

**MANLEY**

**LABORATORIES, INC.**

# **OWNER'S MANUAL**

## **THE PURIST PREAMPLIFIER**

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# INTRODUCTION

## **THANK YOU!...**

for choosing the Manley Laboratories "The Purist Preamplifier". Designed by David Manley, the Purist Preamplifier uses the best available parts with the shortest, cleanest, signal path possible. This Preamplifier has all the vital signal conducting electronics located near the input / output jacks with the controls connected with long shafts. The high-current line circuit employed here is one we have developed and refined over the years in our MANLEY Professional series. Minimalist signal path is accomplished with a few short, wide PC traces and very little wire. The signal wire is six nines pure copper, teflon insulated and well shielded. The signal is direct coupled through the tube stages and is only passed through one capacitor per side -and these are premium MIT foil/film caps. The gain controls are precise conductive plastic pots with the main volume being a custom unit specially imported that has superior electrical and mechanical characteristics. These controls are a large part of why this preamp has such a musical appeal similar to precision passive preamps. While passive preamps are notoriously sensitive to interconnect cables, this preamp will be easier and probably less costly to interface due to its constant low impedance output and high impedance inputs. Finally (but really initially) the power supply is a simple, highly filtered, well engineered design without the reliability problems common in other high voltage supplies.

The elegant front panel finish is a high purity plated gold that complements the electronics both visually and in its long lasting outstanding quality. We hope you agree with us and hundreds of satisfied users and studios around the world that this preamp really delivers. Please take a few moments to read through this manual, there may be features and information about this preamplifier which you should familiarise yourself with.

Thank you again, and please enjoy!

## **GENERAL NOTES**

### **LOCATION & VENTILATION**

The Purist Preamplifier must be installed in a stable location with ample ventilation. It is recommended, if this unit is rack mounted, that you allow enough clearance on the top and bottom of the preamp such that a constant flow of air can flow through the ventilation slots. We also recommend that the preamplifier be placed at least 10 inches away from its amplifier.

### **WATER & MOISTURE**

As with any electrical equipment, this preamplifier should not be used near water or moisture.

### **SERVICING**

The user should not attempt to service the preamplifier beyond that described in the owner's manual. Refer all servicing other than tube replacement to Manley Laboratories.

### **SPECIAL NOTES**

Tubes may become loose during transit. Straighten and press down each tube before plugging the preamplifier into the mains socket. Furthermore, do not touch the tubes after the preamplifier has been switched on, as the tubes do become very hot during operation and should only be handled after the power has been turned off and the tubes have cooled.

## MAINS CONNECTIONS

Your preamplifier has been factory set to the correct mains voltage for your country. The voltage setting is marked on the serial badge, located on the rear panel. Check that this complies with your local supply.

Export units for certain markets have a moulded mains plug fitted to comply with local requirements. If your unit does not have a plug fitted the coloured wires should be connected to the appropriate plug terminals in accordance with the following code.

GREEN/YELLOW	EARTH	terminal
BLUE	NEUTRAL	terminal
BROWN	LIVE	terminal

As the colours of the wires in the mains lead may not correspond with the coloured marking identifying the terminals in your plug proceed as follows;

The wire which is coloured GREEN/YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol or coloured GREEN or GREEN and YELLOW.

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked by the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked by the letter L or coloured RED.

**DO NOT CONNECT/SWITCH ON THE MAINS SUPPLY UNTIL ALL OTHER CONNECTIONS HAVE BEEN MADE.**

## CONNECTING YOUR PREAMPLIFIER

Setting up your preamplifier is rather easy.

1. Please refer to page 7 diagram 2 for an illustration of the back of the preamplifier.
2. There are three sets of main outputs, two identical sets of UNBALANCED RCA and the other BALANCED XLR. The BALANCED XLR's can be used with unbalanced inputs and either "leg" can be shorted to ground with no ill effects. This output is 6 dB louder than the unbalanced outputs because both "legs" contribute to the measured output. The pin out for the XLR is as follows:

