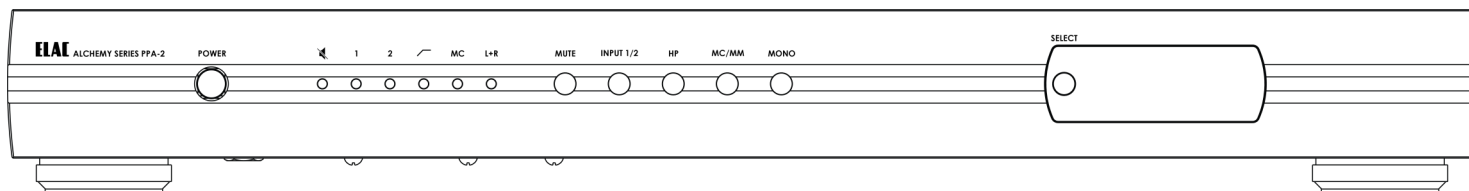


ELAC Alchemy™ Series



PPA-2 PHONO PREAMPLIFIER

OPERATING INSTRUCTIONS

ELAC The life of sound.

Safety Instructions

1. General information

- Please read and follow these safety instructions.
- Keep them safe for future reference.
- Observe all warnings on the preamplifier and in the manual. Please check the amplifier for damage before use. The amplifier must be in perfect working condition. Damaged parts may lead to personal injury.

2. Use only as directed

- Connect the preamplifier according to the instructions in the manual.

3. Location

- Install the preamplifier on a level surface only
- When choosing the location of the preamplifier do not place them in locations that are:
 - In direct sunlight
 - Very humid
 - Prone to vibrations
 - Exceptionally hot or cold

WARNING! Please ensure the product is perfectly stable to avoid injury from tip-over. Do not install the preamplifier near any heat sources such as radiators, heating valves, stoves, or other apparatus that produce heat, or in areas where there is a risk of explosion.

- Do not block any ventilation openings. Install in accordance with the instructions.
- Do not install the preamplifier in a closed rack or in a closed cupboard.
- Do not put burning candles on or near the preamplifier.
- Do not install the preamplifier near transformers because electromagnetic stray fields can cause hum noise.
- In combination with certain materials / lacquers / material surfaces, anti-slip feet may cause colored imprints on the surfaces.

4. Overload

Extreme overload of the device due to very high volume may cause damage to individual components. Because of the possible danger, you should never leave the amplifier under extreme overload conditions unattended.

5. Service

DANGER! Do not open the amplifier because the components and conductors may carry current! Servicing to be carried out by qualified service personnel only.

Servicing is required when the amplifier has been damaged in any way, such as damage to the power supply cord or the plug, or when liquid has been spilled or objects have fallen onto the amplifier, the amplifier has been exposed to rain or moisture, does not operate normally, or has been dropped. To reduce the risk of electric shock, do not open the amplifier. Servicing should be carried out by qualified service personnel only.



6. Cleaning

NOTE: Clean only with soft, smooth cloth or with dust brush. Do not use scouring agents, alcohol, benzene, furniture polish or other agents for cleaning! Modern furniture is often coated with multiple varnishes and plastics which can be treated with chemical agents. Some of these agents contain substances which degrade or soften the rubber feet. Therefore we advise that you place an anti-slip mat underneath the amplifier.

7. Volume

CAUTION! Continuous high volume may cause severe damage to your hearing. Please listen responsibly.

8. Disposal

The packaging is made from recyclable materials. Dispose of this in an environmentally friendly manner. At end of life do not dispose of the amplifier with as E waste. The amplifier must be recycled in accordance with local legislation. Ask your local government for further information on recycling as the device contains valuable raw materials.

Philosophy

Thank you for purchasing this ELAC product.

Since the time we started (1926), ELAC has always striven to achieve the very best.

Your new ELAC amplifier is built to the highest standards using high-quality components that are carefully constructed to deliver the best-in-class sound quality. They are developed by a passionate group of individuals whose soul purpose is to bring a new dimension of sound quality into your home. Enjoy!

