

DIAMOND

AMPLIFICATION

p  s i t r o n

OWNER'S MANUAL

Thank you for the purchase of your new Diamond Amplification guitar amplifier. This amplifier is of the highest quality and will give you years of enjoyment if it is well maintained. Before you begin, remember, learn your amp and you'll be in the best position to achieve the tones and performance you want. So please take the time to read this manual. Afterwards, enjoy the finest in tone and American craftsmanship – Diamond Amplification.

Jeff Diamant
President/CEO



OWNER'S MANUAL

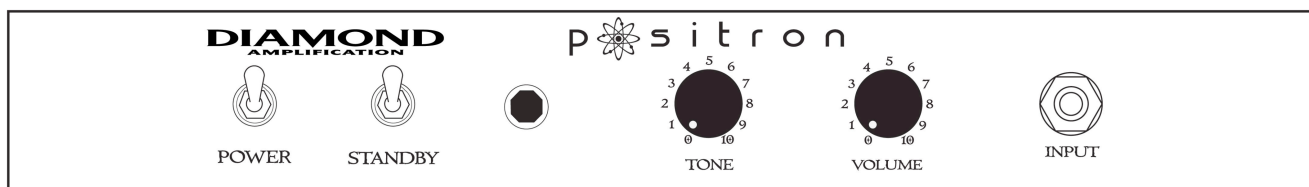
FEATURES.....	1
FRONT PANEL.....	1
REAR PANEL	1
MAKING CONNECTIONS	1
POWER/STANDBY	2
DIALING IN	2
TONE/VOLUME CONTROLS	2
TUBES	3
TUBE TYPES	3
CHANGING/REPLACING TUBES	3
DIAGNOSING TUBE PROBLEMS	3

This manual will walk you through the features, controls and tonal possibilities available to you. It is highly suggested that you read through this manual in its entirety before dialing in your new tone! The information in this manual will familiarize you with this amp's capabilities,

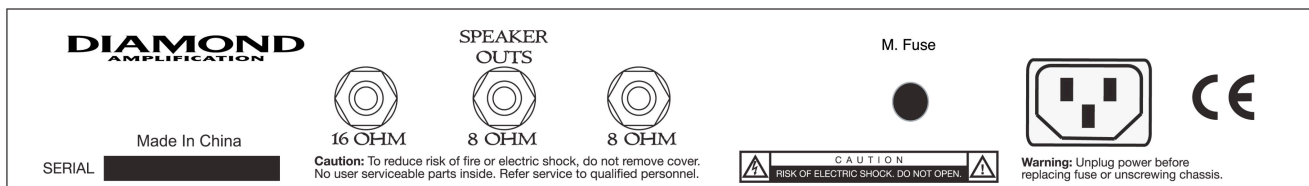
FEATURES

- 18 watts (2 x EL84 - 2 x 12AX7A-C)
- Volume and Tone Controls
- 1x 16ohm output, 2x 8ohm outputs
- Prewired for appropriate region voltage
- All components specifically spec'd and tested by Diamond before inclusion in the product.
- Compact design for portability and convenience

FRONT PANEL



REAR PANEL

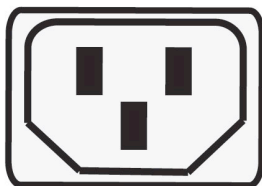


MAKING CONNECTIONS

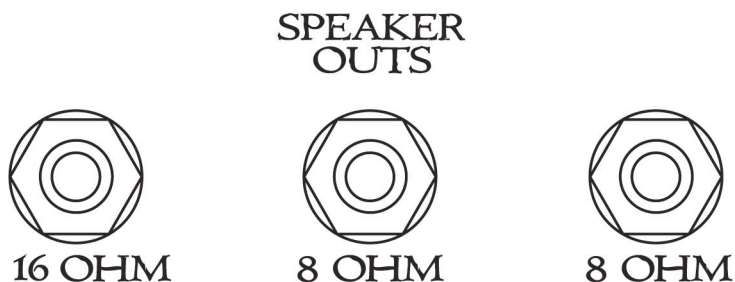
Power. As always, plug your power cable in to the power jack. If you can fit your power cable in to any other receptacle on the amp, please feel free.

Your amp comes prewired for your region's voltage. Rewiring for an alternate voltage should only be done by a qualified technician and may not be possible to rewire for alternate voltages depending on your particular amplifier.

M. Fuse



Speakers. Your DA product comes equipped with three speaker jacks. Always ensure, when connecting speakers, that you use a high quality speaker cable. Never use instrument cable to connect your amp to speakers and never put effects between your amp and speakers. If you are using one speaker cabinet, you can plug into either of the 8ohm speaker jacks if your cabinet is 8ohms, or the 16ohm jack if your cabinet is 16ohms. If you are unsure of the impedance of your speaker cabinet, please find out before making your connection. If you are using two speaker cabinets, you should use the two 8ohm jacks.



Never use your amp without a load! Doing so is likely to damage your amp!

Instrument. Plug your guitar into the input jack.

