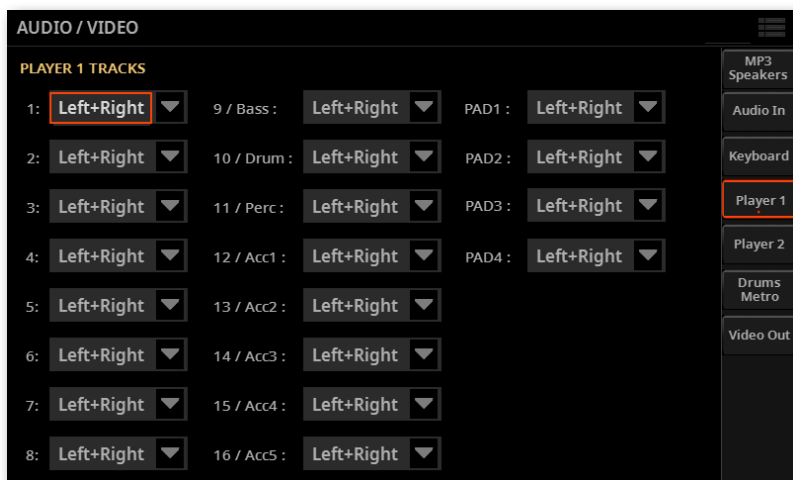
Choosing the audio outputs for the Sounds

Sounds from the Keyboard, the Styles or the MIDI Songs can be sent to separate audio outputs. This routing is global, and will not change when choosing a different Keyboard Set, Style or Song.

- 1 Go to the **Settings > Menu > Audio/Video > Keyboard** page, and select the audio output for each of the Keyboard Sounds.



- 2 Go to the **Settings > Menu > Audio/Video > Player 1** page, and select the audio output for each of the Style , MIDI Song and Pad Sounds assigned to Player 1.



3 Go to the **Settings > Menu > Audio/Video > Player 2** page, and select the audio output for each of the Style, MIDI Song and Pad Sounds assigned to Player 2.

Audio Output	Meaning
Left+Right	The Sound is sent to the Left & Right outs, in stereo. It is also sent to the PaAS Amplification System, if installed. The Sound is also sent to the internal FX processors. You can use the MASTER VOLUME slider to adjust the volume.
Out 1+2, Out 3+4	The Sound is sent to the 1 & 2 or 3 & 4 sub-outs, in stereo. It is sent to the internal Insert FXs, but not to the Master FXs and the MaxxAudio FXs. The MASTER VOLUME slider has no effect on it.
Out 1 ... Out 4	The Sound is sent to one of the 1-4 sub-outs. It is mixed to mono. It is sent to the internal Insert FXs, but not to the Master FXs and the MaxxAudio FXs. The MASTER VOLUME slider has no effect on it.

Choosing the audio outputs for the Drum Kits

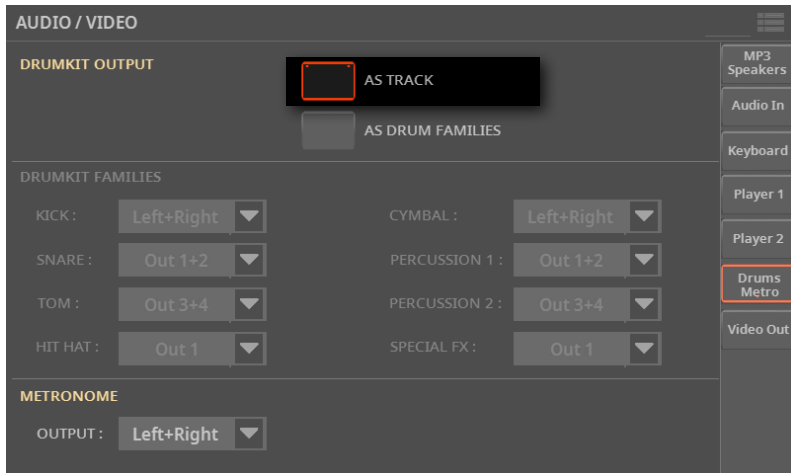
Sounds from each Drum family, can be sent to a separate audio output. This routing is global, and will not change when choosing a different Keyboard Set, Style or Song.

Drum Kits can be treated as a whole as ordinary Sounds, or as sets of separate percussive families that can be routed to different audio outputs.

Drum Kits treated as ordinary Sounds

You can send the Drum Kit to an audio output (or output pair) as an ordinary Sound. All the Drum families will be sent to the output chosen for the track the Drum Kit is assigned to.

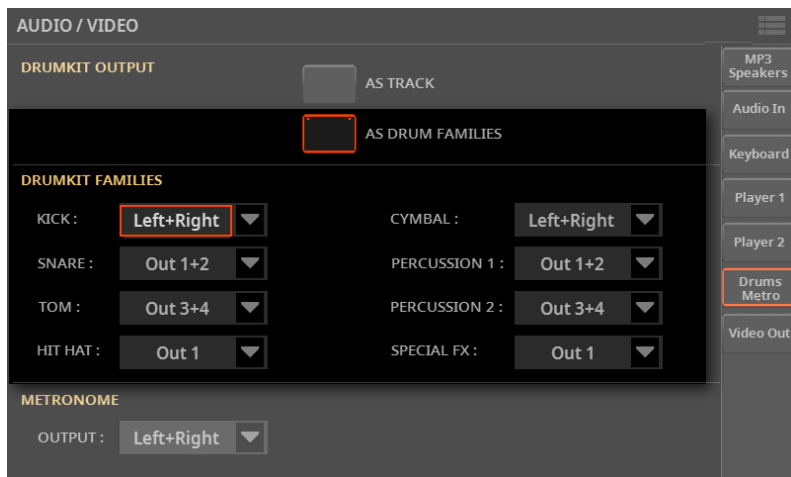
> Go to the **Settings > Menu > Audio/Video > Drum/Metro** page, and choose the **Drum Kit Output > As Track** option.



Drum Kits treated as separate Drum Families

Each Drum family can be sent to a separate audio output (or output pair). This is useful if you want, for example, to separately send the bass drum to an external compressor and sub-bass amplifier.

- 1 Go to the **Settings > Menu > Audio/Video > Drum/Metro** page, and choose the **Drum Kit Output > As Drum Families** option.



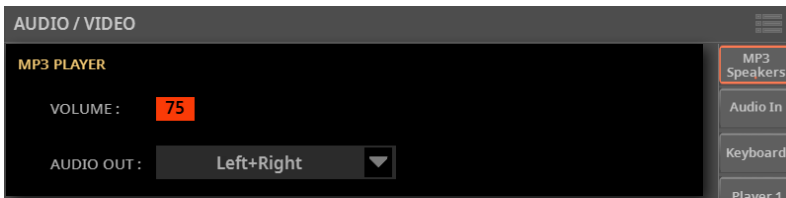
- 2 Use the parameters in the **Drum Kit Families** section to choose a separate output (or output pair) for each percussive family of instruments. The options are the same seen above for the ordinary Sounds.

Routing the MP3 Songs to the outputs

Choosing the audio outputs for the MP3 Songs

You can send the MP3 Songs to a separate audio output (or output pair), for separate mixing.

- 1 Go to the **Settings > Menu > MP3/Speakers** page.



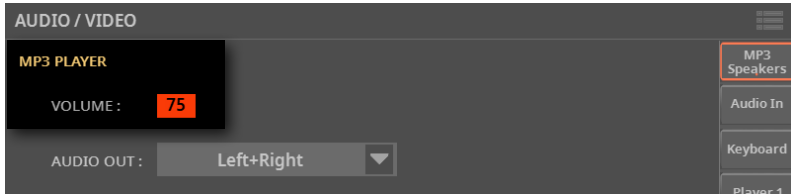
- 2 Use the **MP3 Player > Audio Out** pop-up menu to choose an audio output (or output pair) for the MP3 Songs.

Audio Output	Meaning
Left+Right	The MP3 Songs are sent to the Left & Right outs, in stereo. They are also sent to the PaAS Amplification System, if installed. You can use the MASTER VOLUME slider to adjust the volume.
Out 1+2, Out 3+4	The MP3 Songs are sent to the 1 & 2 or 3 & 4 sub-outs, in stereo. The MASTER VOLUME slider has no effect on them.

Setting the general volume of the MP3 Songs

You can balance the volume of MP3 Songs against that of the MIDI Songs and the Styles.

- 1 Go to the **Settings > Menu > Audio/Video > MP3/Speakers** page.



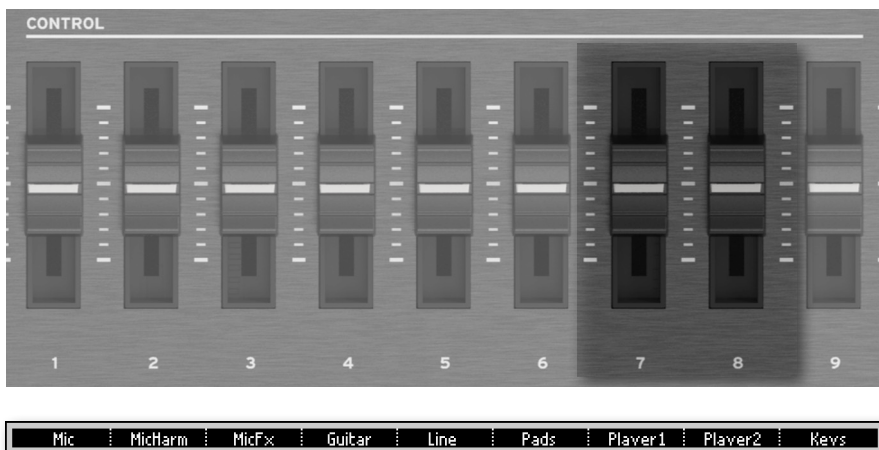
- 2 Use the **MP3 Player > Volume** parameter to set the maximum volume of the MP3 Player.

MP3 Volume	Meaning
0 ... 100	Max volume in percentage.

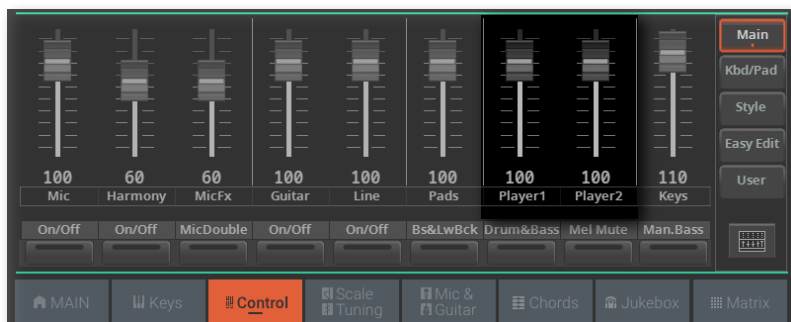
Controlling the volume of the MP3 Songs

You can adjust the volume of the MP3 Songs during playback.

- 1 Be sure the selected **CONTROL** mode is **MAIN**.
- 2 Depending on the Player the MP3 Song is assigned to, use either **SLIDER #7** (Player 1) or **SLIDER #8** (Player 2) to adjust the Song volume.



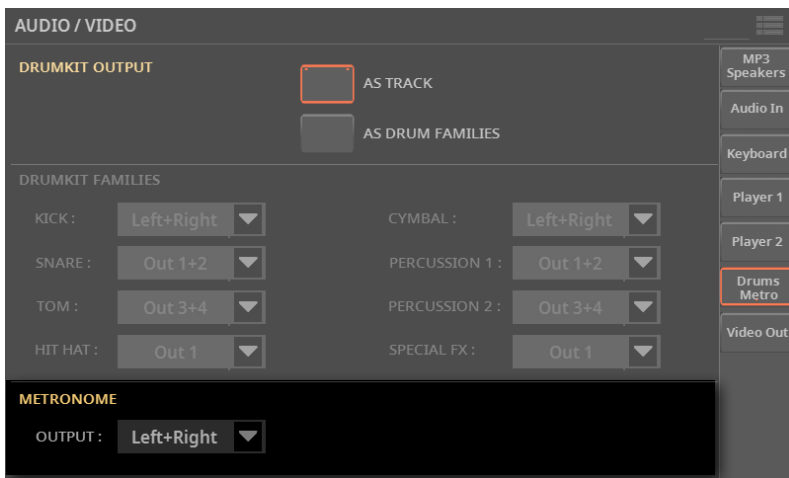
As an alternative, use the **Player 1/2 Volume** controls you can find in the **Home > Control** page (with the **Main** view mode selected).



Routing the metronome to the outputs

You can send the metronome click to any of the separate audio outputs (or output pairs). This will allow, for example, to send the click to the drummer's headphone amplifier only.

- 1 Go to the **Settings > Menu > Drum/Metro** page.



- 2 Use the **Metronome > Output** pop-up menu to choose an audio output (or output pair) for the metronome click.

Audio Output	Meaning
Left+Right	The Metronome click is sent to the Left & Right outs, in stereo. It is also sent to the PaAS Amplification System, if installed. The click is also sent to the internal FX processors. You can use the MASTER VOLUME slider to adjust the volume.
Out 1+2, Out 3+4	The Metronome click is sent to the 1 & 2 or 3 & 4 sub-outs, in stereo. It is not sent to the internal FX processors. The MASTER VOLUME slider has no effect on it.
Out 1 ... Out 4	The Metronome click is sent to one of the 1-4 sub-outs, in mono. It is not sent to the internal FX processors. The MASTER VOLUME slider has no effect on it.

Setting the mastering effects on the audio outputs

Turning the MaxxAudio on/off

You can turn the MaxxAudio® effects on or off, to experiment with the results of the processing.

- 1 Go to any page of the **Settings > Menu > Waves** section.
- 2 Use the **On/Off** button on top of the page to turn the MaxxAudio® effects on or off.



Please note that MP3 Songs are always recorded without the MaxxAudio® effects. This will avoid adding final processing to the processing already applied to the MP3 files.

Choosing a Maxx Preset

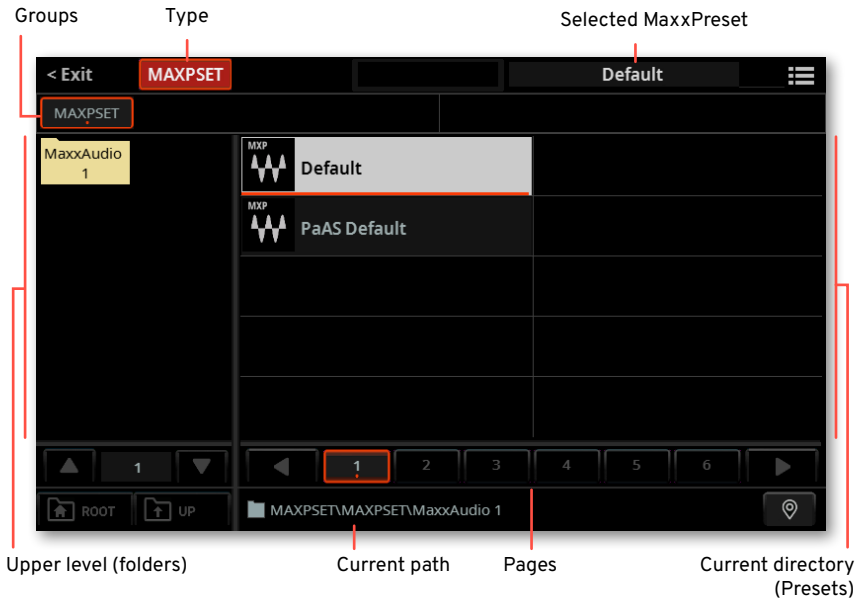
The result of KORG's long-term cooperation with Waves Audio, the MaxxAudio® suite helps making the sound louder, clearer, fuller, and more polished. These effects apply to the final stage of the audio path, just before the audio outputs.

You can quickly program the EQ and Master parameters by choosing a Maxx Preset.

- 1 Go to any page of the **Settings > Menu > Waves** section.
- 2 Touch the **Maxx Preset** name on top of the page.



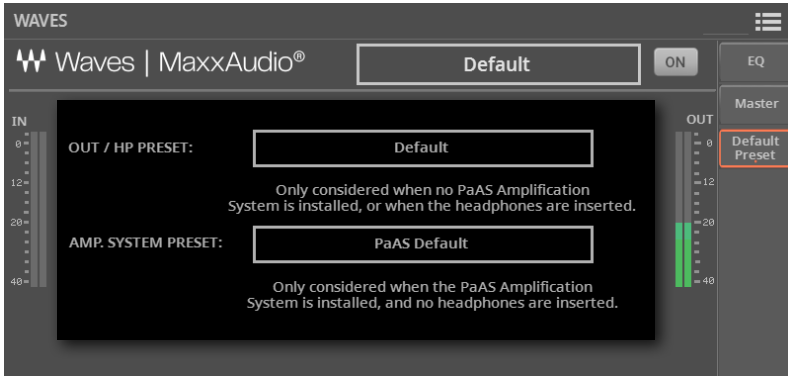
As soon as you press the button or touch the display, the **Maxx Preset Select** window appears.



Choosing a default Maxx Preset

Pa5X can automatically select a Maxx Preset depending on the type of audio output. You can choose the default presets that will be automatically selected.

- 1 Go to the **Settings > Menu > Waves > Default Preset** page.



- 2 Touch the **Maxx Preset** names to open the **Select** window and choose a Maxx Preset.

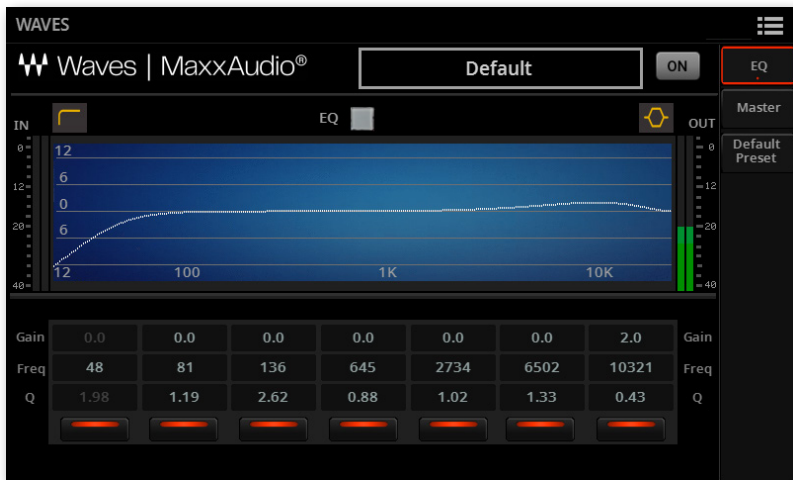
Maxx Preset	Meaning
Out / HP Preset	Audio Outputs or Headphones. Only considered when no PaAS Amplification System is installed, or when the headphones are inserted.
Amp. System Preset	Amplification System. Only considered when the PaAS Amplification System is installed and no headphones are inserted.

Editing the MaxxAudio® EQ

The MaxxAudio® EQ is a full-spectrum frequency equalization, positioned at the end of the signal chain, just before the main audio outputs. It gives you the power to design EQ curves and shape your sound. Based on Waves professional audio equalizers, this EQ features seven fully programmable bands with fully adjustable gain, frequency, and Q parameters.

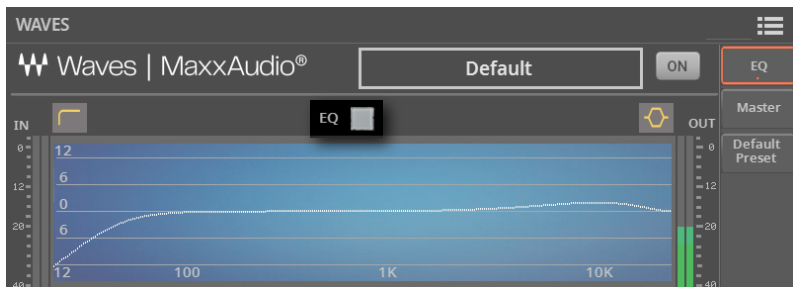
Accessing the MaxxAudio® EQ

- > Go to the **Settings > Menu > Waves > EQ** page.



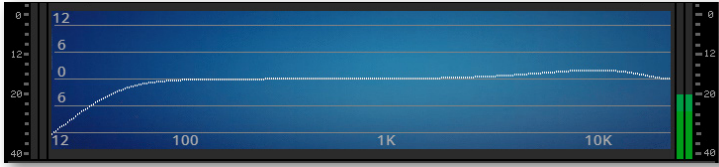
Turning the MaxxAudio® EQ on/off

- > Use the **EQ** checkbox to turn the EQ on/off.

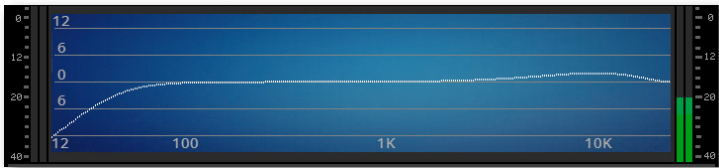


Programming the EQ

- > Look at the results of any edit in the **diagram**. The diagram shows the EQ curve. Its shape changes depending on the various parameter values.



- > Touch the **curve shape** on the top-left or top-right corner of the EQ diagram, and choose between the different types of curve for the lowest and highest bands.



EQ Shape

Meaning



Bell-shape curve, allowing for detailed correction of a specific range of frequencies. The selected frequency is at the center of the EQ band.



Low-shelving curve, allowing for smoothly cutting or boosting the lowest frequencies. This will let you add more body to the sound (boost), or remove boomy frequencies (cut).



High-shelving curve, allowing for smoothly cutting or boosting the highest frequencies. This can help adding 'air' to the mix (boost), or remove sibilance (cut).



Low-cut (or high-pass) curve, letting you cut the lowest frequencies. Drastically removing the very low frequencies helps getting rid of bass frequencies out of the useful musical range, but stealing energy to the mix.



High-cut (or low-pass) curve, letting you cut the highest frequencies. Drastically removing the very high frequencies helps removing unwanted noise out of the useful musical range.

- > Use the **IN/OUT** indicators to check the level of the audio entering and coming out of the MaxxAudio® processor. Be sure the indicators never go to the red area (since this means distortion).
- > Use the **Gain** parameter to change the emphasis or attenuation of the corresponding band. Use it to make the frequencies stronger or weaker.
- > Use the **Freq** parameter to change the center frequency of the corresponding band. Center it on the problematic frequency, or the harmonics you want to emphasize or attenuate.

- > Use the **Q** parameter to adjust the 'quality factor' of the EQ filter; higher values correspond to narrower, more accurate filters. Use higher values for near-surgical correction on isolated frequencies, lower values for more musical, softer equalization.
- > Use the **On/Off** buttons under each band to turn the corresponding bands on or off.

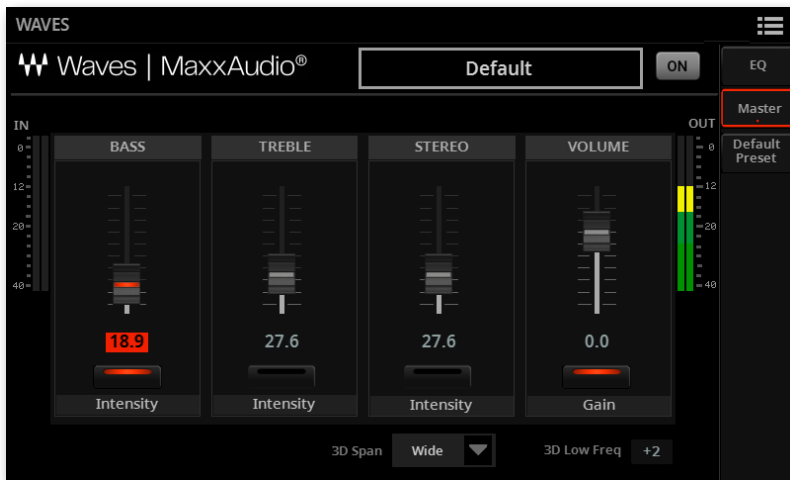
Editing the MaxxAudio® Master

The MaxxAudio® Master controls the MaxxBass, MaxxTreble, MaxxStereo and MaxxVolume effects. It is positioned at the end of the signal chain, just before the audio outputs, adds to the sound deeper, richer bass, and cleaner, warmer, more articulate treble with no loss of RMS (that is, average perceived volume). Processing also results in a stereo image that's wider and more accurate.

Please keep in mind that summing-up all levels could cause distortion in the PaAS Amplification System or in external amplification systems. Be careful not to max-out all sliders.

Accessing the MaxxAudio® Master

- > Go to the **Settings > Menu > Waves > Master** page.



Turning the separate effects on/off

- > Use the **On/Off** buttons under each slider to turn the corresponding effect on/off.

Programming the Master effects

- > Use the **IN/OUT** indicators to check the level of the audio entering and coming out of the MaxxAudio® processor. Be sure the indicators never go to the red area (since this means distortion).
- > Use the **virtual sliders** to increase or decrease the level of the corresponding parameter.

If the input level is too high, decrease the level of the Sounds, Styles, Songs that are playing. Check the level of the **Finalizer** effect in the **Home > Menu > Mixer/FX** section.

If the output level is too high, decrease the level of the various MaxxAudio® controls (in particular, the Volume control).

MaxxBass

MaxxBass is for low frequency response beyond what your loudspeakers can deliver. You will hear low frequencies as much as 1.5 octaves below the limits of your loudspeakers.

MaxxBass isolates the low bass frequencies that can't be reproduced by the loudspeakers. The low frequencies are analyzed to create a complex set of higher frequency harmonics, which the loudspeakers can reproduce.

These harmonics are added back to the rest of the audio, replacing the original low frequencies. Your loudspeakers then reproduce the harmonic series, which are perceived by the brain as the original low frequencies. Finally, MaxxBass uses dynamic compression to focus and clarify the lower frequencies.

The result is a larger, more powerful sound, with extended bass response up to 1.5 octaves below the roll-off frequency of the loudspeaker.

MaxxTreble

MaxxTreble is for enhanced high frequencies; it is ideal for one-way driver systems.

Using technologies originally developed for Waves own audio plug-ins, MaxxTreble is a non-linear dynamic processor that enhances high frequency response, delivering a clean and pleasant high end, while minimizing distortion.

Using MaxxTreble technology you will be able to deliver louder, crisper and better defined high end without having to worry about clipping or peak-limiting.

MaxxStereo

MaxxStereo is for more realistic, wider stereo imaging. You will hear a wide, exciting stereo image, similar to what you'd hear in a modern movie theater.

MaxxStereo spatial imaging technology improves the stereo separation of closely placed loudspeakers. With loudspeakers that are very close the one to the other (like in the optional PaAS Amplification System), MaxxStereo increases perceived separation for optimal imaging, with natural sound and a generous listening position.

MaxxVolume

MaxxVolume is for dynamics compensation. It increases (or decreases) RMS levels, delivering louder sound with no audible distortion.

