R.A.M
SYSTEM 5000

5.1 MONITORING SYSTEM
WITH BLUETOOTH
RAM SYSTEMS

USER MANUAL

Heritage Audio

January/2023 Rev. 2.0 - Firmware V3.0

INTRODUCTION

Thank you for choosing the **RAM SYSTEM 5000**. 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 Heritage Audio RAM SYSTEM 5000 is a professional, top-of-the-line monitor controller in a convenient split format, designed for studios that require extensive, mastering-grade stereo and 5.1 monitoring functionality. We've combined our state-of-the-art analog circuitry for superior transparency and ultra-low noise distortion with modern features like Bluetooth connection to deliver audiophile-quality sound and feature sets tailored for project studios, commercial recording facilities and post-production houses who deliver in 5.1 surround.

With its matrix of inputs and outputs, covering balanced and unbalanced analog, all common digital formats on a state of the art Wolfson DAC, as well as the innovative professional quality Heritage Audio Bluetooth technology, the RAM SYSTEM 5000 will cover all the monitoring needs of the most demanding professional facilities at a price never heard before. It features a very generous and thorough selection of input and output options. Offering four pairs of analog inputs on a DB25 connector, five stereo outputs (5.1 configuration possible), and an independent pre-fader stereo MIX OUT, all on +4 dBu balanced gold plated XLRs. There are 4 independent stereo CUE I/Os accessible on DB25 connectors. For digital connections we have included a S/PDIF coax input, an XLR AES/EBU input and a TOSLINK connection as well as a pro-audio-quality Bluetooth input for easy mobile device integration. Plus. we have even included an unbalanced input on a stereo pair of RCA connectors and the possibility of using one of the XLR outputs as a dedicated independent subwoofer output that lets you effortlessly share your sub between different speaker pairs.

The master level control is taken care of by means of microprocessor controlled gold plated relays, giving an exceptional resolution of 64 dB of attenuation in 1dB steps, a feature usually found only on high-end large-format consoles. For easy recall of common settings, two user-assignable preset levels are provided. Keeping active electronics to a minimum, the attenuator is buffered using premium Burr Brown circuitry for negligible coloration and no noise.

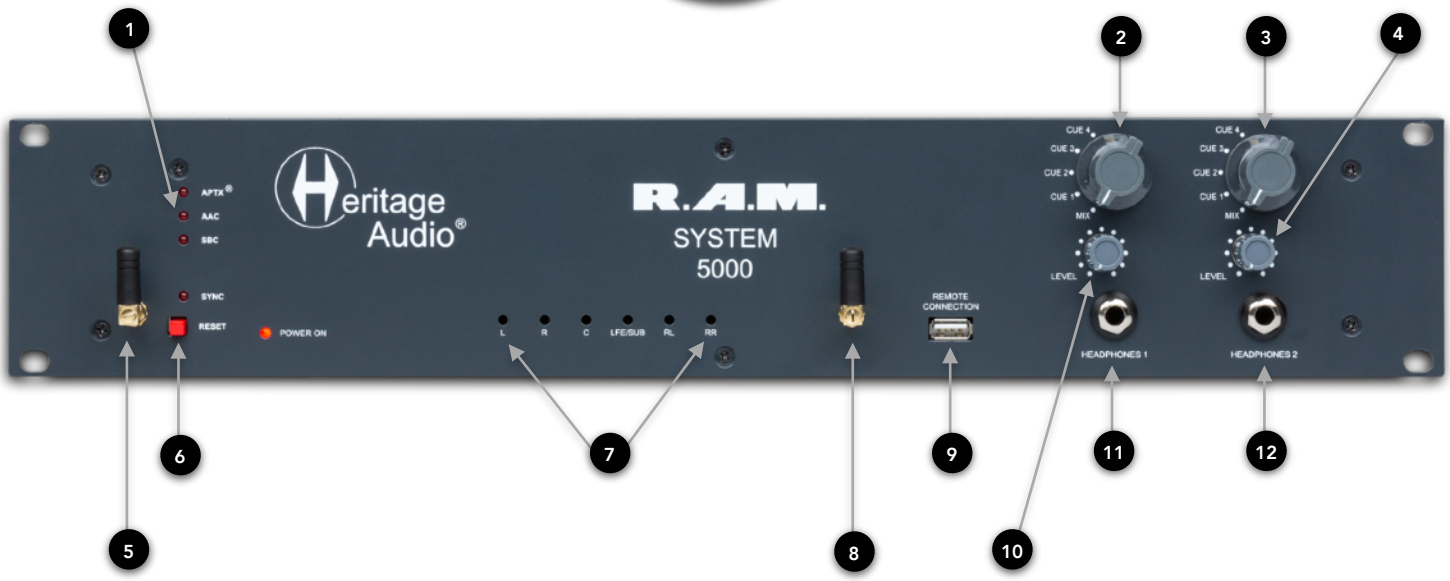
Headphone monitoring can be as critical as main speaker monitoring. Usually a weak part even in the most expensive units, the RAM SYSTEM 5000 employs very high current drivers in a diamond buffer configuration which are able to drive any headphones to very high levels without coloration or noise. It has 2 amplifiers that are individually configurable to follow any of the 4 stereo CUE sends or the active input (MIX).

For communicating with talent, there's a built-in Talkback feature with console-style management.
And finally, with its classic RAF-gray cosmetics and prominent red Marconi knob, your RAM SYSTEM 5000 system will add a touch of class to your control room.

The RAM SYSTEM 5000 is feature packed, but also surprisingly easy to operate.

GETTING STARTED

FRONT



1	2	3	4	5
LED CODEC INDICATOR Shows the CODEC in use and confirms connection	**MIX / CUE 1-4** Headphone 1 Input selector	**MIX / CUE 1-4** Headphone 2 Input selector	**PHONES LEVEL 2** Headphone Volume adjustment	**BLUETOOTH ANTENNA** Bluetooth wireless input(APTX, AAC, SBC)

6	7	8	9	10
RESET Resets the Bluetooth sync	**SPEAKER CALIBRATION** Individual speaker calibration for L, R, C, LFE/SUB, FL & FR	**REMOTE ANTENNA** Antenna for remote control connection	**REMOTE CONNECTION** USB Connection for charging	**PHONES LEVEL 1** Headphone Volume adjustment

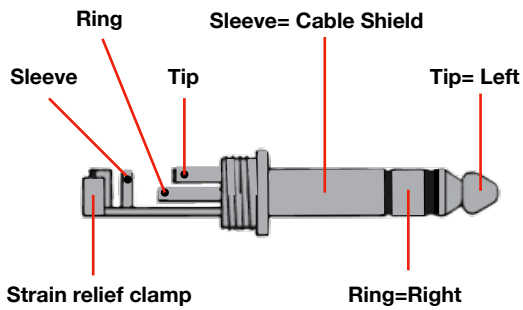
11	12
HEADPHONE 1 OUTPUT 1/4 TRS Jack	**HEADPHONE 2 OUTPUT** 1/4 TRS Jack

The Sync LED on the older versions would remain unlit until a connection with an external audio device was established.

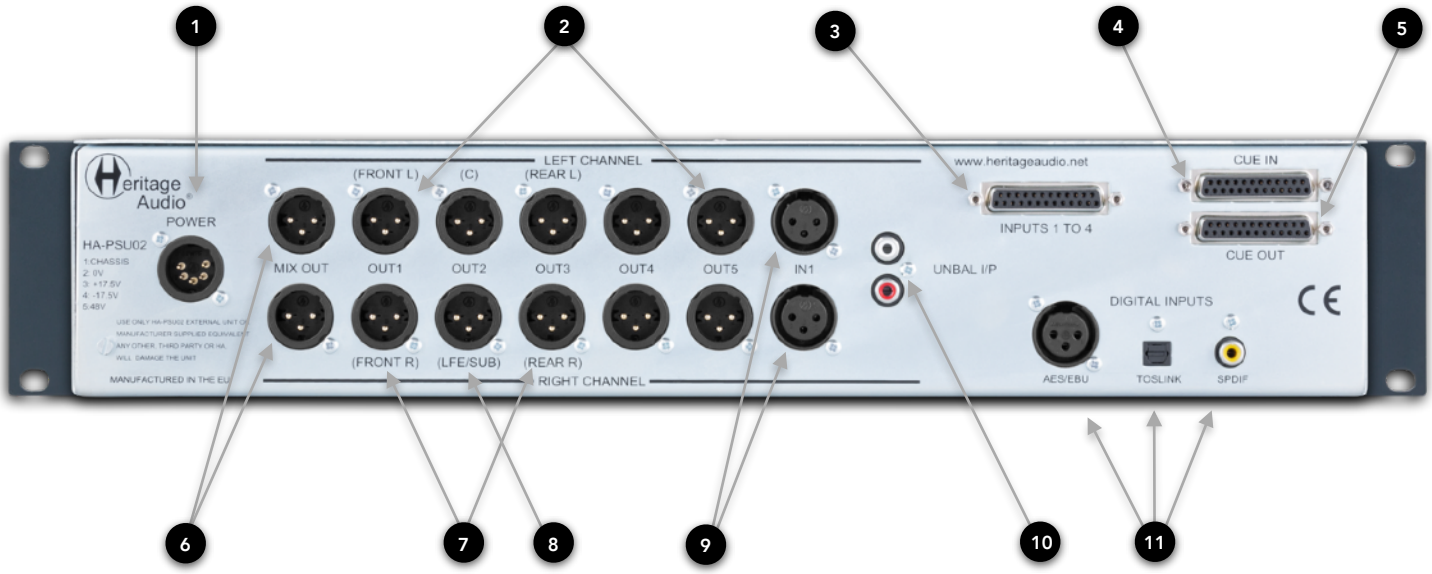
On the current version, once the rack is turned on, the LED will continue blinking until a connection has been established whereas it will remain lit.