POWER/STANDBY

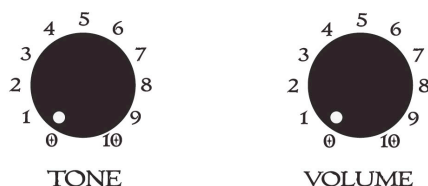
Always keep the Power switch off when unplugging and plugging in to your power source. Once the amp is turned on (the jewel light will illuminate to indicate power is on), and when you have made all the appropriate connections, take the amp off standby. Allow the amp to warm up for several minutes before playing for optimal result.



You should always return the amp to standby before turning off to allow the amp to “discharge” voltage. Doing this habitually will extend the life of your amp.

DIALING IN

THE TONE/VOLUME CONTROLS



Volume. This increases the “loudness” or “volume” of the amp. The louder you turn it, the more gain or “distortion” you’ll get.

Tone. This changes the “tone” or “sound” of the amp. More tone = more brightness and distortion.

NOTE: Remember to try dialing your guitar’s volume knob and listen to how well the amp cleans up.

TUBES

TUBE TYPES

Your amp uses EL84 power tubes and 12AX7A-C power tubes. It can be retubed with any EL84 or 12AX7 tubes.

CHANGING/REPLACING TUBES

Preamp tubes have a much longer life than power tubes. You are not likely to have to replace them unless one or more tubes fail. Generally, any good 12AX7, ECC83 or replacement tube will be OK, although they can change your amp’s tone.

If you play regularly, power tubes should be changed every 6 months to a year. If you don’t play frequently, they can last longer. **NOTE: While power tubes can simply and suddenly fail, they generally degrade over time. So while your tubes may be working, they will not sound the same as they get older.** People often go years with the same power tubes and never replace them claiming, “Well, they still work fine.” You can be assured that the amp, however, does not sound the same as it does with new, functioning tubes. **DON’T WAIT UNTIL YOU HEAR A DIFFERENCE. FOLLOW A REGIMENTED TUBE CHANGING SCHEDULE TO AVOID HEARING A DIFFERENCE.**

Your amp is “cathode-biased” so you do not need to re-bias when changing power tubes. Just purchase a “matched” set of EL84’s. We do not recommend replacing only one tube.

DIAGNOSING TUBE PROBLEMS

Most tube amp problems relate to the tubes themselves. After all, tubes are not the cutting edge of technological advancement. DA tube choices are based both on tone and reliability. Nevertheless, tube problems are not infrequent occurrences. But before you have to worry about shipping your amp for repairs, learning to diagnose a tube problem can keep you rockin’.

If you read the preceding section, you’ve learned when and how to change your tubes. We can not stress enough the importance of changing tubes to keep your amp running optimally. But even with regular maintenance, you can still have tube problems. If you are playing out regularly, we suggest you keep a spare set of power tubes in your gig bag and maybe a few preamp tubes just in case.

Crackling, squeals and feedback, excessive noise and muddiness or low output are all evidence of tube problems.

Power tubes. The two main symptoms of a power tube problem are a blown fuse or a tube that begins to glow cherry red. Either are typically indicative of a power tube failure. Some failures can be an intermittent short and some can be a tube failure. If you blow a fuse, replace it. If it happens again, replace your power tubes. If the tube glows cherry red, shut the amp off immediately. As power tubes are wired in pairs, a failure of this nature in one tube can cause the other tube in the pair to fail with it. If you encounter this problem, as noted, shut the amp down immediately. Wait a few minutes and fire it back up. If it happens again, replace the tubes before using the amp again. If not, you should probably still replace the tubes soon, but you should be able to operate the amp for a short period of time.

In the event you have one or two power tube failures, you can replace that one tube or two tubes to get you through a show, but then replace all four with a matched set (see the preceding section).

If you are hearing noise and/or crackling, you can rule out (or in) a power tube with a simple test. Gently tap on the power tubes, one at a time. They should not make noise. If noise changes with the tapping, you may have a failing power tube. Always be prepared to shut the amp off in case you have a failing tube and the tap causes it to short. If so, shut the amp off immediately and replace the tubes.

Preamp Tubes. Preamp tubes usually cause problems through noise or microphonics. If noise, you will hear hiss, crackling, popping or similar issues. If you hear squeal, hum or feedback, it is typically a microphonic tube. Noise from microphonic tubes will typically increase with a volume increase.

To diagnose which tube is bad, the most important thing is to determine, if possible, whether the problem is on both channels or just one. If you can tell that it is in both channels (even if only slightly on one channel), it is most likely V1, which is common to both channels. A noisy or microphonic tube in this position will affect the entire amp. Microphonic or noisy tubes in several other positions may not be audible at all. You can try tapping the tubes like you did the power tubes and see if the problem worsens. It is normal to hear a slight ring when you tap on preamp tubes. This test is only to see if the identified problem changes when tapping. This test is NOT outcome determinative.

NOTE: It is always advisable to change preamp tubes one at a time. It is a good idea to keep at least one known good preamp tube for this purpose. Then you will know for sure if you have found the problem.

**DIAMOND AMPLIFICATION, INC.
HOUSTON, TEXAS**

www.diamondamplification.com