

DMA 73

DUAL CHANNEL MICROPHONE
PREAMP, CLASS A
RACKMOUNT



USER MANUAL



August/2022 Rev. 1.0.

INTRODUCTION

Thank you for choosing the Rackmount **DMA 73**. 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

73-style Mic Preamp

The top of the line stereo microphone preamplifier from Heritage Audio, there is no other current offering from any other major brand giving as much, in terms of authenticity, quality of construction and sound.

The Heritage Audio DMA 73 is a true dual 3-stage 73-style mic preamp in a 1 rack unit format. Added to the accurate vintage features, there are some key ones for covering all the needs of modern producers, engineers and musicians.

Employing only discrete circuitry and conventional, vintage-style components, the DMA 73 is a faithful 3-stage all Class A 73 preamp. Custom styroflex and tantalum capacitors have been used throughout, no corners cut.

The DMA 73 is completely hand-made and hand-wired in our Madrid Spain facility, employing only traditional through hole circuitry, just like it was done in the 70s. It indeed takes a massive amount of qualified labor to get one unit ready for studio operation. The results are simply stunning.

Carnhill input transformers are hand wound at the Oxford factory exclusively for Heritage Audio, enclosed in vintage correct green metal cases for the ultimate in detail nailing. The vintage character is indeed guaranteed and you won't find them in any other brand's products.

The line mode allows for reamping prerecorded tracks and it is perfect for adding the magic vintage Class A mojo to lifeless recordings. It indeed makes use of the mic input transformer.

The DI circuit is an all discrete Class A JFET circuit ahead of the microphone transformer, so none of the magic is compromised.

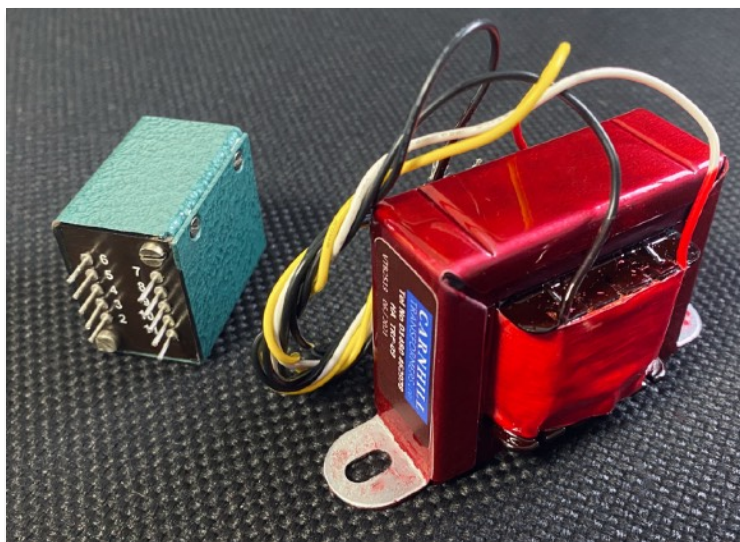
Since its introduction in 2012, the Heritage Audio's DI circuit has become a classic for recording bass guitar direct.

When looking to spend top dollar for the ultimate vintage 73 preamp experience, always keep the following in mind: Transformers can make all the difference in the world.