If after a while no connection has been made, it will start to blink faster until not being visible and the RESET button will have to be pushed and held for 10 seconds.

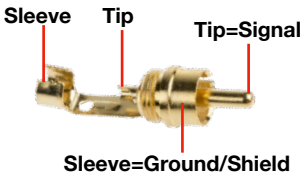
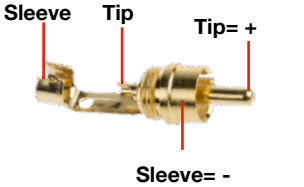
STEREO JACK CONNECTOR

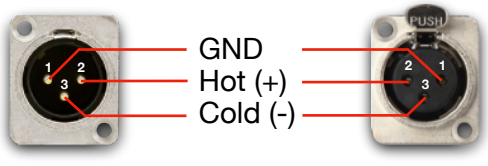


REAR

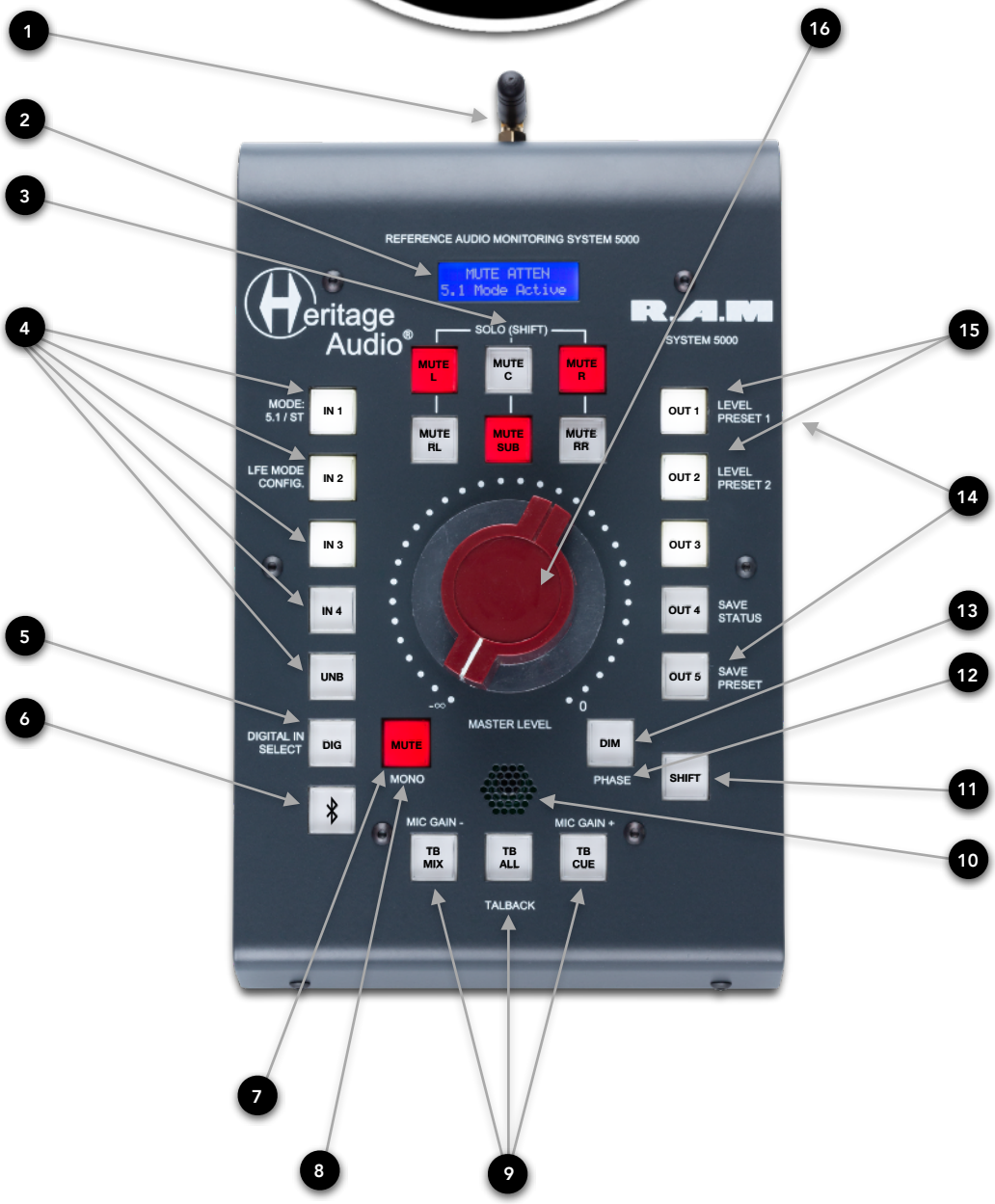


1	2	3	4	5
POWER 5 Pin Power Connector	**OUTPUTS 1-5** Analog Outputs on Gold Plated XLRs	**DSUB 25 INPUT 1-4** Analog Inputs 1-4	**DSUB 25 CUE INPUT 1-4** Analog Cue Inputs 1-4	**DSUB 25 CUE OUTPUTS 1-4** Analog Cue Outputs 1-4
6	**7**	**8**	**9**	**10**
MIX OUTPUTS Mix Analog Outputs on Gold Plated XLRs	**OUTPUTS 5.1** Analog Outputs on Gold Plated XLRs for first three Stereo pairs to create 5.1 configuration	**LFE/SUB** Dedicated LFE for 5.1 and Subwoofer for stereo outs	**STEREO INPUT 1** Stereo Input 1 repeated on XLRs for convenience	**UNBALANCED INPUTS** RCA stereo inputs
11				
DIGITAL INPUTS Digital Inputs available on 3 formats: AES/EBU, SPDIF, TOSLINK				

RCA/ANALOG	
Tip: Signal **Sleeve:** Ground	
RCA/DIGITAL	
Tip: + (Pos) **Sleeve:** - (Neg) **Must use a 75 Ohm Digital Cable**	

All XLRs are:	MALE XLR / FEMALE XLR
Pin 1: GND Pin 2: Hot Pin 3: Cold	

WIRELESS REMOTE FRONT



1	2	3	4	5
BLUETOOTH ANTENNA Bluetooth wireless input(AAC, APTX SBC)	**LCD SCREEN** Updates to function being used indicating values	**MUTE / SOLO** Mute or Solo for individual speakers	**IN 1-IN 4 & UNB** 1-4 Balance inputs & Unbalance input	**DIG** Digital input
6	**7**	**8**	**9**	**10**
Bluetooth Input	**MUTE** Mutes the output	**MONO** Collapses the signal to mono	**TALKBACK** Sends Talkback to MIX, ALL or CUE	**TB MICROPHONE** Captures signal going to TalkBack
11	**12**	**13**	**14**	**15**
SHIFT Engages the Soft Functions	**PHASE** Rotares 180°	**DIM** Reduces Output by -20 dB	**OUTPUTS 1-5** Selects between Outputs 1-5	**LEVEL PRESETS** Sets the Predefined Volume Level 1&2
16				
64 STEP ATTENUATOR 64-Step relay ladder attenuation with 1 dB steps				

