

73 JR II

MONO MIC/LINE PREAMP & D.I.
500 Series Module



USER MANUAL



INTRODUCTION

Thank you for choosing the **73 JR II**. Heritage Audio is dedicated to bringing you 'the sound of yesterday for tomorrow'. We specialize in capturing that unique, enticing sound that everybody has fallen in love with. For years engineers, producers and musicians have been yearning for that classic vibe. Usually the only option is to search for old, used original equipment that is almost always in a questionable state of operation. This brings with it a whole lot of other issues, making the experience less than desirable. Not to mention the very high prices asked for this equipment, which makes them virtually unobtainable for the great majority. Now it's possible to obtain that same sound with a brand new piece that will give you all the problem-free, heavy-duty use you'll need for years of music making history.

Peter Rodriguez
CEO
Heritage Audio - Madrid, Spain



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DESCRIPTION

The 73 JR II is the 2021 update to the already classic 73 JR, a true 73 style mic preamp in a single 500 series slot with some added features that will cover all the recording needs for engineers and musicians that don't find the need to track with eq.

Employing only discrete circuitry and conventional components, the 73 JR II is a faithful 3 stage all class A 73 preamp. Styroflex and tantalum capacitors have been used throughout. No corners were cut.

The useful all discrete class A hi pass filter has been updated, making it sweepable from 20 to 220 Hz. Now it is even easier to make your low end tighter without affecting desired frequencies.

The Line mode allows for re-amping of prerecorded tracks and it's perfect for adding some class A color to lifeless recordings.

The smart switched DI (automatically switches from MIC to DI mode when inserting a MONO ¼" jack) is an all discrete Class A JFET circuit ahead of the MIC transformer, so all the juice is there. Since its introduction in 2013, it has become a classic DI for bass.

Finally, special care has been taken with power handling, implementing internal +24 V slow turn on regulation (about 20 seconds to reach full voltage). This makes your 500 series enclosure's power supply healthier and makes the 73 JR II independent of the rest of the slots.

WHAT TO LOOK FOR IN A 500 SERIES 73 PREAMP:

There are several compromises usually made when adapting a 73 preamp for the 500 Series, especially the following 3. You won't find any of these in the 73 JR II:

- Eliminate one gain stage and run only up to 70 dB of gain. A "real deal" 73 mic pre must have 3 gain stages for a total of 80dB of gain. Taking the first gain stage out and maxing out the other 2 allows for up to 70 dB of gain, but noise figure and low end at high gain are seriously compromised. The 73 JR II uses the full 3 gain stage circuit for up to 80 dB of gain with noise of -125 dBu EIN all over the gain positions.
- Use the readily available ± 16 V power from the 500 Series protocol. By doing this, the magic distortion of a 73 amp is compromised. The 73 JR II uses a true 24volt on board power supply for identical performance and distortion point.
- Use of surface mount technology. Although there is no actual drawback in using SMD components, it should be reflected in the price, not merely to enlarge the manufacturer's profit. No 500 Series 73 mic pre using SMD should cost more than \$500. The 73 JR II uses only discrete, through hole traditional components and hand labor for that great 70s vibe.

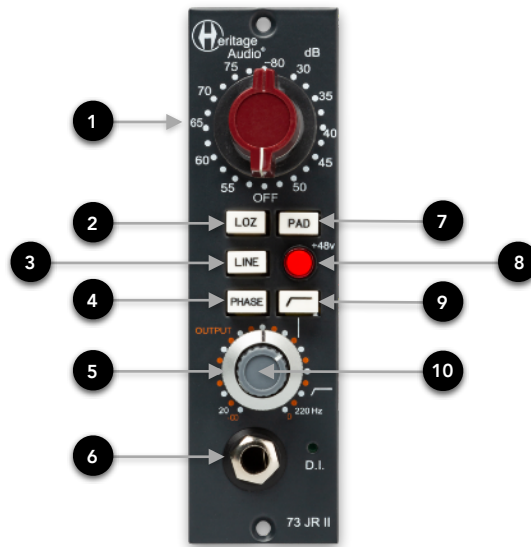
THE 73JR II TRANSFORMERS:

No 73 preamp is such without the correct transformers. For the 73 JR II (and its predecessor the 73 JR), Heritage Audio went a step further than the competition. The output transformer, the same used all along the Heritage's line of products, is a Carnhill gapped one made exclusively for us in the St Ives factory. The input transformer, again exclusive to our company, is made in Carnhill's Oxford factory, and has a big impact on the extra mojo of the unit. It is the same one found in our higher end 80 Series modules and sets one of the main sonically differences in between the 73 JR II and the competitors.