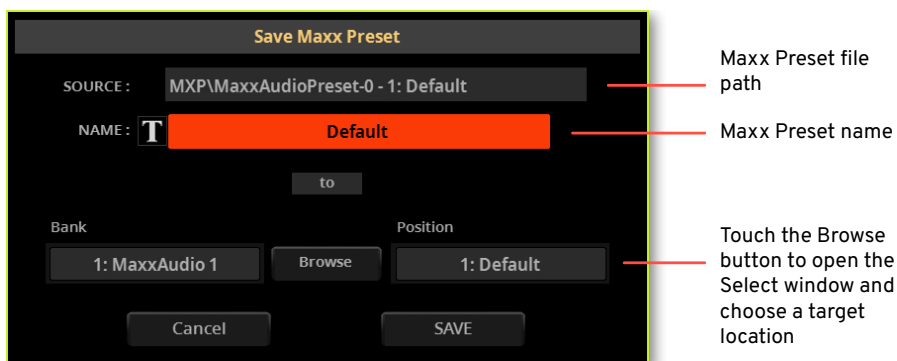
It relies on Peak Limiting, that increases volume without clipping or audible distortion; Low Level Compression, that increases the clarity of soft sounds, especially in noisy environments and at quiet volumes; and Noise Gating, that eliminates background signal and system noise.

Saving a Maxx Preset

You can save a Maxx Preset, to create a library of settings for the different performing situations (for example, for playing at rehearsals or on stage).

■ Open the Save dialog

- 1 Go to the any page of the **Settings > Waves** section.
- 2 Choose the **Save Maxx Preset** command from the **page menu**. The **Save Maxx Preset** dialog will appear.



■ Rename the Maxx Preset

While in the **Save Maxx Preset** dialog, you may change the **name** of the Maxx Preset.

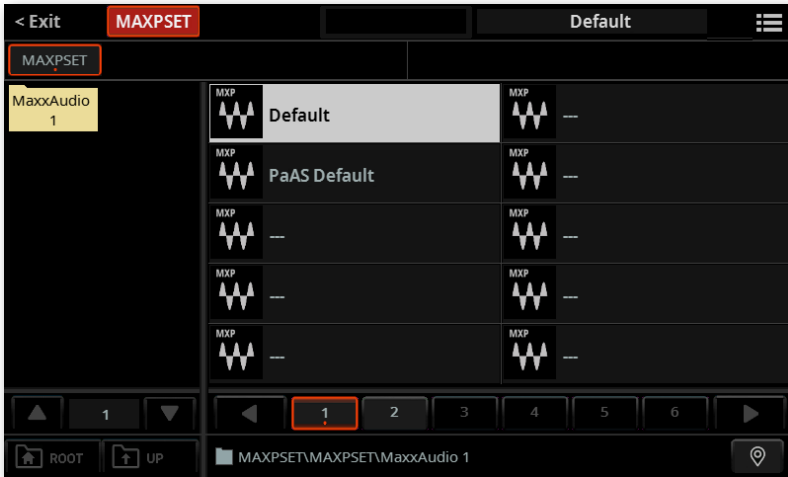
- 1 Touch the **Text Edit (T)** button to open the **virtual keyboard** and edit the name.
- 2 When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

■ Save over the same Maxx Preset

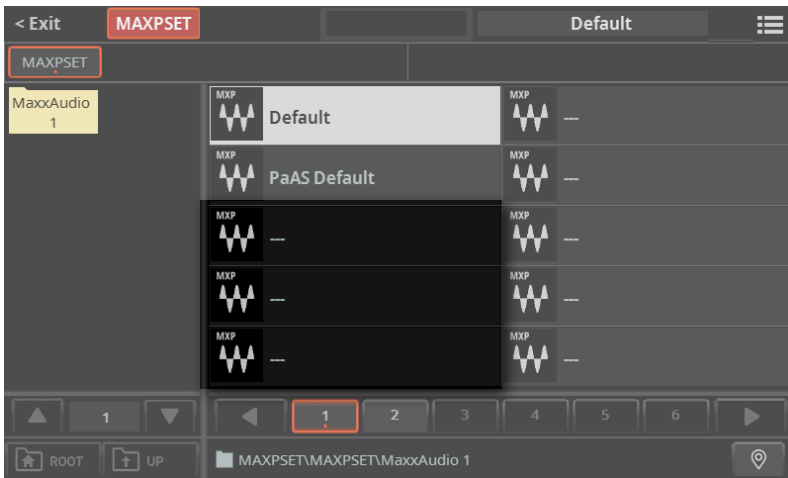
- > If you want to overwrite the current Preset, just touch the **Save** button.

■ Save to a different Maxx Preset location

- 1 If you want to save to a different location, touch the **Browse** button and open the **Maxx Preset Select** window.
- 2 Touch the folder where you want to save the new Maxx Preset. Don't touch any of the existing Maxx Preset names, unless you want to overwrite them!



- 3 Find an empty location, shown as three hyphens ('---'), and touch it.



- 4 Press the **EXIT** button to close the **Select** window and confirm your selection.
- 5 When back at the **Save Maxx Preset** dialog, confirm the Save operation by touching the **Save** button.

23

Microphone Input

Connecting a microphone

WARNING: Lower the master volume!

Before connecting or disconnecting something to one of the audio inputs, lower the **Master Volume** to zero. Preventing from doing it may damage the speakers and cause harm to your hearing!

Connecting and activating the microphone

Microphone types

There are two main types of microphones that you can connect to your Pa5X: dynamic and condenser.

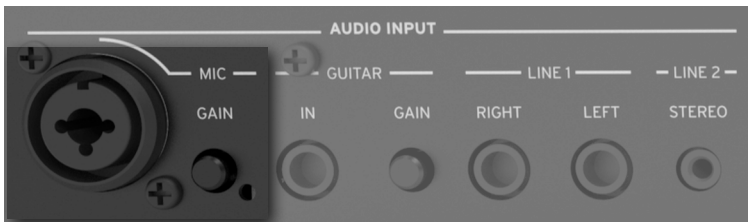
Dynamic microphones don't require powering. They are usually conceived for live use, and have a narrow cardioid or hypercardioid pattern for better rejection of stage noise.

Condenser microphones require phantom powering supplied by Pa5X. More commonly found in the studio, these microphones usually come with a wider cardioid pattern, capturing more ambience and deeper basses. Large-diaphragm condenser microphones are the preferred ones for studio voice applications.

Connecting the microphone

Use the **MIC INPUT** connector to connect a microphone. This is a combo connector, featuring an XLR and a balanced (TRS) 1/4" (6.35 mm) jack on the same socket. We suggest to use the XLR jack to connect any microphone.

The 1/4" jack may be used to connect a dynamic microphone, if you don't have a cable with an XLR connector. Please note there is no phantom power on it, so you can't use it to connect a condenser microphone.



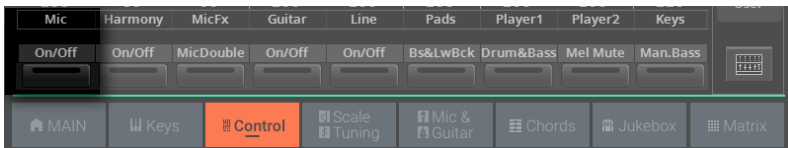
Turning on/off the microphone channel

- 1 Be sure the selected **CONTROL** mode is **MAIN**.
- 2 Use **BUTTON #1 (Mic On/Off)** to turn the microphone channel on or off.

Please note that, for safety reasons, the input is always switched off when turning the instrument on.



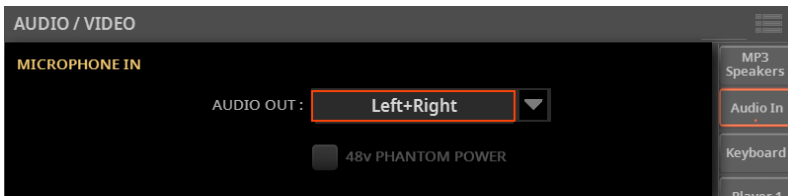
As an alternative, use the **Mic On/Off** command you can find in the **Home > Control** pane (with the **Main** control mode selected).



Routing the microphone to one of the audio outputs

By default, the microphone is sent to the main Left and Right audio outputs. You can change the output routing and send it to any other output pair.

- > Go to the **Settings > Menu > Audio/Video > Audio In** page.
- > Set the **Microphone In > Audio Out** parameter to the desired audio output.



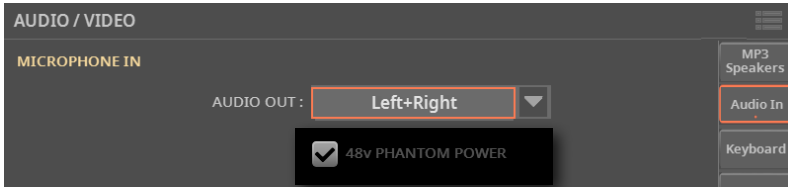
Audio Out	Meaning
Left+Right	Main LEFT and RIGHT outputs
Out 1+2	Separate sub-outputs 1-2
Out 3+4	Separate sub-outputs 3-4

Powering a condenser microphone

Condenser microphones require powering, supplied as a +48V phantom power current on the **XLR MIC** input.

■ Turn on the phantom power

1 Go to the **Settings > Menu > Audio/Video > Audio In** page, and select the **+48V Phantom Power** checkbox.



2 If it is off, turn on the **Mic** channel.

3 Sing into the microphone to check if the microphone is powered and working.

■ Turn off the phantom power

When disconnecting a microphone from the XLR jack, the phantom power is automatically turned off. Phantom power is also automatically turned off each time you turn the Pa5X off.

As an alternative, you can go to the **Settings > Menu > Audio/Video > Audio In** page, and deselect the **+48V Phantom Power** checkbox.

Adjusting the level of the microphone

Adjusting the microphone input gain

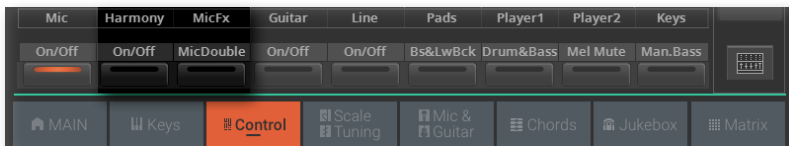
After having connected a microphone, adjust the input gain, to be sure it will not distort.

■ Preparation before starting adjusting the gain

- 1 Be sure the selected **CONTROL** mode is **MAIN**.
- 2 Use **BUTTON #1 (Mic On/Off)** to turn on the microphone channel.
- 3 Use **BUTTONS #2 (Mic Harmony On/Off)** and **#3 (Mic Double On/Off)** to turn off the Harmony and Double effects. If on, they would interfere with the adjustments.

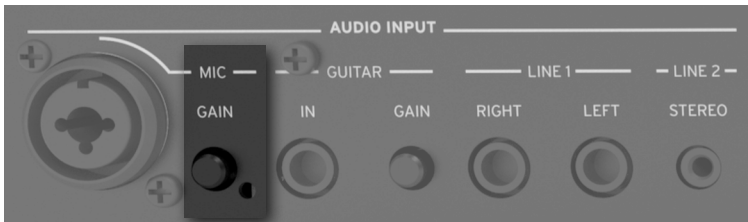


As an alternative, use the **Harmony On/Off** and **Mic Double On/Off** commands you can find in the **Home > Control** pane (with the **Main** view mode selected).



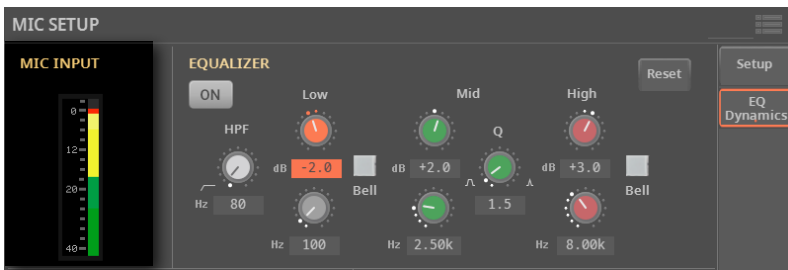
■ Adjust the gain

1 Use the **GAIN** knob next to the **MIC INPUT** connector to adjust the input gain (from +20 to +55 dB).



2 Sing into the microphone.

3 Check the input level in the **Settings > Menu > Mic Setup > EQ/Dynamics** page.



AUDIO IN color

Meaning

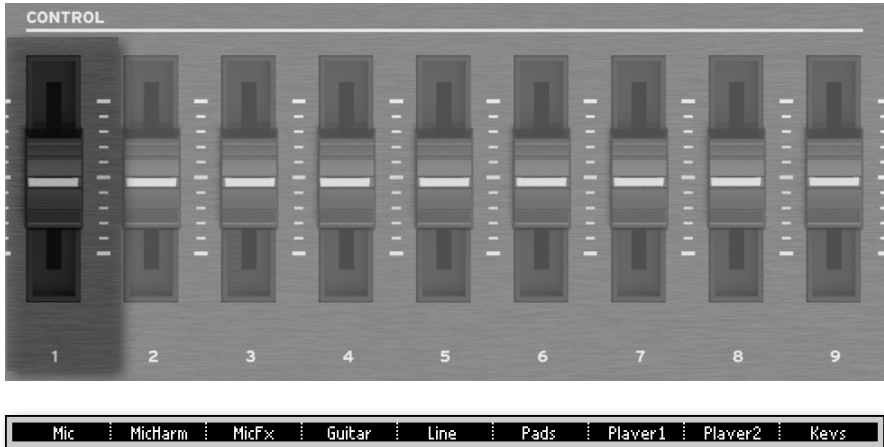
Off	No signal entering.
Green	Low- to mid-level signal entering. If the indicator turns off too often, the input gain is too low. Use the GAIN control to increase the input level.
Yellow	Slight overload in the signal path. This is fine if it turns on only on signal peaks.
Red	Clipping is occurring in the signal path. Use the GAIN control to lower the input level.

Keep the level so that this indicator remains green most of the time, with yellow appearing at signal peaks. Never go to red.

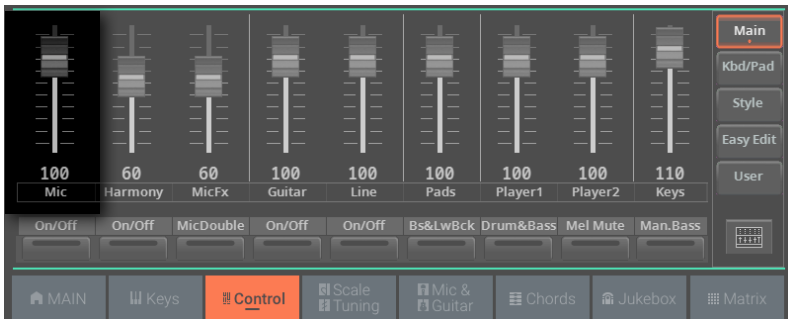
Adjusting the microphone volume

The microphone can be quickly turned on or off, and its volume in the mix adjusted, right from the control panel or from the main page.

- 1 Be sure the **Mic** channel is turned on.
- 2 Be sure the selected **CONTROL** mode is **MAIN**.
- 3 Use **SLIDER #1 (Mic)** to adjust the microphone channel volume.



As an alternative, use the **Mic Volume** control you can find in the **Home > Control** pane (with the **Main** view mode selected).



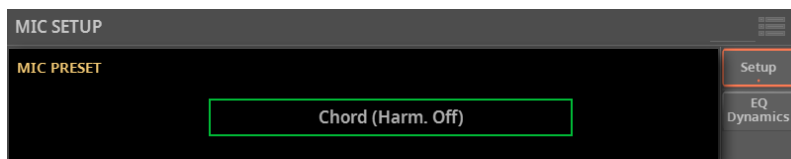
- 4 Start a Style or a Song to balance your voice against the Sounds.
- 5 Check that the audio is well balanced and is not distorting.

Shaping the microphone input

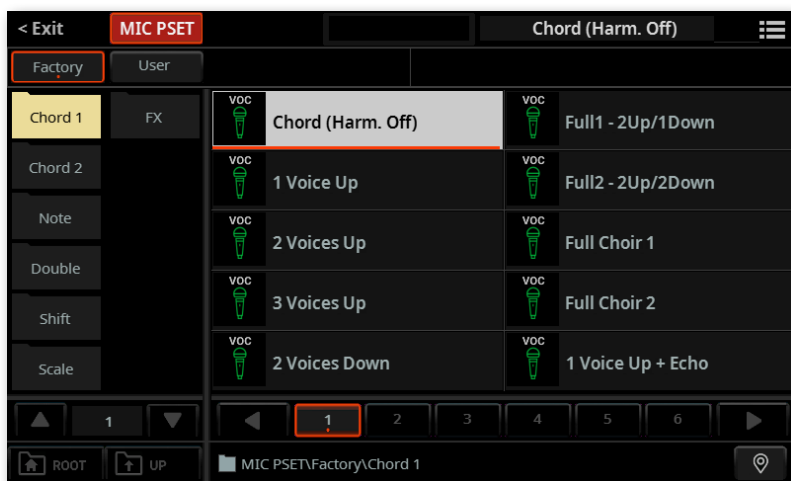
Choosing a global Mic Preset

You can choose a global Mic Preset that will be automatically selected when turning the instrument on.

- 1 Go to the **Settings > Menu > Mic Setup > Setup** page.



- 2 Touch the name of the selected **Mic Preset** to open the **Mic Preset Select** window.

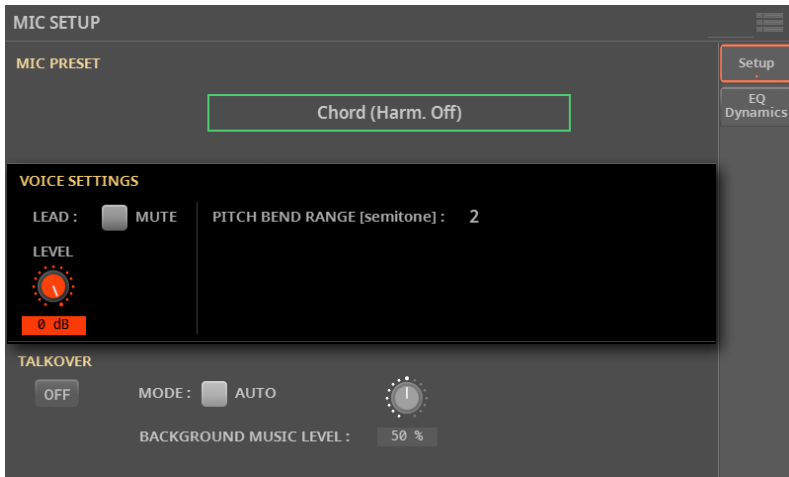


- 3 Choose one of the presets. For more details, see [Choosing a Mic Preset](#) on page 608.
- 4 Press the **EXIT** button to close the **Select** window and confirm your selection.

Basic settings for the lead voice

The lead voice is your voice, or the one of your singer, entering the microphone input. You can apply the effects, before sending it to the Mic Processor.

- > Go to the **Settings > Menu > Mic Setup > Setup** page to set the controls for the lead voice.



Muting the lead voice

When the lead voice is muted, you will only listen to the harmony voices and effects. You will sing in the choir generated by Pa5X.

- > While in the **Settings > Menu > Mic Setup > Setup** page, use the **Lead > Mute** checkbox to make the lead voice appear or disappear from the mix.

Adjusting the level of the lead voice

You can adjust the level of the lead voice in the mix.

- > Go to the **Settings > Menu > Mic Setup > Setup** page, and use the **Level** knob to adjust the level of the lead voice.

Parameter	Meaning	Value
Level	Level of the Lead Voice	Off, -60dB...0dB

Setting the Pitch Bend range

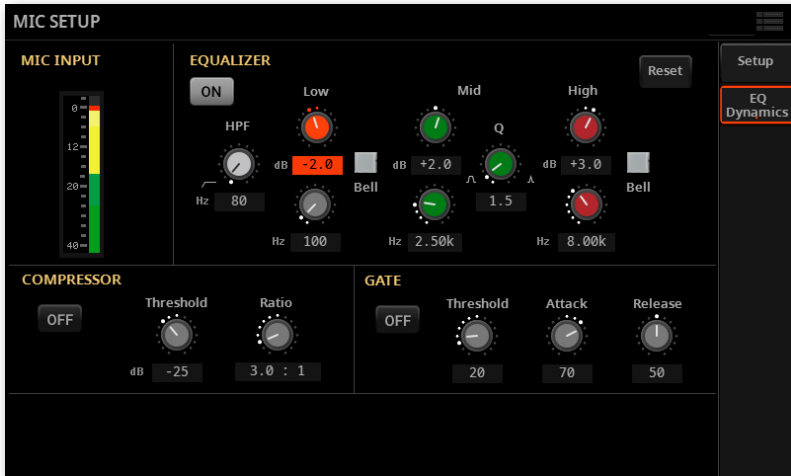
You can set the bending range (in semitones) applied to the harmony voices after receiving a Pitch Bend message.

- > While in the **Settings > Menu > Mic Setup > Setup** page, use the **Pitch Bend Range** parameter to set the range.

Adding EQ, compression and gate to the lead voice

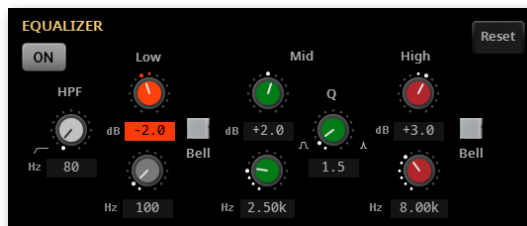
You can program equalization, compression and gate for the lead voice.

- > Go to the **Settings > Menu > Mic Setup > EQ/Dynamics** page.






Programming the Equalizer

Use the **Equalizer** to make the sound brighter or darker, reduce sibilance or boominess, give more body to the voice. This is a 3-band Semi-Parametric EQ, including a High-Pass Filter.



The **High-Pass Filter (HPF)** cuts all the frequencies below the selected frequency (from 20 to 1000 Hz). This is useful to reduce plosive consonants or rumbling noise.

The two **Low** and **High** EQ bands boost or cut all frequencies below or above the frequencies set by the **Frequency (Hz)** controls. They can be set either as Bell- or Shelving-shaped curves by using the **Bell** buttons.

EQ Shape	Meaning
Bell On (Bell) 	Bell-shape curve, allowing for detailed correction of a specific range of frequencies. The selected frequency is at the center of the EQ band.
Bell Off (Low Shelving) 	Low-Shelving curve, allowing for smoothly cutting or boosting the lowest frequencies. This will let you add more body to the sound (boost), or remove boomy frequencies (cut).
Bell Off (High Shelving) 	High-shelving curve, allowing for smoothly cutting or boosting the highest frequencies. This can help adding 'air' (boost), or remove sibilance (cut).

The **Mid** Parametric EQ boosts or cuts the frequencies within a selected band, that is defined by a center frequency selected with the **Frequency (Hz)** knob, and a width selected with the **Q** knob (the 'Quality' control).

The three **Gain (dB)** controls allow +/-18 dB of adjustment. The three **Frequency (Hz)** controls range from 20 Hz to 20 kHz.

Programming the Compressor

Use the **Compressor** to reduce the range between louder and softer singing to produce more even-sounding vocals.

We typically sing dynamically, like this (capitals are used to show louder dynamics):

I LOVE to watch you WALK down the STREET

At acoustic singing levels with no, or very quiet instrumentation, this would sound fine. When amplified, however, the loud words become strident and even worse, quiet words can be lost in the instrument sounds. The louder the amplification system and band the more pronounced the loud parts become. Compression seeks to do the following to your dynamics:

I LOVE to watch you WALK down the STREET

Applied appropriately, the difference between loud and soft is reduced without killing the interesting dynamics in your performance.



The **Threshold** control sets the singing level at and above which the amount of gain reduction (compression) specified by the Ratio control will occur. The range is 0 dB to -40 dB: 0 dB being the loudest input signal the Voice Processor can accept without distortion and -40 dB being a very quiet signal. If you sing consistently more quietly than the Threshold, you will not hear any compression. A good setting for experimentation is -10 dB.

The **Ratio** control sets how much gain reduction you prefer when your voice level goes above the threshold. The range is from 1.0 : 1 (no gain reduction) to 50.0 : 1 and then Inf : 1 (maximum vocal gain reduction). A good setting where to start from for Ratio is 4.0 : 1.

The number on the left side of the (colon) symbol is how loud the peaks in your singing have to be in order to achieve a 1 dB gain increase. A brief example of how adjusting the ratio of the compressor works is this: say a word you sang went 4 dB over the threshold when the Ratio was set to 4.0 : 1. The compressor would only allow it to go 1 dB louder.

Note that the **Ratio** control has to be set above 1.0 : 1 to apply any compression regardless of the setting of the **Threshold**.

Programing the Gate

Use the **Gate** if you hear feedback or there are other sounds entering the mic other than your voice.

A typical, fixed gate works by shutting off, or reducing the level of any signal below a threshold that you set. When you sing louder than that threshold, the gate will open and your vocal will come through the amplification system. When you aren't singing, the gate will close and block sounds around you.

You can also turn the gate to **Off** with good results if you are in a quiet, low volume musical environment.



Use the **Threshold** knob (ranging from 0 to 100) to define the minimum singing level you need to reach in order for the Gate to open and let your voice sound. The factory default setting is very sensitive to allow a wide range of singing levels but it may also allow more nearby instrumental sounds through when you are not singing. In this case, further adjustment from there and upward may be needed.

The factory setting is gentle enough that if your voice strays below the threshold, it is not cut off completely. If you are in a feedback-prone environment (loud monitors plus EQ and Compress on) you can increase this to reduce more. A setting of '0' offers no gain reduction on your lead voice at all.

The **Attack** control sets how fast the Gate enters, and the **Release** control how fast it exits after the signal has exceeded the threshold or has fallen below. Experiment with them to see how effective the Gate may be in a particular situation.

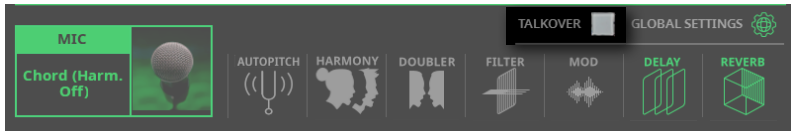
Talking with your audience

Soloing your voice (TalkOver)

During a show, you can lower the background music, so that you can be clearly heard by your audience.

Activating the TalkOver from the Home page

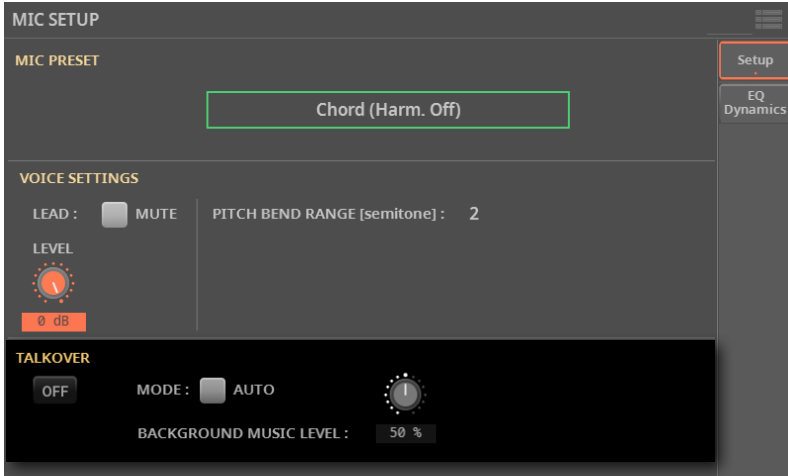
- 1 Go to the **Home > Mic & Guitar** pane.