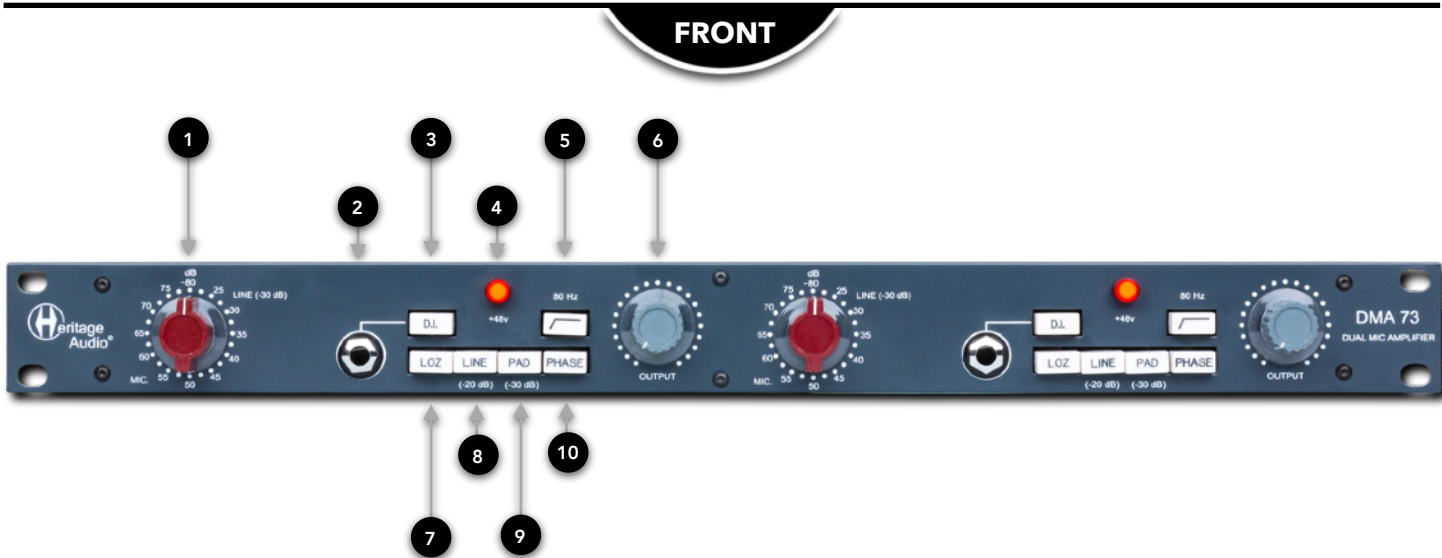
The DMA 73 Transformers:

No 73 preamp is such without the correct transformers. Heritage Audio went a step further then competition. The output transformer, the same used all along 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 is one of the main reasons for sonic differences in between the DMA 73 and the competitors.

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



GETTING STARTED



1	2	3	4	5
INPUT GAIN SWITCH 5 dB Steps From 30 to 80	D.I. INPUT High Impedance Class A JFET	D.I. Switch to activate the D.I. input	PHANTOM POWER Activates 48 V	HIGH PASS FILTER -3 dB at 82 Hz, Discrete Class A
6	7	8	9	10
OUTPUT ATTENUATOR Attenuates from 0 to Infinity	MIC INPUT IMPEDANCE (Lo z) 1200 Ω or 300 Ω when pressed	LINE Switches from MIC/D.I. to Line	MIC PAD PUSH BUTTON -20 dB pad, ahead of the input transformer	PHASE Flips phase 180°

REAR

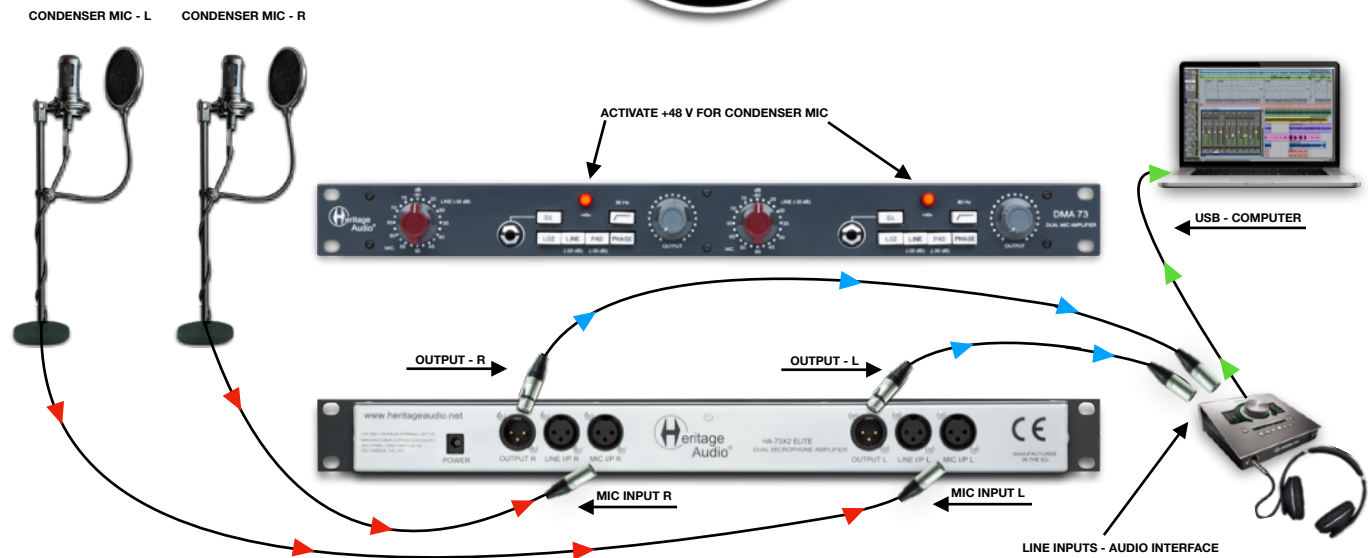


1	2	3	4
POWER INPUT To Be Connected to the external Power Supply	LINE OUTPUT Male XLR Connector	LINE INPUT Female XLR Connector	MIC INPUT Female XLR Connector