When looking for an exclusive sound, do not settle for non-exclusive transformers.

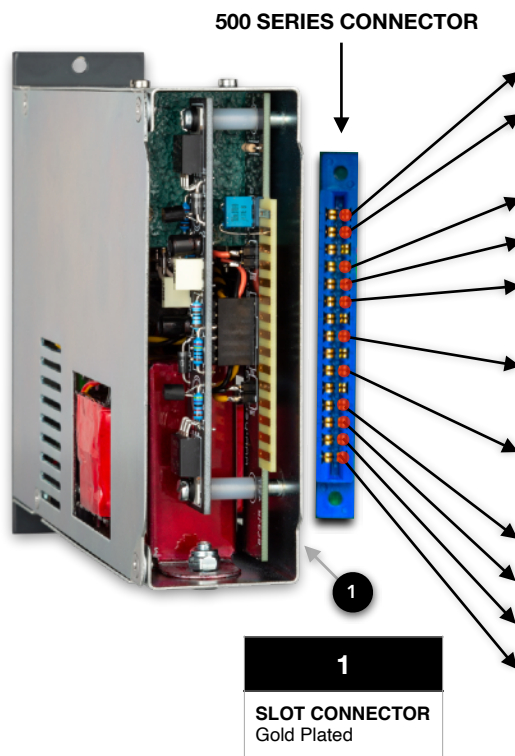
GETTING STARTED

FRONT



1	2	3	4	5
INPUT GAIN SWITCH 5dB Steps From 30 to 80	MIC INPUT IMPEDANCE 1200 Ω or 300 Ω when pressed	LINE Switches from MIC/D.I. to Line	PHASE Flips phase 180°	HIGH PASS FILTER FREQ -3 dB at 82 Hz, Discrete Class A
6	7	8	9	10
D.I. INPUT High Impedance Class A JFET	MIC PAD 20 dB Reduction Ahead of Input Transformer	PHANTOM POWER Activates 48 V	HIGH PASS FILTER ON SWITCH -3 dB at 82 Hz, Discrete Class A	OUTPUT ATTENUATOR Attenuates from 0 to Infinity

