# **EVOLUTION**

# LINE PREAMPLIFIER OPERATING INSTRUCTIONS





Beautiful As Music

# **EVOLUTION**

LINE PREAMPLIFIER
OPERATING INSTRUCTIONS



#### **IMPORTANT**

The umbilical cables carry high voltages. Care must be taken to make sure they are properly inserted. The Chassis earth wire must always be installed for safety.

The umbilical cables are polarized such that they will fit only in one direction. The end of the cable with the female sockets will fit into the PSU and the end with the male pins will fit into the audio amplifier unit.

Allow at least 30 minutes after turn off before removing the umbilical cable to allow the high voltage to drain.

## **UNPACKING**

The Doshi Audio Line Stage is made up of an audio amplifier unit, power supply and umbilical cords. Please unpack these from the carton and inspect to make sure that there is no damage from shipping

## **INSTALLATION**

Install the supplied tubes into the audio unit. Please be extremely careful so the tube pins or sockets are not damaged (see tube section in this manual for installation instructions)

Connect the umbilical cords to from the Power supply to the Audio preamplifier.

The Power Supply is also the main ON/OFF control for the preamplifier so it is helpful if it is located for easy access to the front panel power switch







4 Inputs on the Left | 3 Sets of Outputs on Right Rear of Audio Unit and HV Power Connection



Front of Power Supply Unit



Umbilical Cables

#### **DESIGN PHILOSOPHY**

The primary function of a line stage is to serve as a device that enables switching and control of multiple inputs and control of audio level into the amplifier. In addition to this functionality, the line stage has to be able to isolate source equipment and drive the combined load of the cable and amplifier input.

Doshi line stage achieves these objectives by combining transparent relay switching and a stepped secondary volume control transformer (TVC). The use of a transformer in this application provides an additional benefit over level adjustment. It also provides isolation between source and amplification circuitry. This isolates the amplification from noisy sources (digital equipment, etc). An additional benefit of the TVC is a constant input load and a low impedance drive to the Line stage amplification. The active circuitry in the Doshi Line Stage is comprised of a dual triode operating with the first section providing amplification. This is then directly coupled into the second triode section which is configured as a follower. This results in a amplification of 12db and an output impedance of less than 30 ohms across the audio band.

Mechanical isolation is provided in the form of isolation grommets for the audio circuit board and mass damping of the chassis in the form of the top plate. This results in a high degree of mechanical isolation of the audio circuitry.

he Doshi Audio Line stage is supplied as stock with 2 pairs of XLR and 2 pairs of RCA inputs. It is supplied with one pair of XLR and one pair of RCA outputs. The design of this unit is very flexible in that it can be custom ordered with any combination of inputs and outputs, with or without a Home Theater bypass and in 4 channels if required. Please contact your dealer with specific needs.



The unit is powered On/Off by the power switch on the front panel of the PSU unit. The top left button on the Remote Handset is for the display on/off.

The front panel of the unit features two sets of buttons on either side of the display. The buttons on the left side are for Display ON/OFF, Mute and the buttons on the right side of the display are for input selection and phase. The Center button on the left is unused in this version. Some users might prefer to use the unit with the display off since this creates lower noise within the chassis.

The knob at the center of the display allows for increase / decrease of audio output level. There are 31 positions available. The Volume control is set up such that the first 3 and last 3 positions (1,2,3,29,30,31) are 3db steps, next 3 are 2db steps and the middle 20 positions are 1db steps.

The rear panel provides connection for inputs and outputs. This unit has 4 sets of inputs and 2 sets of outputs. The outputs are provided as 2 stereo pairs and are isolated. This allows for any combination of

interconnects to be used. For example: Amplifiers with SE inputs and Subwoofers with Balanced inputs can be used with little chance of ground loops and noise. A combination of loading is permissible. The outputs of the line stage are designed to function with optimum distortion into loads from 5K ohms to 100K ohms. At higher loading, it may be advisable to use the unused output socket to add a dummy load. This will optimize the transient response of the unit. RCA dummy plugs with loads can be supplied to experiment. As always, the ears are the best judge and any one unit does not operate in a vacuum and the overall system response is the goal.



Front Panel

## **OUTPUTS**

The audio outputs on the XLR connector are balanced and isolated. They can be used in into a balanced or single ended input. It is worth noting that the second output connector can be used in the same fashion.

The unit can be setup from the factory with 2 sets of XLR or RCA outputs. Any other combination is a no charge option.