- 2 Select the **TalkOver** checkbox to lower the background music and talk to your audience.
- 3 When done, touch the **TalkOver** checkbox again to deselect it, and make the music return to the normal volume.

Activating the TalkOver from the Settings page

1 Go to the **Settings > Menu > Mic Setup > Setup** page to set the TalkOver parameters.



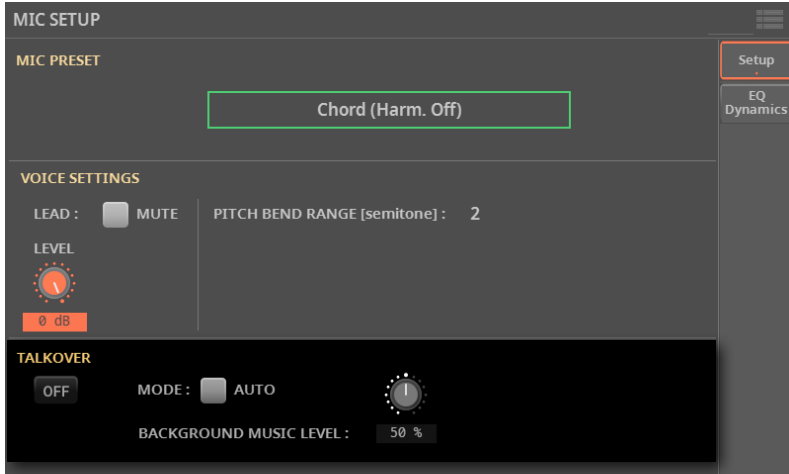
2 Use the **On/Off** button to turn the TalkOver function on/off.

Activating the TalkOver from a switch

You can assign the Mic TalkOver function to a **CONTROL** button, an **assignable switch** or a **footswitch**. See the relevant chapters for instructions on how to program them.

Setting the TalkOver mode and level

- 1 Go to the **Settings > Menu > Mic Setup > Setup** page to set the TalkOver parameters.



- 2 While in this page, use the **Mode > Auto** checkbox to choose between Manual and Auto TalkOver.

When in **Auto** mode, TalkOver will be automatically engaged when the Players are stopped. This way, you can talk to the audience between two songs, without having to touch the TalkOver **On/Off** button.

Use the **Background Music Level** control to set the level to which the volume of all Sounds (Keyboard, Players, Pad...) will be reduced when TalkOver is engaged. 100% corresponds to no level reduction.

Using the microphone effects and harmonization

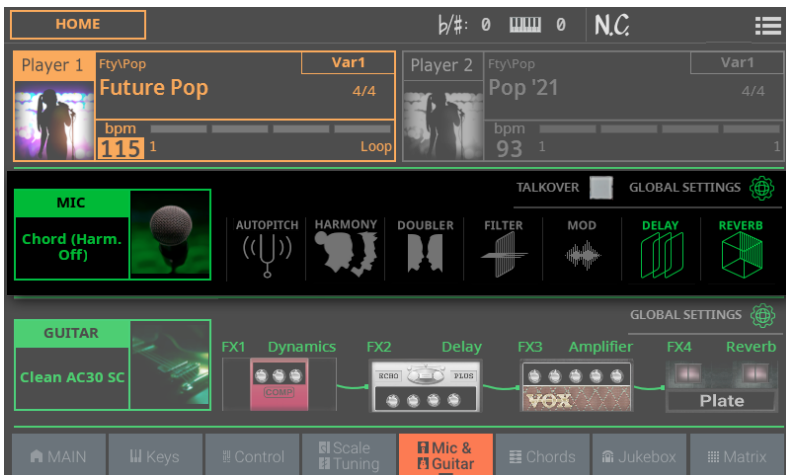
The Mic Presets

The Mic effects can be saved into a **Mic Preset**. You can then select the preset, either by choosing them from the library, or by choosing a different SongBook Entry.

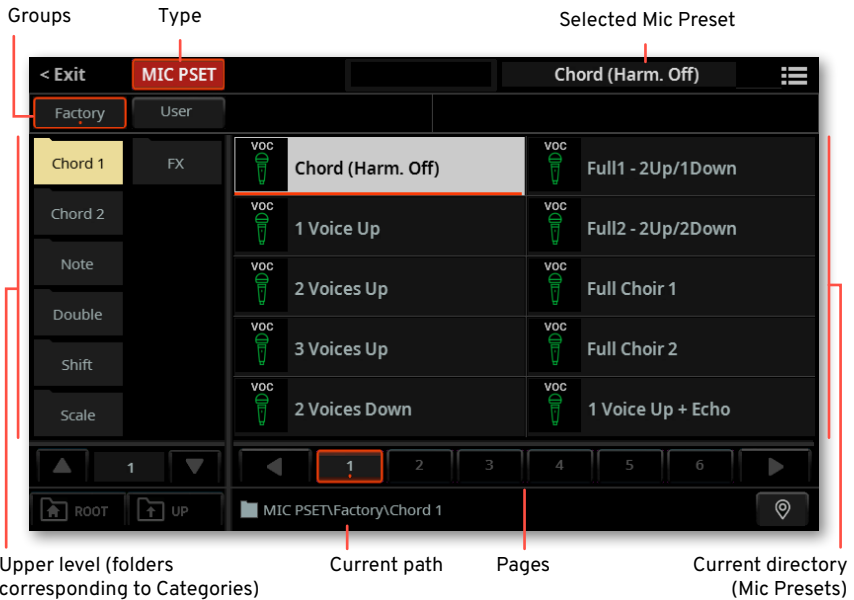
Choosing a Mic Preset

Choosing a Mic Preset from the library

- 1 Go to the **Home > Mic & Guitar** pane.



- 2 Touch the name of the Mic Preset to open the Mic Preset Select window.



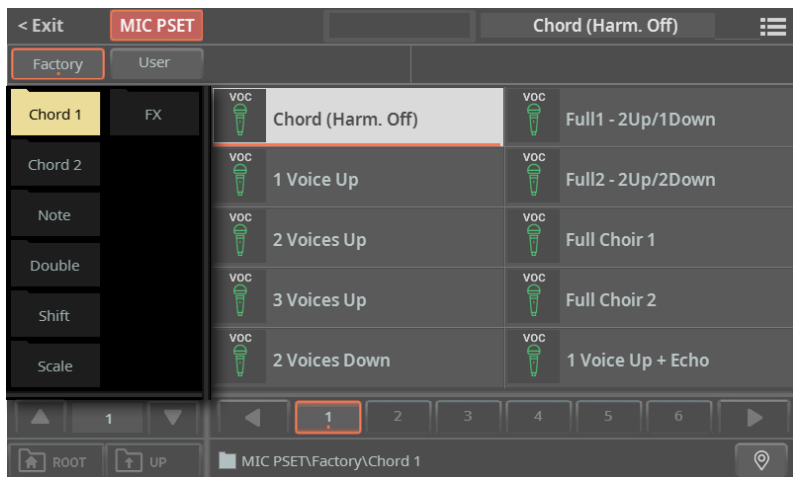
■ Choose a Mic Preset

- 1 To choose one of the available groups from which to choose a Mic Preset, touch the **buttons** in the second line at the top of the window.

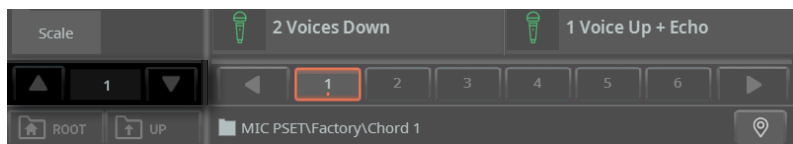


Group	Meaning
Factory	Mic Presets included at the factory, that can't be modified.
User	Internal memory area where you can save new or edited Mic Presets , or where you can load or copy Mic Presets from an external storage device.

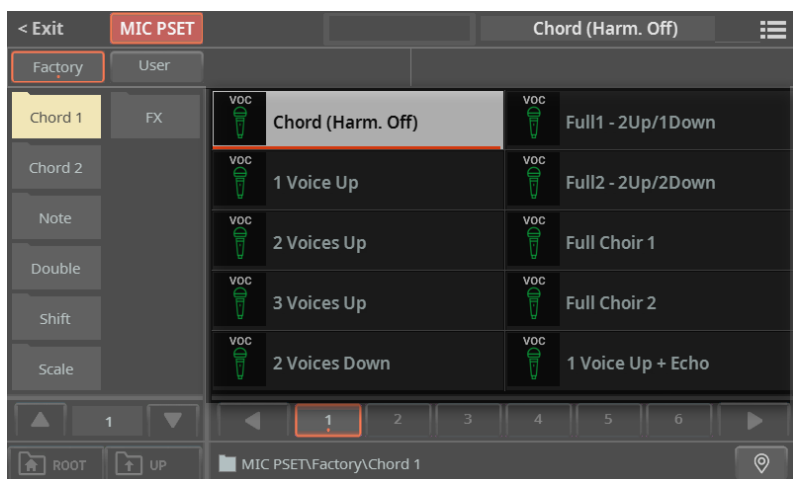
2 In case you want to choose a different category, touch one of the category folders in the left side of the **Mic Preset Select** window.



3 If not all the category folders can be seen in the current page, scroll through the page numbers to access the other folders.



4 The Mic Presets contained in the selected folder appear in the right side of the window.



5 If the selected category folder contains more elements than the ones that can be seen in a page, browse through the pages. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



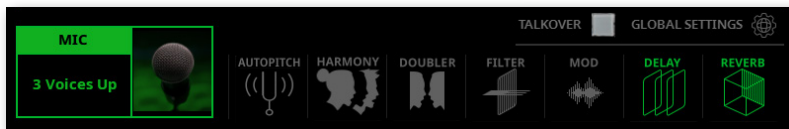
6 If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

7 Touch the **name of the Mic Preset** you want to choose.

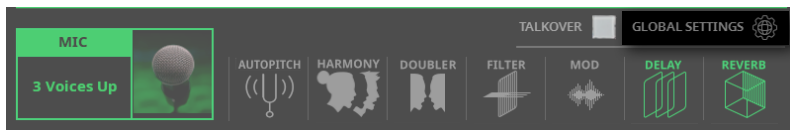
8 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** option is turned on. See [Display Hold](#) on page 72.

In the end, you will see the name of the selected Mic Preset in the dedicated area of the **Mic & Guitar** pane. The effects will change.

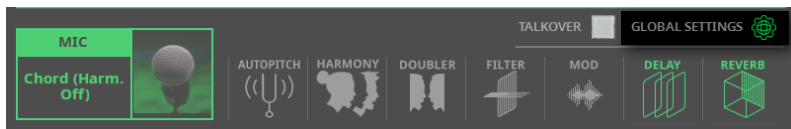


The **Global Settings** indicator will turn off, meaning that the current preset is the one you selected in the **Mic & Guitar** pane.



Choosing a Mic Preset with a SongBook Entry

When choosing a SongBook Entry, the Mic Preset might change. This will happen if the **Global Settings** checkbox in the **Home > Mic & Guitar** pane is not selected. The status of this parameter is saved in the SongBook Entry. If it is turned on, the global Mic Preset will be used.

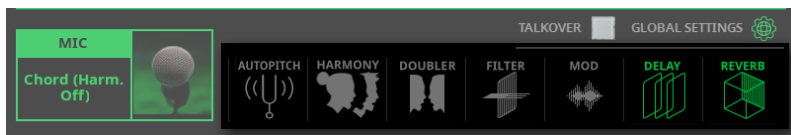


How to choose a global Mic Preset is described in [Choosing a global Mic Preset](#) on page 598.

Turning the effect modules on/off

A Mic Preset is made of several modules, each one specialized in a type of effect. You can turn each of the modules on off from the main page.

- 1 Go to the **Home > Mic & Guitar** pane.



- 2 Touch each of the **modules** to turn them on or off. A deactivated module appears dimmed.

Mic Presets

Chord 1

Chord (Harm. Off)
1 Voice Up
2 Voice Up
3 Voice Up
2 Voice Down
Full1-2Up/1Down
Full2-2Up/2Down
Full Choir 1
Full Choir 2
1 Voice Up+Echo

Chord 2

Wide Choir
Higher Choir
Gospel 1 (Male)
Gospel 2 (Mixed)

Gospel 3 (Female)
Close Choir
Simple 2nd Voice
2 Octaves Only
Cathedral Choir
2VoicesUp+Echo

Note

Notes Natural
Notes Nat. Female
Notes Nat. Male
Notes Wide
Notes No Lead

Double

2 x Double
4 x Double

HighChoir+Doubl
LowChoir+Doubl
Doubler+Octave

Shift

Opera Octave Up
Opera Octave Down
Mixed Octaves
Crazy Choir
Unison Choir

Scale

Scale (3) C Maj
Scale (3/5) C Maj
Scale Full C Maj
Scale (3) C min
Scale (3/5) C min

FX

1 Up+Autopitch
Another Brick
Octave Child
Octave Male
Octave Female
Panning+Delay
Distorted Voice
Chorus Voice
Wah Vox
Crazy Bot

'Global' and 'local' (or temporary) Mic Preset

You can choose a 'global' Mic Preset that does not change when choosing a different SongBook Entry. Or you can choose a 'local' Mic Preset that is better suited to the individual SongBook Entry.

You can choose a Mic Preset from the library (**Home > Mic & Guitar** pane). This 'local' Mic Preset is just temporary, and only becomes permanent when you save a SongBook Entry.

To change the type of Mic Preset, select or deselect the **Global** parameter in the **Home > Mic & Guitar** pane. This parameter is saved with each SongBook Entry.

GLOBAL SETTINGS 

Correcting your voice intonation

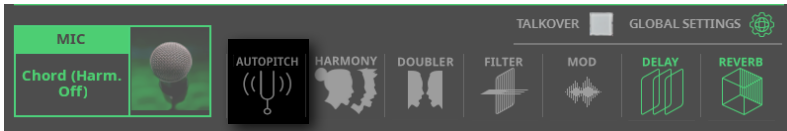
The Autopitch is optimized to produce corrective pitch correction as well as obvious effects made popular by a number of artists.

Choosing a Mic Preset with autopitch

All the Mic Presets include Autopitch. You may have to turn it on.

Turning autopitch on or off

- > Touch the **Autopitch** button in the **Home > Mic & Guitar** pane to turn it on/off.



Harmonizing your voice

Harmonization adds a choir of voices to your lead voice.

Choosing a Mic Preset with harmony voices

> Choose a **Mic Preset** containing the desired harmony type, as described in the previous pages.

By default, these are some useful presets to test harmonization:

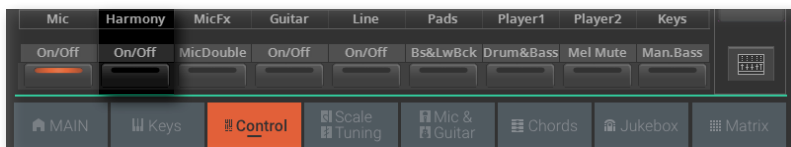
Mic Preset	Harmonization Type
Chord (Harm. Off)	Chordal harmonization, especially meant for Styles. You are expected to play chords on the keyboard (the recognition zone depends on the Chord Scan section). Chords are also received from the Chord Sequence.
Notes Natural	Polyphonic harmonization, especially meant for MIDI Songs. Notes are expected from the keyboard and/or from a track of the active MIDI Song (by default, Track #5).

Turning harmonization on or off

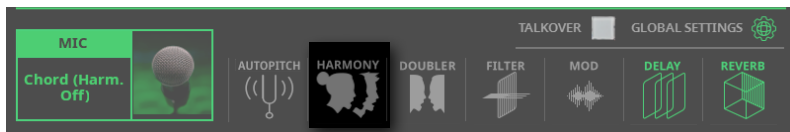
- > Use **BUTTON #2 (Mic Harmony On/Off)** to turn on/off the Harmony effect.



As an alternative, use the **Harmony On/Off** command you can find in the **Home > Control** page (with the **Main** view mode selected).

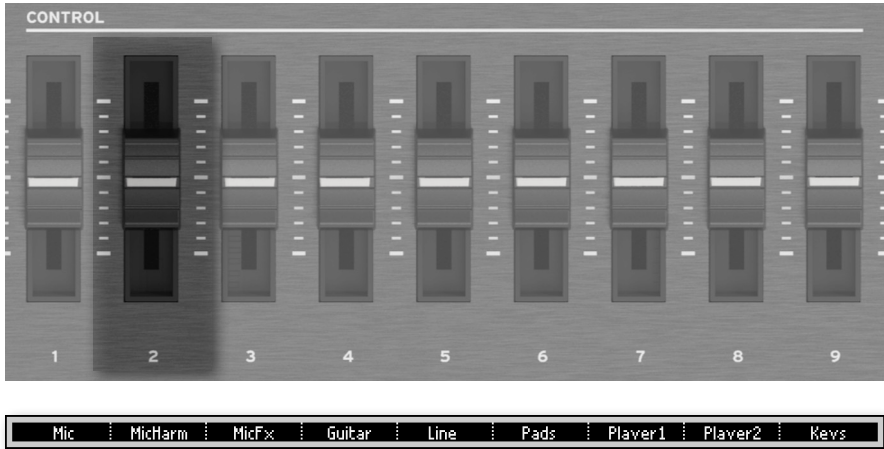


You can also turn it on/off from the **Home > Mic & Guitar** pane.

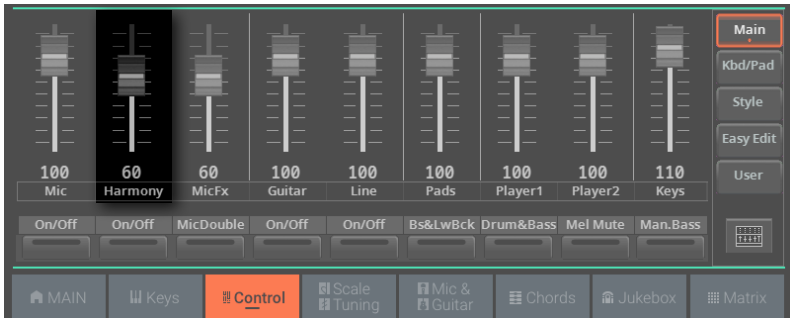


Adjusting the harmonization level

- > Use **SLIDER #2 (Mic Harmony)** to adjust the harmony voices level.



As an alternative, use the **Mic Harmony** control you can find in the **Home > Control** page (with the **Main** view mode selected).



Playing harmony

- 1** Play the keyboard. Depending on the chosen harmonization type, you will play chords or separate melody lines.
- 2** Sing along with the chords and melody lines you play on the keyboard.

Where do chords and notes come from?

Each Mic Preset contains settings to choose the source of the chords or notes. Depending on the preset, you will play on the keyboard, and/or let the MIDI Song send notes from a track selected from the preset.

Doubling your voice

Doubling adds a second, subtly modified voice to your lead voice, making it thicker and stronger.

Choosing a Mic Preset with doubling

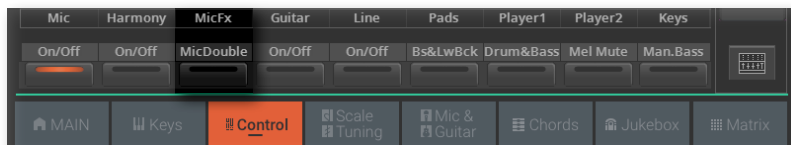
- > Choose a **Mic Preset** containing the desired doubling type, as described in the previous pages.

Turning doubling on or off

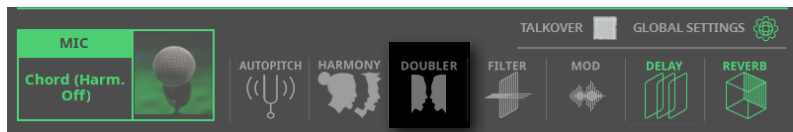
- > Use **BUTTON #3 (Mic Double On/Off)** to turn on/off the Double effect.



As an alternative, use the **Mic Double On/Off** command you can find in the **Home > Control** page (with the **Main** view mode selected).



You can also turn it on/off from the **Home > Mic & Guitar** pane.



Playing the doubling voice

- > Just sing to hear your voice and the doubling voice.

Using the effects

Effects can add modulation, ambience, improve or transform your lead voice and the added voices.

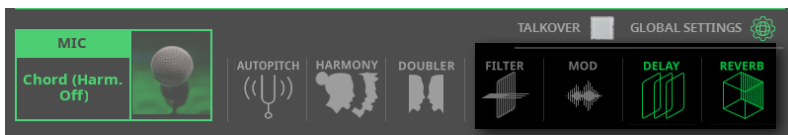
Effect module	Meaning
Filter	Steep filters emulating the sound of radios, phones and devices that generally degrade the audio signal.
Mod	Subtle thickening of the voice. This effect does a faithful job of emulating classic detune, chorus, flanger and thickening sounds.
Delay	Delay effect. The delay is similar to an echo, and can have short or long repetitions depending on the selected Mic Preset.
Reverb	Reverb effect. This adds ambience to the voices, smoothing and blending them.

Choosing a Mic Preset with the desired effects

> Choose a **Mic Preset** containing the desired effects, as described in the previous pages.

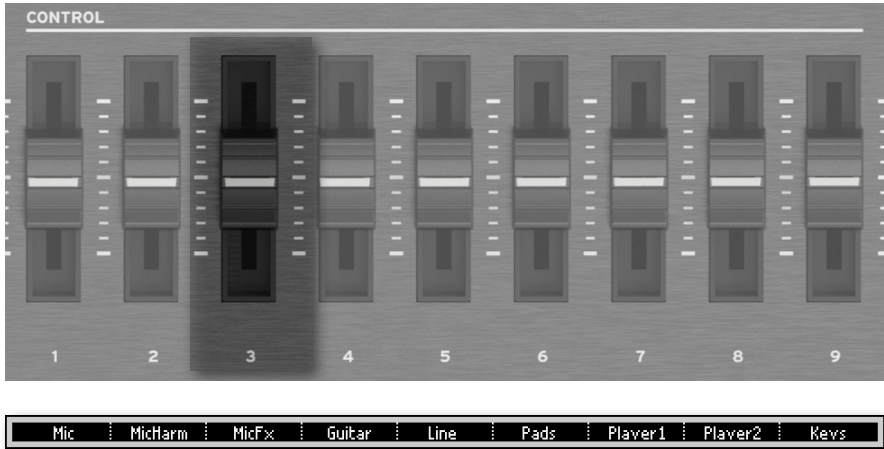
Turning the effects on or off

> Touch the buttons in the **Home > Mic & Guitar** pane to turn each module on/off.

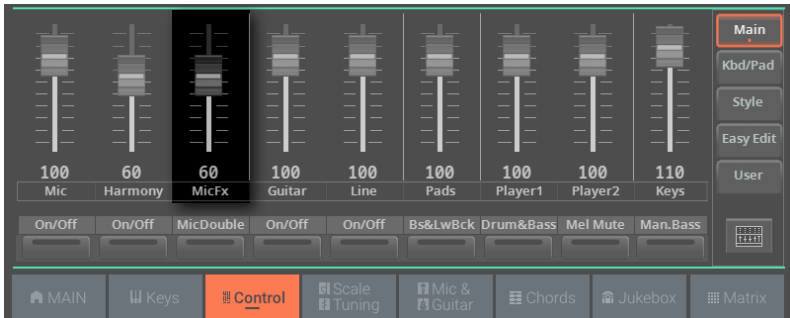


Adjusting the effects level

- > Use **SLIDER #3 (Mic FX)** to adjust the effects level.



As an alternative, use the **Mic FX** control you can find in the **Home > Control** page (with the **Main** view mode selected).



24

Guitar Input

Connecting a guitar

WARNING: Lower the master volume!

Before connecting or disconnecting something to one of the audio inputs, lower the **Master Volume** to zero. Preventing from doing it may damage the speakers and cause harm to your hearing!

Connecting a guitar and activating the guitar input

Connecting the guitar

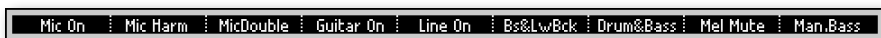
Use the **GUITAR INPUT** connector to connect a guitar. This input can also be used for compatible instruments, like a bass guitar, or an acoustic guitar or oud equipped with a pickup. This is an unbalanced (TS) 1/4" (6.35 mm) jack connector.



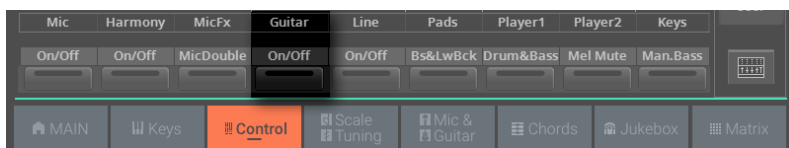
Turning on/off the guitar channel

- 1 Be sure the selected **CONTROL** mode is **MAIN**.
- 2 Use **BUTTON #4 (Guitar On/Off)** to turn the guitar channel on or off.

Please note that, for safety reasons, the input is always switched off when turning the instrument on.



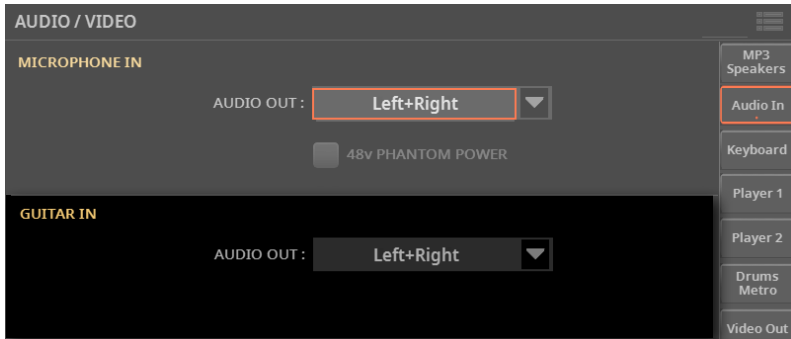
As an alternative, use the **Guitar On/Off** command you can find in the **Home > Control** pane (with the **Main** view mode selected).



Routing the guitar to one of the audio outputs

By default, the guitar input is sent to the main Left and Right audio outputs. You can change the output routing to send it to any other output pair.

- > Go to the **Settings > Menu > Audio/Video > Audio In** page.
- > Set the **Guitar In > Audio Out** parameter to the desired audio output.



