# MCM-8 II

# 8-SLOT 500 SERIES CHASSIS

With Integrated 10-Channel Summing Mixer



# **USER MANUAL**



### INTRODUCTION

Thank you for choosing the **MCM-8 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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In 2015, Heritage Audio set a new standard in 500 Series enclosures with the addition of the OST technology. Then, we introduced the MCM8, a true transformer-based voltage summing mixer for 500 Series modules. Hundreds of units later, we have taken all our customers' feedback and included it in the new and improved version, the MCM-8 II.

The main differences between this version and its predecessor are: Additional 500 series button per channel, allowing you to bypass the 500 series module when mixing if desired. This also allows for quick comparisons between processed/unprocessed signals. As well as making using the mixer with empty slots much easier by simply unpressing the 500 button.

Significantly lower noise: A highly innovative, new quasi-balanced voltage summing topology sets the noise floor of the new MCM-8 II near the theoretical minimum. No more hiss in your mixes!

Standing for Music Compact Mixer 8, the MCM-8 II is an 8 slot 500 Series enclosure with 10 channel mixing capabilities and it's the Top of the Line of the new Heritage Audio "ON SLOT" Technology (OTS) 500 Series enclosures.

# "ON SLOT TECHNOLOGY"

Takes advantage of latest generation of power electronics to handle power supply on a "per slot" basis. Each slot has its own power supply linear regulation stages; therefore modules are isolated from the rest. They just share the metal enclosure.

With literally hundreds of brands making 500 series modules, we at Heritage Audio think this is the professional way of handling this reliably, eliminating issues often associated with sharing power between different modules of different brands and manufacturers.

Each slot features test LEDs for checking correct power operation (red for +16 V, green for -16 V), located aside of the slot connector.

Thanks to the use of OST, the power capability of the MCM-8 II is 400 mA per rail per slot maximum, with an overall of 1.4 A (1.6 A non continuous) per rail, whichever is reached first.

Phantom power available is 140 mA total.

The RAF Blue Gray enclosure is made out of heavy gauge steel with an aluminum front panel.

There are Pan and Fader controls per slot on dual concentric potentiometers. Pan pots are center detent for precise center positioning. Features include an ON switch to assign each channel to the Mix Bus for Stereo summing.

The Mix Bus follows a passive, voltage summing topology, similar to that found in the 80 Series consoles of the 70s. The gain loss is restored by the same Class A, 2n3055 driven, Carnhill transformer based output stage used in the Heritage Audio DMA 73.

An additional Stereo Input (AUX IN L & R) is provided on the back of the unit, allowing several MCM-8 II units to be daisy chained, or signals not needing further 500 series processing to be mixed together.

The central section has analog VU meters and a Stereo Master fader.

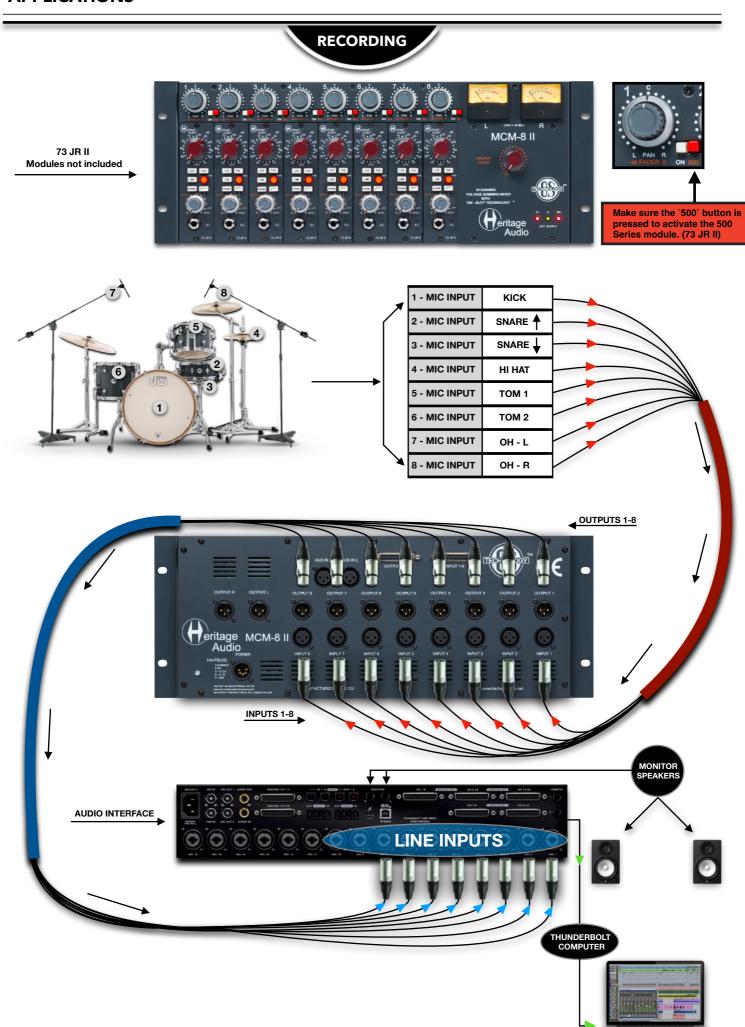
Connections are made by means of both gold plated XLRs and DB25 with the Tascam standard protocol.