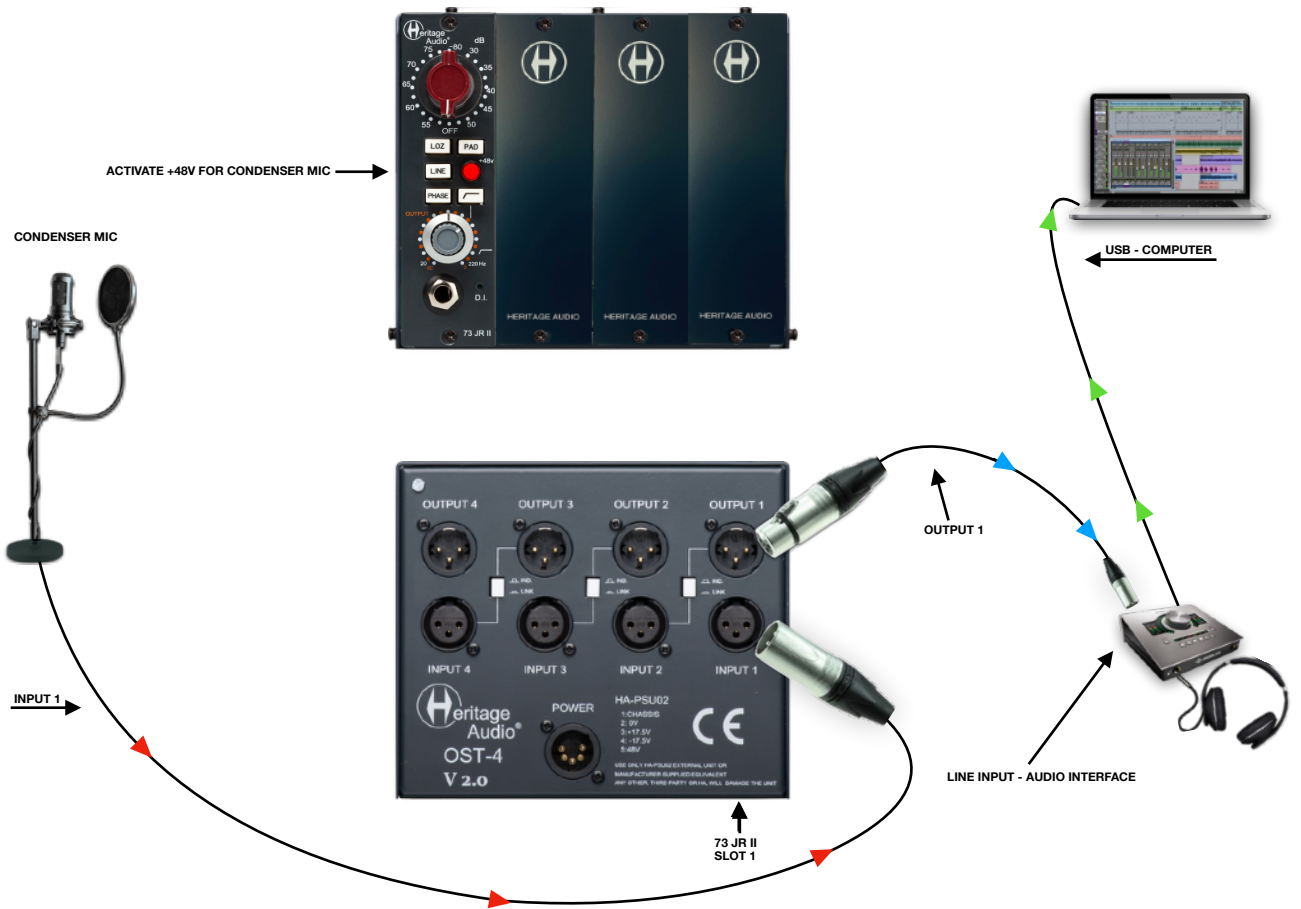
REAR



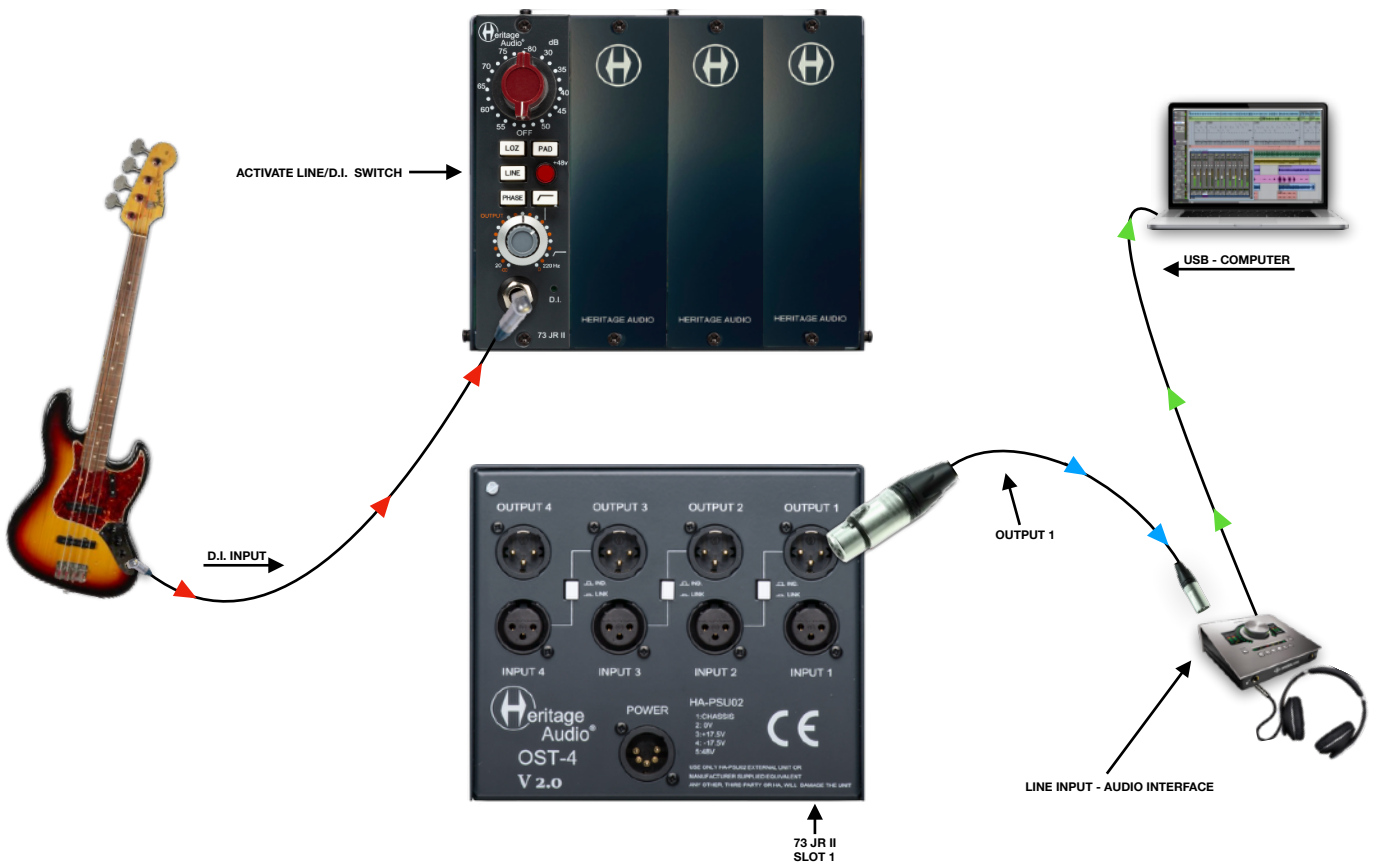
500 SERIES EDGE CONNECTOR PIN OUT	
TERMINAL	FUNCTION
1	CHASSIS GROUND
2	OUTPUT + (4 LEVEL)
3	NOT USED
4	OUTPUT - (4 LEVEL)
5	COMMON
6	STEREO LINK
7	NOT USED
8	INPUT - (4 LEVEL)
9	NOT USED
10	INPUT + (4 LEVEL)
11	NOT USED
12	+16VCD
13	GND
14	-16VCD
15	+48VCD