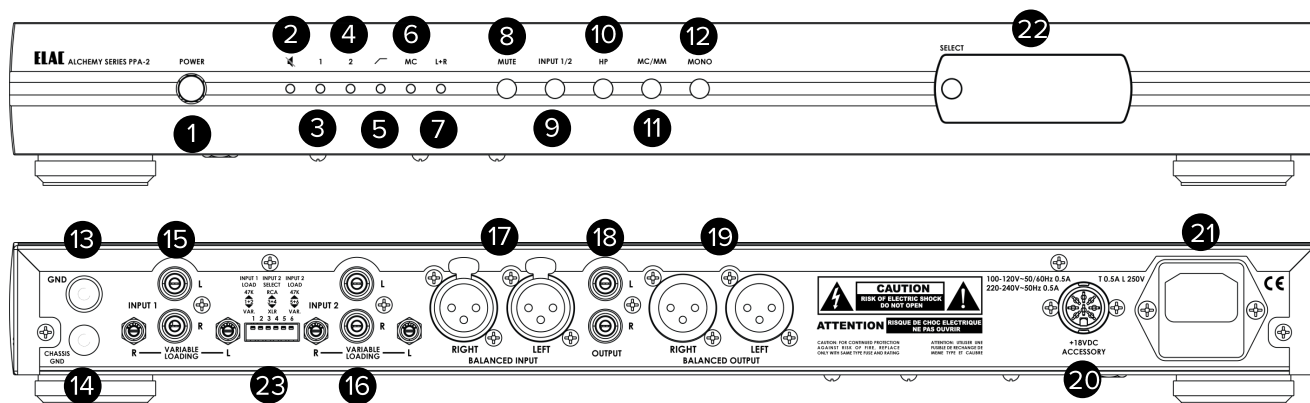
Before Use

Avoid damage to the amplifier and other components:

- Carefully unbox the amplifier to avoid physically damaging your amplifier.
- Ensure your equipment is turned off before connecting speakers.

Controls and Indicators

1. POWER Button—Used to power the phone preamplifier on and off
2. MUTE Indicator — This LED will illuminate when the MUTE function is active
3. Input 1 Indicator—This LED will illuminate when Input 1 is active
4. Input 2 Indicator—This LED will illuminate when Input 2 is active
5. High Pass Filter Indicator—This LED will illuminate when the High Pass Filter is active
6. MC (Moving Coil) Indicator—This LED will illuminate when the phono preamp is in MC mode
7. L+R (Mono) Indicator LED—This LED will illuminate when the mono feature is active
8. MUTE Button—Used to activate the MUTE Function which will disable all output of the preamp when active
9. INPUT 1/2 Button—Used to switch between Input 1 or 2
10. HP (High Pass Filter) Button—Used to activate the High Pass filter (Rumble Filter)
11. MC/MM Button—Used to select either MM (Moving Magnet) or MC (Moving Coil) style cartridges
12. MONO Button—Used to switch the preamp from Stereo to Mono operation for playback of mono records.
13. GND Terminal—Used to ground the turntable to signal ground (See Page 6 for additional details)
14. Chassis Ground—Used to ground the turntable to chassis/ac mains ground (See page 6 for additional details)
15. Input 1 (RCA) —Used when connecting to an unbalanced RCA based turntable
16. Input 2 (RCA) - Used when connecting to an unbalanced RCA based turntable
17. Input 2 (XLR) - Used when connecting to a balanced XLR based turntable
18. RCA Outputs—Used when connecting to an unbalance RCA based preamplifier/receiver
19. XLR Outputs—Used when connecting to a balanced XLR based preamplifier/receiver
20. 18V Accessory Connector—Used to power certain ELAC Miracord turntables
21. AC Inlet—Used to supply power to phono preamp. Connect to an available AC outlet.
22. OEL Display—Use to display various information for setup and usage
23. Variable Loading Adjustments—Used to adjust the loading when setting up a new cartridge for either input 1 or 2