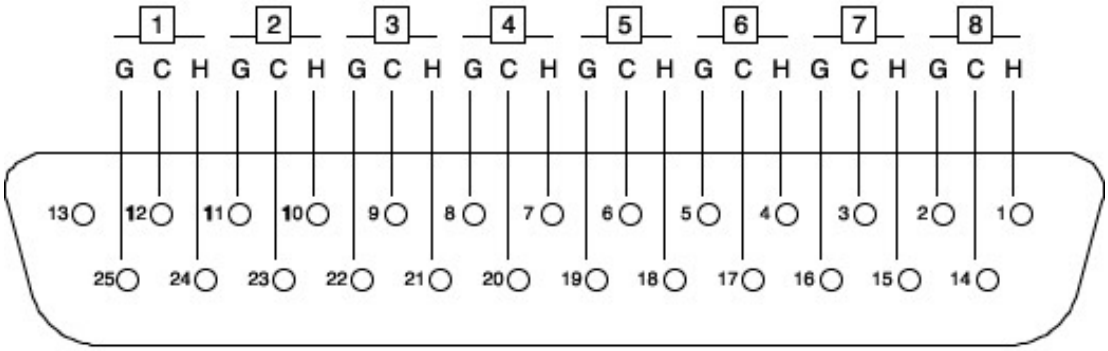
WIRELESS REMOTE REAR

1	2	3
USB USB Input for charging	**BLUETOOTH ANTENNA** Bluetooth wireless input(AAC, APTX SBC)	**ON/OFF** Switch to activate unit

WIRING FOR DB25 CONNECTORS

The RAM SYSTEM 5000 has all the permanent connections on the back of the main rack unit.
All 3 DB25 connectors follow the TASCAM protocol, and INPUT 1 is duplicated on a pair of XLR connectors for extra convenience.
All speaker outputs are on individual gold plated XLR connectors to avoid the need of DB25 to XLR adaptors as in similar competing products.
The unbalanced input relies on RCA connectors, as it is specially designed to integrate CD players or similar consumer level devices.
Integration of laptops, tablets, iPads and mobile devices are strongly recommended to use the Bluetooth input. No more mini jacks!

Pin-out for TASCAM DB25 8 Channel Balanced Connector



H = HOT
C = COLD
G = GROUND

The list of the DB25 connectors used and their corresponding channels are as follows:

STEREO INPUTS 1- 4

TASCAM DB25 CHANNEL	STEREO INPUTS 1-4
1	INPUT 1 L
2	INPUT 1 R
3	INPUT 2 L
4	INPUT 2 R
5	INPUT 3 L
6	INPUT 3 R
7	INPUT 4 L
8	INPUT 4 R

CUE IN 1-4

TASCAM DB25 CHANNEL	CUE INPUTS 1-4
1	CUE IN 1 L
2	CUE IN 1 R
3	CUE IN 2 L
4	CUE IN 2 R
5	CUE IN 3 L
6	CUE IN 3 R
7	CUE IN 4 L
8	CUE IN 4 R

CUE OUT 1-4

TASCAM DB25 CHANNEL	CUE OUTPUTS 1-4
1	CUE OUT 1 L
2	CUE OUT 1 R
3	CUE OUT 2 L
4	CUE OUT 2 R
5	CUE OUT 3 L
6	CUE OUT 3 R
7	CUE OUT 4 L
8	CUE OUT 4 R

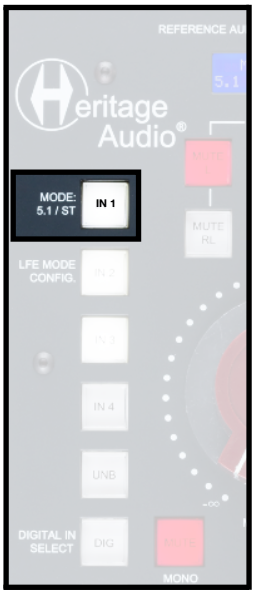
It is worth noting that, in order to avoid ground loops, the DB25 ground connections are lifted on the RAM SYSTEM 5000 side, leaving the ground paths of your DB25 snakes only acting as shields and preventing any current returns.

The RAM SYSTEM 5000 is an extremely flexible unit that covers an array of inputs and outputs rarely seen on products at its price range. Contrary to the usual “optional” 5.1 facilities on products in this category, the RAM SYSTEM 5000 is 5.1 ready out of the box.
This does not mean that, if your studio does not need 5.1 at present, you are paying for features you don’t need, as it has some smart configuration parameters that take all the juice of your RAM SYSTEM 5000 no matter your application.
So, mainly based on your 5.1 and subwoofer needs, there are 2 main user configuration options that should be set on installation:

- MODE 5.1/ST (5.1 or Full Stereo operation)
- LFE MODE CONFIGURATION (Subwoofer)

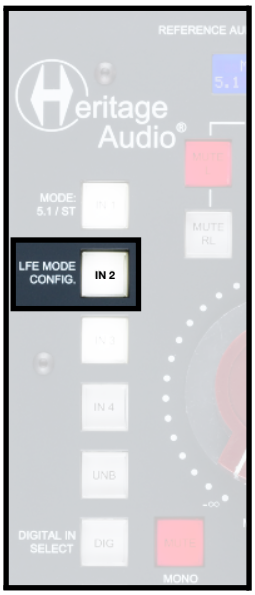
MODE 5.1/STEREO CONFIGURATION

In the case that 5.1 mode is going to be used in your facility, please activate it by pressing SHIFT + INPUT 1 and confirm as requested. Repeating the same operation will turn the unit back into Stereo mode.
The implications of setting the unit in 5.1 mode are as follows: Inputs 1, 2 and 3 get linked (all 3 lights work at the same time), as do Outputs 1, 2 and 3. These 3 pairs will become your 5.1 system following the protocol below:



		INPUTS			
		INPUT 1 L / R	INPUT 2 L	INPUT 2 R	INPUT 3 L / R
MODES	STEREO	OUTPUT 1-5 L /R	OUTPUT 1-5 L /R		OUTPUT 1-5 L /R
	5.1	FRONT L /R	CENTER	LFE	REAR L /R

LFE MODE CONFIGURATION

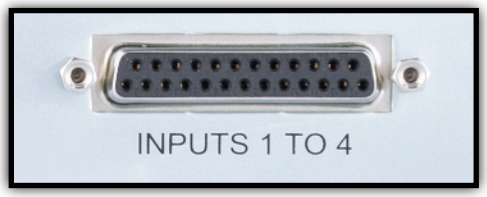


The RAM SYSTEM 5000 allows your 5.1 LFE speaker to act as the subwoofer in the stereo pairs of speakers, a feature missing in most competing products.
In the case that the same LFE speaker in your 5.1 system is to be used with your additional stereo pairs of monitors, the unit can be configured so a mono signal following the stereo inputs is always present at OUTPUT 2R (LFE).
In order to do so, please press SHIFT + INPUT 2 and confirm. Pressing again and confirming it will return to the original configuration. Again, save the status so your configuration is stored if desired.
In the case that Stereo mode is selected (not 5.1) a discrete Sub channel is configured and OUT 2 is disabled (as it is dedicated for sub purposes!!).

INPUT OPTIONS

The RAM SYSTEM 5000 has the following stereo inputs:

- INPUT 1 to 4: Balanced, accessible on a DB25 connector which follows the TASCAM protocol. Input 1 is also duplicated on a pair of XLR connectors for convenience. Nominal level is +4 dBu. Depending on 5.1/ST and LFE mode configurations, Inputs 1 to 3 represent the 5.1 system or are pairs of stereo inputs.



- UNBALANCED INPUT: Accessible on a pair of RCA connectors, its nominal level is -10 dBV.

- **DIGITAL INPUT**: Based on the Wolfson WM8741 DAC (still the best to our ears), it features AES/EBU, TOSLINK and SPDIF connectors. Inputs are transformer isolated and read the word clock from the digital incoming signal. A maximum of 24 bit/192 kHz is allowed and further advanced digital filtering options are available via internal jumpers. The different digital formats are selectable by pressing **SHIFT** + **DIG** in cycle mode.

- **BLUETOOTH**: This input features the same architecture found in the acclaimed Heritage Audio BT-500 V2.0. If you are not familiar with it, the BT-500 V2.0 is an audio streaming device in a convenient 500 Series format. It streams audio from your Bluetooth-equipped device and delivers a fully balanced, +22 dBu stereo output. Integration of mobile devices into a professional studio environment has never been easier.