Audio Out	Meaning
Left+Right	Main LEFT and RIGHT outputs
Out 1+2	Separate sub-outputs 1-2
Out 3+4	Separate sub-outputs 3-4

Adjusting the guitar input gain

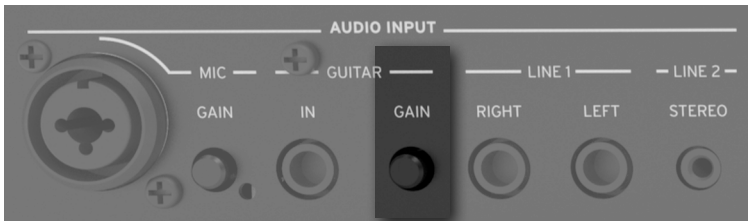
After having connected a guitar, adjust the input gain, to be sure it will not distort.

■ Preparation before starting adjusting the gain

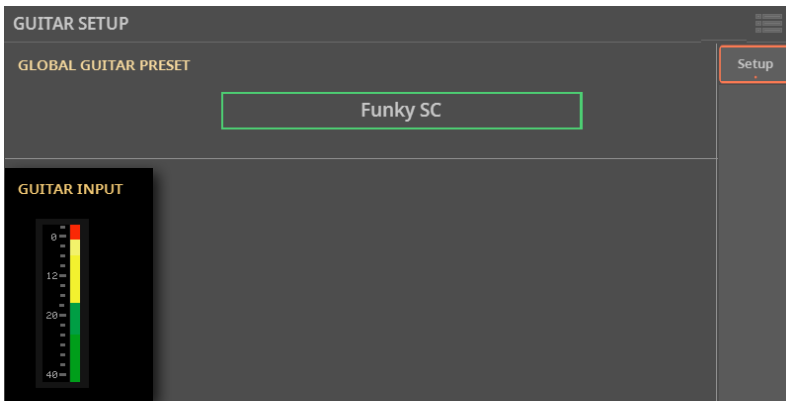
- 1 Be sure the selected **CONTROL** mode is **MAIN**.
- 2 Use **BUTTON #4 (Guitar On/Off)** to turn on the guitar channel.

■ Adjust the gain

- 1 Use the **GAIN** knob next to the **GUITAR INPUT** connector to adjust the input gain (from 0 to +43 dB).



- 2 Play the guitar.
- 3 Check the input level in the **Settings > Menu > Guitar Setup > Setup** page.



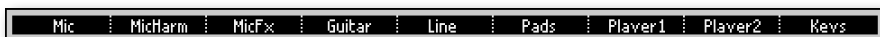
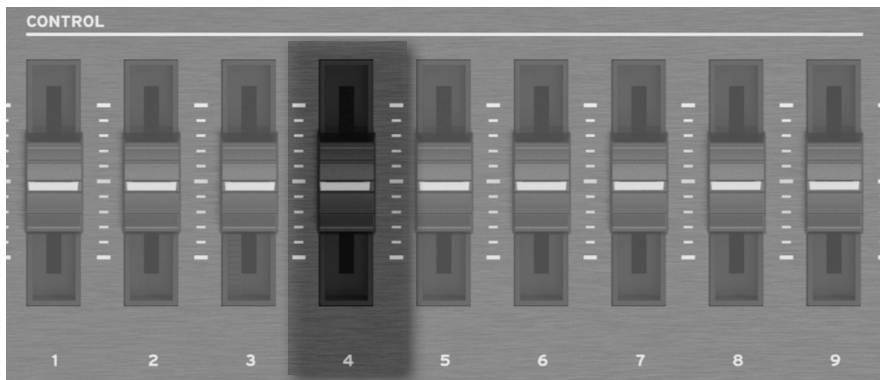
AUDIO IN color	Meaning
Off	No signal entering.
Green	Low- to mid-level signal entering. If the indicator turns off too often, the input gain is too low. Use the GAIN control to increase the input level.
Yellow	Slight overload in the signal path. This is fine if it turns on only on signal peaks.
Red	Clipping is occurring in the signal path. Use the GAIN control to lower the input level.

Keep the level so that this indicator remains green most of the time (even at signal peaks). For best results, keep the input level low (not exceeding -20 dB, as shown in the input meter). Guitars with a higher output level may overdrive more easily. Experiment with your own guitar.

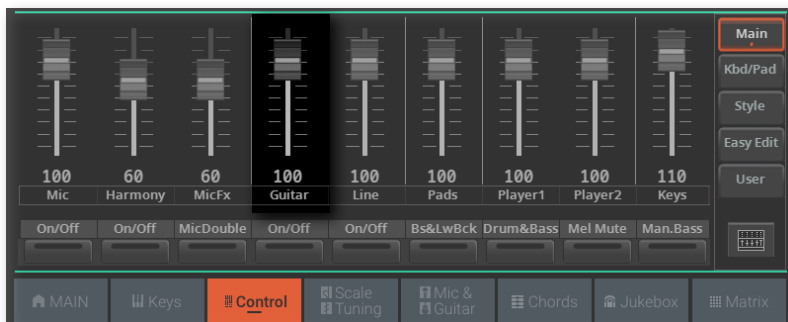
Adjusting the guitar volume

The guitar input can be quickly turned on or off, and its volume in the mix adjusted, right from the control panel or from the main page.

- 1 Be sure the **Guitar** channel is turned on.
- 2 Be sure the selected **CONTROL** mode is **MAIN**.
- 3 Use **SLIDER #4 (Guitar)** to adjust the guitar channel volume.



As an alternative, use the **Guitar Volume** control you can find in the **Home > Control** pane (with the **Main** view mode selected).



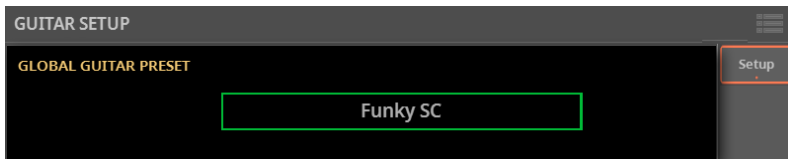
- 4 Start a **Style** or a **Song** to balance the guitar against the **Sounds**.
- 5 You can also adjust the input gain again, by using the **GAIN** knob next to the **GUITAR INPUT** connector.
- 6 Check that the audio is well balanced and is not distorting.

Shaping the guitar input

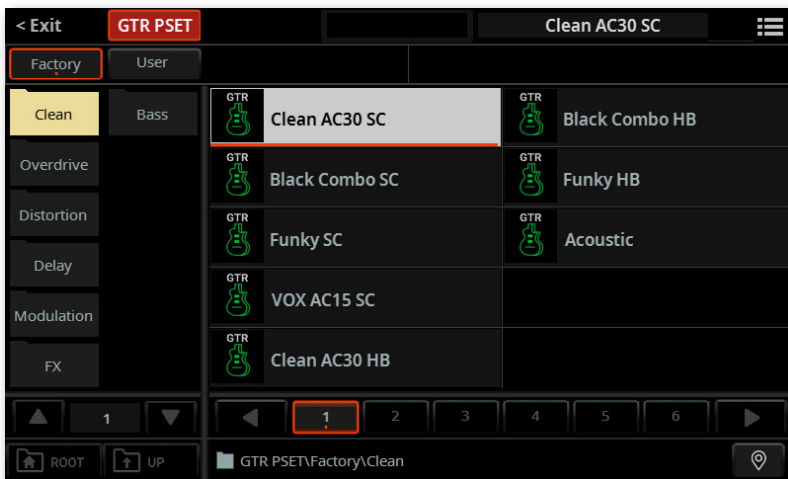
Choosing a global Guitar Preset

You can choose a global Guitar Preset that will be automatically selected when turning the instrument on.

- 1 Go to the **Settings > Menu > Guitar Setup > Setup** page.



- 2 Touch the name of the selected **Guitar Preset** to open the **Guitar Preset Select** window.



- 3 Choose one of the presets. For more details, see [Choosing a Guitar Preset on page 632](#).
- 4 Press the **EXIT** button to close the **Select** window and confirm your selection.

Using the guitar effects

The Guitar Presets

The Guitar effects can be saved into a **Guitar Preset**. You can then select the preset, either by choosing them from the library, or by choosing a different SongBook Entry.

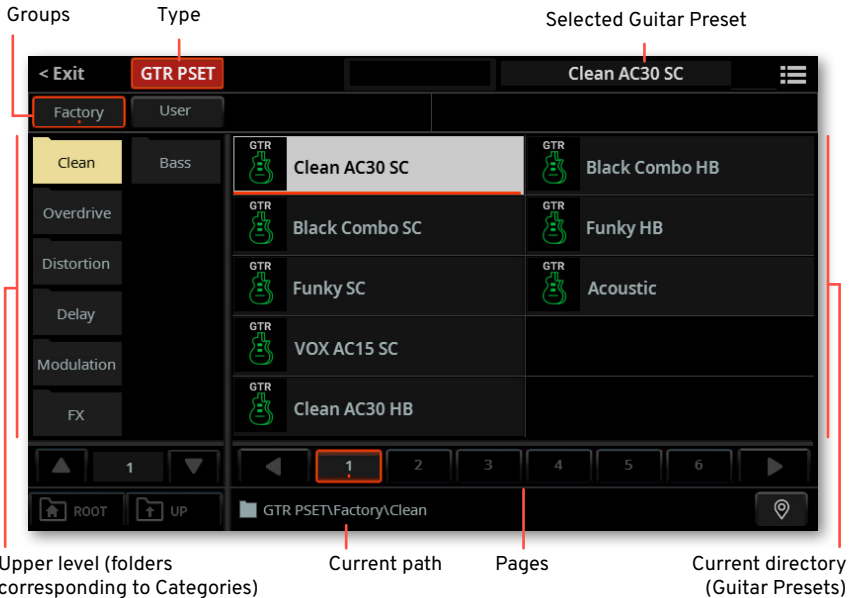
Choosing a Guitar Preset

Choosing a Guitar Preset from the library

- 1 Go to the **Home > Mic & Guitar** pane.



2 Touch the **name of the Guitar Preset** to open the **Guitar Preset Select** window.



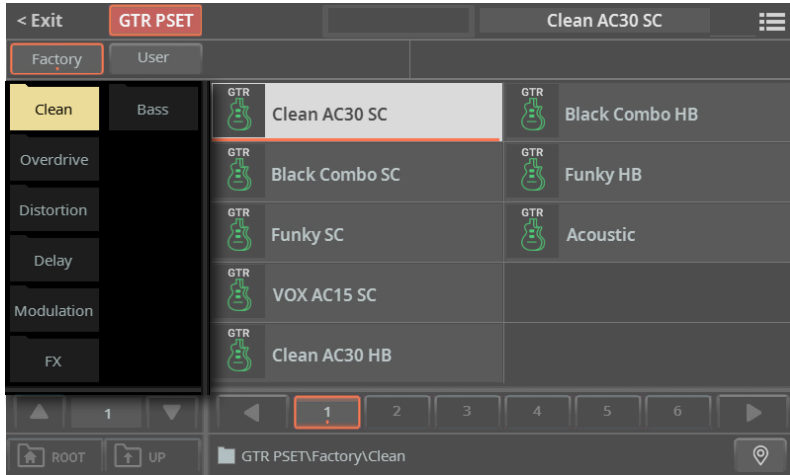
■ Choose a Guitar Preset

1 To choose one of the available groups from which to choose a Guitar Preset, touch the **buttons** in the second line at the top of the window.

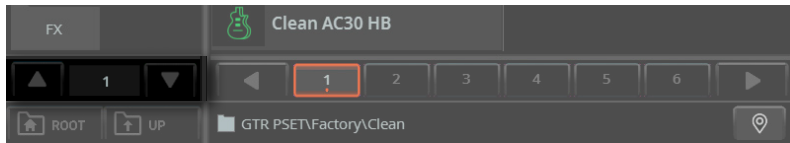


Group	Meaning
Factory	Guitar Presets included at the factory, that can't be modified.
User	Internal memory area where you can save new or edited Guitar Presets, or where you can load or copy Guitar Presets from an external storage device.

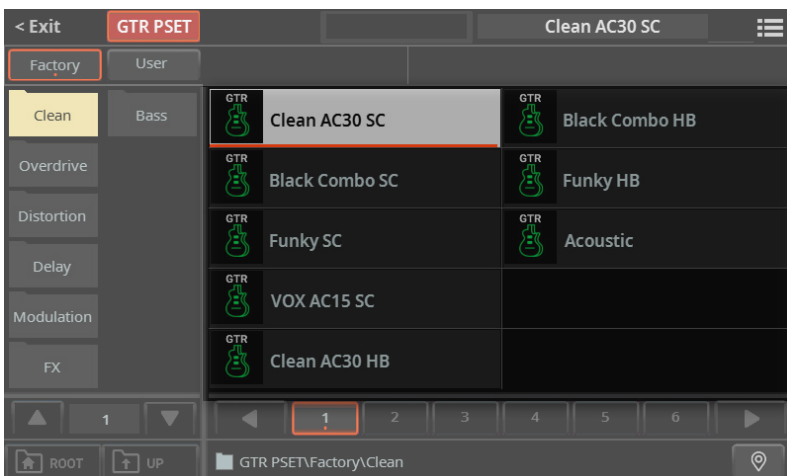
2 In case you want to choose a different category, touch one of the category folders in the left side of the **Guitar Preset Select** window.



3 If not all the category folders can be seen in the current page, scroll through the page numbers to access the other folders.



4 The Guitar Presets contained in the selected folder appear in the right side of the window.



5 If the selected category folder contains more elements than the ones that can be seen in a page, browse through them. You can touch a **page number** to select it. Or use the **DIAL** or **UP/DOWN** buttons to move between the pages. If the pages are more than the ones that can be contained in the list, use the **left/right arrows** to scroll them in the display.



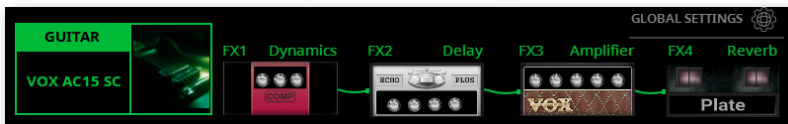
6 If you are lost while browsing through the data, you can return to the folder containing the selected element by touching the **Locate** (📍) button.

7 Touch the **name of the Guitar Preset** you want to choose.

8 If you want to close the **Select** window (and it does not close by itself), press the **EXIT** button.

HINT: When a window does not close by itself, it means the **Display Hold** option is turned on. See [Display Hold](#) on page 72.

In the end, you will see the name of the selected Guitar Preset in the dedicated area of the **Mic & Guitar** pane. The effects will change.

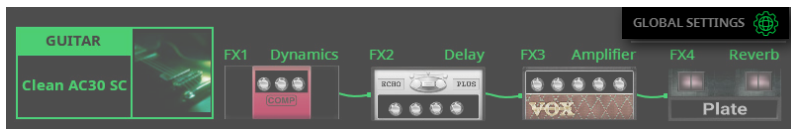


The **Global Settings** indicator will turn off, meaning that the current preset is the one you selected in the **Mic & Guitar** pane.



Choosing a Guitar Preset with a SongBook Entry

When choosing a SongBook Entry, the Guitar Preset might change. This will happen if the **Global Settings** checkbox in the **Home > Mic & Guitar** pane is not selected. The status of this parameter is saved in the SongBook Entry. If it is turned on, the global Mic Preset will be used.

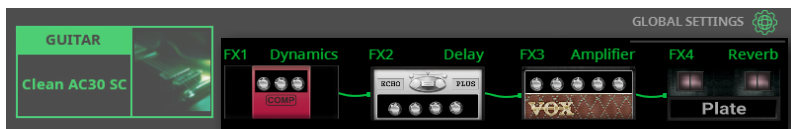


How to choose a global Mic Preset is described in [Choosing a global Mic Preset](#) on page 598.

Turning the effect modules on/off

A Guitar Preset is made of several modules, each one specialized in a type of effect. You can turn each of the modules on off from the main page.

- 1 Go to the **Home > Mic & Guitar** pane.



- 2 Touch each of the **modules** to turn them on or off. A deactivated module appears dimmed.

Guitar Presets

Clean

Clean AC30 SC
Black Combo SC
Funky SC
VOX AC15 SC
Clean AC30 HB
Black Combo HB
Funky HB
Acoustic

Overdrive

Overd AC30 SC
VOX AC15TB SC
UK Blues SC

Stone Combo
Overd AC30 HB

Distortion

Dist AC30TB SC
High Voltage
UK 80s HB
UK 90s HB
Dist AC30TB HB
Modded OD HB
Boutique HB
Big Lead

Delay

You2 Delay
Streets Name
Wall Delay
Clean BPM Delay
Ambient Tape Dly

Modulation

Combo Trem SC
Rotary
Stereo Chorus
Floyd Vibe
Orange Phaser
Classic Flanger

Classic Chorus
Pitch Shift Mod

FX

VOX Wah
Guitar Octaver
5th Below
Auto Reverse
Swell Delay
Pad Guitar

Note:

SC = Single Coil,
HB = Humbucker

'Global' and 'local' (or temporary) Guitar Preset

You can choose a 'global' Guitar Preset that does not change when choosing a different SongBook Entry. Or you can choose a 'local' Guitar Preset that is better suited to the individual SongBook Entry.

You can choose a Guitar Preset from the library (**Home > Mic & Guitar** pane). This 'local' Guitar Preset is just temporary, and only becomes permanent when you save a SongBook Entry.

To change the type of Guitar Preset, select or deselect the **Global** parameter in the **Home > Mic & Guitar** pane. This parameter is saved with each SongBook Entry.

GLOBAL SETTINGS



Using the effects

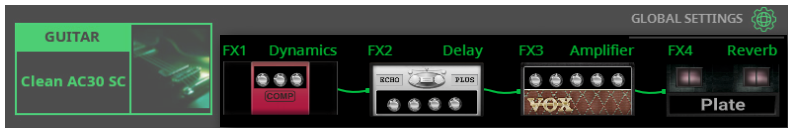
A Guitar Preset is made of four effect modules. Each preset can include different types of effects.

Choosing a Guitar Preset with the desired effects

- > Choose a **Guitar Preset** containing the desired effects, as described in the previous pages.

Turning the effects on or off

- > Touch the buttons in the **Home > Mic & Guitar** pane to turn each module on/off.



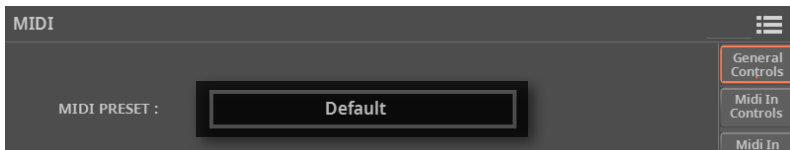
Controlling the effects via MIDI

You can control the guitar effects via MIDI, for example by connecting a MIDI pedalboard to the MIDI IN port of Pa5X.

■ Choose an appropriate MIDI Preset

First of all, check if there is an appropriate MIDI Preset. You can learn more about the available presets in the chapter dedicated to MIDI (see [Quick setup using the MIDI Presets](#) on page 530).

- 1 Go to the **Settings > Menu > MIDI > General Controls** page.

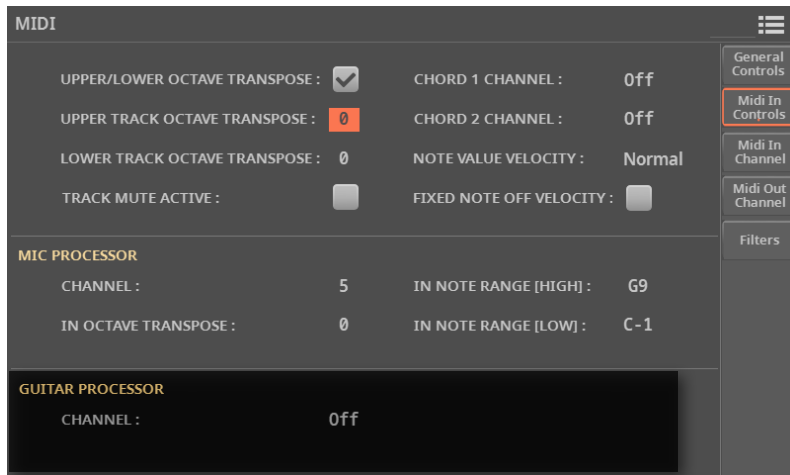


- 2 Choose a **MIDI Preset** matching your MIDI configuration.

■ Program the MIDI parameters

If you want to make your own custom settings, change some parameters.

- 1 Go to the **Settings > Menu > MIDI > MIDI IN Controls** page.



- 2 Use the **Guitar Processor > Channel** parameter to choose a MIDI channel on which to receive the control data.

25

Line Audio Inputs

Connecting a line audio device

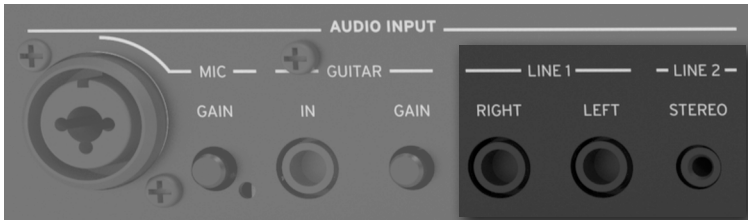
WARNING: Lower the master volume!

Before connecting or disconnecting something to one of the audio inputs, lower the **Master Volume** to zero. Preventing from doing it may damage the speakers and cause harm to your hearing!

Connecting the line audio device

Use the **LINE INPUT** connectors to receive audio from an external device. These inputs are all line-level. Do not directly connect guitars, microphones or power amplifiers.

Warning: Connecting a power amplifier to these inputs will damage the instrument!



- > Use the **LINE 1 > LEFT** and/or **RIGHT** connectors to connect the audio outputs of another keyboard, the outputs of a voice or guitar effect processor, or the line outs of a stage mixer. Connect either of them to receive a mono signal. These are balanced (TRS) 6.35 mm, or 1/4", jack connectors.
- > Use the **LINE 2 > STEREO** mini-jack (3.5 mm, or 1/8") connector to connect an external media player (including a smartphone or a tablet).

Turning the line channel on/off

- 1 Be sure the selected **CONTROL** mode is **MAIN**.
- 2 Use **BUTTON #5 (Line On/Off)** to turn the line input channel on or off.

Please note that, for safety reasons, the input is always switched off when turning the instrument on.



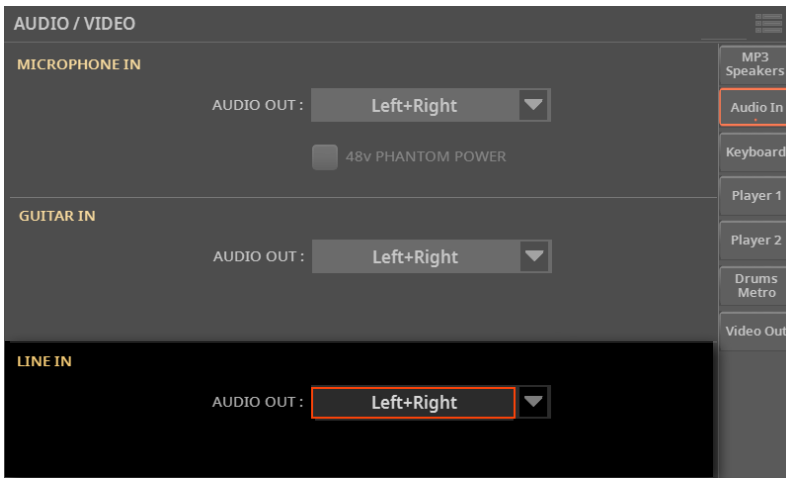
As an alternative, use the **Line On/Off** command you can find in the **Home > Control** pane (with the **Main** view mode selected).



Routing the line input to one of the audio outputs

By default, the line input is sent to the main Left and Right audio outputs. You can change the output routing to send it to any other output pair.

- > Go to the **Settings > Menu > Audio/Video > Audio In** page.
- > Set the **Line In > Audio Out** parameter to the desired audio output.



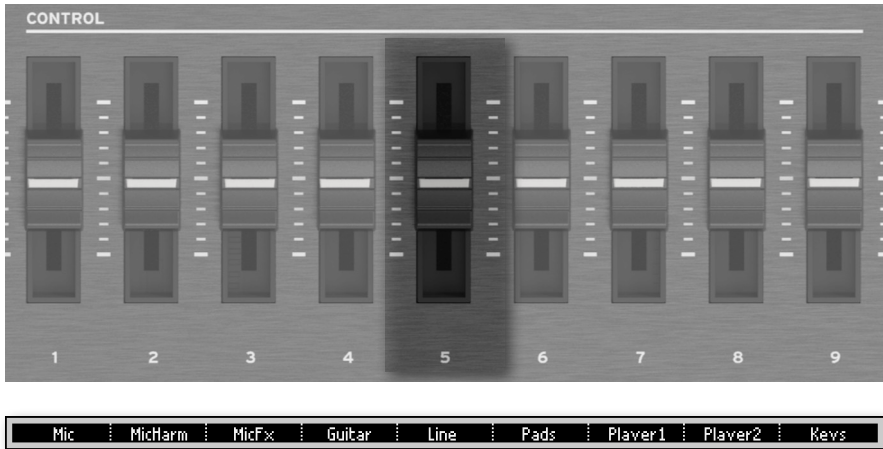
Audio Out	Meaning
Left+Right	Main LEFT and RIGHT outputs
Out 1+2	Separate sub-outputs 1-2
Out 3+4	Separate sub-outputs 3-4

Keep the level so that this indicator remains green most of the time, with orange appearing at signal peaks. Never go to red.

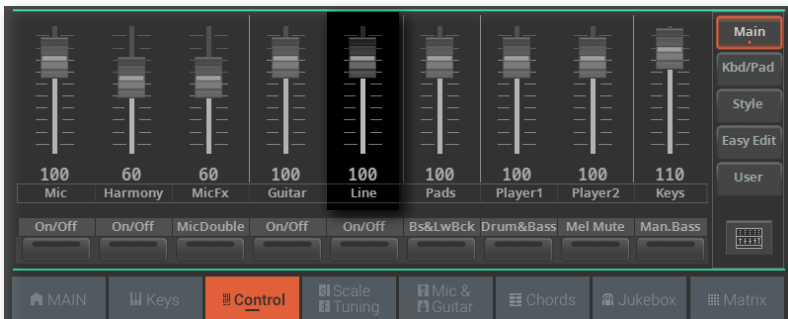
Adjusting the line channel volume

The line input can be quickly turned on or off, and its volume in the mix adjusted, right from the control panel or from the main page.

- 1 Be sure the **Line** channel is turned on.
- 2 Be sure the selected **CONTROL** mode is **MAIN**.
- 3 Use **SLIDER #5 (Line)** to adjust the Line channel volume.



As an alternative, use the **Line Volume** control you can find in the **Home > Control** pane (with the **Main** view mode selected).



- 4 Start a Style or a Song to balance the audio input against the Sounds.
- 5 Check that the audio is well balanced and is not distorting. If needed, lower the output level of the Line source.