Wiring the Inputs

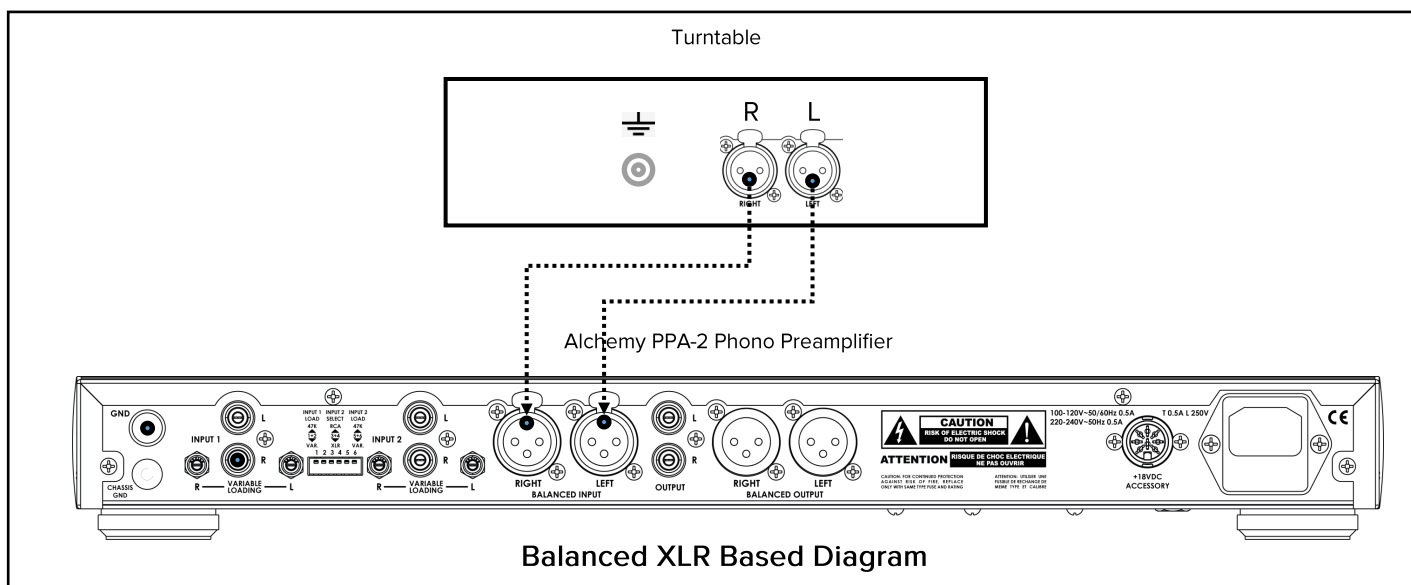
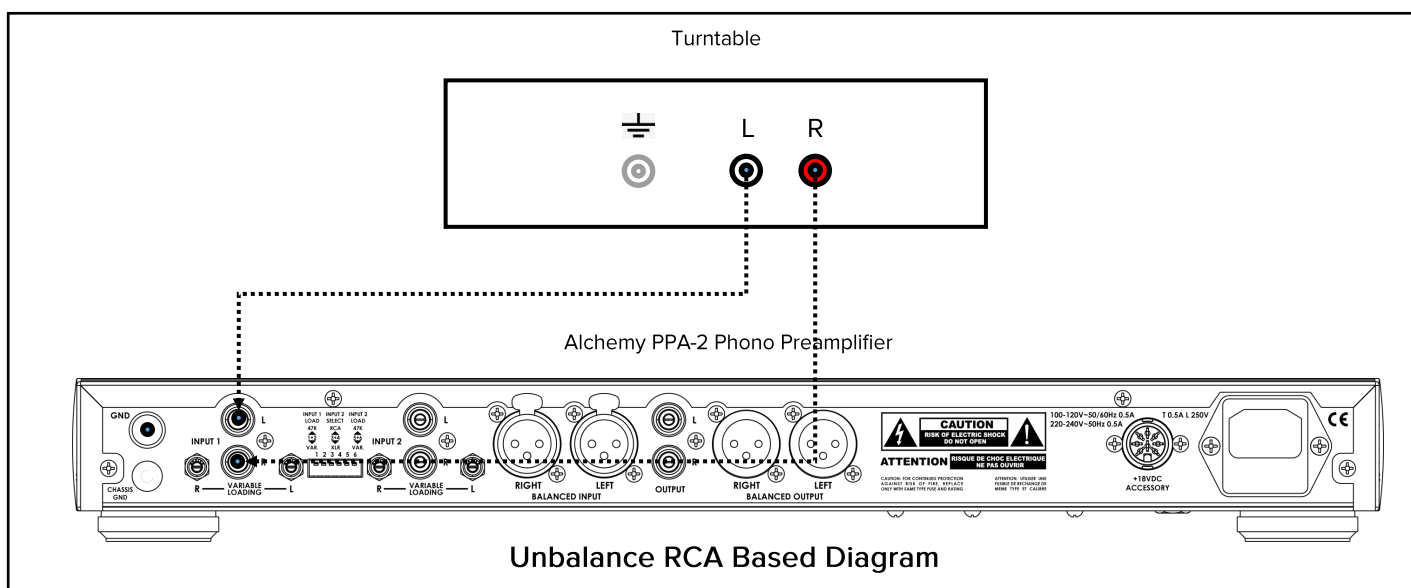
Connecting a turntable to the PPA-2 Phono preamp