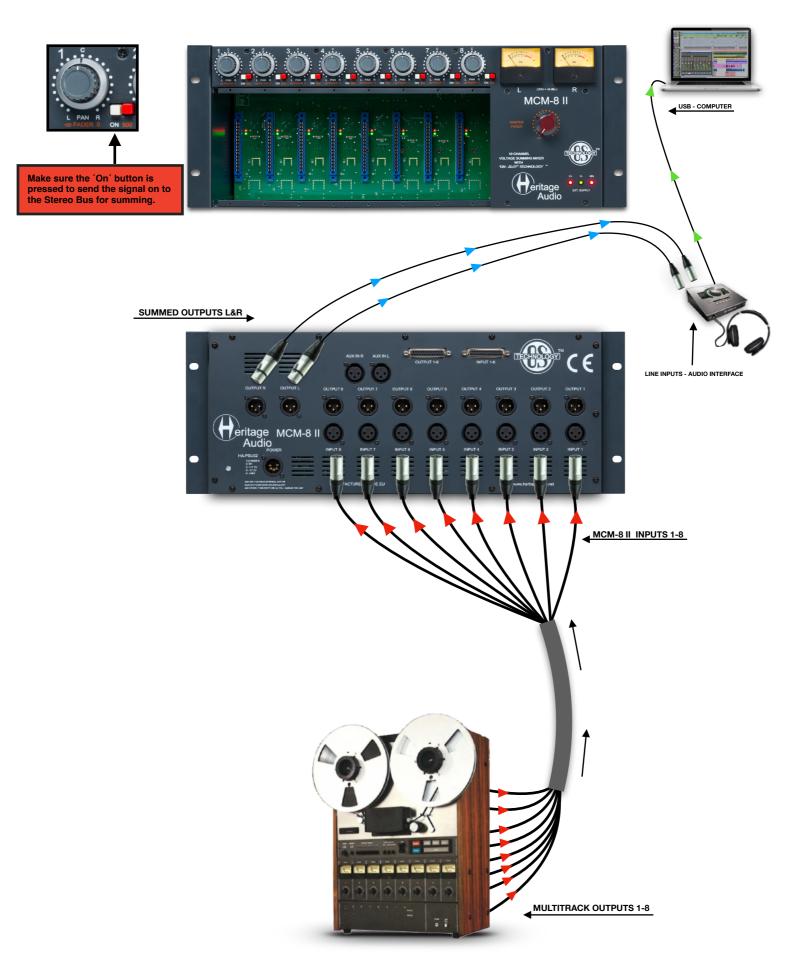
1	2	3	4	5
ON SLOT TECHNOLOGY Individual power per slot	SLOTS (8) On Gold Plated Edge Connectors	VOLTAGE LEDs Verify that the correct voltage is arriving at each slot (±16 V)	CHANNEL PAN Positions the signal from Left to Right, center detented	CHANNEL FADER From Infinity to Unity
6	7	8	9	10
CHANNEL ON/OFF 'On' sends Signal to Stereo summing bus.	<b>500 BUTTON</b> Routes the Signal Through the 500 Series Module	MASTER VU METERS Calibrated at 0VU= +8 dBu	MASTER FADER From Infinity to Unity	GLOBAL POWERING INDICATORS Confirms the Correct Voltage is arriving from the External Power Supply