26

File management

Searching for files and other elements

Using the Search function

Depending on the page, you can search for different types of data. For example, while in the **File** pages you can only search for files, while in the **Home** pages you can search for several different types of data (Styles, Songs, Lyrics...).

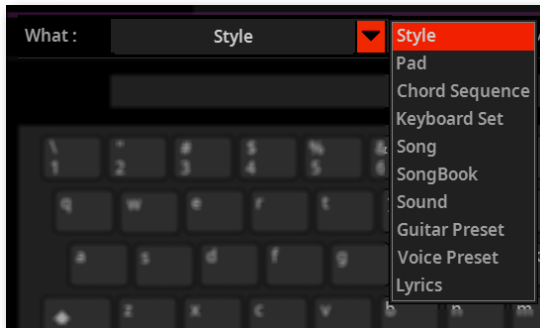
The Search function is also available while a Select window is open. It is not available in all pages, since sometimes there are no relevant data to search for a particular page (for example, the **Settings** pages).

- **Access the Search window**
- > Press the **SEARCH** button to open the **Search** window.



■ Choose the type of data to look for

- > If needed, use the **What** menu to choose the type of item you are looking for.

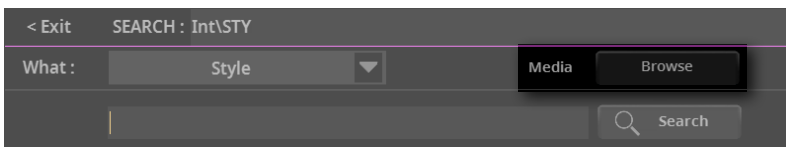


■ Choose a storage device and folder

When searching for some types of data, you can choose a storage device and folder where to do your search. When one of the allowed types of data is chosen, the **Browse** button will be enabled.

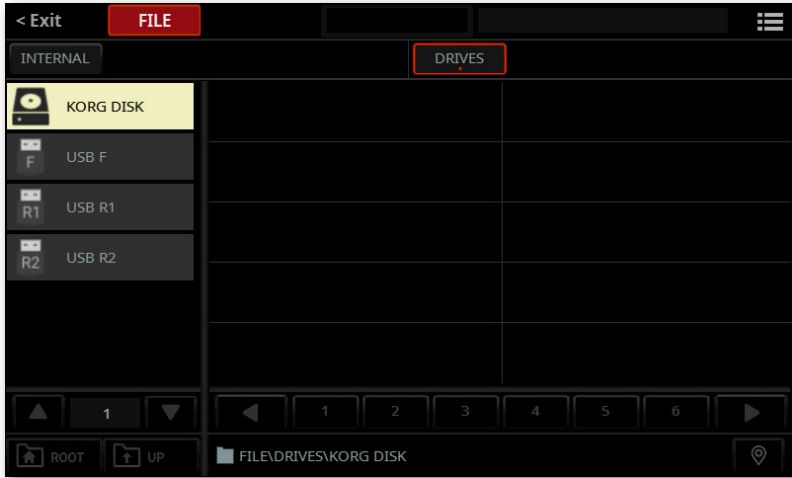
Searching in a storage device other than the internal memory is not allowed for Sounds, SongBook Entries, Microphone and Guitar Presets.

- 1 While in the **Search** window, touch the **Browse** button to open the **File Browser**.



- 2 While in the **File** browser, touch the **storage device** on the left, and browse through the folders on the right. Touch a **folder** to open it. Touch the **Up** button to

close the current folder and go to a higher level in the directory. Touch the **Root** button to return to the top level of the device.

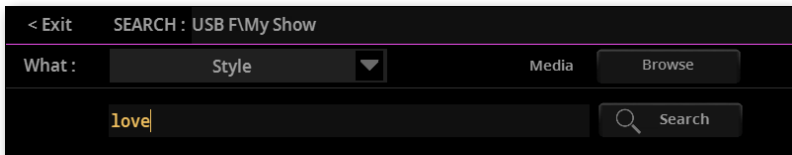


3 When you have opened the **folder** containing the file you are looking for, press the **EXIT** button to close the **File** browser and return to the **Search** window. The name of the selected folder will be shown in the **title bar** of the **Search** window.



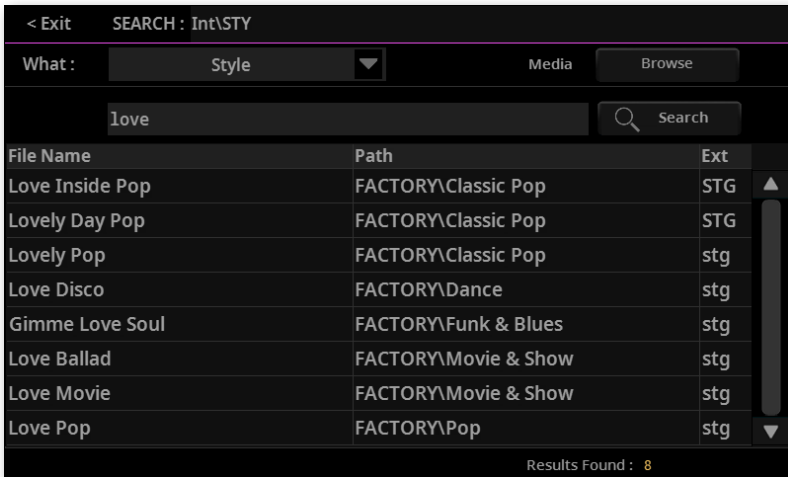
■ Type a text string and start searching

1 Type the **name of the item** you are looking for. There is no difference between upper and lower cases (“LOVE” is the same as “Love” or “love”).



2 If you want to delete the full string, keep the **Backspace** button pressed.

3 When finished entering the name, touch the **Search** button. After a while, the list of items found in the selected place(s) will start showing on the display.



The time needed to complete a search depends on the type and size of the device(s) and the number of items.

Please wait for the current search to be completed, or touch the **Stop** button to stop the current search and do a new one.

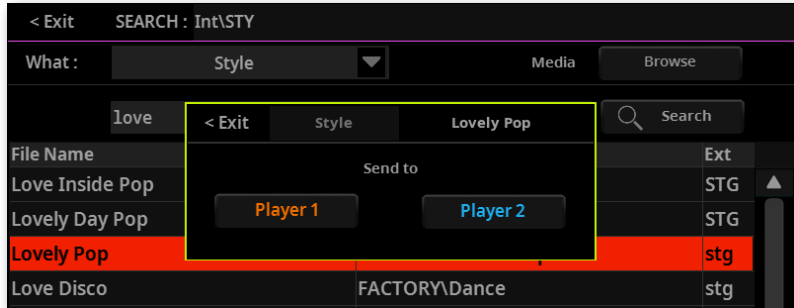
■ Searching for a different text strings

- 1** Enter the new search string in the text field.
- 2** Touch the **Search** button again.

■ Select the item found and assign it to a Player

- 1** If you have found what you were looking for, touch its name in the list.

2 When choosing a Style, Song or Pad, a dialog will ask you to choose the target Player.



3 Choose the target **Player**. If you want to close this dialog without selecting anything, press the **EXIT** button instead.

Using musical resources from the drives

You can choose Keyboard Sets, Styles, Pads and Chord Sequences from any internal or external drive. You can organize them as ordinary folders, to create libraries of favorite resources directly read, for example, from an USB pendrive. There is no need to first copy them in the User area of the internal memory.

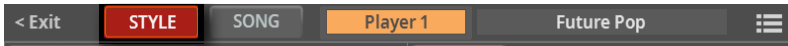
Creating your libraries in the drives

To put your musical resources into an ordinary folder, you can use either a personal computer or the internal **Copy and Paste** commands of Pa5X. To copy Styles in Pa5X, use the dedicated commands in the **page menu** of the **File** pages.

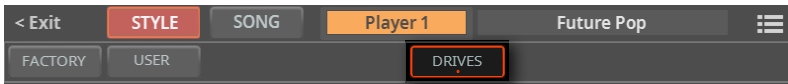
Choosing the musical resources in the drives

You can choose the Drive musical resources from any internal or external drive.

- 1 If you are reading from an external device, connect the device to one of the **USB HOST** ports.
- 2 While in the **Home > Main** page, touch the **name of the Style or Song** assigned to one of the Players to open the **Select** window.
- 3 In the **Select** windows, be sure the correct type of data is selected. For example, if you need the Styles, choose the Style type.



- 4 Touch the **Drives** button to select the corresponding group.



- 5 Select the **drive** containing the elements in the left side of the display.
- 6 Browse through the files and folders inside the selected drive.

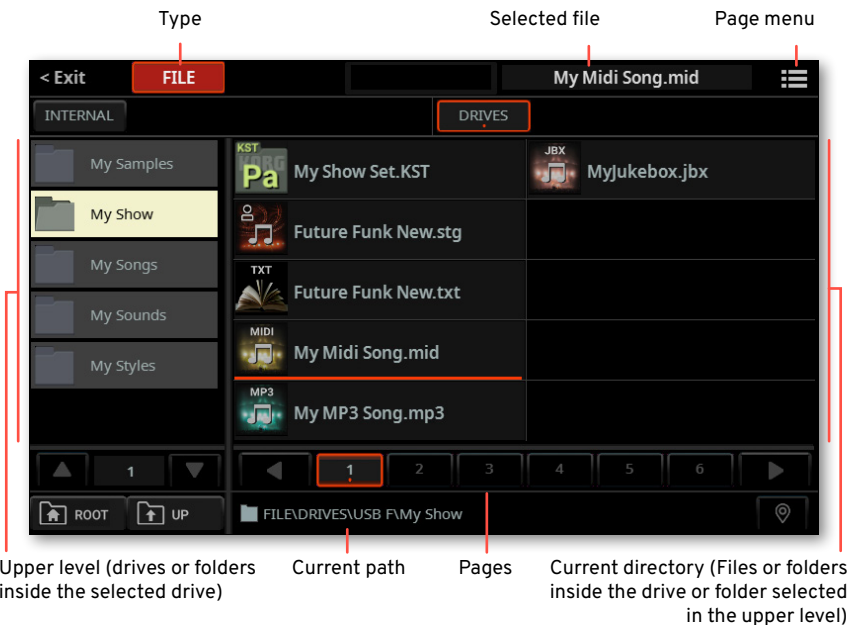


Overview on file management

You can access the **File** pages by pressing the **FILE** button. **File** pages are where you manage files and drives.

The File page structure

Most **File** pages share some basic elements.



The drives and the internal memory

Choosing between the User area and the Drives

The **User area** of the **internal memory** is a space where Pa5X keeps the custom data that can be saved into a KST folder. These are, for example, the User Styles, Pads, Keyboard Sets, Sounds, SongBook Entries, Microphone or Guitar Presets, and other types of data.

The **Drives** are the storage devices where you can save data from the User area or the internal memory. Data will be saved into a KST folder. Among the drives is included the internal one called the **KORG DISK**, the drives connected to the **USB HOST** ports, and the **SD card**.

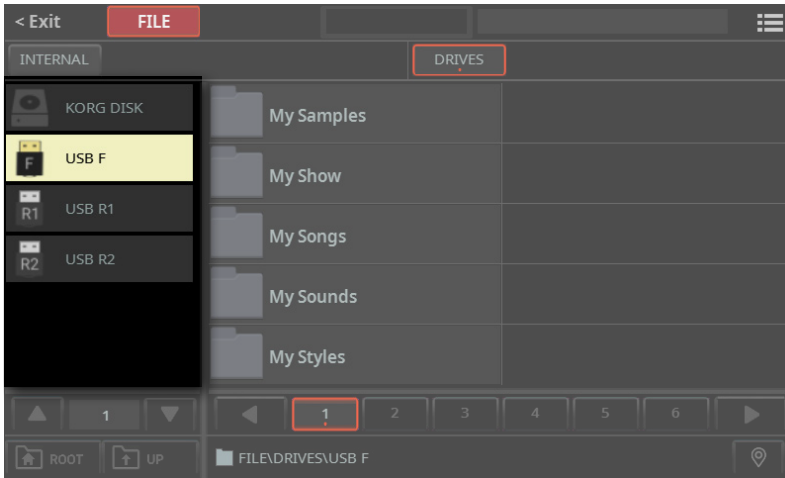
Data can also be directly used from the **Drives**, without first having to load them. You can, for example, play a Style after having selected it from an ordinary folder inside a drive.

- > Touch the **Internal** button to see the content of the internal memory (the **User** area).
- > Touch the **Drives** button to see the drives' content, and manage the data from the **KST folders** or from **ordinary folders**.

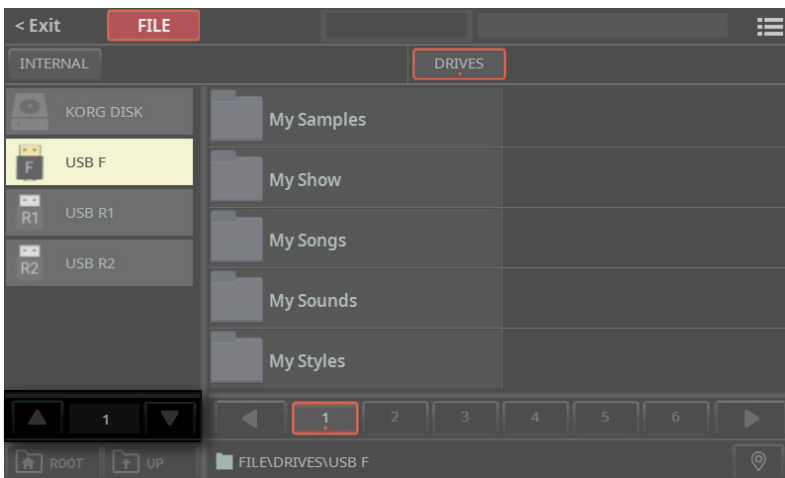


Selecting a drive


The first thing you see in the left side of the display, when choosing the **Drive** type of source, is a **list of the available drives**.



If not all of them can be seen in the current page, scroll through the page numbers to access the other drives.



- > Touch the **name of the drive** to select it, and see its content in the right side of the display.
- > You can return to this list, after having gone deep into the folder hierarchy, by touching the **Root** button, or going up one step at a time by touching the **Up** button.

- > You can return to the folder containing the latest selected file by touching the **Locate** () button.

Supported device

Pa5X supports external devices, like hard disk drives or USB memory sticks, formatted FAT32 or FAT16 with long file names.

For maximum compatibility, we recommend to format an external device before saving data on it the first time (see [Formatting a drive](#) on page 695).

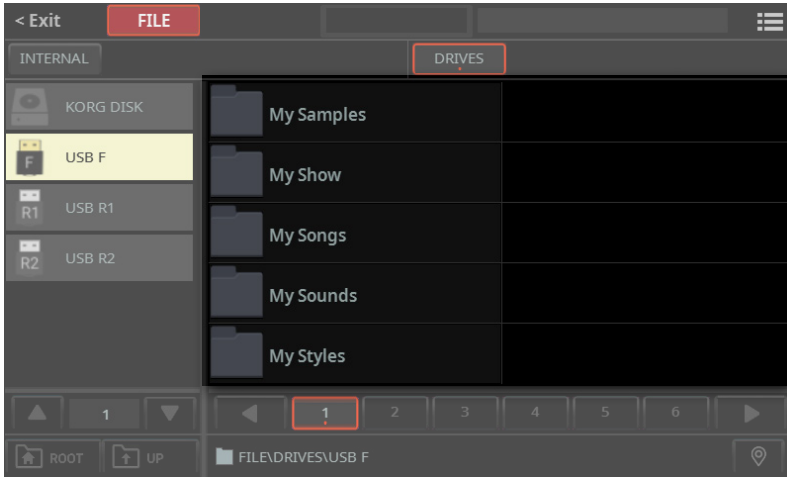
You can access the following storage devices:

Drive	Meaning
KORG DISK	User storage space inside the internal drive.
SD USER	User storage space inside the (optional) SD card.
USB F	Storage device connected to the front USB HOST port.
USB R1	Storage device connected to the rear USB HOST #1 port.
USB R2	Storage device connected to the rear USB HOST #2 port.

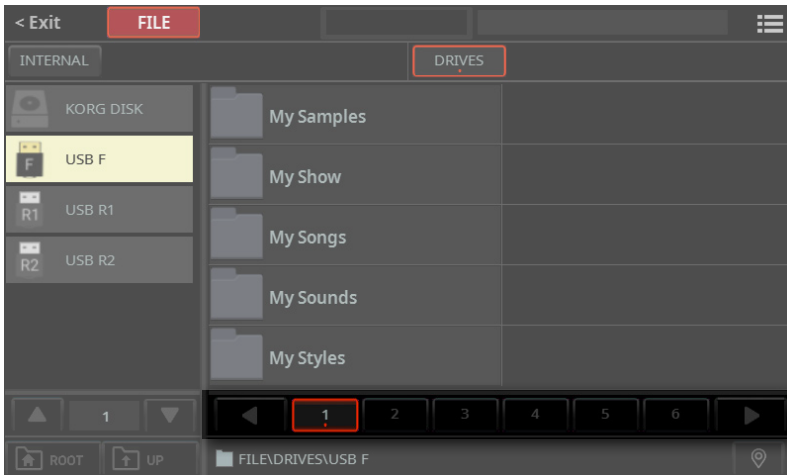
Files, folders, directories

Browsing through the files and folders

You can see the files and folders on the right side of the **File** pages.



Scroll through the different pages, if the elements are too many to fit in a single page. You can touch a page number to select it. If the pages are more than the ones that can be contained in the list, use the left/right arrows to scroll them.



Current file path

The place in the drive you are currently exploring is always shown under the file list. This is called the **file path**.



Closing a folder and returning up

The two buttons next to the directory path allow for closing the current folder and going up in the drive hierarchy.

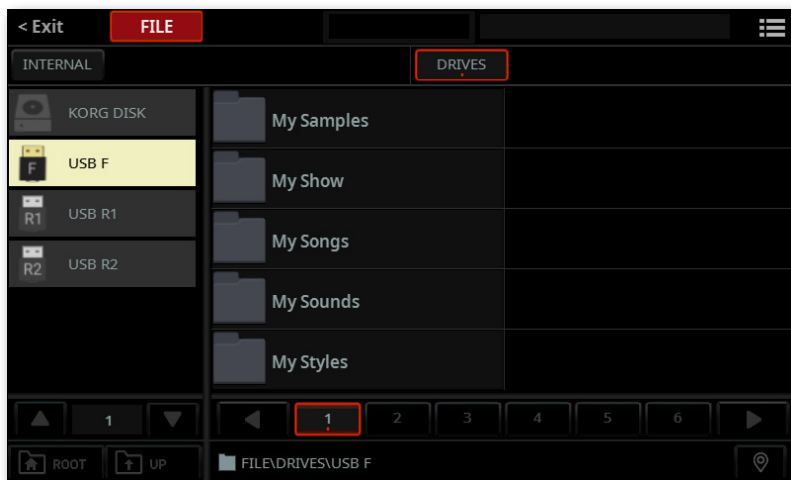


- > Go up one step by touching the **Up** button.
- > Return to the top level by touching the **Root** button.

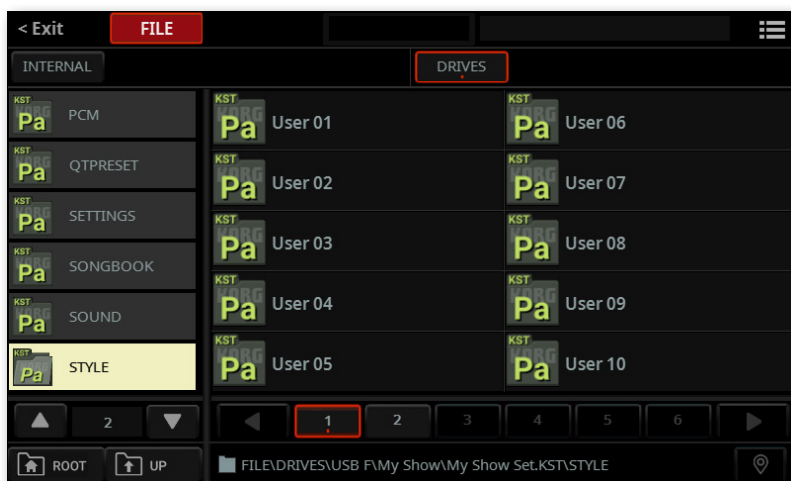
The files

Selecting and deselecting files

- Select a file or folder by touching it.



Selected drive (USB-F)



Selected folder (Style)



Selected file (Future Funk)

- > Deselect it by keeping the **SHIFT** button pressed, and touching the file to be deselected.
- > As an alternative, you can deselect any file by touching one of the **drives** or **folders** in the left side of the display. You can also touch again the open drive or folder.

Selecting multiple items at once

In some pages, you can select multiple items. Multiple selection is only allowed on the right side of the page.

To do it, select the first item, then press and keep the **SHIFT** button pressed while selecting the other items. When the last item has been selected, release the **SHIFT** button.

To deselect one or more items, keep **SHIFT** pressed and touch the item to be deselected. To deselect everything, touch the containing folder in the left side of the display.

Selecting all in the current directory

- 1 While in the **File** pages, browse through the folders to open the one whose content you want to select.
- 2 Choose the **Select All** command from the **page menu** to select all the files and folders it contains.

Types of files

The following table describes all the file and folder types Pa5X can read or write.

Extension	File/folder type
KST	All the User data. This is a reserved folder containing other reserved folders.
KSC	Keyboard Set (from the library)
STG	Style
PDC	Pad
CSC	Chord Sequence (from the library)
MID	Standard MIDI File, SMF (MIDI Song)
MP3	MP3 file (MP3 Song)
JBX	Jukebox
TXT	Plain text file
SBD	SongBook's Book database (can only be used as part of the SongBook bundle)
SBL	SongBook's Set List (can only be used as part of the SongBook bundle)
GBL	Global Settings (can only be used as part of the Settings bundle)
MPR	MIDI Presets
QTP	Quarter Tone Scale Presets
VOC	Microphone Preset
GTR	Guitar Preset
MXP	MaxxAudio Preset
PCG	Sound
KMP	Multisample
PCM	Sample
AIF	AIFF audio files
WAV	WAVE audio files

Pa5X can also read (but not write) the following types of data.

Extension	File type
PKG	Operating System and Musical Resource files
KAR	Karaoke file
PCG	KORG Triton Programs
KMP	KORG Trinity/Triton Keymaps
KSF	KORG Trinity/Triton Sample
SF2	Sound bank format by Creative Labs

Ordinary data and reserved data

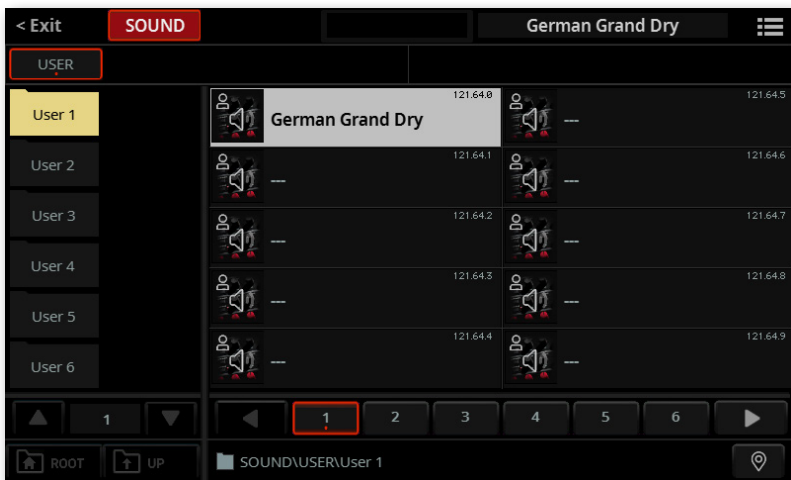
Each drive can contain **files** and **folders**. Drives (including the internal KORG DISK) are organized as computer drives. The internal memory is slightly more rigidly structured, due to the need of having the data always ready to play.

Some types of data are organized in the same way as files and folders in a computer, and you can see them listed in alphabetical order. These are Keyboard Sets, Styles, Pads, Chord Sequences, and Songs.

Some other types of data are organized in a rigid reference grid. These are Sounds, Mic Presets, Guitar Presets, MIDI Presets, and others.

Empty locations

When saving items organized in a reference grid, empty locations are shown as three hyphens ('---'). This will allow for saving the element at a precise position in the reference grid.

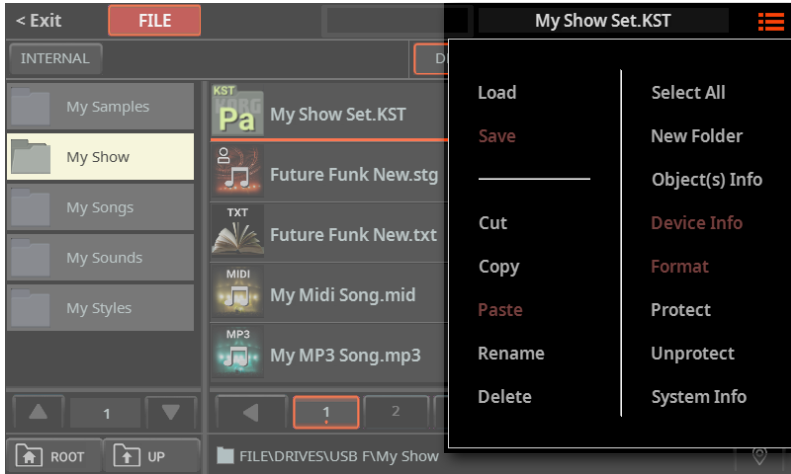


When saving items organized as individual files, they are saved in alphabetical order, with no need for a grid.



Page menu and file operations

When one or more files or folders are selected, you can choose a **command** from the **page menu** to execute an action on it or them (Load, Save, Copy...).

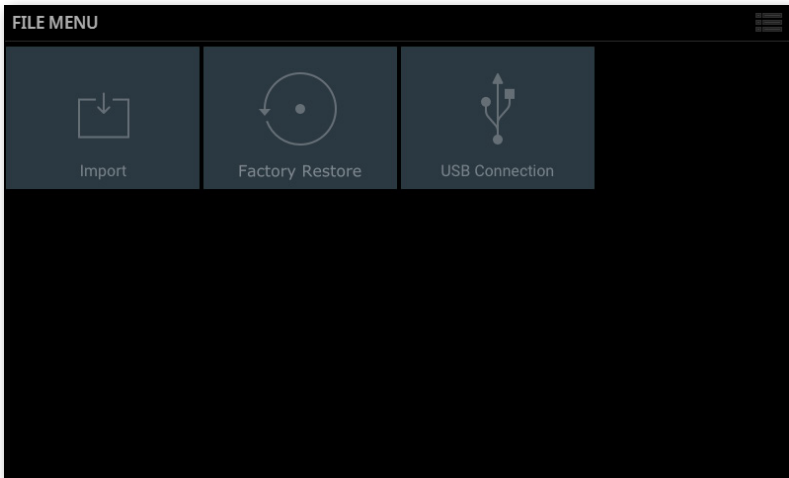


The commands are usually followed by a dialog, asking you to make additional choices, or just a confirmation.