PIN1 - ground

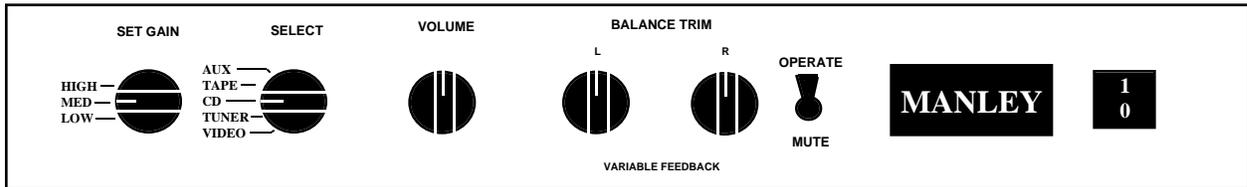
PIN2 - POSITIVE going phase (+)

PIN3 - NEGATIVE going phase (-).

Connect either (or both for bi-amping) the XLR or RCA output to the input of your amplifier as required.

3. UNBALANCED inputs are found on RCA jack inputs and can be connected to any line level sources such as CD players, tuners or tape decks.
4. All RCA jacks are clearly labelled as to a typical function. Each input is for all intents other than the labels functionally and electronically the same.
5. The record output is not buffered and it is recommended that one have the tape feed plugged into the REC OUT only when actually recording. Care should be used when using a 3-head tape/monitor switch as this record out is not a tape loop.
6. On the left end of the back panel is a standard IEC mains connector. This should be connected to a standard mains outlet with the supplied cable. This unit has been hard-wired for the mains voltage in your country
7. Power up the preamplifier FIRST and allow it to settle for a minimum of 30 seconds before powering up your amplifiers. Turn off your preamplifier and source components LAST when powering down a system. This prevents amplification of turn-on transients and other noises when powering up or turning a system off and ultimately protects the speakers.

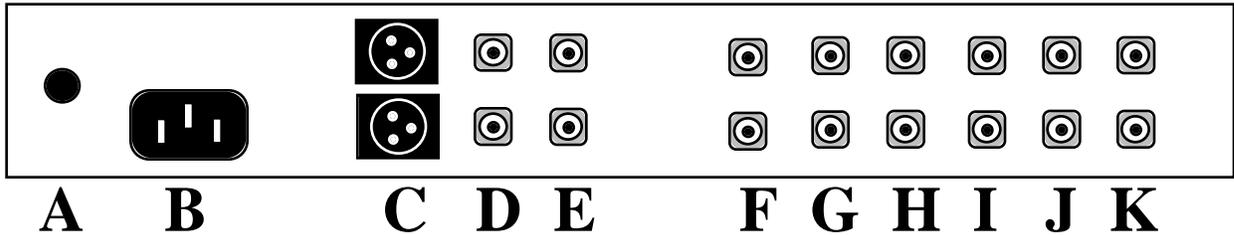
## FRONT PANEL



A      B      C      D      E      F      G      H

- A SET GAIN** Switch to select general gain of the preamp to personal preferences. Due to a lack of current standards of power amp and preamp sensitivity this feature provides a simple method to scale the overall gain of the system or allow one to reduce the power amp gain to reduce noise. Note that changing this switch can introduce "pops" into the system - so MUTE the audio momentarily while changing this control.
- B SELECTOR SWITCH** Switch to select between inputs. Counterclockwise: VIDEO, TUNER, DIG ,CD, TAPE, AUX,. NOTE: always turn volume control (level) down before switching selector switch to avoid surprise differences in source levels. NOTE: inputs which have nothing plugged in to them can pick up noise.
- C VOLUME CONTROL** Adjust the stereo input level of the selected signal.
- D&E BALANCE ADJUSTS** These very useful controls modify the gain of each channel by changing the line amplifier's feedback. When set to 12 o'clock (straight up) both channels will produce the same gain at optimum setting. Rotating the controls clockwise will increase the gain (lower feedback) and rotating the controls counterclockwise will reduce the gain (more feedback) of the corresponding channels with approximately 10 dB of total swing. Thus neither control will fully mute the signal. Different sound characteristics can be achieved with these controls to optimise the gain, speed, and slew rate of this preamplifier to your system, but small differences of level between two channels can be equalled or trimmed out with these controls when used as dual-mono balance controls. In some systems the optimum setting of both controls is fully clockwise, thus, the least feedback. Musically this tends to produce a subtly more aggressive, fast, punchy and more forward presentation. In systems that already have this quality the optimum setting will likely be from fully counterclockwise to a mid position. Some describe the more feedback sound as more laid back, mellow or "tube-like" warmth. Experiment! There is no right or wrong. Your taste will set these controls (maybe even differently for different CD's!)
- F MUTE / OPERATE** Toggle switch that provides a simple cut or mute to the audio signal.
- G NAME PLATE** Illuminated from the back when the unit is powered on.
- F POWER SWITCH** Switch up (1) to turn on the power, down (0) to turn the power off. Do not ever flip the power on and off and on and off rapidly-- you can damage the power supply.