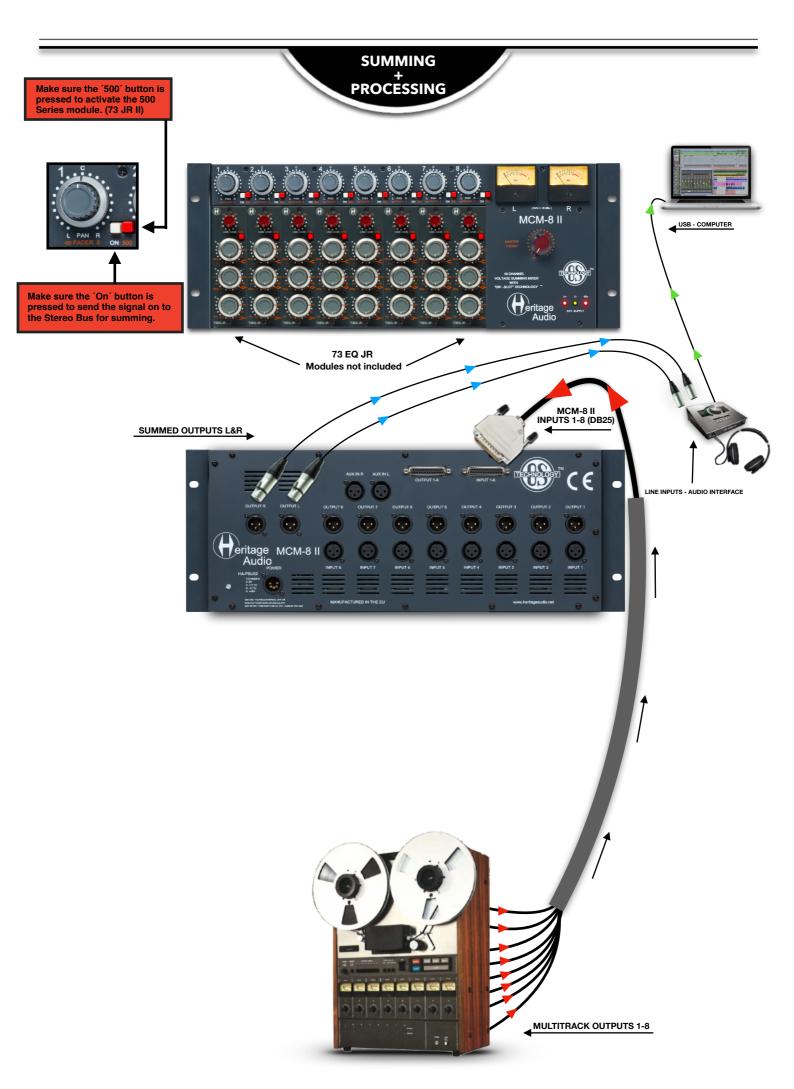


1	2	3	4
MAIN OUTPUTS L&R	AUX INPUTS L&R	OUTPUTS 1-8	INPUTS 1-8
On Gold Plated XLRs	On Gold Plated XLRs	25 PIN D-SUB(DB25) CONNECTOR	25 PIN D-SUB(DB25) CONNECTOR
5	6	7	
OUTPUTS 1-8	INPUTS 1-8	EXTERNAL POWER INPUT HA-PSU02	
On Gold Plated XLRs	On Gold Plated XLRs	On Gold Plated XLR5	



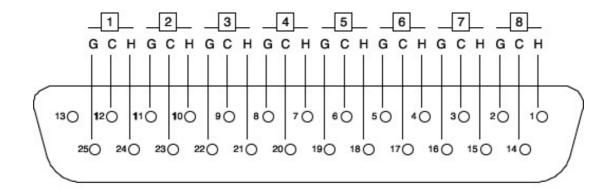
# **SUMMING**





All DB25 multi pin connectors are TASCAM protocol. This same protocol is also used by AVID amongst many others, and is a follows:

# 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:

CHANNEL INPUTS 1-8:	
TASCAM DSUB CHANNEL#	CHANNEL I/P 1-8
1	INPUT # 1
2	INPUT # 2
3	INPUT # 3
4	INPUT # 4
5	INPUT # 5
6	INPUT # 6
7	INPUT # 7
8	INPUT # 8

CHANNEL OUTPUTS 1-8:		
TASCAM DSUB CHANNEL #	CHANNEL O/P 1-8	
1	OUTPUT # 1	
2	OUTPUT # 2	
3	OUTPUT # 3	
4	OUTPUT # 4	
5	OUTPUT # 5	
6	OUTPUT # 6	
7	OUTPUT # 7	
8	OUTPUT # 8	

It is worth noting that, in order to avoid ground loops, the DB25 ground connections are lifted on the Súper 8 side, leaving the ground paths of your DB25 snakes only acting as shields and preventing any current returns.



### **MIXER SECTION**

- Channel Input Impedance: 20 kΩ.
- Maximum input level: Over +27 dBu.
- Maximum output level: Greater than +26 dBu into 600  $\Omega$ .
- Frequency response: ±0,5 dB 20 Hz to 20 kHz.
- THD + N: Not more than 0,07 % from 50 Hz to 10 kHz at +20 dBu output (80 kHz bandwidth) into 600  $\Omega$ .
- Self-noise: -90 dBu.

# **ENCLOSURE SECTION**

- · On Slot Technology.
- Maximum audio rails current: 1,8 A per rail, or 400 mA per rail per slot, whatever is reached first.
- Maximum phantom power current: 140 mA.
- Operating voltage: Universal 100-240 V AC.
- Dimensions (W x H x L): 482 mm x 220 mm (5 Rack units) x 185 mm.







PROBLEMS	SOLUTIONS
There doesn't seem to be any power feeding the MCM-8 II.	Make sure the HA-PSU02 has been connected.
No audio seems to be getting to the modules.	Double check that you have correctly connected the Inputs and Outputs for the slot.
There is still no signal getting to the modules.	Make sure that you have pressed the '500' button to activate the 500 Series module.
There is no signal present at the L & R XLR Outputs.	Make sure you have pressed the 'ON' button to send the signal to the summing bus, the MAIN Stereo Outputs (L&R).
8 inputs is not enough, I need more to sum everything.	You have the option to use the pair of AUX IN L & R Inputs to connect another MCM-8 II giving you a total of 16 inputs with processing by 500 Series modules. All summed together into a Stereo Mix (OUTPUT L & R).

<sup>\*</sup> For any further doubts or questions please get in contact with us at: <a href="mailto:support@heritageaudio.com">support@heritageaudio.com</a>

### **LIMITED 2 YEAR WARRANTY**

Heritage Audio **MCM-8 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.

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# **REGISTRATION**

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