The edit menu

Some global operations can be done in other pages of the **File** mode.

1 While in one of the **File** pages, press the **MENU** button on the control panel, and touch one of the buttons to choose the corresponding **edit section** of the **File** mode.



2 Press the **EXIT** button on the control panel to return to the **main page** of the **File** mode.

Loading Pa5X data from the drives

Loading from a KST folder

You can load a **KST folder**, or part of its content, into the **User** area of the internal memory. You can load the full memory content (a KST folder), a folder inside it (category), a folder inside a category folder (bank), or a single file from bank. A bank may contain, for example, all the Keyboard Sets, or just a group of them (also a folder).

The KST folders can be contained inside ordinary folders in the drives.

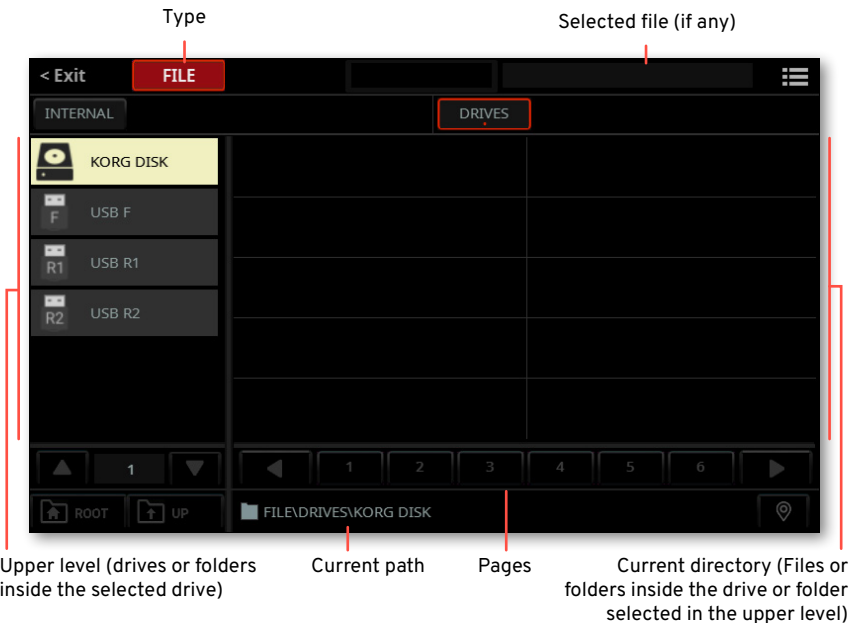
You can load data into User folders, but not into Factory ones.

■ Choose the data to be loaded

You will select in a drive the data to be loaded into the internal memory.

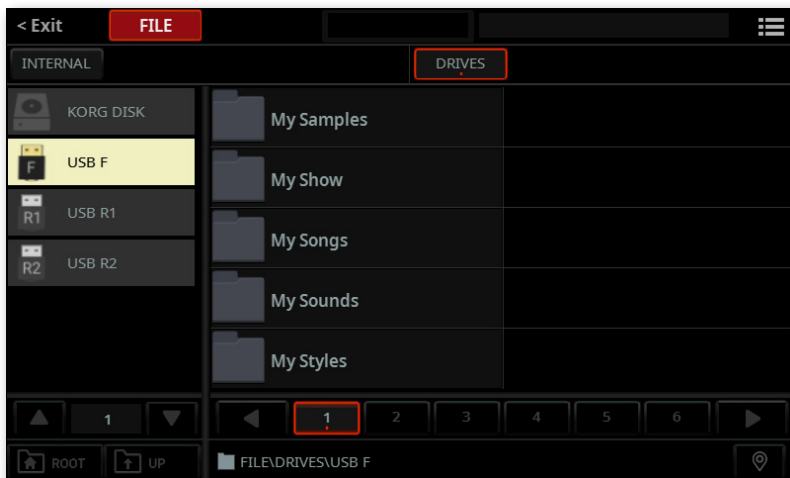
1 If you are loading from an external device, connect the device to one of the **USB HOST** ports.

2 Press the **FILE** button to see the main **File** page.

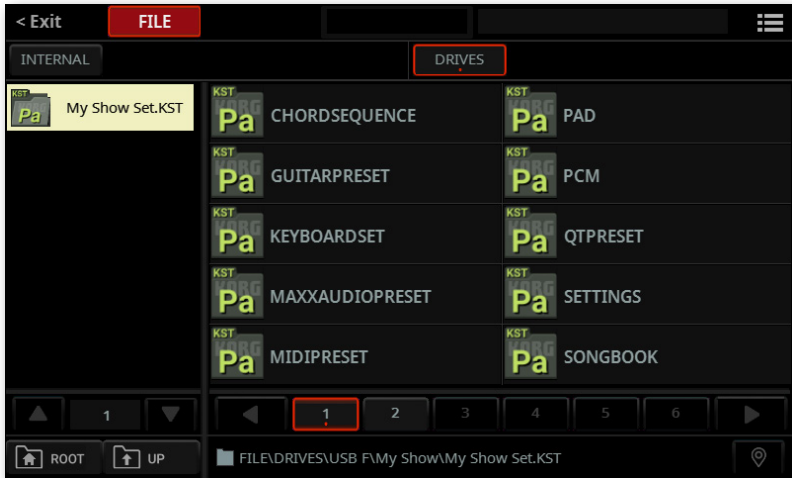


3 Touch the **Drives** button, to see the content of the internal and external drives. The image above shows a typical display of this page.

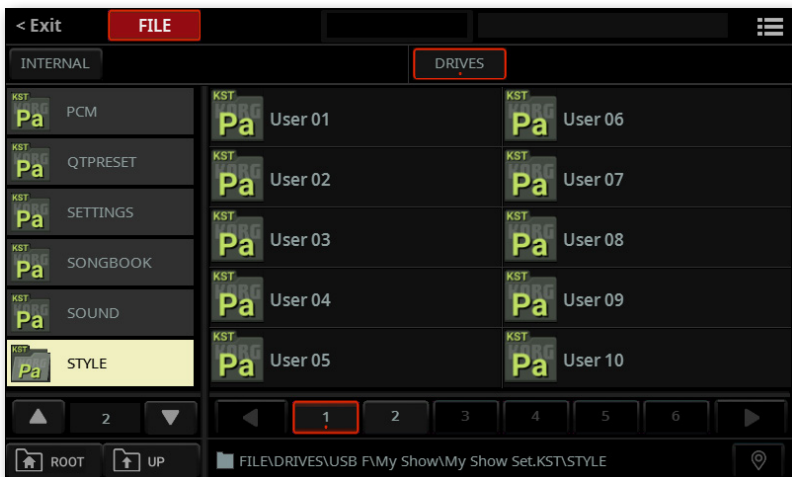
4 Browse through the folders. Touch a **folder** to open it. Touch the **Up** button to close the current folder and see the upper directory. Touch the **Root** button to return to the main directory of the drives.



5 Touch a **KST folder** to see its content. In the following example, the “My Show Set.KST” folder has been selected. This folder contains all the User data of a Pa5X. In this situation, all the User files contained in the KST folder are selected.



6 Touch a **type of data** to see all the available **banks** (folders containing individual elements in the internal memory). In the following example, the Style banks are shown. At this point, all the Style banks are selected.



7 If you want to load a **bank**, touch it to open it, and see the individual files it contains. Don't touch any file in the folder. In this situation, the full content of the folder is selected. If you accidentally touch a file, keep the **SHIFT** button pressed and touch it again to deselect it.



8 If you want to load a **single file**, touch a folder to open it, and see the individual files it contains. When you see the file you want to load, touch it to select it. If you want to select multiple files, keep the **SHIFT** button while touching them.



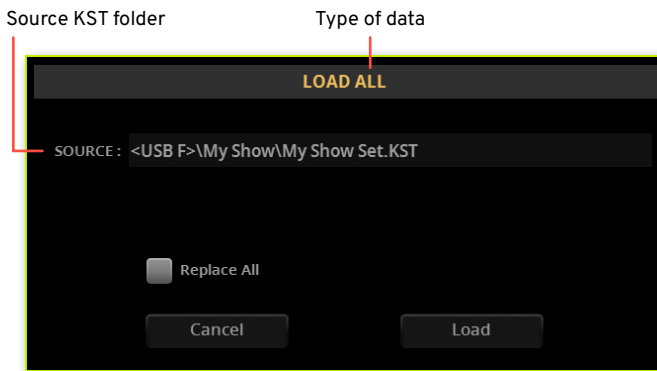
■ Choose the Load command

- > When the file or folder you want to load is selected, choose the **Load** command from the **page menu** to open the **Load** dialog.

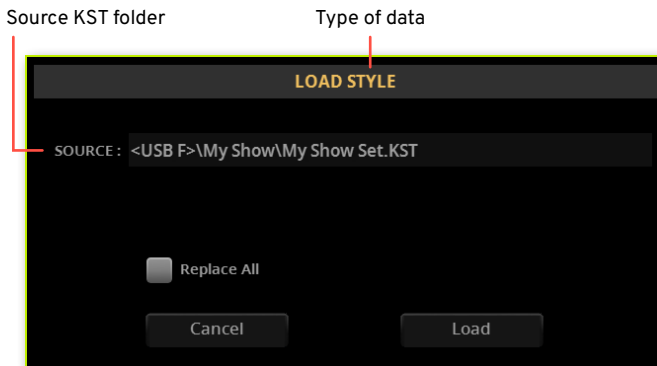
■ Choose a destination

Once the source data has been selected, you can choose a destination in the **Load** dialog. The dialog that appears may be different, depending on the source data.

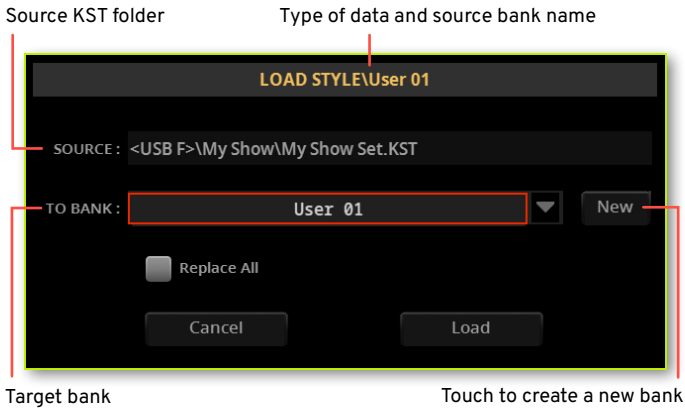
- > The following dialog appears when the full **KST folder** has been selected, with no folder selected.



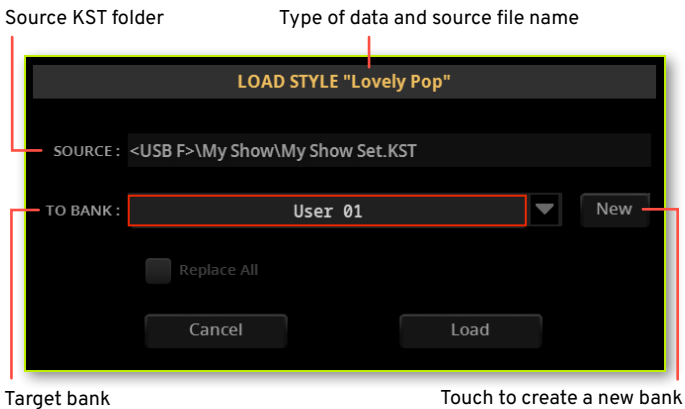
- > The following dialog appears when a **type of data** (Style, Keyboard Set...) has been selected.



- > The following dialog appears when a **bank** (of Styles, Keyboard Sets...) has been selected.



- > The following dialog appears when a **single file** has been selected.



■ Merge or Replace the data at the destination

Choose whether you want to Merge or Replace the data.

- > If you **select** the **Replace All** checkbox, all the existing files of the selected type (Style, Keyboard Set...) in the internal memory will be replaced by the ones you are loading.
- > If the **Replace All** checkbox will remain **unselected**, the files you are loading will be merged with the ones already existing in the internal memory. Only the files with the same name will be replaced.

WARNING: Please note that replacing will delete all the data being replaced.

■ Load the data

- 1 Confirm loading.
 - > If you are happy with the **selected destination**, continue as it is.
 - > If you want to select a **different destination** in the internal memory, touch the down-pointing arrow next to the bank name, and choose a different bank.
 - > If you want to create a new bank, touch the **New** button.
- 2 Touch the **Load** button to confirm, or **Cancel** to stop the procedure. After confirming, any item you are overwriting will be deleted.

Loading data based on User Samples

When loading a KST folder containing Sounds based on User Samples, all User Samples in memory are deleted. If there are unsaved User Samples in memory, save them before loading the new ones.

To see if a KST folder contains User Samples, open it and check to see if a **PCM** folder is included.

If you want to load new User Sample without deleting the ones already contained in memory, load the individual Sounds instead of a whole KST folder.

What if loading User Samples is interrupted?

When you load User Sounds based on User Samples, you might reach the maximum size of the sample memory, or the maximum number of samples allowed in memory.

In this case, the Load operation is interrupted, and all the samples and multi-samples just loaded are removed from the memory. All the samples and multi-samples already contained in the memory before starting the Load operation are left untouched.

Merging User Samples from various sources

When you load a KST folder, all the User Samples in memory are deleted. To merge samples from several sources, do the following.

- 1 Load a KST folder containing samples you want to merge with other samples.
- 2 Load single Sounds from other KST folders.
- 3 Go to the Sample Edit mode, and load or import samples from other sources.
- 4 Save all the content of the memory over the same or a new KST folder.

Importing data from other instruments

Importing data from older Pa-Series instruments

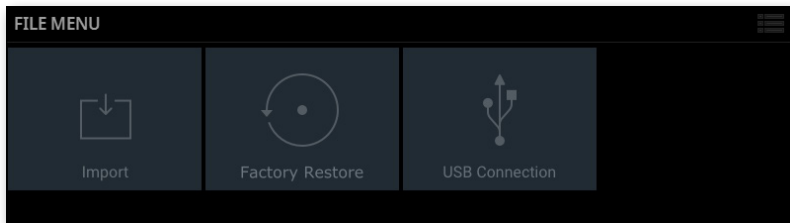
You can import most data from older KORG Pa-Series instruments. Data from Pa4X, Pa1000, Pa700 can be converted for the most part.

Data from even older instrument may work, but there may be even more differences, that you'll have to carefully check and in some case adapt to the newer model.

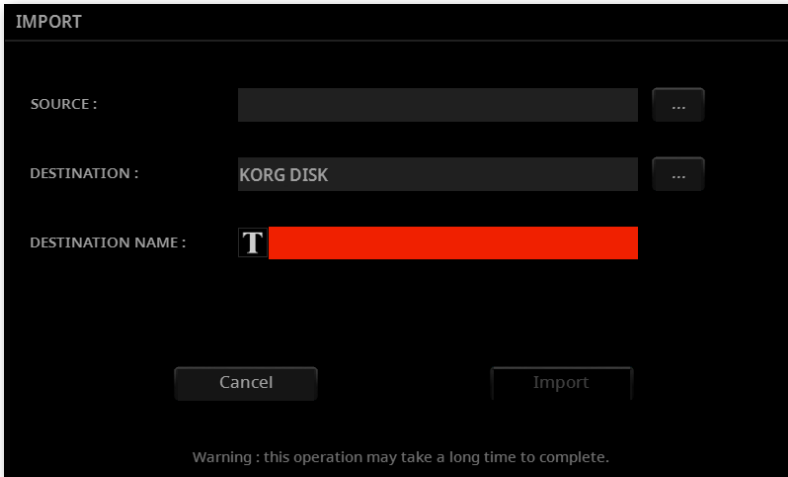
Older Pa-Series instruments save their data into SET folders (equivalent to Pa5X's KST folders). You have to first convert the old instrument's SET folders into Pa5X's KST folders.

Please note that conversion times may be long. A progress bar will show the current situation on the display.

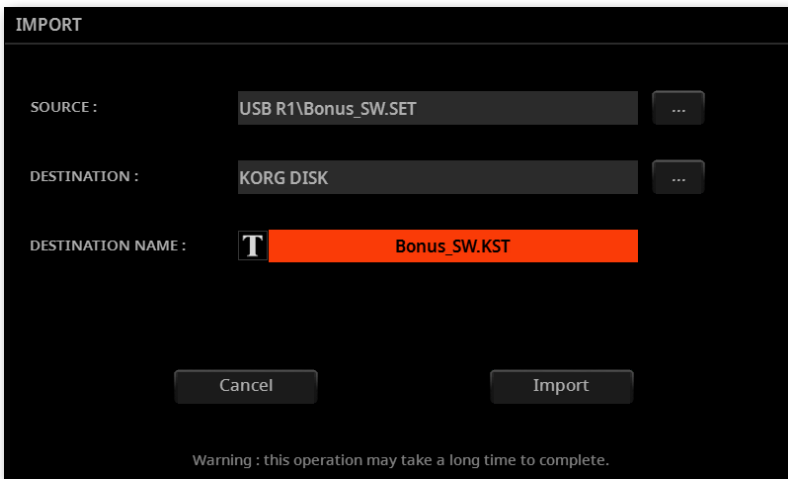
- 1 Open the **File > Menu** page.



- 2 Touch the **Import** button to open the **Import** page.



- 3 Touch the **Source > Browse (...)** button and choose the source **SET** folder.



- 4 If you want to choose a different destination for the converted **KST** folder, touch the **Destination > Browse (...)** button to open the file browser.

- 5 Touch the **Text Edit (T)** button to open the **virtual keyboard** and edit the name. When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

- 6 Touch the **Import** button, and wait for the files to be converted into the new format.

Saving Pa5X data to the drives

Saving to a KST folder

You can save the **User** area of the internal memory, or part of it, into a **KST folder** on a drive. You can save the full memory content (a KST folder), a folder (category) inside it, a group of elements inside the category folder (bank), or a single file from a bank.

The KST folders can be saved inside ordinary folders in the drives.

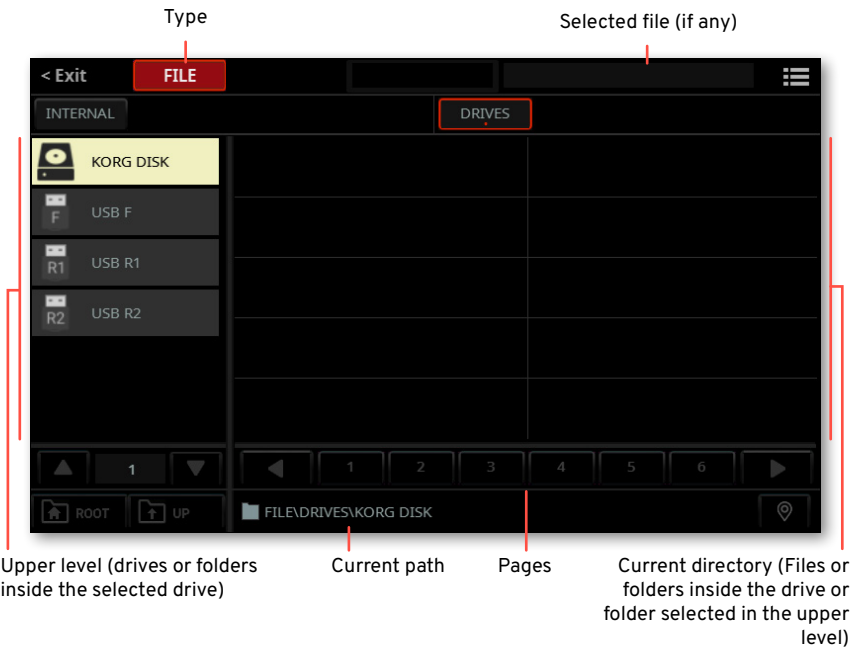
You can save User data, but not Factory data.

■ Choose the data to be saved

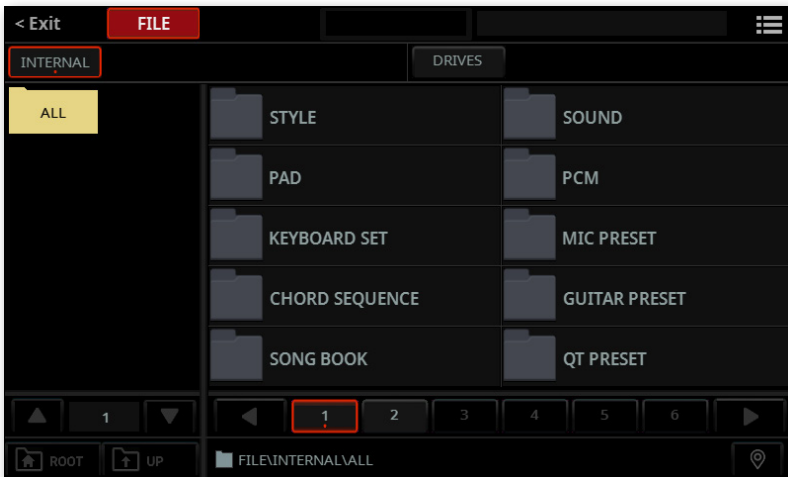
You will select from the internal memory the data to be saved into a drive.

1 If you are saving to an external device, connect the device to one of the **USB HOST** ports.

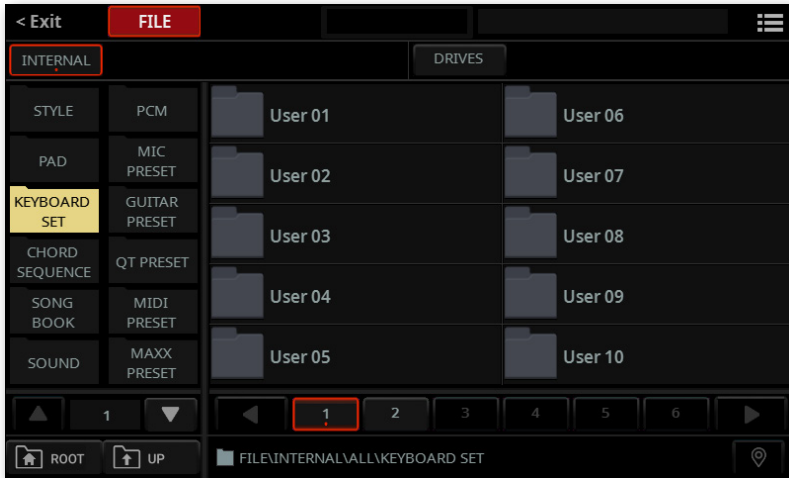
2 Press the **FILE** button to see the main **File** page.



3 Touch the **Internal** button, to see the content of the internal memory. In this situation, all the User files contained in the internal memory are selected.

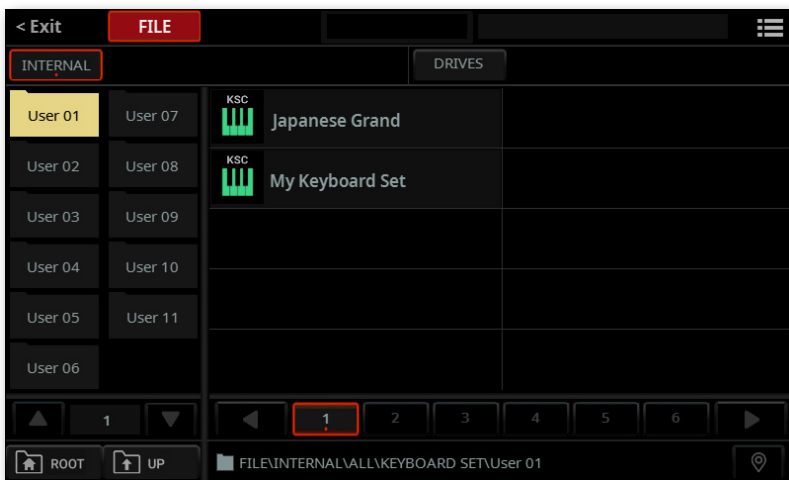


4 Browse through the folders. Touch a **folder** to open it. Touch the **Up** button to close the current folder and see the upper directory. Touch the **Root** button to return to the main directory of the internal memory (the “All” level).



5 Touch a **type of data** to see all the available **banks** (folders containing individual elements in the internal memory). In the previous example, the Keyboard Set banks are shown. At this point, all the Keyboard Set banks are selected.

6 If you want to save a **bank**, touch it to open it, and see the individual files it contains. Don't touch any file in the bank. In this situation, the full content of the bank is selected. If you accidentally touch a file, keep the **SHIFT** button pressed and touch it again to deselect it.



7 If you want to save a **single file**, touch a bank to open it, and see the individual files it contains. When you see the file you want to save, touch it to select it. If you want to select multiple files, keep the **SHIFT** button while touching them.

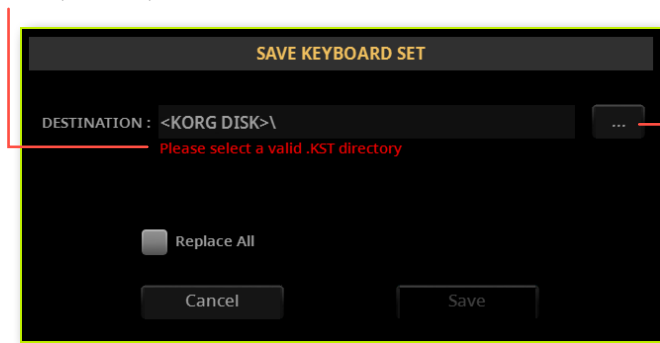


■ Choose the Save command

1 When the file or folder you want to save is selected, choose the **Save** command from the **page menu** to open the **Save** dialog.


2 If no target KST folder has been selected yet, a message will ask you to choose or create a new one.

Message warning no KST folder has been selected



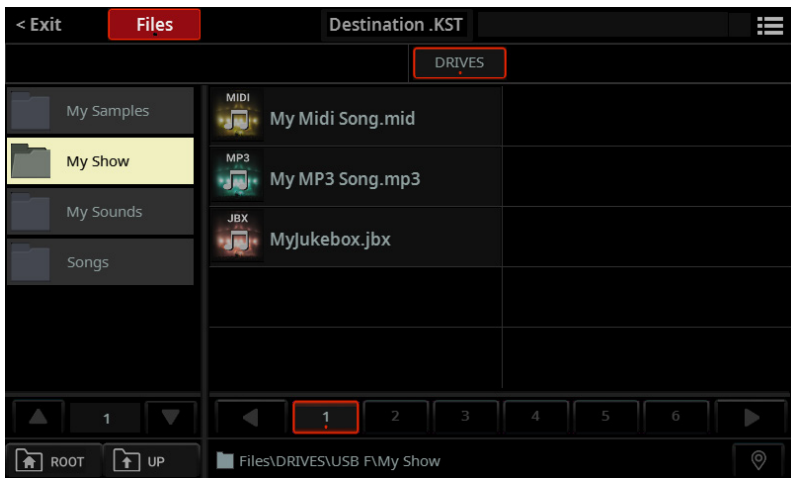
Touch to choose a target KST folder

■ Choose a target KST folder

- 3 Touch the **Select** () button to open the **Destination KST** window.