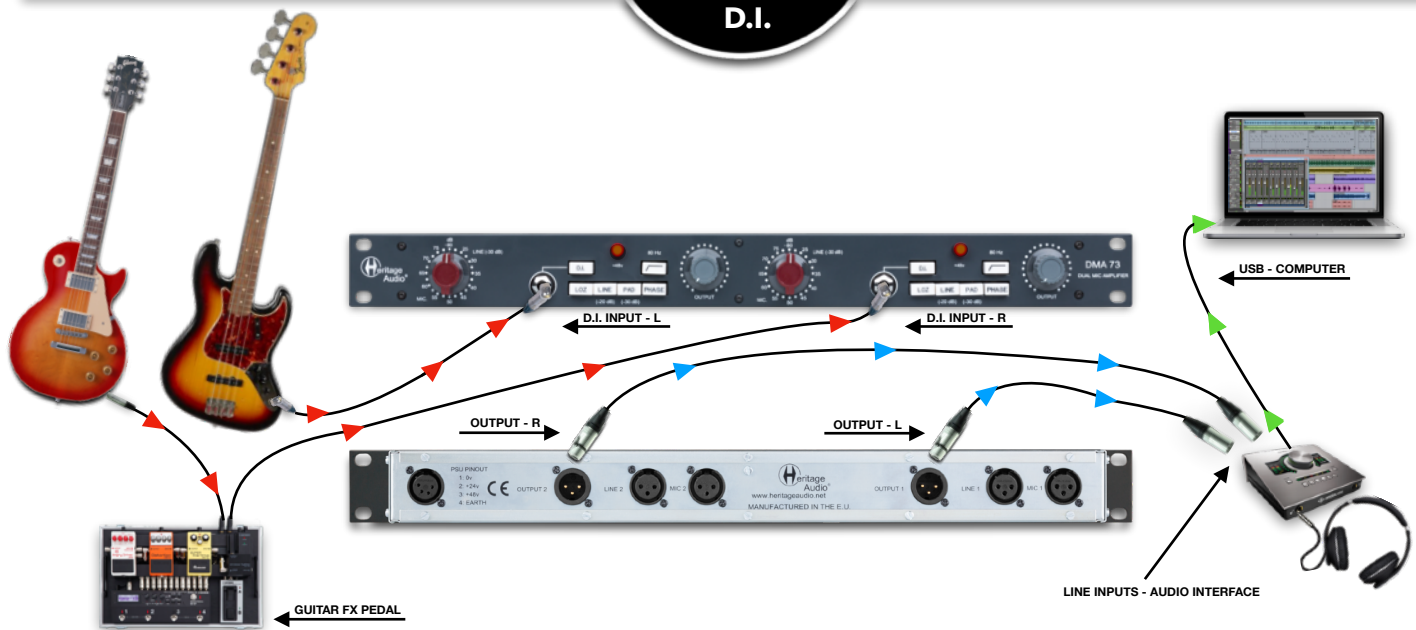
All XLRs are: Pin 1: GND Pin 2: Hot Pin 3: Cold	MALE XLR GND Hot (+) Cold (-)	FEMALE XLR 	D.I. Jack: Tip: Signal Sleeve: Ground	 Tip Sleeve Tip=Signal Sleeve=Ground/Shield
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APPLICATIONS