MONITORING OUTPUT OPTIONS

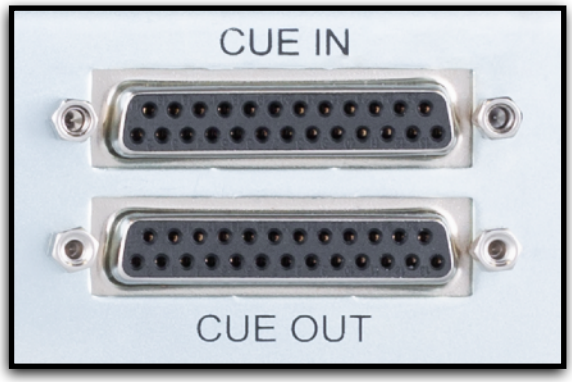
The RAM SYSTEM 5000 features 5 pairs of balanced outputs labelled OUT1, OUT2, OUT3, OUT4 and OUT5 available via discrete XLR connectors on the back of the unit. Depending on 5.1/ST and LFE mode configurations, Outputs 1 to 3 represent the 5.1 system or are simply individual stereo outputs.

As has been said previously, OUT 2 R can be a permanent subwoofer output depending on configuration. In case OUT 2 seems to not be working properly, please check this configuration first.

ADDITIONAL OUTPUTS

In addition to the monitoring outputs, the RAM System 5000 features the following outputs:

- **MIX OUTPUT**: It follows the input signal and is taken PRE FADER, meaning its level is unaffected by the monitoring attenuation. It is therefore ideal for recording the mix at the same time, or as an additional cue send. It is at unity gain.



- **CUE OUTPUTS 1-4**: Working in tandem with the CUE INPUTS 1-4, they work as traditional CUE sends, where the CUE Output follows the CUE input plus the Talkback signal when this is in use.

SIGNAL MONITORING FACILITIES

As previously explained, the heart of the RAM SYSTEM 5000 is its microprocessor controlled, ladder type attenuator. This can be accessed in 2 ways:

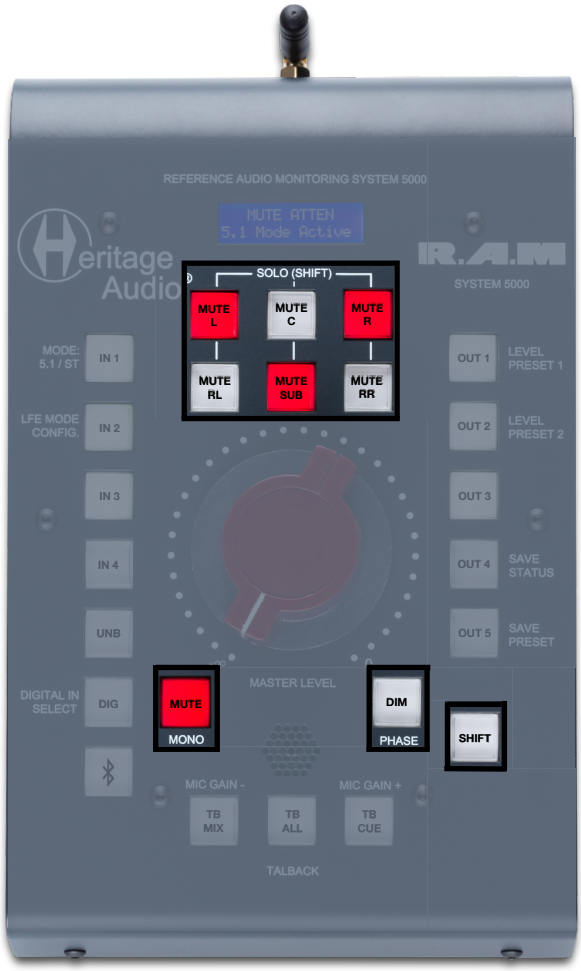
- Using the Red Level Knob: Fully clockwise it performs at unity gain (maximum level). Turning it counter clockwise will reduce it in 1dB steps. After 64 steps, fully turned down, the unit turns Mute on.

- Using the **LEVEL PRESET OPTIONS**: The RAM SYSTEM 5000 has the ability to store 2 different level presets, which override the Red Level knob position. Pressing **SHIFT** + **OUT 5** (Level Preset) will ask for which of the 2 presets it should be stored to (1 or 2). Confirmation is given by pressing the corresponding key, **OUT 1 (Level Preset 1)** or **OUT 2 (Level Preset 2)**. Pressing **SHIFT** + **OUT 1** (Level Preset 1) will make the monitoring level that of the stored preset, same for Preset 2.

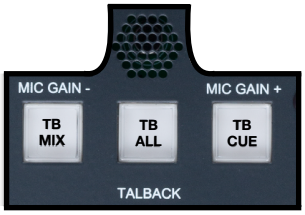
ADDITIONAL MONITORING FEATURES

The RAM SYSTEM 5000 has the usual MUTE, DIM, MONO and PHASE reverse functions often found on these type of units:

- **MUTE:** Global Mute, equivalent to rotary knob fully counter clockwise.
- **MUTE L, C, R, RL, SUB and RR:** Individual Mute functions per speaker. Pressing SHIFT + any individual MUTE will function as a SOLO for that given speaker.



- **DIM:** Attenuates further 20 dB from the volume marked by either the red knob or the level preset.
- **MONO:** SHIFT + MUTE, it collapses the stereo signal to send a mono signal to the selected output.
- **PHASE:** SHIFT + DIM, left and right outputs are flipped 180 degrees.



HEADPHONE MONITORING

Your RAM SYSTEM 5000 provides with 2 different headphone amplifiers, located on the right side of the rack unit´s front panel. They are capable of extremely loud levels without distortion, noise or coloration of any kind so, before plugging your headphones in, make sure the headphone level is at its minimum setting, and adjust accordingly.

Each headphone amplifier can have 5 different sources. MIX (following the selected input source) as well as any of the 4 CUE inputs (following the related CUE input on the back panel DB 25 connectors).

This allows for different monitoring mixes for the artist/talent and the recording engineer.

Selection is possible by means of the double bar rotary switches located on the front panel of the main unit.

TALKBACK FACILITIES

The RAM SYTEM 5000 features talkback facilities similar to that of large format consoles. The talkback signal can be assigned to the Mix signal (following Input selected), by pressing TB MIX. It can also be assigned to the dedicated CUE inputs by pressing TB CUE, or both at the same time, pressing TB ALL. All 3 buttons are momentary (they do not engage), so they need to be kept pressed for the talkback to function. This avoids sending embarrassing comments to the performer by mistake.

The talkback signal is taken from the built-in electret microphone found in the front panel. Controls for talkback mic gain are SHIFT + TB MIX for lowering the gain and SHIFT + TB CUE for raising it.

Pressing any of the talkback keys will activate the DIM function in order to avoid feedback from the mic to the speakers.

UNDERSTANDING THE BLUETOOTH

There is still a popular misconception that Bluetooth is detrimental to the audio quality. Although this has been true in the past, it is no longer the case. Bluetooth is just a “wireless serial port” and, as so, has no ability to interact with your sound quality. However, in order to fit the heavy data traffic that digital audio needs, digital audio compression is applied. This is the real source for audio degradation in Bluetooth systems.

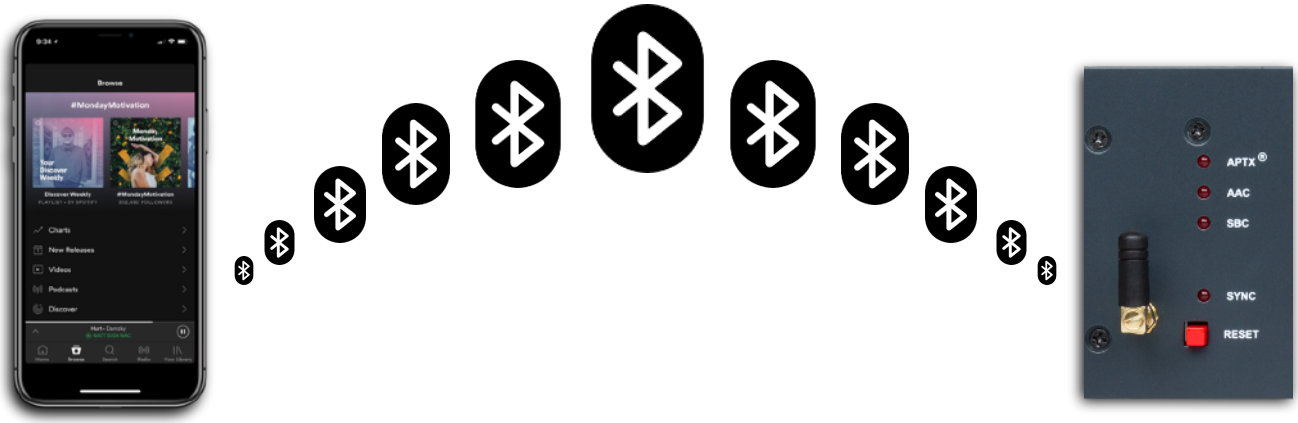
This being said, modern Bluetooth technology allows for very high quality codecs to take care of the audio data while pre coded data, which is more important, (such as that in iTunes) is kept unbothered.