- 4 Touch the **target storage device** on the left, and browse through the **folders** to find the one where you want to save your data.

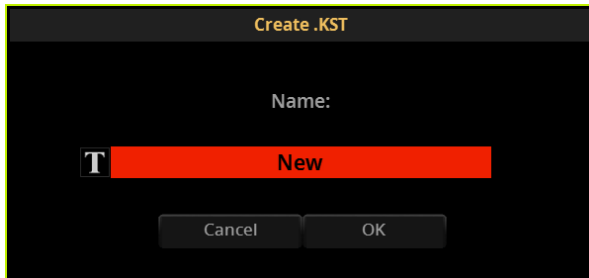


- 5 Touch the **KST folder** you want to choose as the target of the **Save** operation.
- 6 Press the **EXIT** button to return to the **Save** dialog.

■ Create a new KST folder

You can create a new, empty KST folder to save your data without overwriting anything.

1 While in the **Destination KST** window, choose the **Create New .KST** command from the **page menu**. The **Create KST** dialog will appear.



2 Touch the **Text Edit (T)** button to open the **virtual keyboard** and edit the name.

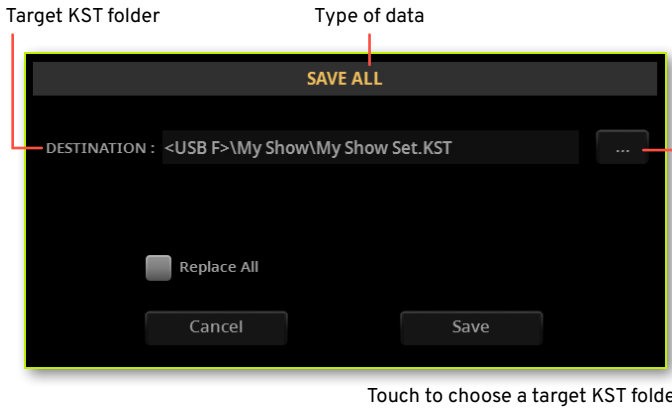
3 When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

4 Press the **EXIT** button to return to the **Save** dialog.

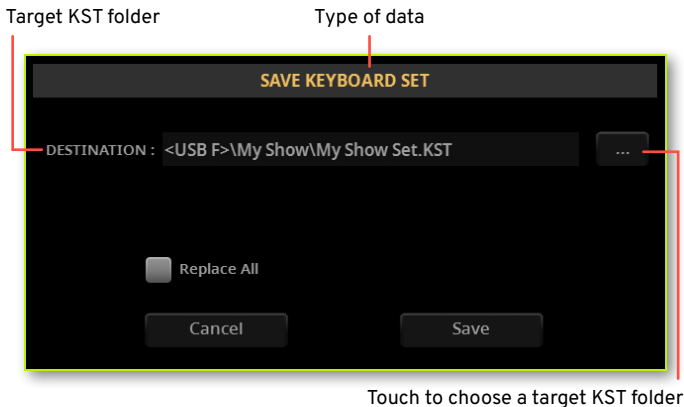
■ Choose a destination

Once the source data and a target KST folder have been selected, you can choose a destination in the **Save** dialog. The dialog that appears may be different, depending on the source data.

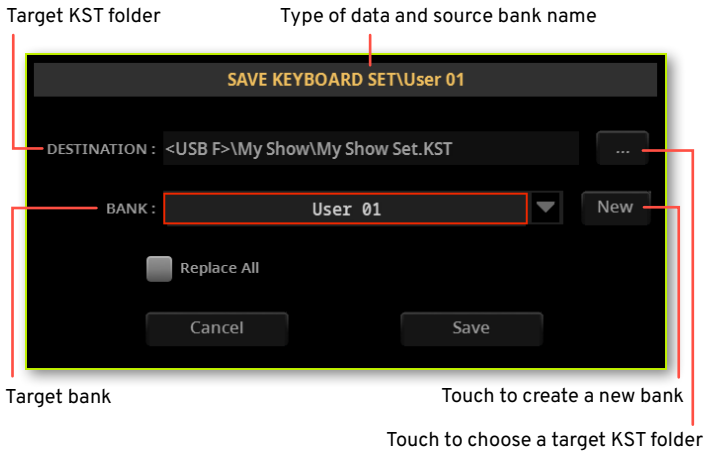
- > The following dialog appears when the **All** folder has been selected, with no folder inside it selected.



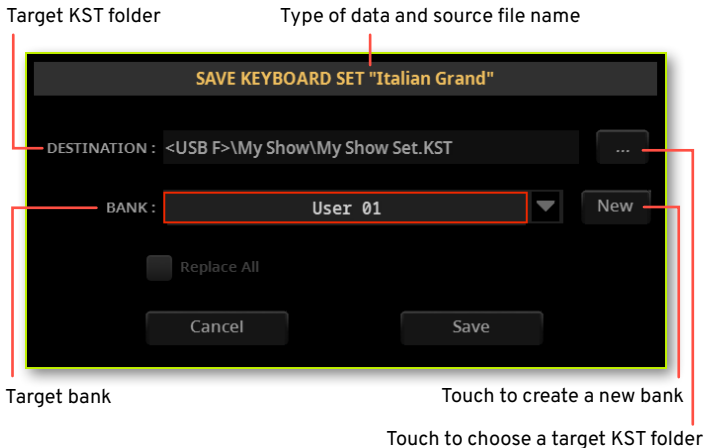
- > The following dialog appears when a **type of data** (Style, Keyboard Set...) has been selected.



> The following dialog appears when a **bank** (of Styles, Keyboard Sets...) has been selected.



> The following dialog appears when a **single file** has been selected.



■ Merge or Replace the data at the destination

Choose whether you want to Merge or Replace the data.

> If you **select** the **Replace All** checkbox, all the existing files of the selected type (Style, Keyboard Set...) in the target folder will be replaced by the ones you are saving.

- > If the **Replace All** checkbox will remain **unselected**, the files you are saving will be merged with the ones already existing in the target folder. Only files with the same name will be replaced.

Warning: Please note that replacing will delete all the data being replaced.

■ Save the data

- 1 Confirm saving.
 - > If you are happy with the **selected destination**, continue as it is.
 - > If you want to select a **different destination** in the target folder, touch the down-pointing arrow next to the bank name, and choose a different bank.
 - > If you want to create a new bank, touch the **New** button.
- 2 Touch the **Save** button to confirm, or **Cancel** to stop the procedure. After confirming, any item you are overwriting will be deleted.

What if saving is interrupted?

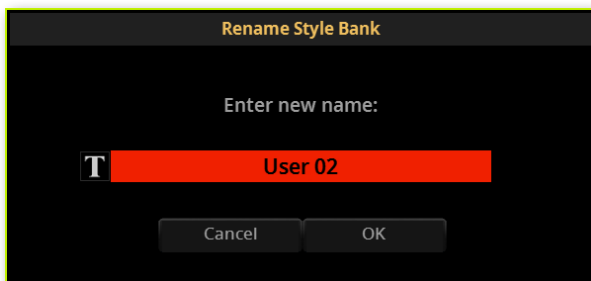
If, when saving, there isn't enough free space in the target drive, the Save operation is interrupted. Any new KST folder you were creating will be removed. If you were saving over an existing KST folder, this is restored. No data will be saved.

Please choose a different (and bigger) target device, and repeat the Save operation.

Renaming files and folders

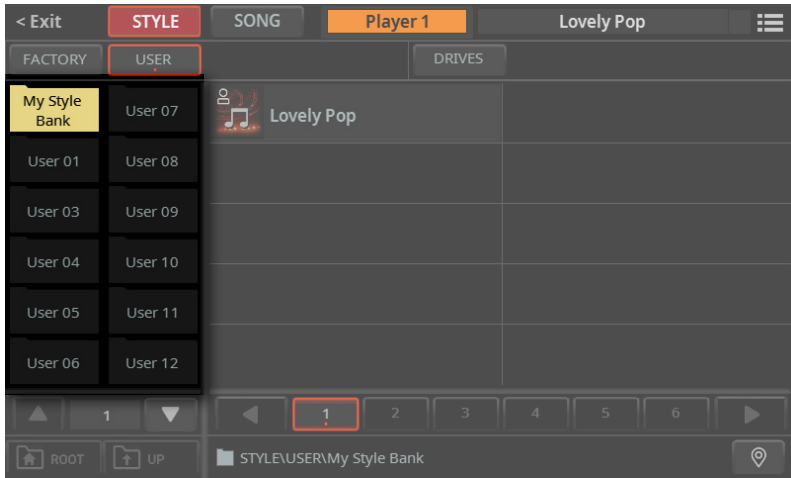
You can rename files and folders, both in the **File** and the **Select** pages. Renaming folders allows, for example, to customize the name of the User banks. You can rename User data, but not Factory data.

- 1 If you are renaming data from an external device, connect the device to one of the **USB HOST** ports.
- 2 Go to one of the **File** or **Select** pages.
 - > Touch the **type of data** (Style, Keyboard Set...) of which you want to open the corresponding **Select** window. You will be able to rename the files and folder for that type of data.
 - > Press the **FILE** button to access the **File** pages. You will be able to rename ordinary files and folders.
- 3 Browse through the folders. Touch a **folder** to open it. Touch the **Up** button to close the current folder and see the upper directory. Touch the **Root** button to return to the main directory of the drives.
- 4 Select the **file** or **folder** you want to rename.
- 5 Choose the **Rename** command from the **page menu** to open the **Rename** dialog.



- 6 Touch the **Text Edit** (**T**) button to open the **virtual keyboard** and edit the name.

7 When done editing the name, confirm by touching the **OK** button under the virtual keyboard. Depending on the type of data, the banks may be reorganized by alphabetical order.

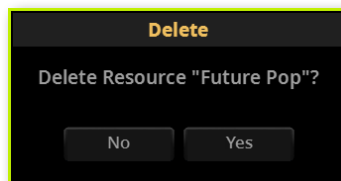


8 When back at the **Rename** dialog, touch the **OK** button to confirm, or **Cancel** to stop the procedure.

Deleting files and folders

You can delete files and folders, both in the **File** and the **Select** pages. You can delete from both the internal memory and the drives. You can delete User data, but not Factory data.

- 1 If you are deleting data from an external device, connect the device to one of the **USB HOST** ports.
- 2 Go to one of the **File** or **Select** pages.
 - > Touch the **type of data** (Style, Keyboard Set...) you want to open the corresponding **Select** window for. You will be able to rename the files and folder for that type of data.
 - > Press the **FILE** button to access the **File** pages. You will be able to delete ordinary files and folders.
- 3 Browse through the folders. Touch a **folder** to open it. Touch the **Up** button to close the current folder and see the upper directory. Touch the **Root** button to return to the main directory of the drives.
- 4 Select the file(s) or folder(s) you want to delete. Keep the **SHIFT** button pressed to select multiple elements.
- 5 Choose the **Delete** command from the **page menu** to open the **Delete** dialog.



- 6 Touch the **OK** button to confirm, or **Cancel** to stop the procedure.

WARNING: If you confirm, any of the selected items will be deleted!

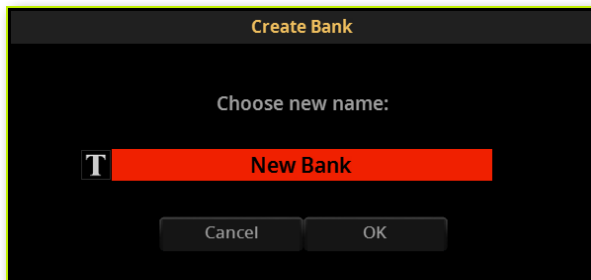
Creating new folders or banks

Folder and banks are very similar, but there is a subtle difference between them.

- > **Folders** are generic containers, that can contain any type of file and folder. They are exactly like the folders in a computer's file system.
- > **Banks** are specialized containers, organizing Pa5X proprietary data (like Styles or Pads) into the internal memory and into reserved KST folders.

■ Create a new folder or bank

- 1 If you are creating a new folder or bank into an external device, connect the device to one of the **USB HOST** ports.
- 2 Go to one of the **File** or **Select** pages.
 - > Touch the **type of data** (Style, Keyboard Set...) you want to open the corresponding **Select** window for. You will be able to create new banks for that type of data.
 - > Press the **FILE** button to access the **File** pages. You will be able to create new ordinary folders.
- 3 Browse through the folders. Touch a **folder** to open it. Touch the **Up** button to close the current folder and see the upper directory. Touch the **Root** button to return to the main directory of the drives.
- 4 When the containing folder is open, choose the **New Folder** or **New Bank** command from the **page menu** to open the **New Folder** or **New Bank** dialog.



- 5 Touch the **Text Edit** (**T**) button to open the **virtual keyboard** and edit the name.

- 6 When done editing the name, confirm by touching the **OK** button under the virtual keyboard. Depending on the type of data, the banks may be reorganized by alphabetical order.
- 7 When back at the **New Folder** or **New Bank** dialog, touch the **OK** button to confirm, or **Cancel** to stop the procedure.

Formatting a drive

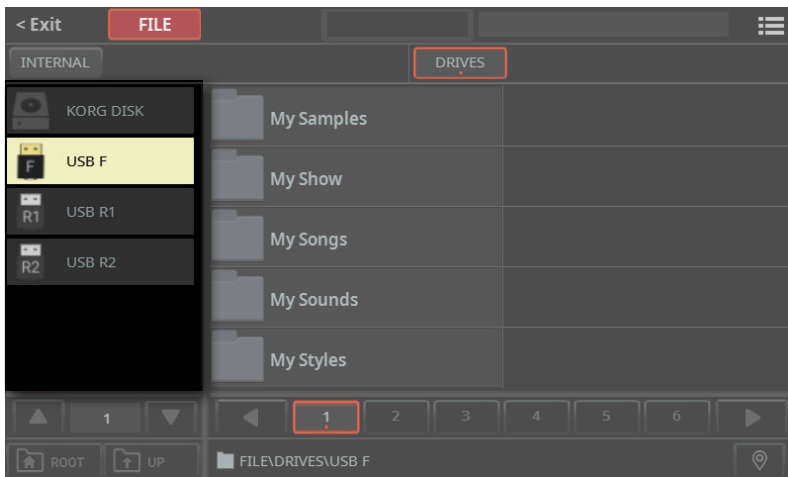
The Format function lets you initialize a device. Pa5X uses a PC-compliant device format (FAT32).

- 1 Touch the drive you want to format.
- 2 Choose the Format command from the page menu.

WARNING: Formatting a storage device deletes all the data it contains!

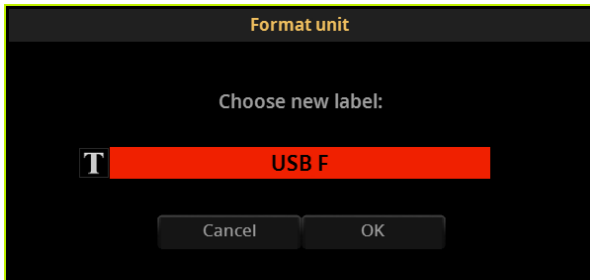
■ Choose the device to be formatted

- 1 If you are formatting an external device, connect the device to one of the **USB HOST** ports.
- 2 Press the **FILE** button to see the main **File** page.
- 3 Touch the **Drive** button to see the connected drives.



- 4 Touch the **drive** to be formatted.

- 5 Choose the **Format** command from the **page menu** to open the **Format** dialog.



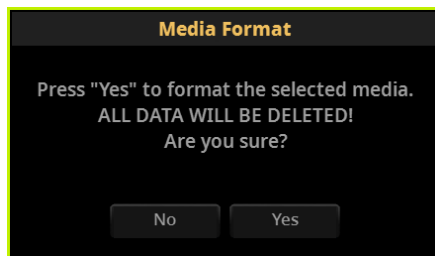
- 6 Touch the **Text Edit (T)** button to open the **virtual keyboard** and edit the name. When done editing the name, confirm by touching the **OK** button under the virtual keyboard.

Since it is a reserved name, you cannot rename the label (name) of the internal volume ('KORG DISK'). When formatting the internal drive, the label cannot be edited.

Also, if you try to rename the internal volume when Pa5X is connected to a PC through the USB port, the original name will be automatically restored.

Please note that renaming a device, containing MIDI Songs or MP3 Songs used in the SongBook, will break the links to the files. We suggest to give the device the same name it had before formatting.

- 7 Touch the **OK** button to start formatting, or the **Cancel** button to stop the procedure. If you confirm, a warning appears.



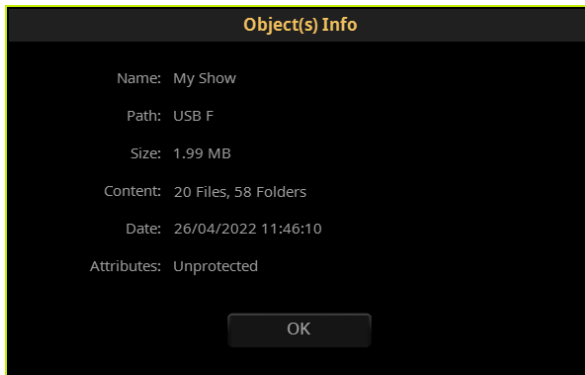
- 8 Touch **Yes** to confirm, or **No** to exit.

Getting information on drives and files

Getting information on the selected items

You can get information on the select file(s) or folder(s), including size, path, modification date and protection status.

- 1 While in any of the **File** pages, select one or more **items**. Keep the **SHIFT** button pressed to select multiple elements.
- 2 Choose the **Object(s) Info** command from the **page menu**.

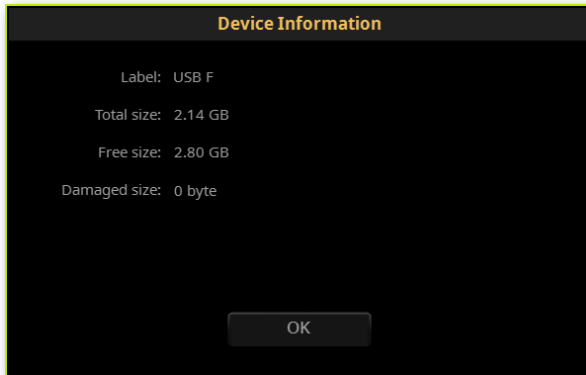


- 3 Touch the **OK** button to close the dialog.

Getting information on the selected device

You can get information on the selected drive.

- 1 While in any of the **File** pages, touch the **Drives** button to see the drives.
- 2 Touch one of the connected **drives** in the left side of the display. If the drives are not shown, touch the **Root** button to see them.
- 3 Choose the **Device Info** command from the **page menu**.



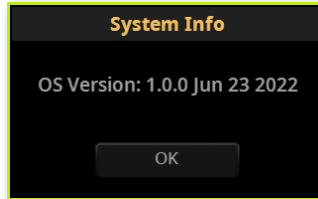
Pa5X will check the health status of the connected devices, and report if there is damaged data on it. If there is, please use a personal computer to run a disk scanning utility and try to repair it.

- 4 Touch the **OK** button to close the dialog.

Getting information on the operating system

You can get information on the current operating system version. Please check our web site to see if a new version is available.

- 1 While in any of the **File** pages, choose the **System Info** command from the **page menu**.



- 2 Touch the **OK** button to close the dialog.

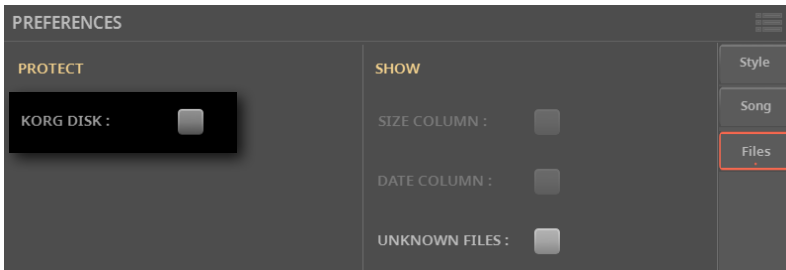
Protecting storage devices and files

Protecting the files in the internal drive

You can protect the files in the internal drive ("KORG DISK") from saving. This can be useful to be sure you have all the necessary data ready during a show.

1 Go to the **Settings > Menu > Preferences > Files** page.

As an alternative, keep the **SHIFT** button pressed and press the **FILES** button to open the **Preferences > Files** page.

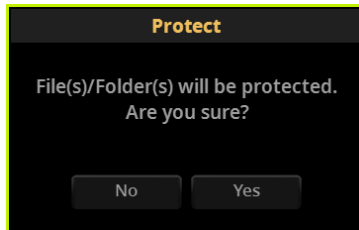


- 2 Select the **Protect > KORG DISK** checkbox to protect the files from writing.
- 3 Deselect it to allow writing the files again.

Protecting any file from writing

■ Protect the files or folders

- 1 While in any of the **File** pages, select one or more **items** in one of the external drives and choose the **Protect** command from the **page menu**.
- 2 When the warning message appears, touch **Yes** to confirm (or **No** to cancel).



Choosing this command will protect the selected file(s). If you selected a folder, all the files it contains will be protected from saving or erasing. The lock icon will appear next to the file name(s).



■ Unprotect the files or folders

- 1 While in any of the **File** pages, select one or more **items** in one of the external drives and choose the **Unprotect** command from the **page menu**.
- 2 When the warning message appears, touch **Yes** to confirm (or **No** to cancel).

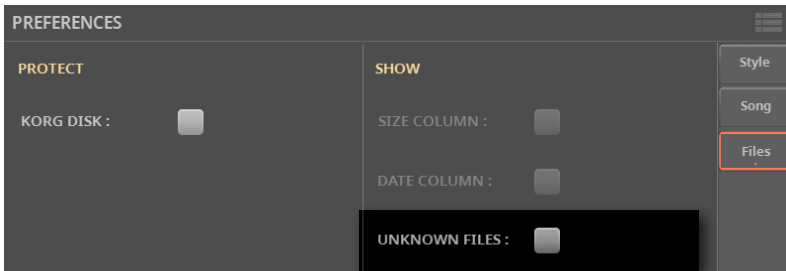
Changing the file display preferences

Showing files of unknown type

To make file lists cleaner and easier to browse through, files that cannot be used can be hidden when using the File operations.

1 Go to the **Settings > Menu > Preferences > Files** page.

As an alternative, keep the **SHIFT** button pressed and press the **FILES** button to open the **Preferences > Files** page.



2 Select the **Unknown Files** checkbox to show files of unknown type.

Backing up and restoring musical resources

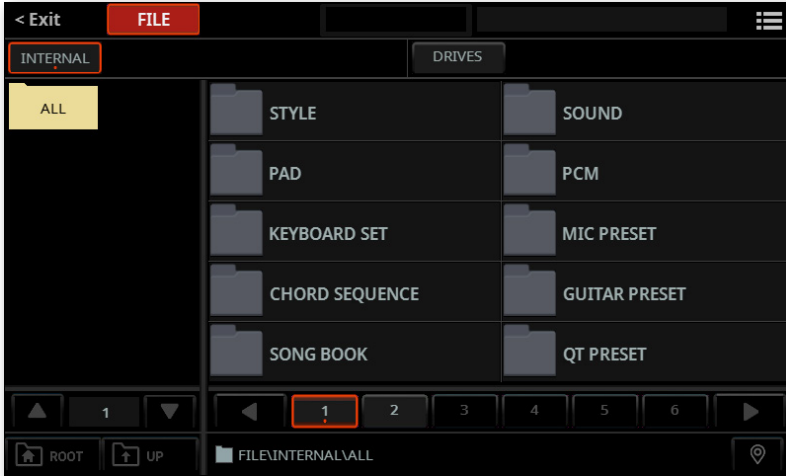
Backing-up the data from the internal memory

We recommend you frequently make a backup copy of all the data in the internal memory. This will save your work in case of errors while saving, or any type of accidental data loss.

■ Choose the source and target device and folder

- 1 If you are backing-up to an external device, connect the device to one of the **USB HOST** ports.
- 2 Press the **FILE** button to see the main **File** page.

3 Touch the **Internal** button, to see the content of the internal memory. In this situation, all the User files contained in the internal memory are selected.

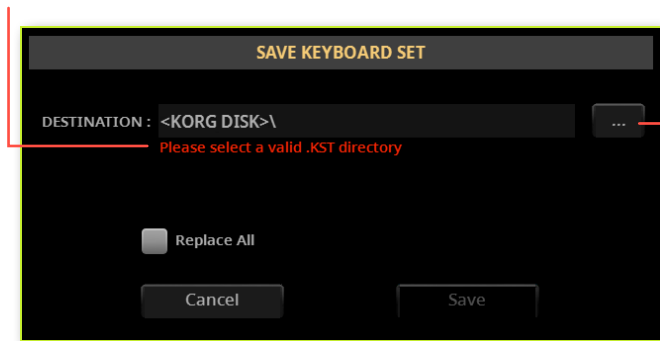


4 While the **All** folder is selected, choose the **Save** command from the **page menu** to open the **Save** dialog.

5 If no target KST folder has been selected yet, a message will ask you to choose or create a new one. See the instructions regarding the **Save** operations, for details on how to choose or create a target KST folder.

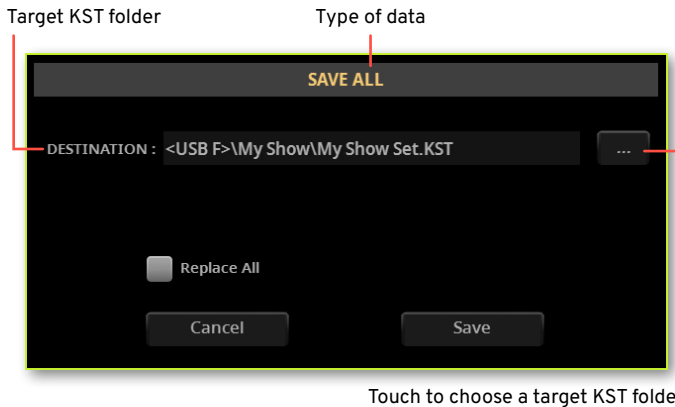
Hint: We suggest you create a new KST folder. Save a backup into a new, blank KST folder, for ease of retrieving data.

Message warning no KST folder has been selected



Touch to choose a target KST folder

6 Once the target KST folder has been selected, its name will appear in the **Save** dialog.



■ Merge or Replace the data at the destination

Choose whether you want to Merge or Replace the data.

- > If you **select** the **Replace All** checkbox, all the existing files of the selected type (Style, Keyboard Set...) in the target folder will be replaced by the ones you are saving. This can be useful if you want to replace all the data from an older backup.
- > If the **Replace All** checkbox will remain **unselected**, the files you are saving will be merged with the ones already existing in the target folder. Only files with the same name will be replaced. This can be useful to create an incremental backup over an existing one.