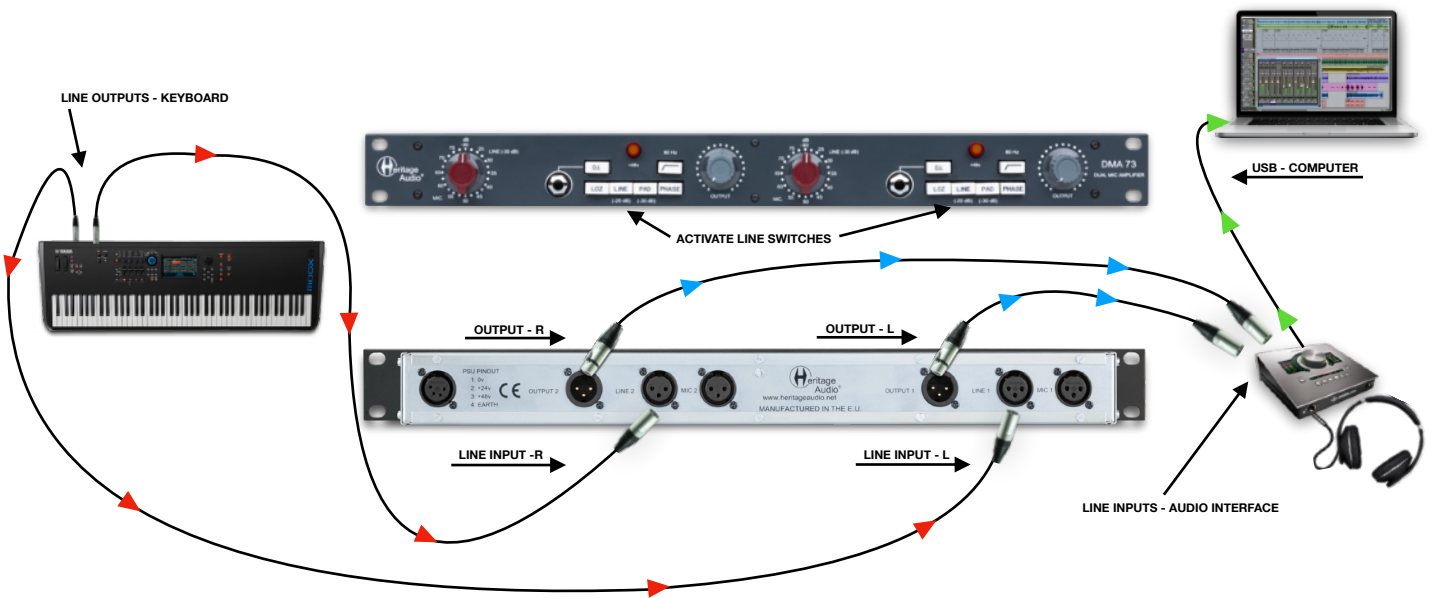
MIC



D.I.