NO MORE MINI JACKS

Employing the latest generation of audio specific Bluetooth technology, the best Codecs your devices can support and a state-of-the-art, Burr Brown based analog signal path, our Bluetooth design solves the already classic and irritating problem of connecting your iOS or Android device to your studio setup.

To this day this has been solved using clumsy mini jack to XLRs adaptor cables, but the limitations of mobile devices’ analog audio paths have become clearly apparent.

Listening to references on the iTunes Store, recordings sent by email, Spotify, You Tube, you name it. You do it every day, all the time. Nevertheless integration has been inconvenient to say the least, until now.



SOUND QUALITY OVER BLUETOOTH

The RAM SYTEM 5000´s Bluetooth automatically recognizes your device´s best Codec option and uses it for streaming.

Apple´s iTunes Store and YouTube use AAC* as native so streaming from an iPhone or iPad will result in a lossless transmission, much better than an analog wired connection!

The vast majority of Android devices have already adopted the amazing sounding “Qualcomm® aptXTM audio” Codec **, which is nearly lossless and the standard that wireless high quality headsets and sound bars are adopting.

For a complete list of devices currently supporting aptX please visit: http://www.aptx.com/products/browse/categories

In case your device can´t support neither AAC nor aptX, the RAM SYSTEM 5000 will stream audio using the classic SBC codec.

(*) Heritage Audio is an official AAC licensee.

(**) Heritage Audio is an official aptX licensee.

BURR BROWN´S PEDIGREE IN THE ANALOG PATH

The RAM SYSTEM 5000 Bluetooth device substitutes your mobile device´s analog circuitry with a state-of-the-art, fully differential Burr Brown balanced output stage which delivers a full 0 dBfs = +22 dBu output able to drive a load of 600 Ω. This allows direct level comparisons while mastering or mixing with Apple´s iTunes Store or mobile stored reference mixes.

SYNCHRONIZING YOUR DEVICE WITH THE RAM SYSTEM 5000

Synchronizing your mobile device with the RAM SYSTEM 5000 is as simple as pairing any other Bluetooth device. It will appear as "**HA RAM 5000"** on your Bluetooth device´s list.

YouTube hosts nice tutorials about how to do so in both Android and iOS if you need help.

The RAM SYSTEM 5000 automatically selects the best Codec supported by your mobile device, so no configuration is needed.

Whenever a device is paired with the RAM System 5000, the "SYNC" LED will light. From then on, your mobile device takes over the transmission, including Transport control (PLAY, STOP, etc.) and Level (Volume).

Active streaming is confirmed by corresponding Codec LED being turned on.

Please note Codec **IS NOT** configurable. It is automatically chosen from the best available option on your mobile device.

Devices can only be paired one at a time. Whenever a different device needs to be paired, Bluetooth needs to be reset, so RESET button must be pressed down.

The Sync LED on the older versions would remain unlit until a connection with an external audio device was established.

On the current version, once the rack is turned on, the LED will continue blinking until a connection has been established whereas it will remain lit.

If after a while no connection has been made, it will start to blink faster until not being visible and the RESET button will have to be pushed and held for 10 seconds.

PAIRING OF THE MAIN AND REMOTE UNITS

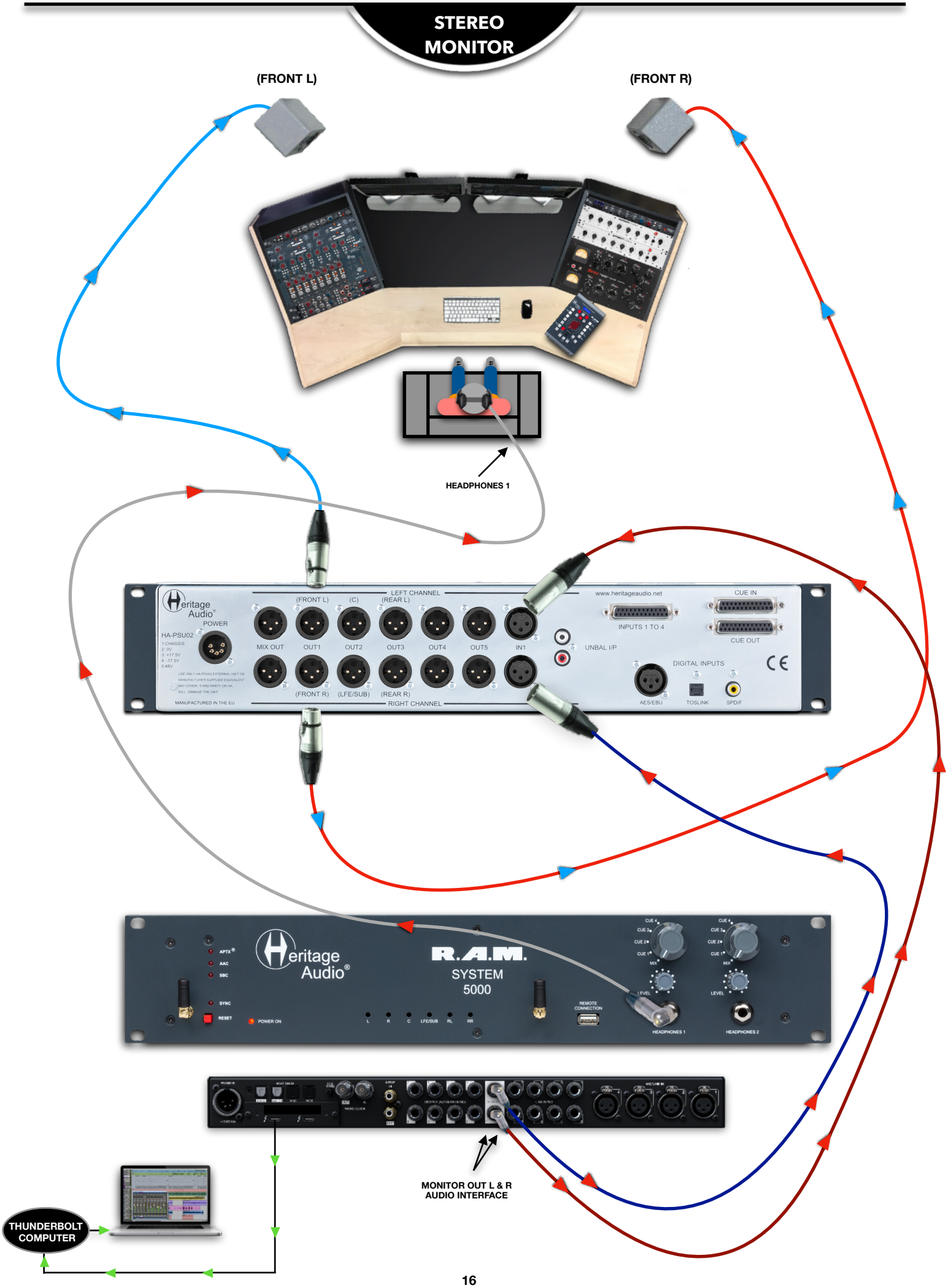
(New on firmware 3.0, factory fitted on numbers 2026267 and up)

Both the main and remote units are programmed with unique ID codes straight from the factory, so they form a unique pair. No other remote units will pair with your main unit (or vice versa).