# REMOTE CONTROL

The Remote Handset can be used to access all functions of the Preamplifier except for Power On/Off.

The picture and layout above describes the function of the handset.

Please note the operation of the phase function. The LED above the input will glow green when the phase through the preamplifier is non-inverted. The LED will glow amber/orange when the phase is inverted. The unit retains memory of the phase setting while it is powered up.



#### HOME THEATER BYPASS

The Doshi Audio Line stages are optionally fitted with a Home Theater Bypass facility. The unit does not need to be powered on for this facility to work. A suitable signal and remote connection from the HT processor to the HT bypass inputs of the Preamplifier. A remote bypass trigger of 12vdc must be present at the bypass input on the PSU and the preamplifier must be plugged into the wall for the bypass function to operate. The unit does not need to be turned on for the bypass function to operate. If the unit is turned on, it will de-activate the bypass relay.

When the preamplifier receives a remote trigger from the processor, it operates a set of relays that route the signals present on the HT Bypass input to both outputs. When the unit is in bypass, the trigger signal from the processor is present on the remote out jack as well to turn on any amplifier connected for remote start

#### REMOTE START

The signal from the remote start jack on the PSU is a 12vdc trigger output to enable remote start to amplifiers. 12vdc is present on the jack as follows:

PSU OFF / NO HT BYPASS Trigger: Remote OFF
PSU OFF / HT BYPASS Trigger ON: Remote ON

PSU ON : Remote ON

# TUBE:

The Unit uses a total of 2 tubes (1 Per channel)

All tubes are of the ECC99 type.

Tube Substitute: 12BH7A, 13D6

The tubes provided are of good quality OS or NOS. The User may prefer to substitute other tubes of the same type to tailor the sound characteristics to their taste.

**IMPORTANT: BE VERY CAREFUL** when inserting and removing tubes. Avoid touching the glass with bare hands and do not force the tube into the socket. Gently seat the tube into the socket and a firm push will seat it in.

#### **TUBE LOCATION**



#### CLEANING OF THE UNIT

Please do not use solvents of any kind. A slightly damp cloth adequate, the top of the unit is made from Anodized aluminum over a constrained layer of damping compound. This combination has very high damping and is used as a mass damping layer in the preamplifier.

#### **SPECIFICATIONS**

Weight – total weight 38lbs Power Consumption – 20W

Gain - Max 12db (adjustable)

Hum and Noise – At least 100db below 0dbv

Doshi Audio LLC, 2021

#### LIMITED WARRANTY:

Doshi Audio LLC (for U.S. sales) warrants this product against defects in material or workmanship for the time periods and as set forth below. Pursuant to this Limited Warranty, Doshi Audio LLC will, at its option, (i) repair the product using new or refurbished parts or (ii) replace the product with a new or refurbished product. For purposes of this Limited Warranty, "refurbished" means a product or part that has been returned to its original specifications. In the event of a defect, these are your exclusive remedies.

#### TERM:

For a period of 180 calendar days from the original date of purchase of the product, Doshi Audio LLC will, at its option, repair or replace with new or refurbished product or parts, any product or parts determined to be defective.

For a period of 24 months from the original date of purchase, Doshi Audio will repair the product free of labor costs

This Limited Warranty covers only the hardware components packaged with the Product.

#### **INSTRUCTIONS:**

To obtain warranty service, you must obtain a return authorization from the dealer that originally sold the product or Doshi Audio. You must deliver the product, freight prepaid, in its original packaging to Doshi Audio. Doshi Audio will not be responsible for any shipping damage or loss.

This Limited Warranty only covers product issues caused by defects in material or workmanship during ordinary consumer use; it does not cover product issues caused by any other reason, including but not limited to product issues due to commercial use, acts of God, misuse, limitations of technology, or modification of or to any part of the Doshi Audio product.

#### LIMITATION ON DAMAGES:

Doshi Audio LLC SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY OR CONDITION ON THIS PRODUCT.

DURATION OF IMPLIED WARRANTIES: EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

Some states or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This Limited Warranty gives you specific legal rights and you may have other rights which vary



The V3 series was extremely well received by the press, dealers and customers. It has proven itself to be reliable, great sounding and distinctive in its "form follows function" looks. It was hard to improve upon in significant ways but we have achieved this goal in every area of performance and reliability.



PHONO PREAMPLIFIER



TAPE PREAMPLIFIER



MONOBLOCK AMPLIFIER



STEREO AMPLIFIER



doshiaudio.com