



LANEY

AOR SERIES

ALL TUBE AMPLIFIERS

OPERATING INSTRUCTIONS

INCLUDING TUBE AMPLIFIER
TROUBLE SHOOTING

FOR

A50H & A100H

TUBE AMPLIFIER TROUBLE SHOOTING

Your Laney Tube Amplifier has undergone a thorough two stage inspection process involving actual play testing as well as a tube burn in. Although your Laney has been packed with foam corners and 275 lb test corrugated, rough handling may result in concealed damage of the vacuum tubes.

Tubes are the most important component in your Laney tube amp. Unfortunately, they are also the most fragile component. The glass envelopes and tube filaments can be severely damaged without any apparent signs of damage to the box, amp or tubes. Tube damage is, however, quite simple to diagnose and even more simple to remedy.

When you first receive your Laney Tube Amp, follow these simple procedures:

BEFORE SWITCHING ON

INSPECT

Inspect the amplifier for any concealed damage. If there is any evidence of damage, apparent or concealed, contact the carrier immediately. Laney will provide any assistance you require in filing your claim. Keep all original packing material!

CHECK

Check voltage selector is clicked into position and make certain that selector is not in between settings, since life of tubes will be reduced and possible damage to output transformer may occur.

CHECK

Check impedance selector, make certain that the switch is not in between settings. *See chart for proper ohm load selection.

CONNECT

Connect speaker to amplifier - we recommend high quality unshielded speaker cable.

CONNECT

Connect instrument with high quality shielded instrument cable. Use of cheap cable will compromise the sound of your instrument and your amplifier.

STANDBY

Turn amp on - WITH STANDBY ENGAGED! This allows your output tubes to power up gradually ADDING SIGNIFICANTLY to the life of your tubes.

Disengage standby. If you experience fuse failure or if the amp fails to generate any sound, you are likely to have a damaged vacuum tube.

IN USE TROUBLE SHOOTING

SYMPTOM 1

Amp connections have been performed correctly and selector switches are set properly but power light fails to power up.

SOLUTION

Check time delay POWER FUSE and replace if necessary.

POWER	VOLTAGE	POWER FUSE
100 & 50 Watt	100 - 130	5 Amp time delay
	210 - 240	2 Amp time delay
30 Watt	100 - 130	1 Amp time delay
	210 - 240	500 mA time delay

IN USE TROUBLE SHOOTING (Cont)**SYMPTOM 2**

Power light illuminates, no sound output.

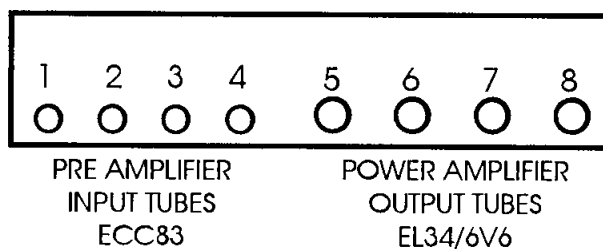
SOLUTION

Check secondary HT fuse and replace if blown.

100 Watt	1 Amp time delay
50 Watt	500 mA time delay
30 Watt	No fuse fitted

SYMPTOM 3

Secondary fuse (500 MA time delay, or 1 amp time delay) blows repeatedly. This is a strong indication of a damaged output tube. The chart below shows the tube layout and the function each tube performs.

CHASSIS TOP VIEW**TUBE FUNCTIONS**

1. First gain stage.
2. 2nd gain stage.
3. Phase inverter, Treble, Mid boost.
4. Driver tube.
- 5 & 6. 2 x 6V6 in 30 watt amps
- 5 & 6. 2 x EL34 in 50 watt amps.
- 5 - 8. 4 x EL34 in 100 watt amps.

SOLUTION

Replace the secondary fuse and turn on the power WITH THE STANDBY ENGAGED. View the OUTPUT TUBES. If one tube fails to light up, replace that tube. If both output tubes are lit dimly, look directly at the output tubes and disengage the standby. If one of the tubes flashes brightly or glows red hot in comparison to the adjacent tubes, replace that particular tube. A simple way to verify that the tube is damaged is to switch the position of the bad output tube and follow the above procedure. If the tube exhibits the same symptom in a different tube socket position, you can be certain that the tube is damaged.

If the output tubes check out ok, another cause of a blown secondary fuse is a damaged Preamp Tube No. 1 or Driver Preamp Tube No. 4. Replace the Driver Preamp No. 4 first and follow the above procedure. If symptom persists, replace Preamp Tube No. 1.

SYMPTOM 4

Power light on, Preamp LED on - no sound.

SOLUTION

Check that impedance selector is registered. Firm contact is essential.

SYMPTOM 5

No power or power light, 5 amp fuse good.