APPLICATIONS

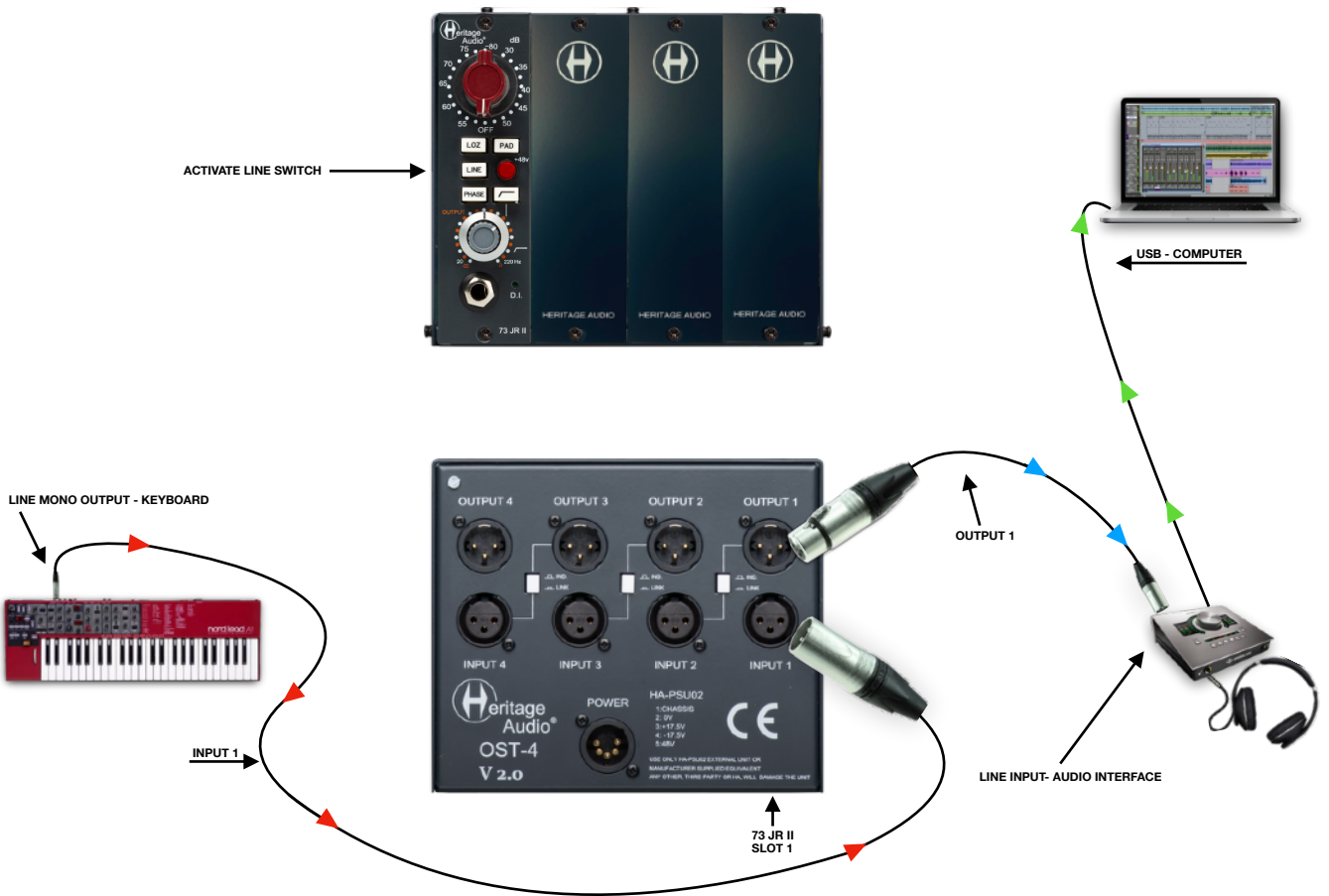