Phono 1 is Unbalanced only (RCA jacks), Phono 2 can be either Balanced (XLR jacks) or Unbalanced. Cables from the turntable to the PPA-2 should be as far as possible from AC Mains cables wherever possible. If they must cross, do so at right angles if you can. Again, to minimize hum.

Typically a balanced connection will be more immune to hum, so it would be the preferred connection. However, you must be careful that the shell of the XLR is not connected directly to the ground line within the XLR connector. They **SHOULD** be independent. The shell is the external shield of the cable and connector, and should be the CHASSIS connection. The ground wire within the XLR is twisted with the (+) and (-) balanced and should be the signal or tonearm ground. This can all be confirmed with an Ohm meter.

Whichever style you choose, please use the very best cable you can in this location due to the very sensitive little signals coming from your phono cartridge.

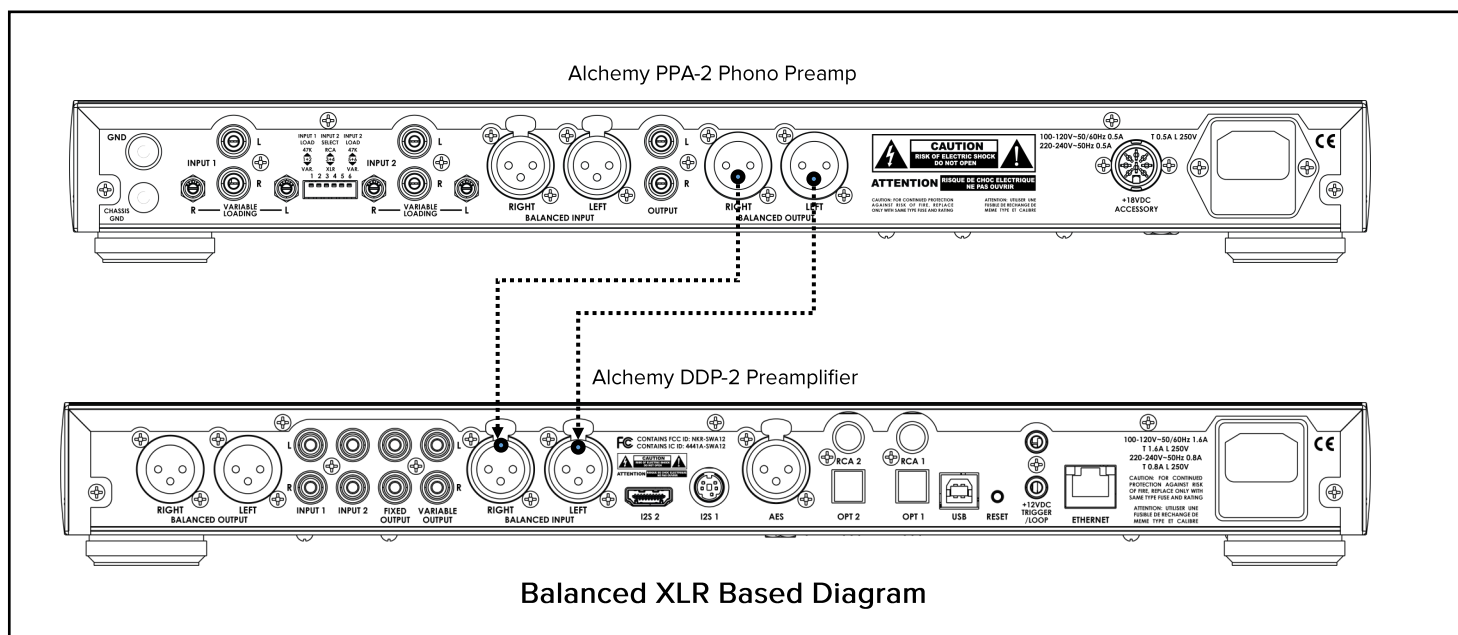
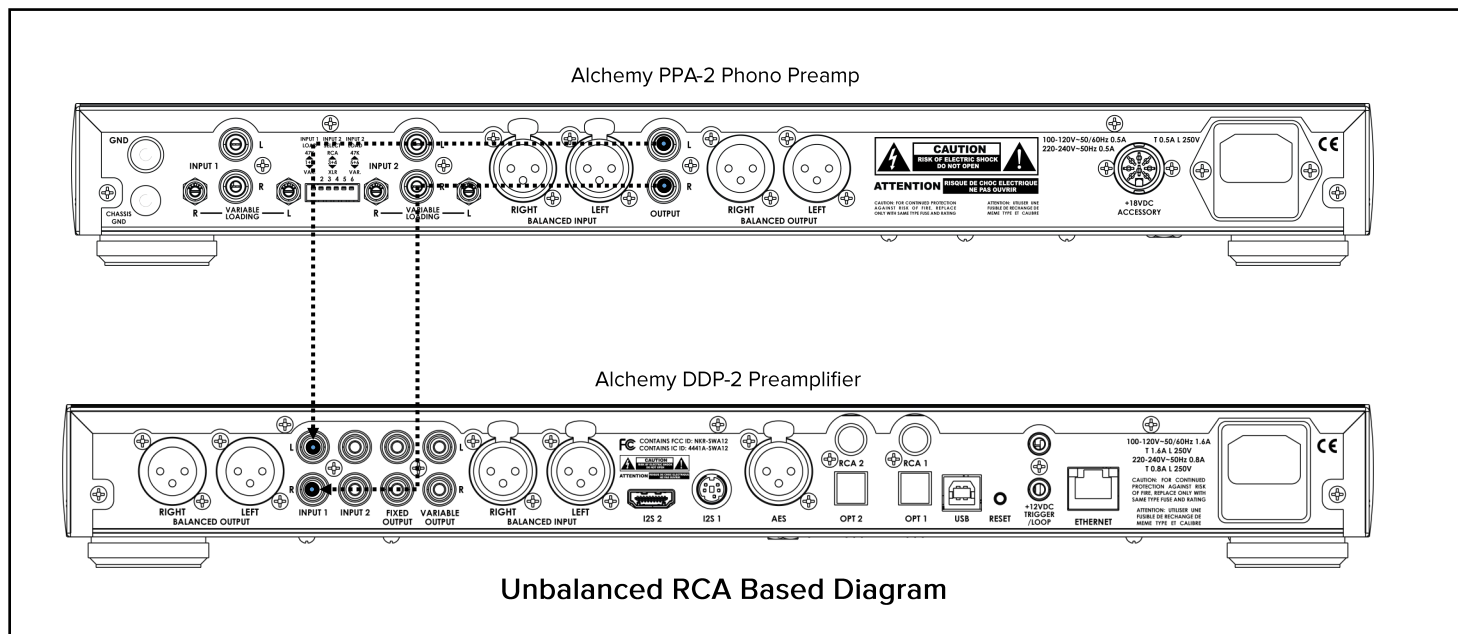
After you make your audio connections refer to **Page 8** to correctly set the DIP switches.



Wiring the Outputs

Connecting the PPA-2 to a Pre-Amplifier, Receiver, or Integrated Amplifier

The PPA-2 provides both Unbalanced (RCA jacks) and Balanced (XLR jacks) outputs. Typically a balanced connection will be more immune to hum, so it would be the preferred connection. Again, please use the best quality cables you can between PPA-2 and your control preamplifier.