SOLUTION

Check voltage selector is clicked firmly into position at correct voltage. If still dead, change selector to nearest voltage setting (i.e. 110 to 120 or 240 to 220) and switch on. If amp operates then previous selector detent point was defective. If selector fails to operate in either voltages selected then check for loose connection at fuse holder.

IN USE TROUBLE SHOOTING (Cont)

SYMPTOM 6

No pre-amp boost. (AOR amplifiers only)

SOLUTION

Replace pre-amp tube No. 1.

SYMPTOM 7

Power lights up, all tubes light up, no sound, low power or intermittent, distorted crackling sound when plugged in to high sensitivity jack.

SOLUTION

Simply plug into low sensitivity jack, if symptom disappears you can be certain that pre-amp tube No. 1 is damaged. If symptom continues, switch positions of pre-amp tubes No. 2 and No. 3. If symptom persists, change the driver pre-amp tube NO. 4.

SYMPTOM 8

E.Q. pull boosts do not function.

SOLUTION

Replace pre-amp tube No. 3. If this symptom is accompanied by low power, replace driver pre-amp tube No. 4.

SYMPTOM 9

Slow loss of power.

SOLUTION

Check first for damaged output tube (glowing, flashing or dead) by using the procedures described in symptom 3. Next check driver pre-amp tube No. 4. Next check pre-amp tube No. 1 by plugging into low sensitivity and following the procedures described in symptom No. 7.

All of these trouble shooting procedures can be performed quickly, without the aid of any sophisticated test gear. We suggest that you always maintain spare tubes for emergency purposes.

Keep your Laney free of dirt, dust and moisture to prevent performance failures. Use this simple rule: Never subject your tube amp to weather conditions that would not be comfortable to you. For example, taking your amp from a hot stage to a cold winter car trunk is not recommended. It is advisable that the amp be allowed to cool down before it is moved.

Should other customer service be necessary, contact your authorized Laney dealer or call Laney service direct.

CONNECTING ENCLOSURES

Matching the impedance between your Laney head and speaker enclosure is extremely important. Proper matching will prevent tube wear and provide optimum performance of your tube head. Laney 412 cabinets are wired at 16 ohm and 212 cabinets at 8 ohm. Follow the impedance/ohm chart to make the proper ohm selection on your tube head.

MODEL NUMBER	ENCLOSURE IMPEDANCE	NUMBER OF ENCLOSURES	IMPEDANCE SELECTOR SETTING Ohms.
PT412	16	1	16
PT412	16	2	8
PT212	8	1	8
PT212	8	2	4

When using more than one cabinet, always make sure that the cabinets have the same impedance. You can check this by using an Ohm meter and a patch chord. Simply plug the chord into the speaker enclosure and touch or attach the Ohm meter probes to the end of the chord. Positive to the tip, negative to the sleeve. The Ohm meter will indicate normally 20% below true value. IE: 8 Ohm will read 6.5 Ohm, 16 Ohm will read 11.

INTRODUCTION

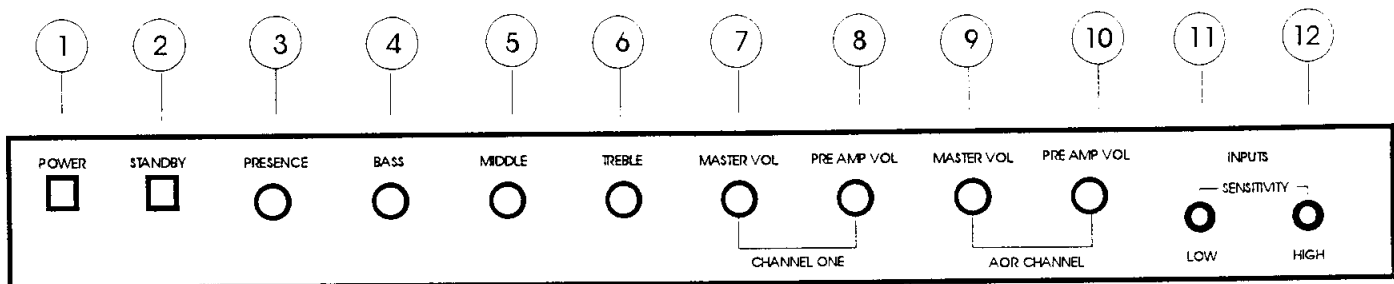
Congratulations on your selection of the LANEY AOR series tube amplifier. Our 25 year heritage of producing all tube amplifiers has resulted in an expressive, high gain amplifier with an impressive list of standard features. AOR means Advanced Overdrive Response, and that is exactly what you get from this highly sophisticated amplifier.

Although your new LANEY has been designed with ease of operation in mind, AOR pre amplifiers are more complex than standard master volume amplifiers where normally its a case of switch on, all knobs up and away you go. AOR is an amplifier that will give great results, but only if you spend a little time reading this manual and becoming accustomed to its advanced design pre amplifier.