WARNING: Please note that replacing will delete all the data being replaced.

■ Save the data

- > Touch the **Save** button to confirm, or **Cancel** to stop the procedure. After confirming, any item you are overwriting will be deleted.

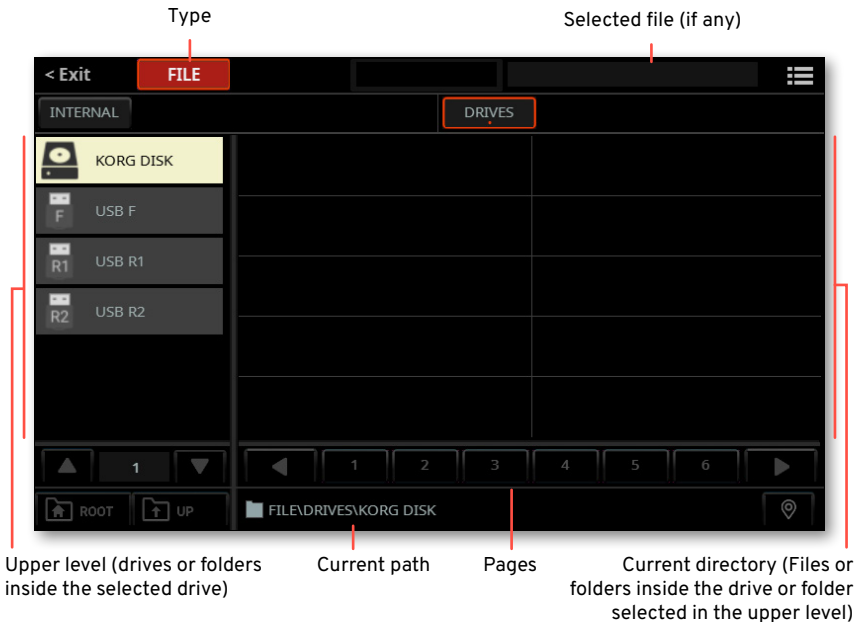
Restoring the archived data

You can restore the data you previously backed up into a KST folder. If you want to only restore a bank, or individual files, please follow the **Load** instructions.

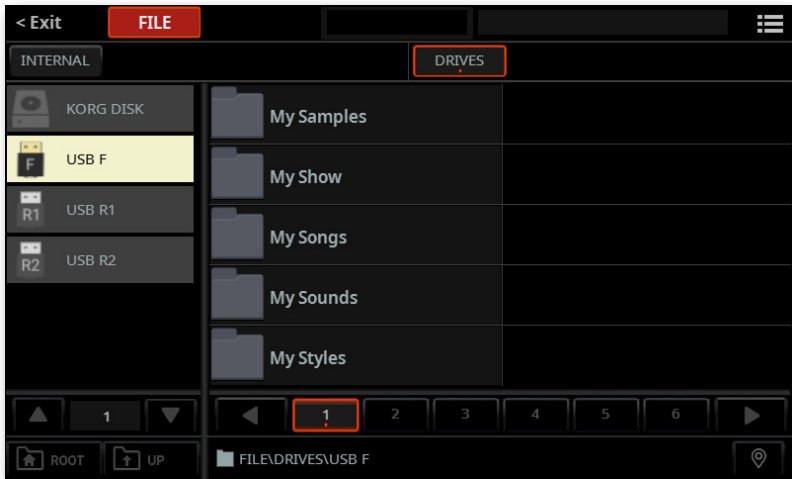
■ Choose the data to be loaded

You will select in a drive the data to be loaded into the internal memory.

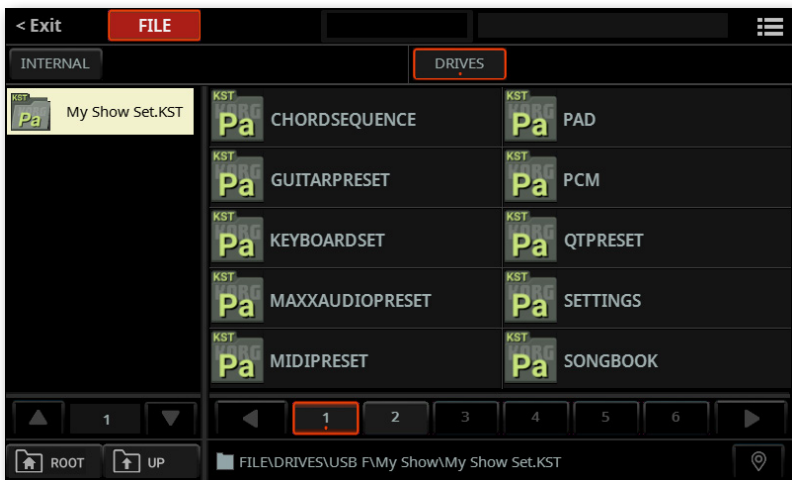
- 1 If you are restoring from an external device, connect the device to one of the **USB HOST** ports.
- 2 Press the **FILE** button to see the main **File** page.



- 3 Touch the **Drives** button, and browse through the folders to find the **KST folder** where you saved your data. Touch a **folder** to open it. Touch the **Up** button to close the current folder and see the upper directory. Touch the **Root** button to return to the main directory of the drives.

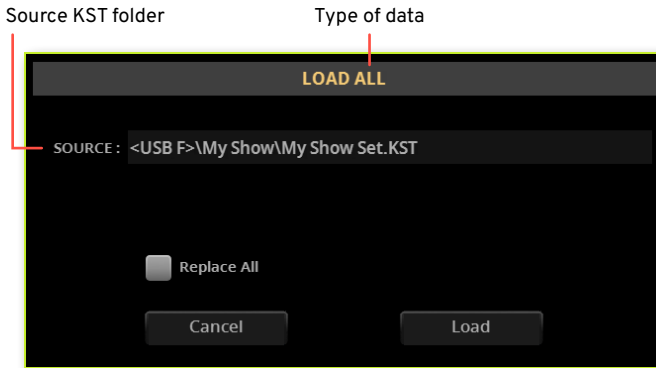


- 4 When you find it, touch the **KST folder** to select it.



■ Load the data

1 When the KST folder you want to load is selected, choose the **Load** command from the **page menu** to open the **Load** dialog.



■ Merge or Replace the data at the destination

Choose whether you want to Merge or Replace the data.

- > If you **select** the **Replace All** checkbox, all the existing files of the selected type (Style, Keyboard Set...) in the internal memory will be replaced by the ones you are loading. This can be useful to fully restore a particular setup.
- > If the **Replace All** checkbox will remain **unselected**, the files you are loading will be merged with the ones already existing in the internal memory. Only files with the same name will be replaced. This is useful if you want to merge the data from different sessions.

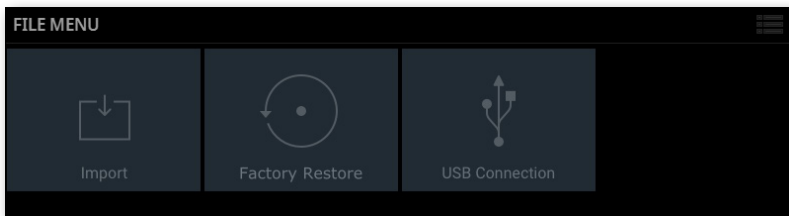
WARNING: Please note that replacing will delete all the data being replaced.

2 Touch the **Load** button to confirm, or **Cancel** to stop the procedure. After confirming, any item you are overwriting will be deleted.

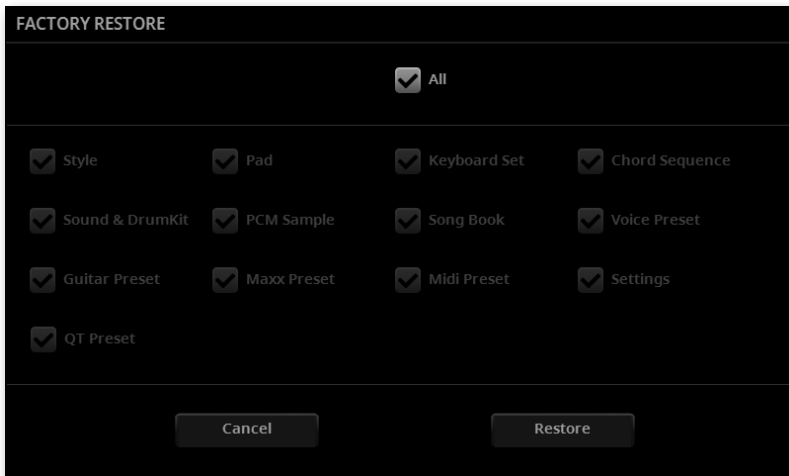
Restoring the original Factory data

You can restore your Pa5X to the same status it was when new. The **Factory Restore** allows to delete all User data, or just some of them.

- 1 Press the **FILE** button to access the **File** pages.
- 2 Press the **MENU** button to see the **edit menu** of the **File** mode.

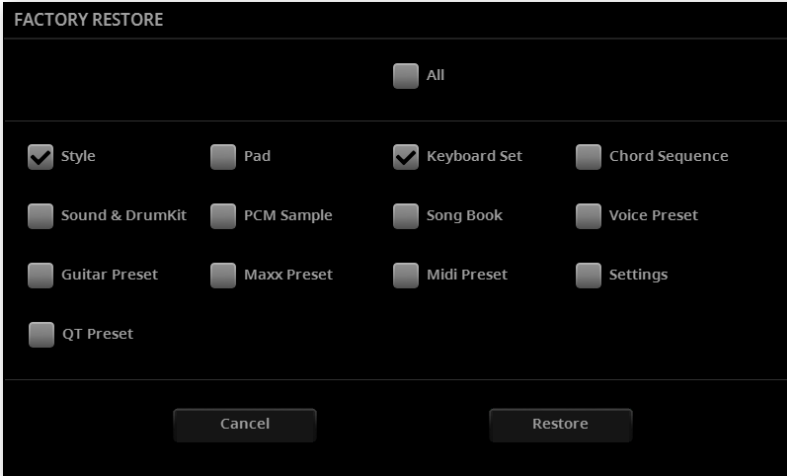


- 3 Touch the **Factory Restore** button to access the **Factory Restore** page.



- 4 Choose if you want to restore all the User data, or just some of them.
 - > Leave the **All** checkbox selected if you want all the User data to be restored to the original status.

- > Deselect the **All** checkbox, and select only the desired data, if you want to only restore some types of data.



- 5 Touch the **Restore** button, then confirm.

WARNING: This command will delete from the internal memory all the selected types of User data. Be sure to have a copy of the data you want to preserve.

- 6 When done, a message will appear, confirming the internal memory has been restored.

Accessing the internal drives from a personal computer

In order to exchange files, you can access one of the internal drives of Pa5X from a personal computer. You don't need any dedicated driver to connect Pa5X and the personal computer.

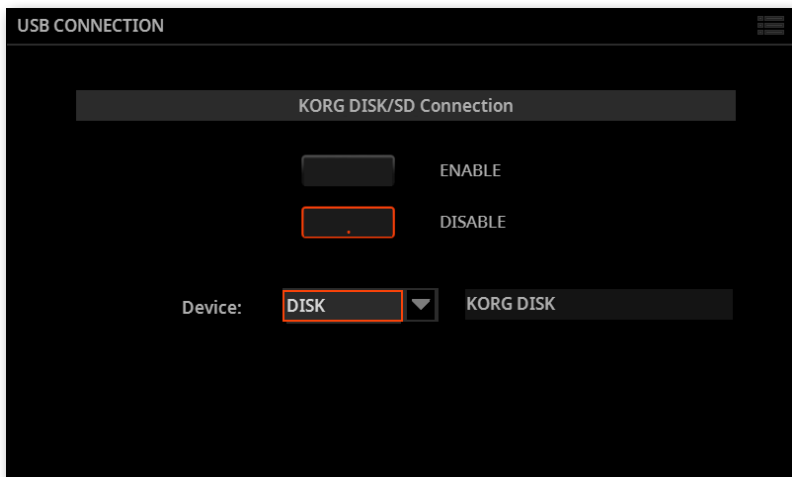
■ Connect Pa5X to the personal computer

> Use a standard USB cable to connect the **USB DEVICE** port of Pa5X to an USB port of the personal computer.

■ Enable USB communication

1 Go to the **File > Menu > USB Connection** page, and use the **Device** menu to choose the internal drive to be shared.

2 Touch the **Enable** button to start sharing. The icon of the Pa5X's internal drive will appear in your personal computer.



While USB file transfer is enabled, you cannot access other functions in Pa5X. MIDI Over USB is also disabled.


After starting the USB connection, accessing the internal drive from the computer may take some time, depending on the size of the internal drive and the amount of data it contains.



Do not try to change the label (name) of its internal drive when Pa5X is connected to a personal computer. If you try to do it, the original name is automatically restored. This name is reserved and can't be changed.

Also, do not modify the structure of the KST folders, or you will no longer be able to use them on Pa5X. Only use the USB connection for data exchange purpose, or to modify ordinary folders.

■ Disable USB communication

1 When finished transferring the files, you can disconnect Pa5X from the personal computer.

> On a Windows PC, select the dedicated command by clicking on the USB device icon () with the right mouse button.

> On a Mac, select the USB device icon (), then select the **Eject** command or drag the drive icon to the eject icon in the Dock ().

2 In Pa5X, touch the **Disable** button to disable the **USB DEVICE** port for file transfer, and gain access to all the instrument's functions.

WARNING: Do not disconnect USB communication before the personal computer has really finished transferring files. Sometimes, the on-screen indicator tells the procedure has been completed BEFORE it has really finished. Disconnecting USB communication (or disconnecting the USB cable) before data transfer has been completed may cause data loss.

Care of the storage devices

Pa5X can save most of the data contained in memory to the internal drive, a microSD card installed in the dedicated slot, or to external devices (like hard drives or USB memory sticks) connected to the **USB HOST** ports. Here are some precautions when handling these devices.

Internal drive write protection

You can protect the internal drive from writing, by using the software protection found in the **Settings > Menu > Preferences > Files** page (**Protect > KORG DISK** checkbox).

Precautions

- > Do not remove a device or move the instrument while the device is operating.
- > In order to avoid losing data in case of damage, make a backup copy of the data contained in a device. You can backup your data to a personal computer, and from there to a backup unit. You can transfer data from the internal drives of Pa5X to a personal computer by using the USB DEVICE connection.
- > Do not leave an USB device connected to the USB ports while carrying the instrument, or it may be damaged.
- > Keep the memory devices or the instrument away from sources of magnetic fields, for example televisions, refrigerators, computers, monitors, speakers, cellular phones and transformers. Magnetic fields can alter the contents of the devices.
- > Do not keep memory devices in very hot or wet places, do not expose them to direct sunlight and do not store them without use in dusty or dirty places.
- > Do not place heavy objects on top of the devices.

APPENDIX

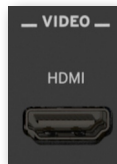
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Video connections

Connecting an external display

You can connect Pa5X to a TV or video monitor, to read lyrics and chords with your fellow musicians or the audience.

Use the **VIDEO > HDMI** connector to connect Pa5X to a TV set or video monitor. Please use a certified HDMI cable.



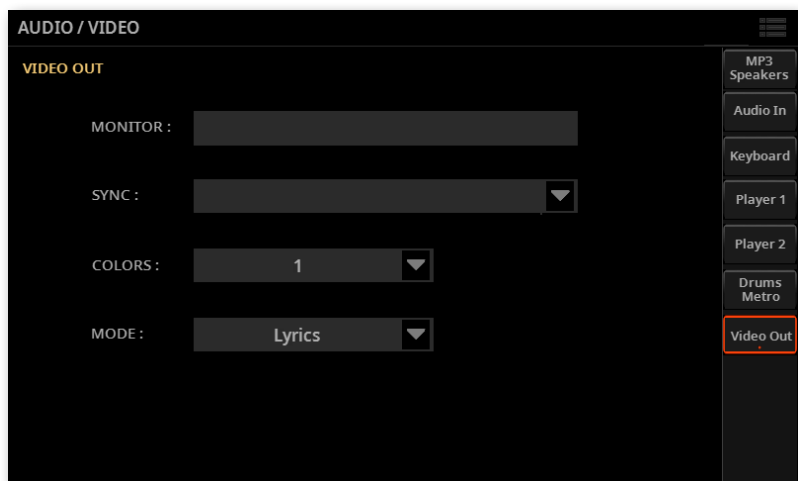
Depending on the type of video monitor to be connected, you will have to choose a different cable. You can buy the needed cables at a store that sells television equipment.

Monitor Connector	Cable
HDMI	HDMI-to-HDMI
DVI	HDMI-to-DVI
VGA	HDMI-to-VGA

Adapters from HDMI to older connector types (like SCART or Video Composite) do exist, but their compatibility with Pa5X can't be guaranteed.

■ Go to the Video Out page

- 1 If it is off, turn the instrument on.
- 2 Go to the **Settings > Menu > Audio/Video > Video Out** page.



■ Check if the monitor is recognized

- > When the monitor is recognized, its name appears in the **Monitor** line. If it doesn't appear, check the connections.

■ Choose the synchronization option

In case the instrument and the external video monitor can't automatically choose the correct synchronization option, you can do it manually.

- > Use the **Sync options** parameter to choose one of the synchronization options. Choose the one that works the best with your monitor.

The chosen option will remain memorized. If you connect a different monitor, you may need to repeat the synchronization procedure described above.

■ Turn the external monitor on

- > Turn the video monitor on, and tune it on the correct AV input.

■ Set the colors

- > In the same page, use the **Colors** menu to choose the preferred set of colors for the lyrics and the background.

Colors	Meaning
1...5	Color set. Try them to find the one you feel most comfortable with.

■ Choose what to display

- > In the same page, use the **Mode** menu to choose what to show in the video monitor.

Mode	Meaning
Lyrics	Only Lyrics and Chords (if any) are shown in the external display. (This is the default option at startup.)
Display Mirror	The internal display is duplicated ('mirrored') to the external display.

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Specs

Technical Specifications

KORG Pa5X	Features
Keyboard	Pa5X 61: 61 keys (C2 – C7) Semi-weighted keys with Aftertouch
	Pa5X 76: 76 keys (E1 – G7) Semi-weighted keys with Aftertouch
	Pa5X 88: 88 keys (A0 – C8) Hammer action with Aftertouch
Case	Aluminum case with wooden side panels
Operating System	Upgradable Operating System
Sound Generator	EDS-X (Enhanced Definition Synthesis-eXpanded)
	Multimode filters with resonance, 3-band EQ for each track
Polyphony	160 Voices, 160 Oscillators
Effects	Keyboard Tracks: 3 Insert Effect; 3 Master Effects
	Style/Song: 10 Insert Effects; 3 Master Effects
	Final Mastering Effects: Waves MaxxAudio® Suite
Mic Processor	Mic Processor Technology by Shift Audio
	Mic Setup: Compressor, EQ, Gate
	Four-part Harmonizer, Doubler, Filter, Mod, Delay, Reverb, AutoPitch
Guitar Processor	Guitar rack (4 effect-slots) with stompbox and amp simulation
Sounds / Drum Kits	Factory: More than 2,200 Factory Sounds
	Five multilayer Stereo Acoustic Pianos with Damper/Body Resonance, GM/XG Sound Sets, more than 130 Drum Kits including Ambient Drums and Round Robin-based Drum Kits
	User Area: 768 Sounds, 384 Drum Kits
	Digital Drawbars: 9 Footages, Percussion, Key On/Off, Leakage, Vibrato/Chorus, Rotary Speaker with Amp Simulator
	Natural Ambience Drum Sounds, Round Robin features
	Defined Nuance Control (DNC) Technology
Quick and Full Sound Editing, Drum Family and Full Drum Kit Editing	

KORG Pa5X	Features
Sampling	User PCM Sample memory: 4 GB of data, equivalent to 8 GB linear when compressed
	Loads KORG, WAV, AIFF and SoundFont™ formats
	Saves KORG, WAV and AIFF formats Full Edit, Time Slice, Sampling features
Keyboard Sets	Factory: More than 500 Factory Keyboard Sets, freely programmable
	Combines four Keyboard Sounds, plus Effects and settings
	Library accessible from front-panel buttons “My Setting” special Keyboard Set
Players	Patented XDS Crossfade Dual Player with X-Fader Balance control
	Crossfading between Songs and/or Styles
Styles	Factory: More than 600 Factory Styles, freely programmable
	Eight Style Tracks, 4 Keyboard Sets and 4 Pads per Style; Programmable Sounds, Effects and Style parameters
	Guitar Mode 2, Parallel and Fixed NTT (Note Transposition Table)
	Style Record and Event Edit
	Style Elements: 3 Intros, 4 Variations, 4 Fills, 1 Break, 3 Endings Style Controls: Play/Stop, Synchro Start, Synchro Stop, Tap Tempo/Reset, Auto Fill, Memory, Bass Inversion, Manual Bass, Bass & Lower Backing, Drum & Bass, Individual Style Tracks Mute, Style to Keyboard Set
Chord Sequencer	Factory: More than 200 Chord Sequences
	Chord Sequence Recorder/Player
	Chord Sequences can be saved to Style and SongBook Entries
Songs	Patented XDS Crossfade Dual Player with X-Fader Balance control
	Supported formats: MID, KAR, MP3 + Lyrics, MP3+G
	Lyrics, Score, and Chord data can be displayed on screen, or on external video monitor
	Markers with Add, Delete, Edit, Loop and AutoScroll functions
	Jukebox function Full-featured, 16-track Sequencer, Song Edit
MP3 Player / Recorder	Double MP3 Player and MP3 Recorder
	Records MP3 files, including Styles, MIDI Songs, MP3 Songs, Keyboard Sounds, Pads, Matrix, Microphone, Guitar, Effects
	Transpose (+6/-5 semitones), Tempo Change (±30%) Vocal Remover

KORG Pa5X	Features
SongBook	Fully programmable music database based on Styles, MIDI Songs (MID and KAR files), MP3 Songs with Artist and Genre tags
	Filtering and sorting options
	User definable Set Lists
Compatibility	Legacy Pa-Series models: Styles, Keyboard Sets (Performances), Sounds (Programs), Songs, Pads
Pads	Factory: More than 400 Pads
	Four Assignable Pads + Stop Buttons
	Pad Record function
Control Section	9 Assignable Sliders, 9 Assignable Buttons, Strip Display; 4 Preset + 1 User settings
Matrix Section	16 Matrix Pads, 4 Preset buttons
Style/Song Controls	Play/Stop, Go To Start, Style Select, Song Select, Xfader, Tempo +/-, Tempo Lock, Tap Tempo/Reset, Synchro Start, Synchro Stop, Fade In/Out, Chord Scan (Lower, Upper), Chord Sequence, Memory, AutoFill
General Controls	Master Volume, Octave Transpose, Master Transpose, Dial, Up/+, Down/-, Joystick (Pitch + Modulation), Ribbon, 3 Assignable Switches, Search, Shift, Keyboard Sounds On/Off, Split, Ensemble, Rec/Edit, Menu, Exit
Scale Controls	On-screen Quarter Tone and Arabic Scale, memorized in the Keyboard Sets; Presets assignable to any button or footswitch
Control Inputs	Damper Pedal; supports half-pedaling with the optional KORG DS-1H pedal
	2 Assignable Pedal/Footswitch
Audio Inputs	Mic: Mono with Gain control and Phantom Power (Combo XLR, balanced)
	Guitar: Mono with Gain control (1/4" jack, unbalanced)
	Line 1: Left/Right (1/4" jacks, balanced)
Audio Outputs	Line 2: Stereo (1/8" mini-jack, unbalanced)
	Line: Main Left/Right, Separate Outs 1/2/3/4 (1/4" jacks, balanced)
	Headphones (1/4" jack)
Video Output	HDMI connector
MIDI	IN, OUT, THRU standard MIDI connectors
	USB to MIDI, through the USB Device port
	16 User-definable MIDI Presets
USB	Type A (Host 3.0, for storage devices and controllers): 1 front, 2 rear
	Type B (Device 2.0, for personal computers and tablets): 1 rear

KORG Pa5X	Features
Storage	Internal Drive: 1 GB
	Micro SD Card (not included): Rear-panel slot with plastic cover
	USB Flash Drive (not included): Can be connected to the USB Host ports
Display	8" Wide capacitive color TouchView™ TFT display, 800 x 600 resolution
Clock	Internal System Clock
Power Consumption	100-240 Volts, 50/60 Hz
	< 0.2 Watt in standby / 20 Watt normal / 45 Watt with PaAS installed
Dimensions (W x D x H) (without music stand, display fully lowered)	Pa5X-88: 1,262.0 x 396.4 x 146.0 mm / 49.68" x 15.60" x 5.74"
	Pa5X-76: 1,233.1 x 374.3 x 126.8 mm / 48.54" x 14.73" x 4.99"
	Pa5X-61: 1,021.1 x 374.3 x 126.8 mm / 40.20" x 14.73" x 4.99"
	PaAS (optional): 980 x 180 x 140 mm / 38.58" x 7.08" x 5.51"
Weight	Pa5X-88: 20.1 kg / 44.31 lbs
	Pa5X-76: 17.4 kg / 38.36 lbs
	Pa5X-61: 15.1 kg / 33.29 lbs
	PaAS (optional): 5.70 kg / 12.56 lbs
Accessories	AC Power Cable, Music Stand, Quick Guide manual
Options	PaAS Amplification System
	ST-SV1-BK Keyboard Stand
	EXP-2 Foot Controller, XVP-10 and XVP-20 Expression/Volume Pedals
	DS-1H Damper Pedal (supports half-pedaling)
	PS-1 Pedal Switch, PS-3 Pedal Switch
	VOX V860 Volume Pedal

Appearance and specifications are subject to change without notice due to continuous product development and improvement.

IMPORTANT NOTICE TO CONSUMERS

This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.

WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty.

Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

NOTICE REGARDING DISPOSAL (EU ONLY)

If this symbol is shown on the product, manual, battery, or package, you must dispose of it in the correct manner to avoid harm to human health or damage to the environment. Contact your local administrative body for details on the correct disposal method. If the battery contains heavy metals in excess of the regulated amount, a chemical symbol is displayed below the symbol on the battery or battery package.



In case of electromagnetic radiations a temporary deterioration of the quality of audio performances may occur. A deterioration that might arise can be a sound signal emitted. This will stop when the electromagnetic disturbance ceases.

THE FCC REGULATION WARNING (FOR USA)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

If items such as cables are included with this equipment, you must use those included items.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

DECLARATION OF CONFORMITY (FOR USA)

Responsible Party: KORG USA INC.

Address: 316 SOUTH SERVICE ROAD, MELVILLE

Telephone: 1-631-390-6500

Equipment Type: Professional Arranger

Model: Pa5X

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

KORG

Address

KORG ITALY SpA
Via Cagiata, 85
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Italy

Web

www.korg.com