In case you are getting pairing (connecting) issues, please RESET both units as follows:

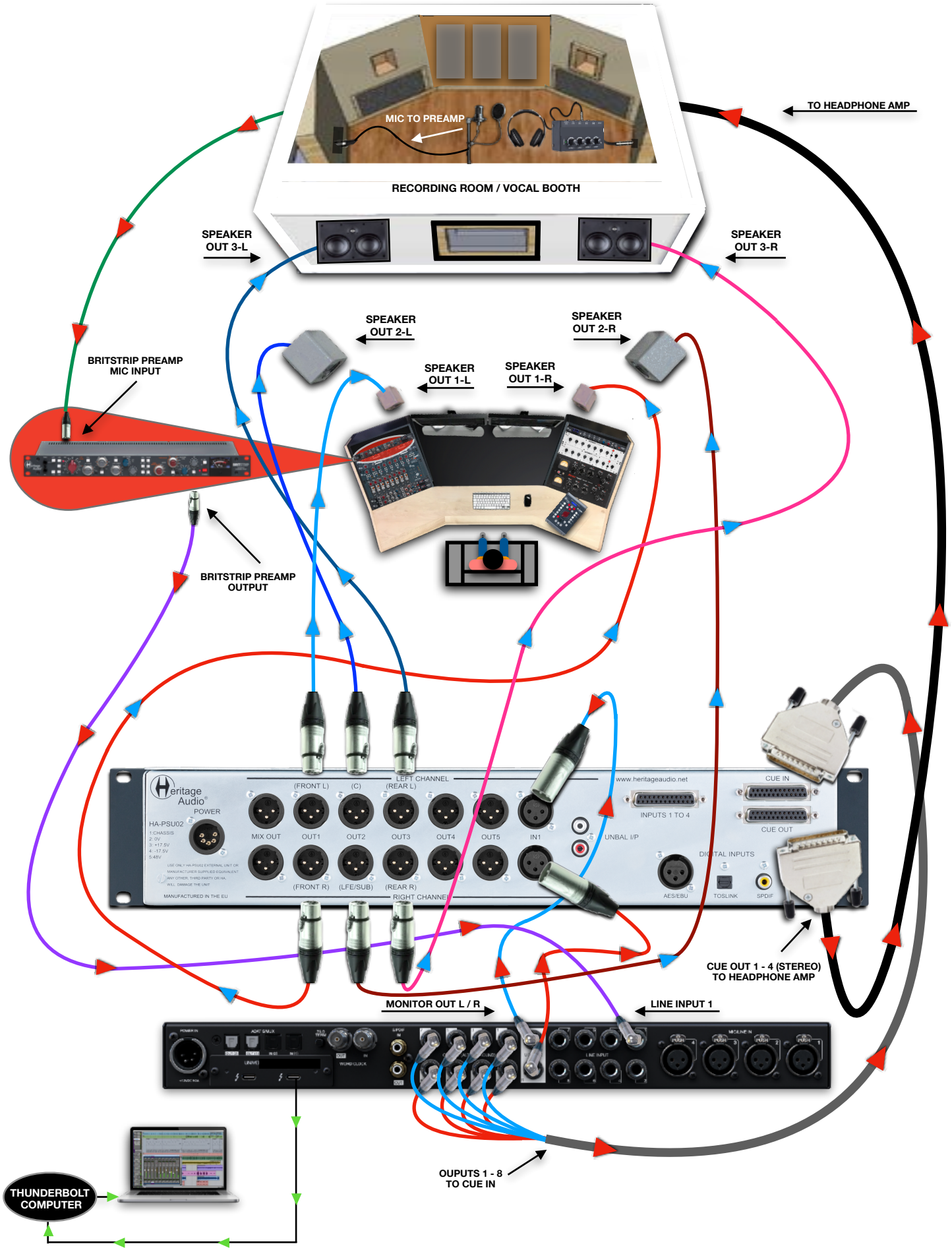
- Turn OFF both the remote and the main unit. Turn ON the main unit.
- Turn Remote unit ON while having SHIFT+OUT3 pressed. (Press both keys and then turn ON the unit, keeping them pressed). The unit will ask to confirm the reset. Please confirm.
- Upon confirmation the unit will ask you to connect both the remote and the main unit via the USB cable.
- Press OUT 3. If all goes OK (it will), the remote will ask you to turn OFF both units.
- After turning both OFF and ON again, the units will be correctly paired.