BEFORE SWITCHING ON

Inspect the amplifier for any concealed damage. If there is any evidence of damage, apparent or concealed, contact the carrier immediately. Laney will provide any assistance you require in filing your claim. Keep all original packing material!

FRONT PANEL FEATURES



1) POWER SWITCH

Turns amplifier mains power on. NB: Engage 'standby switch' first.

2) STANDBY SWITCH

The 'standby' switch should be engaged BEFORE turning on the amplifier power switch. This enables the tubes to sufficiently warm up before use. This takes approximately 2 minutes and will greatly improve the tube life.

3) PRESENCE CONTROL

Controls high frequency response of the amplifiers output stage.

4) BASS CONTROL

Controls bass response of the pre amplifier. Pull to engage boost function for additional bass response.

5) MIDDLE CONTROL

Controls middle frequency response of the pre amplifier. Pull to engage middle frequency boost.

6) TREBLE CONTROL

Controls the high frequency response of the pre amplifier.

7) CHANNEL 1 MASTER VOLUME

Controls the output volume of channel 1. Pull to engage additional high frequency response.

8) CHANNEL 1 PRE AMP VOLUME

Controls gain and input level of channel one.

9) AOR CHANNEL MASTER VOLUME

Controls output volume of AOR channel. Pull to engage additional high frequency boost.

10) AOR CHANNEL PRE AMP VOLUME

Controls gain and input level of AOR channel.

FRONT PANEL FEATURES (C'ont)

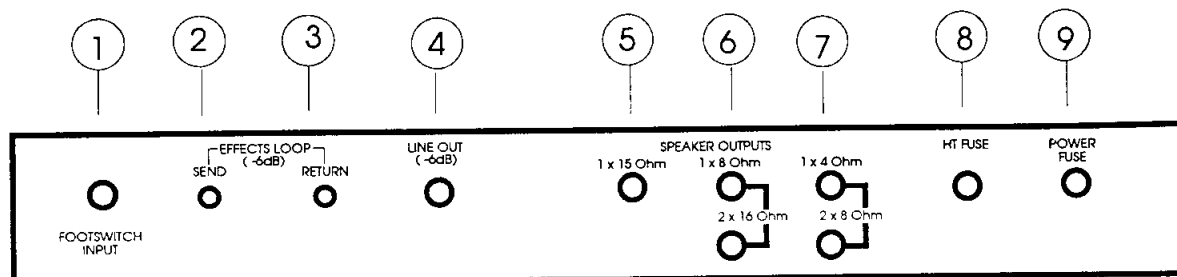
11) INPUT : LOW SENSITIVITY

Jack input for instrument, this input is designed for guitars with high outputs and bypasses the first input tube for lower sensitivity.

12) INPUT : HIGH SENSITIVITY

Jack input for instrument, This input is designed to accept guitars with 'active' or 'passive' pickups.

BACK PANEL FACILITIES



1) FOOTSWITCH INPUT

Accepts LANEY footswitch model: FS1 for operation of AOR overdrive.

2) & 3) EFFECTS LOOP (SEND & RETURN)

With the advent of more effects being used in today's music, Laney has incorporated a 'Buffered Effects Loop'. This provides a uniform -6dBv signal to and from your effects without distorting the effect input level. You will achieve reduced noise levels when you run your effects through this loop.

There are two ways in which to connect effects units, either between your guitar and the amplifier INPUT (pre EQ), or directly into the buffered EFFECTS LOOP (post EQ).

As an example it is normal to connect an effects pedal, such as a compressor between the guitar and amplifier, whereas, a digital effects unit would be connected to the buffered EFFECTS LOOP.

4) LINE OUT

This is a direct, line level (-6dBv) output. This allows you to take a post effects loop signal from your amplifier and apply it to a mixing board, power amplifier or other sound processing device. **IMPORTANT** Under no circumstance should your amplifier be run without a speaker load.

5) SPEAKER OUTPUT

Use when one single 16 Ohm enclosure is required.

6) SPEAKER OUTPUTS

Use when a single 8 Ohm enclosure is required or two 16 Ohm enclosures.

7) SPEAKER OUTPUTS

Use when a single 4 Ohm enclosure is required or 2 8 Ohm enclosures or 4 16 Ohm enclosures.

8) HT FUSE

Protects amplifier from failed output tubes, replace tubes when this tube blows.

For further information please read Tube Amplifier Trouble Shooting section of this manual

9) POWER FUSE

Protects amplifier from outside voltage spikes (Bad power) and ensures against possible fire hazard. Always replace fuse with correct type and rating, failure to do so may result in serious damage to your amplifier and constitute a possible fire hazard.

For further information please read Tube Amplifier Trouble Shooting section of this manual.