## REAR PANEL



- A FUSE HOLDER Replace with 1A SLO-BLO fuse only.
- B IEC MAINS SOCKET Standard IEC mains socket (120/240 VAC as indicated)
- C OUTPUT (XLR) Left (upper) and Right (lower) output XLR's. BALANCED
- D OUTPUT (RCA) Separate output to the Left and Right XLR outputs. UNBALANCED
- E OUTPUT (RCA) Paralleled output to the other RCA outputs. UNBALANCED
- F RECORD OUTPUT Set at input line stage level. Not buffered.
- G AUX INPUT - Auxillary Line level input for your extra equipment
- H TAPE INPUT - Tape, unbalanced line level input
- I CD INPUT - CD, audio line level input
- J TUNER INPUT - Tuner, line level input
- K VIDEO INPUT - AUDIO actually, typically from a VHS deck or Laser Disk Player

## OPERATIONAL NOTES

### SWITCHING ON

The power switch is located on the right hand corner of the front panel. Flip the switch up to turn on the preamplifier and down to turn off the preamplifier.

### RUNNING

It is not recommended that you leave your preamplifier permanently switched on. This only wastes electricity and tube life. Your preamplifier has solid state rectification and reaches peak operating condition in approximately 30 minutes.

### TUBE LIFE

As with all tubes, their quality degrades with age. This is due to cathode emission, a natural process found in all tubes. We recommend that you have your preamplifier checked every 4-5 years, depending on usage. An excessive increase in noise level can indicate the need to replace a tube.

**REPLACING A TUBE OR LAMP.** You will need a small Phillips screwdriver and a replacement tube or lamp. First be sure the unit is off and remove the IEC mains cable. Let it sit for 15 minutes to be sure all power supply capacitors are discharged otherwise one could still get a shock even though the unit is unplugged. If you are changing a tube or lamp, be sure that it the same number or is on the list of possible substitutions. Remove the bottom cover. Two screws near the back hold it in place - when these are removed, the cover slides out towards the back. Gently wiggle the tube around while pulling it out of the socket. Avoid bending the printed circuit board. Before putting a new tube in, look at it. Check to see that the pins are straight and that they line up to the socket. You should be able to gently push the tube into the socket without excessive force. If it is the indicator lamp that needs replacing you will see what looks like a fuse directly behind the black name panel. Gently pry it out and replace it with another lamp and not a fuse. Replace the cover before powering up the unit.

**HUM** This unit is meant to use the third pin of the mains as the ground reference. Many power amps also use the third pin mains ground. Here we have a potential source of hum and what we call ground loops. The solution is to use one of those grounds and only ONE. Use an 3 pin to 2 pin adapter for other equipment rather than breaking off a pin. Typically one power amp will be grounded and all other 3 pin mains gear will have adapters. Sometimes the better option is to ground the preamp and "float" the amps.

Another source of hum can be equipment stacked on top of one another. This is not a good plan from the ventilation standpoint generally and it is likely to introduce hum, buzz or noise into the system. Certain gear radiates magnetic fields or high frequency noise around its chassis and other gear may be prone to receiving these fields. Distance helps greatly.