STEREO MONITOR

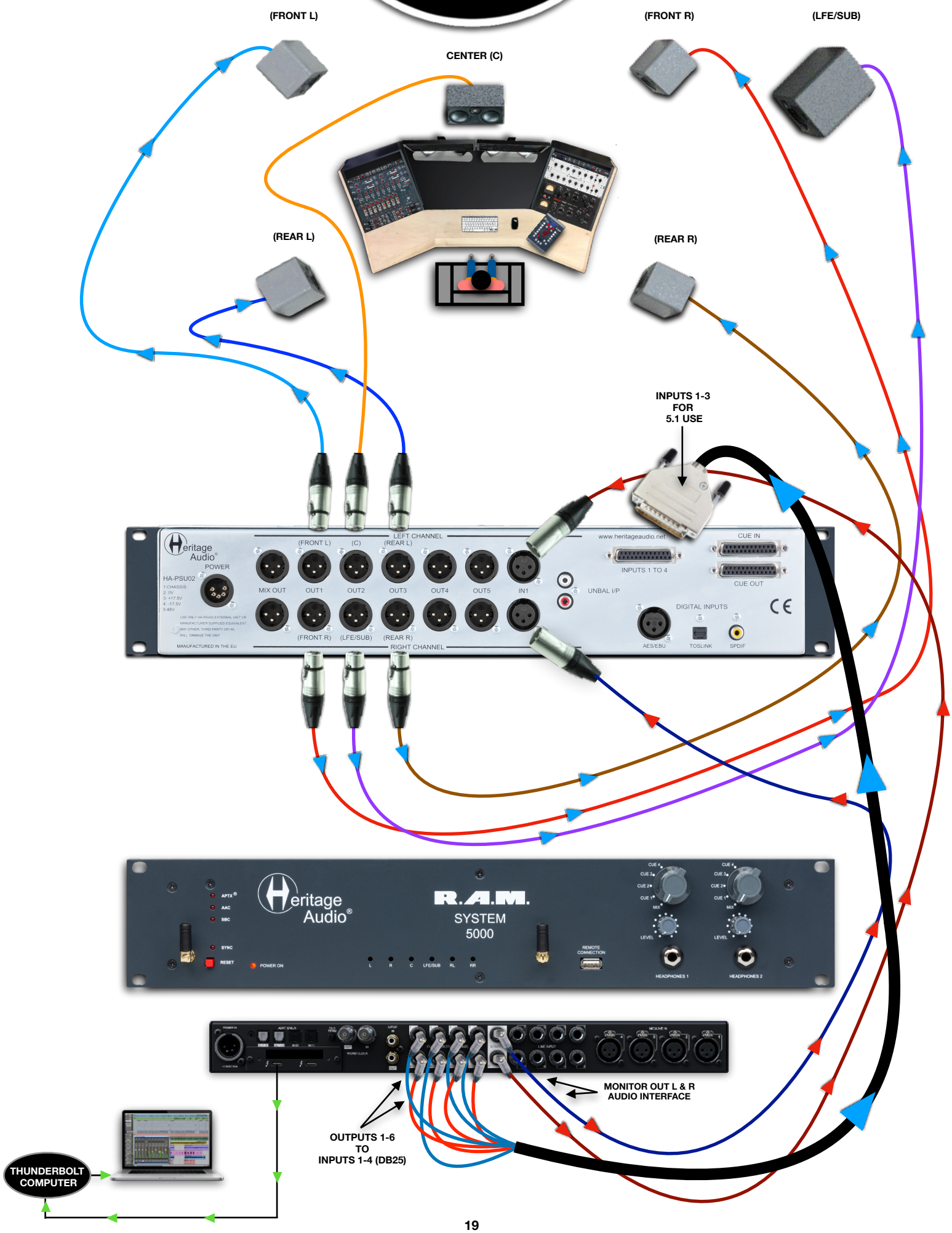


MULTIPLE STEREO MONITOR

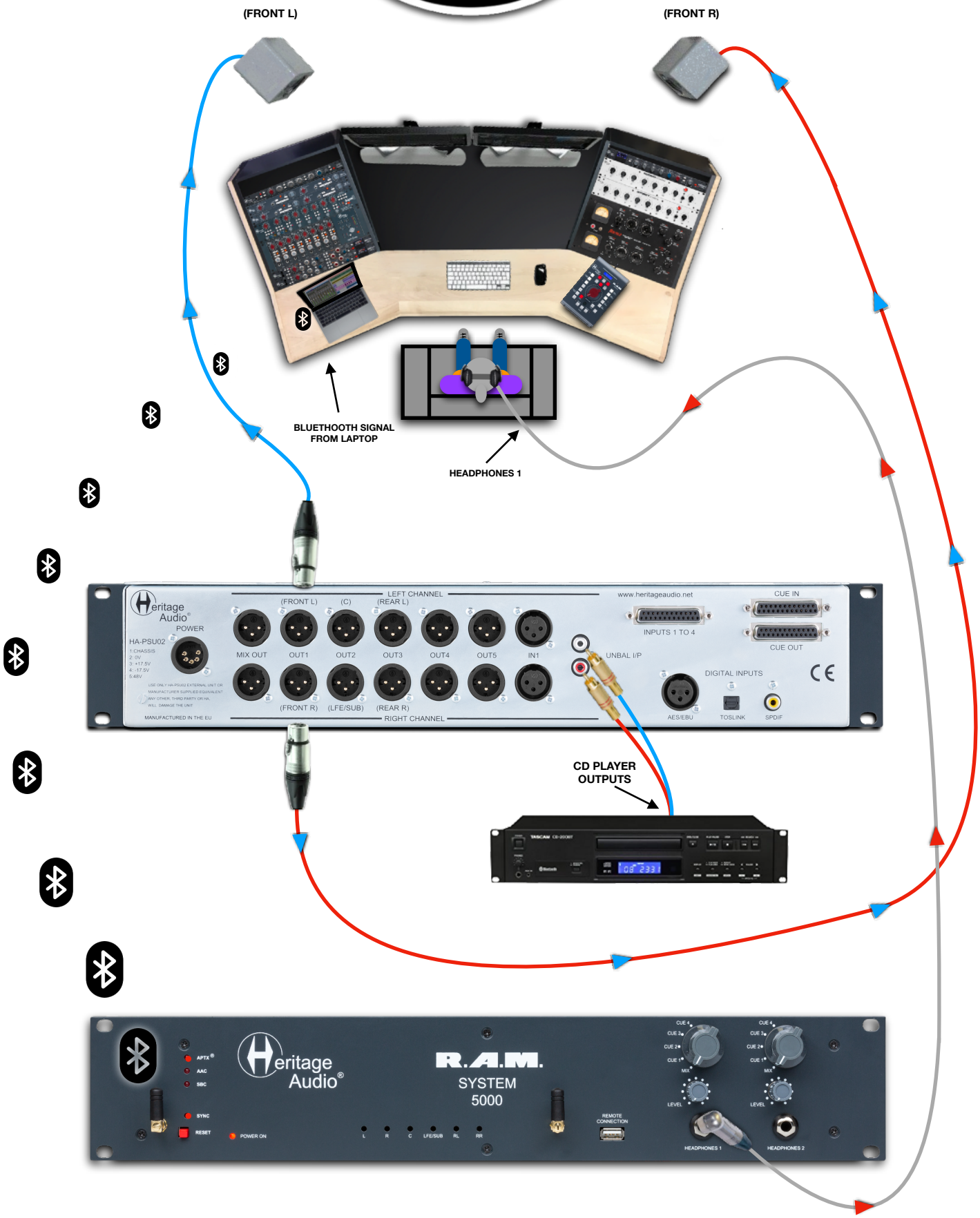
TRACKING MONITORING - MULTIPLE STEREO & MUSICIAN CUE SENDS



5.1 SURROUND


(FRONT L)
(FRONT R)
(LFE/SUB)
CENTER (C)
(REAR L)
(REAR R)
INPUTS 1-3
FOR
5.1 USE
LEFT CHANNEL
RIGHT CHANNEL
(FRONT L)
(C)
(REAR L)
(FRONT R)
(LFE/SUB)
(REAR R)
MIX OUT
OUT1
OUT2
OUT3
OUT4
OUT5
IN1
UNBAL I/P
INPUTS 1 TO 4
CUE IN
CUE OUT
DIGITAL INPUTS
AES/EBU
TOSLINK
SPDIF
POWER
HA-PSU02
www.heritageaudio.net
R.A.M.
SYSTEM
5000
HEADPHONES 1
HEADPHONES 2
MONITOR OUT L & R
AUDIO INTERFACE
OUTPUTS 1-6
TO
INPUTS 1-4 (DB25)
THUNDERBOLT
COMPUTER

BLUETHOOTH MONITORING



ANALOG I/O

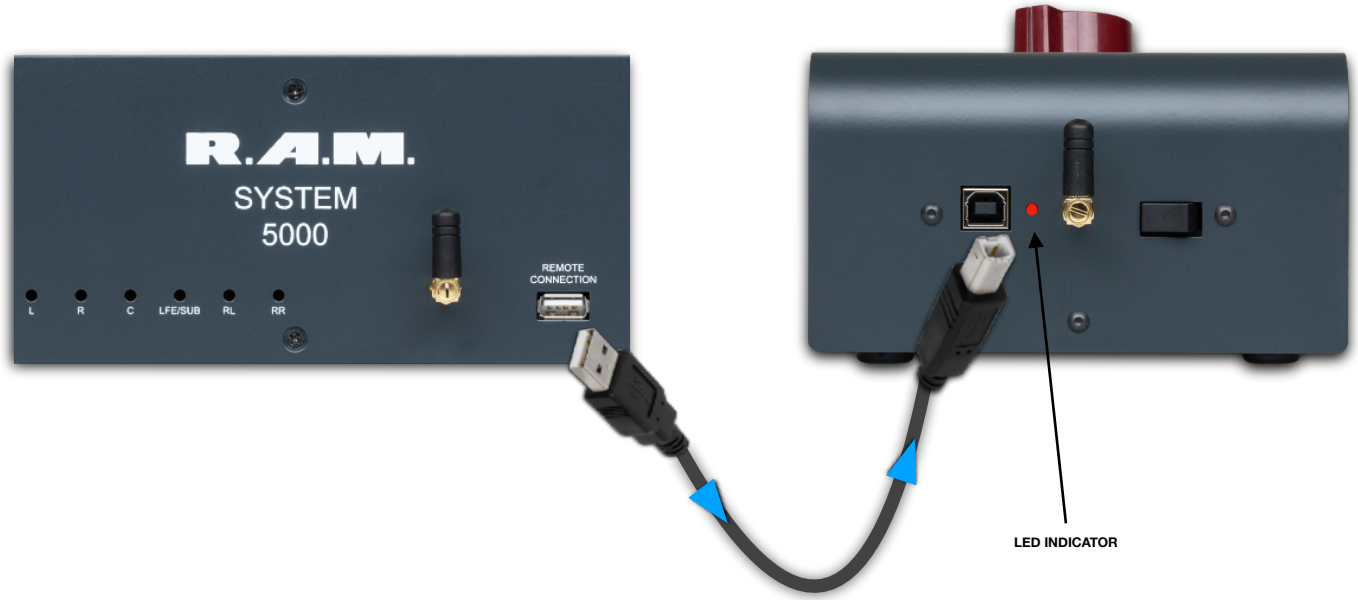
- All functions on high-quality illuminated engraved buttons.
- Configurable for 5.1 or stereo.
- 4 pairs of balanced +4 dBu analog inputs in Stereo mode.
- 1 x 5.1 input plus an additional stereo +4 dBu analog input.
- 1 pair of unbalanced analog inputs on RCA connectors.
- Wolfson WM8741 24-bit/192 kHz DAC selectable between AES/EBU, S/PDIF, and Toslink.
- Pro-audio-quality Bluetooth input for easy mobile device integration.
- 4 pairs of CUE inputs on D-sub connectors for cue-mix distribution to artists.
- 1 x 5.1 output plus 2 additional stereo outputs in 5.1 mode.
- 5 pairs of stereo outputs in stereo mode.
- Independent MIX output (pre-fader; follows Input).
- Independent Subwoofer output facilitates sub sharing between different speaker sets, including 5.1.
- 2 user-assignable preset levels for easy recall of common settings.
- MUTE, DIM, MONO and PHASE REVERSE functions.
- MUTE/SOLO functions for individual speakers.
- 2 high-level, ultra-high-current, audiophile-grade diamond-buffer-based headphone amplifiers, capable of driving any hi- or lo-Z headphones without coloration or noise.
- Headphone source selectable between mix and cue signals.
- Wireless Talkback with console-style management, including Talkback to Cue, Talkback to Mix, and Talkback to All.
- Remote includes long-life battery, rechargeable via USB cable.
- Main unit includes charging dock.