MIC



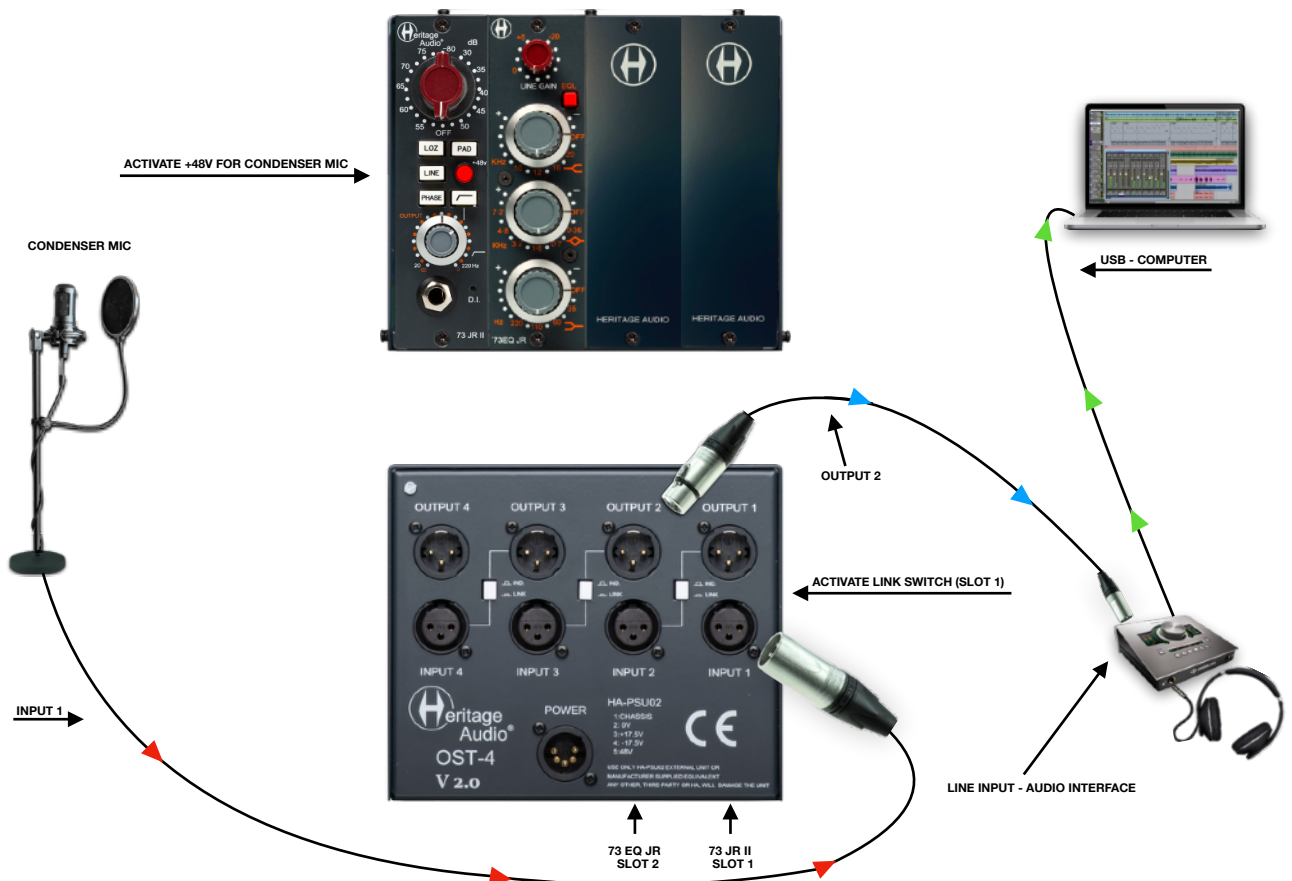
D.I.