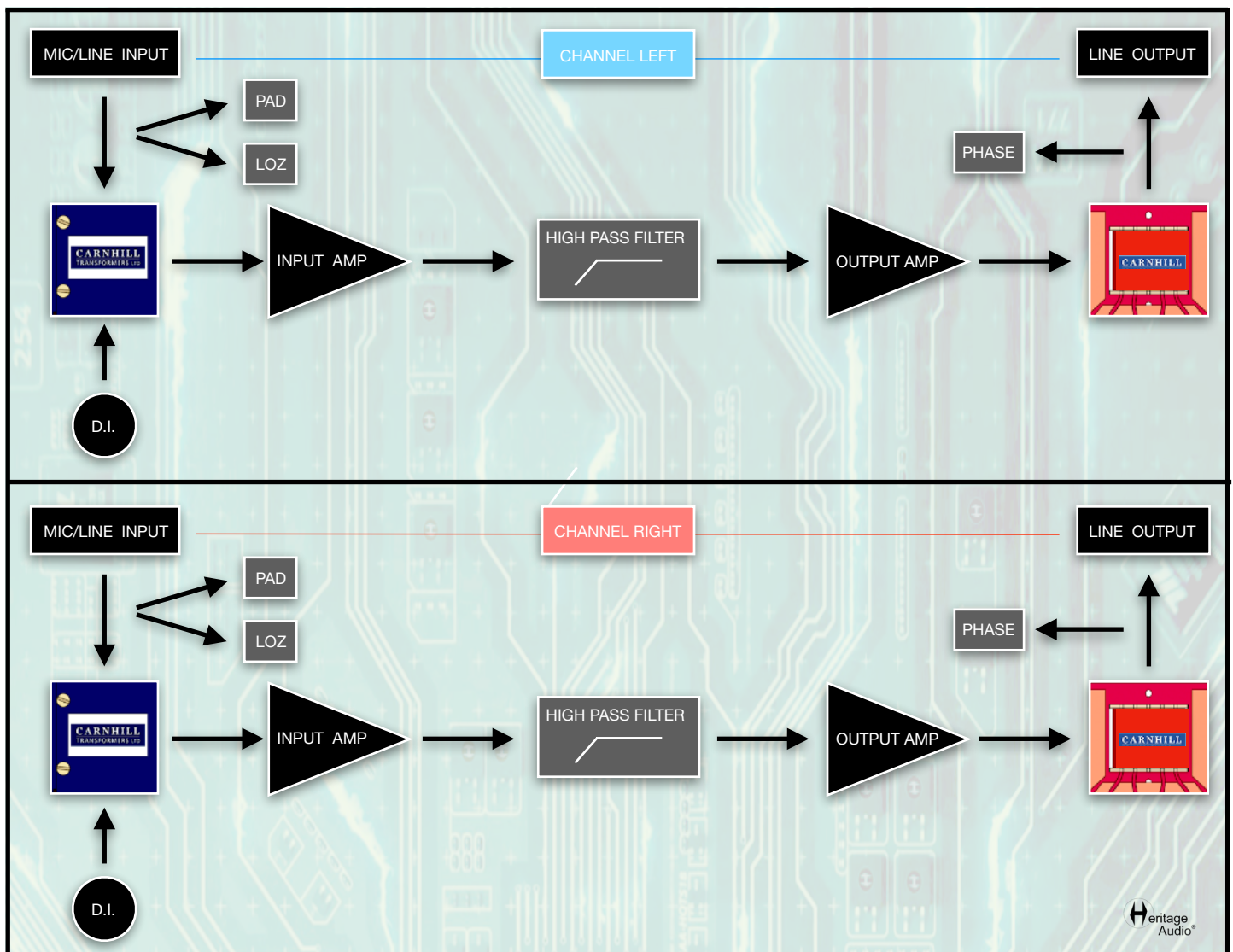


LINE



- **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 , Carnhill transformer balanced and floating, to drive a load of 600 Ω (Factory terminated).
 - **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 -100 dBu.
 - **Power consumption:** 88 mA per rail @ ± 16 V DC.
- (External linear PSU to avoid electromagnetic radiation into the audio transformers (a.k.a. hum).
- **Dimensions DMA 73 (W x H x L):** 482 mm x 44 mm (1 Rack unit) x 184 mm.
 - **Weight:** 3,4 Kg.
 - **Dimensions External PSU (W x H x L):** 200 mm x 44 mm (1 Rack unit) x 160 mm.
 - **Weight:** 1,9 Kg

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 DMA 73.	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.
I'd like to use my amp but have connected my guitar to the DMA 73 to send to the FOH engineer.	Simply tap the signal from the THRU output jack. It is identical to the signal received at the DMA 73 input.
Experiencing hum no matter the cable used.	Check the physical placement of the DMA 73. Make sure it is not too close to other equipment that may cause the problem. The huge toroidal transformer installed can be susceptible to picking up hum.

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

WARRANTY STATEMENT

LIMITED 2 YEAR WARRANTY

Heritage Audio DMA 73 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.

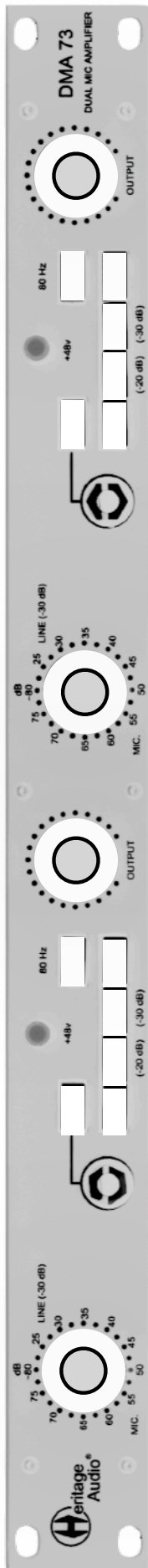
This warranty is not transferable.

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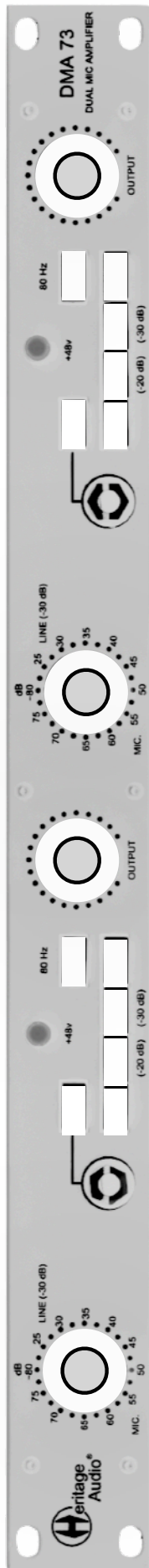
REGISTRATION

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



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

Date: _____ Instrument: _____ Notes: _____
☒ Switch ON ☐
☐ Switch OFF ☐



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

Date: _____ Instrument: _____ Notes: _____
☒ Switch ON ☐
☐ Switch OFF ☐



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