TECHNICAL SPECIFICATIONS

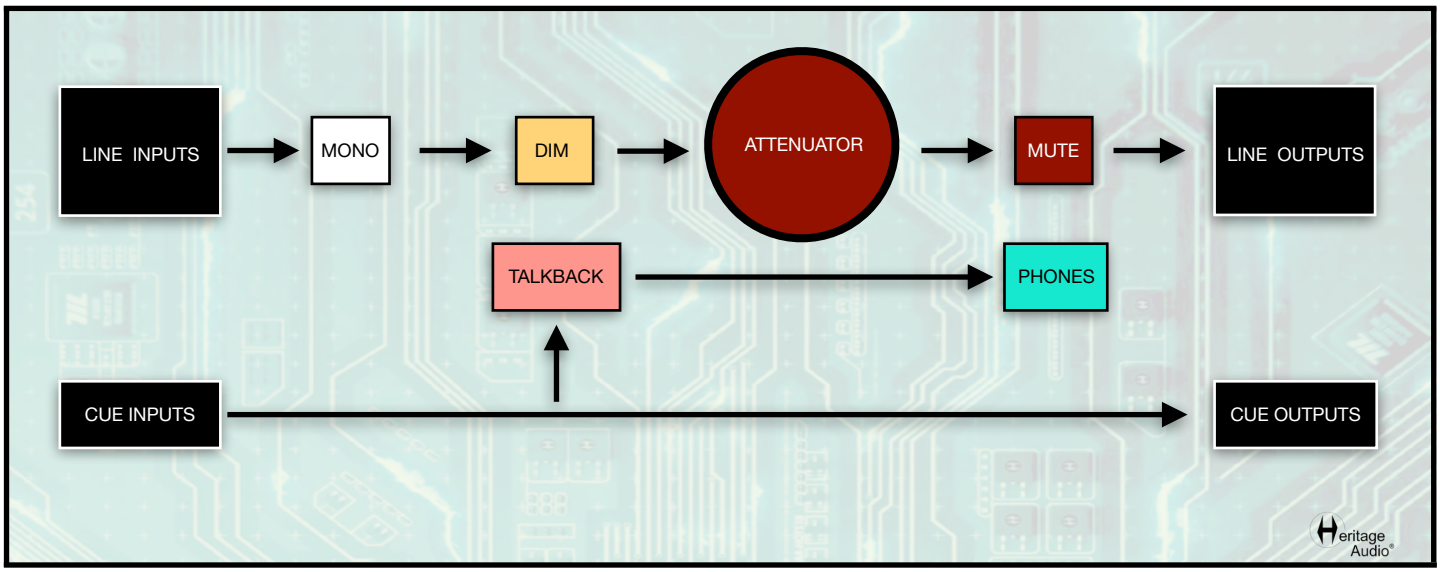
- **Maximum analog input level:** Over +27.5 dBu
- **Digital input:** Up to 24 bit/96 kHz. 0 dBFS = +22 dBu at the output, all fader up.
- **Bluetooth input:** AAC, aptX or SBC, 0 dBFS=+22 dBu at the output, all fader up.
- **DIM attenuation:** -20 dB.
- **Maximum output level:** Over +27 dBu into 600 Ω.
- **Noise:** Better than -99 dBu.
- **THD:** Better than .001% at 1 kHz, balanced input to balanced output, all fader up.

CHARGING REMOTE CONTROLLER

The power supply is of the auto switching universal type so it works worldwide without adjusting anything. In case your country uses a different mains cable other than the one provided in the box, just get the correct one and you are ready.
The remote unit is operated by means of an internal rechargeable battery, similar to that found in your mobile phone. A charging dock comes included in the main unit, as is the USB cable. A red LED on the back of the remote unit will light when being charged and the unit can be fully operated while in charge mode. It is recommended to completely charge the battery on its first use.
Please turn on the main unit and the remote unit thereafter. A “Connecting” message will display and, if connection is successful, a message will display shortly thereafter.



SIGNAL FLOW



TROUBLE SHOOTING

PROBLEMS	SOLUTIONS
There is no sound coming from my RAM SYSTEM 5000.	Make sure the ´MUTE´ button is not pressed.
The audio from my RAM SYSTEM 5000 seems less open than the audio directly from my DAW.	Double check that you have not accidentally pressed the ´MONO´ button.
Even with the volume knob all the way up it doesn´t seem to output as much as before.	You may have the ´DIM´ button pushed, reducing the output by -20 dB.
There is no signal present at the RAM SYSTEM 5000´s Output.	Verify that you have correctly connected the Input and Output cables.
Upon turning on the RAM SYSTEM 5000 there is no sound.	This is normal as it starts in MUTE. Just turn the volume knob to activate.
Is it possible to have both outputs or both inputs active at the same time?	No, you can only use one Input and one Output at any given time.
Can I use a stereo subwoofer?	No, there is only one subwoofer output. Subwoofer use is generally in MONO, not Stereo.
Can I use the subwoofer with any Stereo Output.	Yes, it's possible to use the Subwoofer with Stereo outputs 1, 3, 4 & 5. (See page 9)
I have lost connection between the remote control and the rack unit.	It will be necessary to preform a RESET. (See page 15)
I´m having a problem syncing up with the Bluetooth signal.	It will be necessary to preform a RESET. (See page 15)
I want to use a new mobile device with the Bluetooth Input but it is not recognised.	Push the RESET button when connecting a new Bluetooth device.

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

SUMMARY OF SOFT FUNCTIONS

While the main functions of the RAM SYSTEM 5000 are simply accessible by pressing the corresponding key, several others are accessible as a 2-button combination, employing the SHIFT button for this purpose. These have been described all along this manual, however for easy recall, they are listed below:

BUTTON COMBINATIONS	MODES
SHIFT + IN 1	Configures the 5.1/ST mode of operation
SHIFT + IN 2	Configures the SUB output behavior
SHIFT + MUTE L, C, R, RL, SUB, RR	Solos the related speaker
SHIFT + DIG	Switches the digital input between AES/EBU, SPDIF or TOSLINK
SHIFT + OUT 1	Sets the volume Level Preset 1
SHIFT + OUT 2	Sets the volume Level Preset 2
SHIFT + OUT 4	Saves the status of the RAM SYSTEM 5000, so the unit returns to the last configuration saved when turning off and on
SHIFT + OUT 5	Saves level preset (confirmation of preset 1 or 2 needs to follow)
SHIFT + MUTE	Activates MONO listening
SHIFT + DIM	Reverses phase
SHIFT + TB MIX	Lowers the talkback mic gain
SHIFT + TB CUE	Raises the talkback mic gain

CALIBRATION

The Heritage Audio RAM SYSTEM 5000 is calibrated to be unity gain from input to output straight from the factory and therefore it does not require further calibration. However, some 5.1 installers may suggest you trim some outputs (specially the LFE) from the monitor controller. We strongly suggest doing so on the power amps instead, but individual output trimmers are accessible at the front panel of the unit via a small flat screwdriver. WE HIGHLY RECOMMEND LEAVING THEM ALONE AS RECALIBRATION IS NOT COVERED BY WARRANTY. Now, if you really have the need to calibrate the Input LEDs we recommend sending it a tone, digitally, at at around 16-18 dBFS for adjustment. This is because in that area it will be more exact as there are only 2 dBs of range, therefore allowing you to focus more precisely. And if possible, do use the SPDIF digital input for this.

WARRANTY STATEMENT

LIMITED 2 YEAR WARRANTY

Heritage Audio R.A.M SYSTEM 5000 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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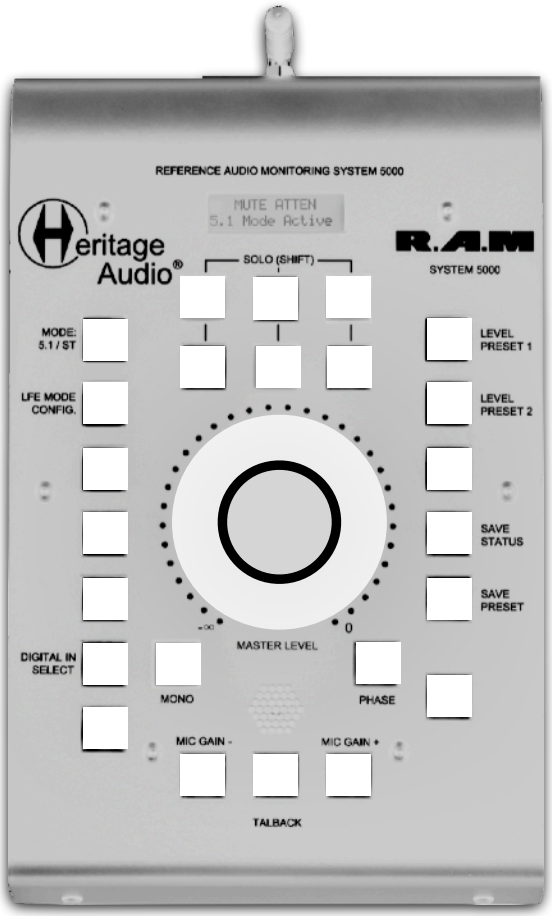
REGISTRATION

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

Session / Title:_____ Track:_____ CUE:_____ Codec: _____

Date:_____ Instrument: _____ Notes: _____



Mode:_____ LFE Mode: _____ Digital Input: _____ Preset: _____

Notes:_____

☑ Switch **ON**

☐ Switch **OFF**

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