LINE



LINK-EQ

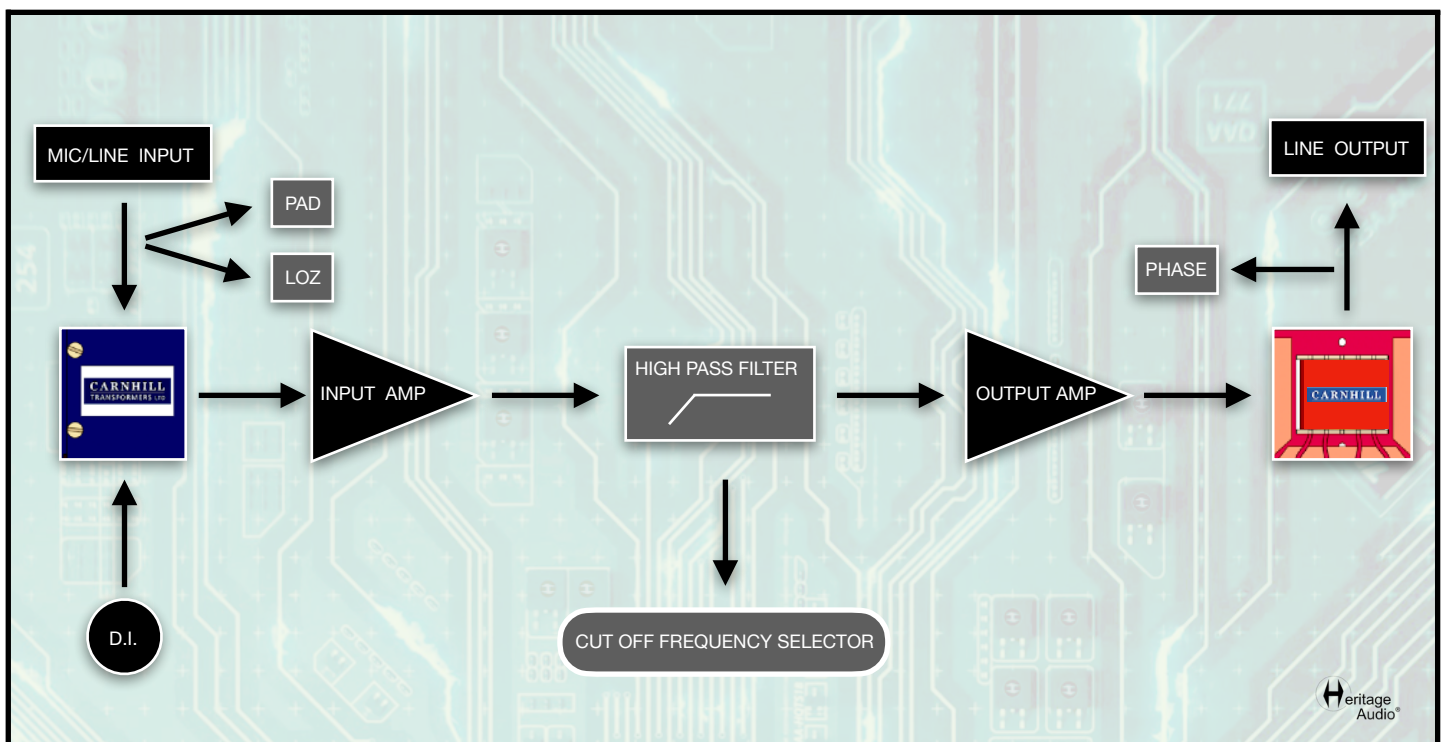


SPECIFICATIONS



- **Microphone input impedance:** High=1200 Ω minimum; Low= 300 Ω minimum. Higher gain positions gradually have greater impedances, optimum for low gain ribbon mics. Input is transformer balanced and floating.
- **Line input impedance:** 10 k Ω bridging, transformer balanced and floating.
- **Output impedance:** Less than 75 Ω , transformer balanced and floating, to drive a load of 600 Ω .
- **D.I. input impedance:** Greater than 2 M Ω , unbalanced.
- **Maximum output:** Greater than +26 dBu into 600 Ω (internally terminated).
- **THD:** Less than 0,025 % at 1 kHz, Less than 0,05 % at 100 Hz.
- **Frequency response:** 20 Hz (+0,3 dB) to 20 kHz (-0,2 dB).
- **Maximum Gain:** Slightly greater than 80 dB.
- **Output stage noise:** Less than -125 dBu *EIN*.
- **Power consumption:** Less than 86 mA per rail @ ± 16 V DC.
- **Dimensions (W x H x L):** 38 mm x 135 mm x 150 mm.

SIGNAL FLOW



TROUBLE SHOOTING



PROBLEMS	SOLUTIONS
There doesn't appear to be any signal at all arriving at the back XLR.	Make sure the GAIN knob is not in the 'Off' position.
There still doesn't appear to be any signal at all arriving at the back XLR.	Check to see if a jack cable has been left plugged into the front panel D.I.
Even at the lowest position on the GAIN knob I still have too much gain.	When this happens you should activate the PAD button. This will reduce the input by 20 dB ahead of the input transformer.
Condenser microphones don't seem to work with 73 JR II.	Make sure the red +48 V button is pressed in to activate the phantom power sent to the microphone.
There doesn't seem to be any output at all from the unit.	Check to see if the OUTPUT knob is fully turned down as this will attenuate the signal completely.
Sending a signal to the unit from a DAW overloads it terrible.	It is necessary to press the LINE button when sending it a line level source. If not, it is expecting a Microphone signal with a very different impedance.

* For any further doubts or questions please get in contact with us at: support@heritageaudio.com

WARRANTY STATEMENT

LIMITED 2 YEAR WARRANTY

Heritage Audio 73 JR II is warranted by Heritage Audio SL to be free from defects in materials and workmanship for the period of 2 years to the original purchaser. In the event of such defects, the product will be repaired without charge or, at our option, replaced with a new one if delivered to Heritage Audio prepaid, together with a copy of the sales slip or other proof of purchase date. The warranty excludes problems due to normal wear, abuse, shipping damage or failure to use the product in accordance with the specifications.

Heritage Audio shall not be liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation or commercial loss or any other damages, whether incidental, consequential or otherwise.

This warranty is not transferable.

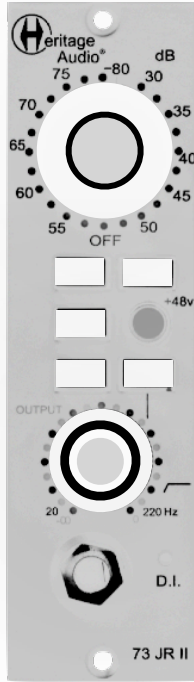
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REGISTRATION

Please visit our website: <https://heritageaudio.com/registration/>

RECALL SHEETS

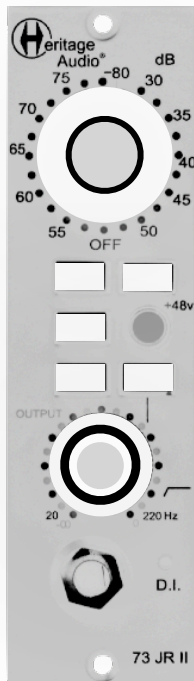


Session / Title: _____ Track: _____ Connected Equipment: _____

Switch **ON**

Date: _____ Instrument: _____ Notes: _____

Switch **OFF**



Session / Title: _____ Track: _____ Connected Equipment: _____

Switch **ON**

Date: _____ Instrument: _____ Notes: _____

Switch **OFF**



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