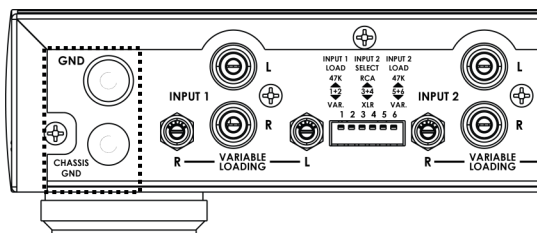
Grounding

Correctly grounding an audio system for minimum hum and maximum signal-to-noise ratio can be very complicated, and will vary from system to system.

PPA-2 has two different ground posts, each at different ground potentials; SIGNAL and CHASSIS. SIGNAL is at the ground potential of the input signal. CHASSIS is that of the AC Mains ground connection; typically used as a shield.

If your turntable has only one ground connection, usually that will connect to CHASSIS. If you have a separate ground wire from the arm it should go to the SIGNAL ground, and the turntable motor or body ground wire should go to CHASSIS.

Fig 1



Initial Power On

After making all necessary audio and grounding connections. Attached the included power cord to an available wall outlet.

Press the Power button to turn on the PPA-2.

At initial power on the PPA-2 will go through a brief warmup period during which it will be in mute. You will see the Alchemy Series Logo on the front panel display as the unit warms up. The screen will go blank just before PPA-2 unmutes and restores the last known status condition of all functions; INPUT 1 or 2, Filter, Gain and Mode. This first time it is powered on it will be on INPUT 1, no filter, low gain and in stereo.

Selecting Cartridge Type

There are several technologies of phono cartridge available. The PPA-2 works with Moving Magnet ("MM") and Moving Coil ("MC") types. USUALLY MM cartridges are designed to operate into a nominal load impedance of 47K Ohms. MC cartridges are typically loaded with much lower values from 5 Ohms to a few hundred Ohms up to maybe as much as 1000 Ohms. There are always exceptions to these rules, so check to be sure. The PPA-2 lets you select this load precisely through use of a continuously adjustable potentiometer and built-in measurement system. Please refer to figure 1 for the DIP switch settings to correctly select either the fixed 47K or adjustable load for Inputs 1 and 2 separately.

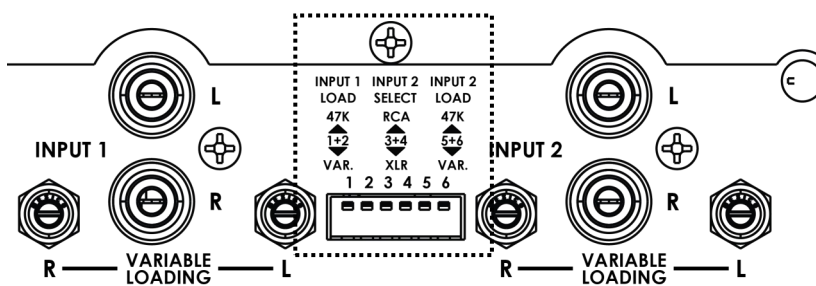
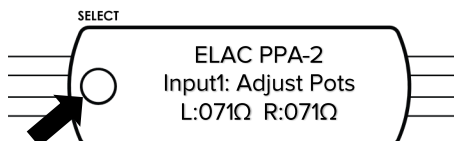


Figure 1

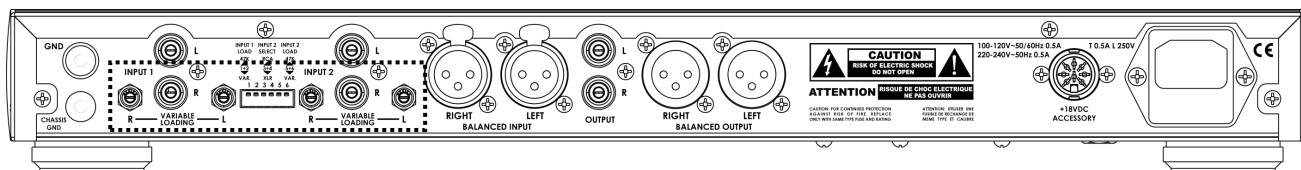
Cartridge Load Measurement

If you need to set the adjustable load, first look up the suggested loading for your particular cartridge model in the manufacturers specifications. Also check a few of the known audio columnists to see what their reviews might suggest for optimum loading. Sometimes one will find a large discrepancy between these resources. The PPA-2 makes it easy to test these various choices. A rough rule-of-thumb is that loading should be about 10 times the source impedance specification for the cartridge. This, and suggestions from resources you might find will, in the end, just be guidelines. The beauty of the adjustment method PPA-2 uses is that you can adjust up and down from the suggested starting points to achieve what sounds best for you in your system.