## SPECIFICATIONS

Vacuum Tubes:	2 x 5751, 2 x 6414 (Mil Spec)												
Approved substitutions for 5751	12AX7A( or 6072 with less gain)												
Approved substitutions for 6414	12BH7 ( or 12AT7 in a pinch)												
Lamp type	1/4" X 1 1/4", 12 volt, .15 amp												
Gain (line stage)	<table><thead><tr><th></th><th><u>BAL ccw</u></th><th><u>BAL cw</u></th></tr></thead><tbody><tr><td>LOW -</td><td>10 dB</td><td>19 dB</td></tr><tr><td>MED -</td><td>12.5 dB</td><td>22 dB</td></tr><tr><td>HIGH -</td><td>15.5 dB</td><td>25.5 dB</td></tr></tbody></table>		<u>BAL ccw</u>	<u>BAL cw</u>	LOW -	10 dB	19 dB	MED -	12.5 dB	22 dB	HIGH -	15.5 dB	25.5 dB
	<u>BAL ccw</u>	<u>BAL cw</u>											
LOW -	10 dB	19 dB											
MED -	12.5 dB	22 dB											
HIGH -	15.5 dB	25.5 dB											
Noise Floor	typically -60 dB 1Hz - 100 kHz												
Signal to noise	typically 95 dB A WGT 20-20K												
Input Impedance	100 Kohm line stages												
Output Impedance	120 ohms												
Power Consumption	33 Watts (275mA @ 120VAC)												

# WARRANTY

All Manley Laboratories equipment is covered by a limited warranty against defects in materials and workmanship for a period of 90 days from date of purchase to the original purchaser only. A further optional limited 5 year warranty is available to the original purchaser upon proper registration of ownership within 30 days of date of first purchase.

Proper registration is made by filling out and returning to the factory the warranty card attached to this general warranty statement, along with a copy of the original sales receipt as proof of the original date of purchase. Only 1 card is issued with each unit, and the serial number is already recorded on it.

If the warranty registration card has already been removed then this is not a new unit, and is therefore not warranted by the factory. If you believe this to be a new unit then please contact the factory with the details of purchase.

This warranty is provided by the dealer where the unit was purchased, and by Manley Laboratories, Inc. Under the terms of the warranty defective parts will be repaired or replaced without charge, excepting the cost of tubes. No warranty is offered on tubes, unless:

1. a Manley Laboratories preamplifier is used with a Manley Laboratories amplifier, and
2. the warranty registration card is filled out.

In such a case a 6 month warranty on tubes is available with the correct recording of the serial number of the preamplifier on your warranty registration card.

If a Manley Laboratories product fails to meet the above warranty, then the purchaser's sole remedy shall be to return the product to Manley Laboratories, where the defect will be repaired without charge for parts and labour. The product will then be returned via prepaid, insured freight, method and carrier to be determined solely by Manley Laboratories. All returns to the factory must be in the original packing, (new packing will be supplied for no charge if needed), accompanied by a written description of the defect, and must be shipped to Manley Laboratories via insured freight at the customer's own expense. Charges for unauthorized service and transportation costs are not reimbursable under this warranty, and all warranties, express or implied, become null and void where the product has been damaged by misuse, accident, neglect, modification, tampering or unauthorized alteration by anyone other than Manley Laboratories.

The warrantor assumes no liability for property damage or any other incidental or consequential damage whatsoever which may result from failure of this product. Any and all warranties of merchantability and fitness implied by law are limited to the duration of the expressed warranty. All warranties apply only to Manley Laboratories products purchased and used in the USA.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

**WARRANTY REGISTRATION**

We ask that you please fill out this registration form and send the bottom half to:

MANLEY LABORATORIES  
REGISTRATION DEPARTMENT  
13880 MAGNOLIA AVE.  
CHINO CA, 91710

Or you may FAX this form in to: 909-628-2482

Registration entitles you to product support, full warranty benefits, and notice of product enhancements and upgrades. You **MUST** complete and return the following to validate your warranty and registration. Thank you again for choosing Manley Laboratories.

**MODEL PURIST PREAMP** SERIAL No. \_\_\_\_\_

PURCHASE DATE \_\_\_\_\_ SUPPLIER \_\_\_\_\_

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*PLEASE DETACH THIS PORTION AND SEND IT TO MANLEY LABORATORIES*

**MODEL PURIST PREAMP** SERIAL No. \_\_\_\_\_

PURCHASE DATE \_\_\_\_\_ SUPPLIER \_\_\_\_\_

NAME OF OWNER \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

TELEPHONE NUMBER \_\_\_\_\_

COMMENTS OR SUGGESTIONS? \_\_\_\_\_

\_\_\_\_\_