With PPA-2 powered ON and the appropriate input selected, press the SELECT button. PPA-2 screen will come on and tell you that you have entered measurement mode and will show the current LEFT and RIGHT load settings. Note that audio is muted during the measurement process.



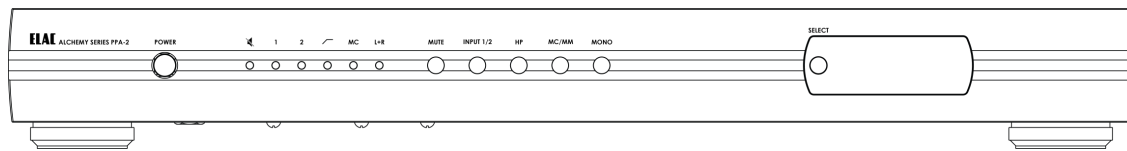
Turn the load pots on the back panel associated with the input in question and you will see the readings on the screen change. Set both the LEFT and RIGHT adjustment knobs to the desired loading. It's a bit fussy as the controls are quite sensitive, but with some patience you will get it to where you want to be. Pressing the SELECT button again will switch to the exit screen where measurement mode will automatically exit in 15 seconds and put the display to sleep. To exit immediately, press SELECT again during the countdown.



To set the adjustable loading for the alternate input you must select that input and then enter measurement mode again by pressing SELECT and following the instructions above.

Settings and Adjustments

The PPA-2 has a row of LED status indicators followed by a row of buttons to control the indicated functions. Please refer to Figure 2.



MUTE lights when the MUTE button is pressed. This feature is convenient when changing tracks or making some kind of adjustment that could otherwise result in an objectionable noise. Press once to engage, again to disengage.

1 & 2 refer to the Input numbers on the back of PPA-2. Pressing the INPUT 1 or INPUT 2 button toggles between them. INPUT 1 is on the far left (as viewed from the back) and INPUT 2 is on the other side of the dip switches (where you have already selected 47K or adjustable load, and if INPUT 2 is to be balanced or unbalanced, right?)

HP When lit indicates that the High Pass (i.e. rumble) filter has been selected with the HP button. Toggle to switch. This mode is useful if your turntable has a bit of low frequency noise, or if the cut you are playing has so much bass that it causes feedback from your turntable (sometimes known as howling.)

+18db Indicates when the PPA-2 is in high gain (MC) mode and is toggled by the MC/MM button and will obviously be louder in the lit condition. Pick the position where you have sufficient volume in your system to play as loud as you need. There is no advantage to high gain mode if you don't need it, it will only be noisier but not sound any better.

L+R Indicates MONO mode and is toggled by the MONO button. Use mono when playing mono records or when you are checking channel balance or some other test.

TWEAKING

As noted above, select the gain position you feel gives sufficient volume range for your listening tastes. Don't use more gain than you need, there is no point.

Once you have sound and are starting to listen critically you should notice great dynamics from the PPA-2, as well as extended range in both the bass and treble regions. Smoothness and dimensionality will be excellent, but none of these will be as good as they will be after a week of warmup, perhaps even several weeks.

If you are using the adjustable load feature and you want to, you can start to make fine adjustments to the load for each channel to see if you like the sound better one way or the other. While valid now for better enjoyment during the warmup period, ultimately you will want to make these same changes once the PPA-2 stabilizes as they may be subtly different.

Note that for tweaking the load you do not enter measurement mode; to do so would mute the audio and you need to be listening for this step. The idea is to put on a record with which you are very familiar and very slightly increase the left and right loads and listen to the results. Then, reduce the load very slightly and listen again. You might need to iterate this process a number of times till you feel you have gotten the best sound you can achieve. At this point the actual load number has likely been altered from the original settings you made. If you want, you can enter measurement mode and read the settings you have gotten to, for future reference.

MODE SELECTION

Other than gain, the PPA-2 has two modes you can select, as needed, to improve performance under certain conditions; MONO and HP. Their purpose is described above. Each will be remembered as your preferred setting upon power off, so be sure to disengage them when not needed.

Settings and Adjustments

TROUBLESHOOTING

No sound or low volume? Do you have the correct input selected? Do you need to be in High gain (+18db) mode? Is your cartridge loading set so low that the cartridge is not producing enough output? Are you using INPUT 2 RCA or XLR without switching the dip switches to the correct mode? Are you in MUTE?

Measured load not changing? Check that the DIP switch setting for 47K/Adjustable are in the Adjustable position. Are you turning the correct knob for the Input you are measuring?

Acoustic Feedback causing howling? Switch on the High Pass filter.

Audible hum in the system. See the grounding section on Page 8. The PPA-2 itself is very, very quiet, so if you are hearing hum it is caused by something else in your system. Sorry. There is most likely something in your system causing it and you need to look at your grounding, wire position or for some other problem. It should, and will be, quiet and hum-free.

SPECIFICATIONS

Inputs	(2) RCA UNBALANCED or (1) RCA & (1) XLR BALANCED
Input impedance	5-1KOhms variable or 47K
Frequency response	10hz-20khz +/- 0.2dB
RIAA accuracy	+/- 0.2dB
Nominal THD+N	<0.005%
Signal-to-noise ratio (1 kHz)	>86dB
Output Voltage	>6.0V RMS
Crosstalk (L-to-R or R-to-L)	>80dB
Single ended Gain	42dB (low) or 60dB (high)
Balanced Gain	48dB (low) or 66dB (high)
Output impedance	50 Ohms
Analog Outputs	(1) XLR BALANCED, (1) RCA UNBALANCED
Available finishes	Black
Dimensions (HxWxD)	2" x 17.5" x 15" including jacks
Weight	12 lbs

ELAC Americas Inc.

North America Limited Liability Warranty

Passive Speakers (No built-in amplifier)

ELAC Americas INC. warrants to the original purchaser that this product be free from defects and or workmanship for a period of **3 (Three)** years from the original date of purchase. During this time period, repair or replacement of parts will be free of charge to the original owner (See below limitations). Shipping to and return from the repair center will be the responsibility of the original purchaser.

Powered Subwoofers

ELAC Americas INC. warrants to the original purchaser that this product be free from defects and or workmanship for a period of **3 (Three)** years on the cabinet and speaker driver and **1 (One)** year on the amplifier from the original date of purchase. During this time period, repair or replacement of parts will be free of charge to the original owner (See below limitations). Shipping to and return from the repair center will be the responsibility of the original purchaser.

Electronics (Including Wireless Speakers)

ELAC Americas INC. warrants to the original purchaser that this product be free from defects and or workmanship for a period of **1 (One)** years from the original date of purchase. During this time period, repair or replacement of parts will be free of charge to the original owner (See below limitations). Shipping to and return from the repair center will be the responsibility of the original purchaser.

B-Stock (Reconditioned/Open Box) Product Warranty

ELAC Americas INC. warrants to the original purchaser that this product be free from defects and or workmanship, unless otherwise stated in product description, for a period of **90 days** from the original date of purchase. During this time period, repair or replacement of parts will be free of charge to the original owner (See below limitations). Shipping to and return from the repair center will be the responsibility of the original purchaser.

Limitations

- Warranty begins on the date of original purchase from an authorized ELAC Americas Inc. dealer.
- Product is warranted only if used in home applications within the max power rating specified in this manual. Commercial use of this product is not warranted.
- Product that has been modified or altered in anyway will not be warranted.
- Product that has been abused or subjected to faulty equipment will not be warranted.
- Products with defaced or removed serial numbers will not be warranted.

If service is required

In the event that service is required, please contact ELAC America at 888-541-0996 or at customerservice@elac.us to arrange for service or replacement. You will be responsible to provide proof of purchase (Copy or original sales receipt). Shipping to and from our repair center will be the responsibility of the original purchaser.

Warranty Outside of North America

This warranty applies to products purchased in the United States and Canada. For warranty claims outside of North America please contact the local dealer/distributor in the country of purchase.



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