

# LADNER

ENGINEERING GROUP



## MODEL G-1

### *Owner's Manual*

*... Respect for the past with insight to the future*

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## INTRODUCTION

Generations of amplifiers have ushered sounds that are unmistakable and powerful. From early amplifiers of Fender and Marshall to the modern amplifiers of Mesa/Boogie and Two Rock, there has been a lot of magic trapped within the tubes. Ladner Engineering has developed a new generation of vacuum tube amplifiers that hopes to cement its name within the greats of the past. First off, we thank you for purchasing the G-1 amplifier the first Ladner Engineering Group design. The G-1 was developed to be an amplifier of versatility and soul. From the fat powerful clean sound to the singing overdrive, the G-1 was designed with the musician in mind. Creating a palette of tones that can be used to maximize the potential of the player and his sound. Players also demand reliability and that was not overlooked. With all our amplifiers we ensure a hundred percent quality within our hand built amplifiers. Built upon a ceramic strip substrate, we kick quality up a notch, no circuit boards, turret boards, no boards at all, leaving out any potential malfunction from the substructure. The heart and soul comes primarily from our custom designed Mercury Magnetic transformers, in response to our fine tuned pre-amp section to deliver nothing less than pure tonal performance. Each knob has sensitive control in their respective position, bringing forth a wide spectrum of sounds to choose from. Enough of this stuff, go out and play your G-1 for a thousand hours a day!

*Andrew & D.C. Ladner*

**LADNER ENGINEERING GROUP**

## FRONT PANEL



**1 - INPUT** - ¼" jack that delivers the signal from the guitar to the first stage of gain in the amplifier.

**2 - GAIN** - Controls the level of the first gain stage, and is very important down the line with response to the tone stack and overdrive circuits. With response to the overdrive it acts as the first of the cascading gain stages.

**3 - BRIGHT** – Delivers more brilliance to the tone circuit and increases the treble response in the preamp. This switch can help to make darker instruments (**such as those with humbuckers**) to cut through and improve attack.

**4 - ALT TONE** – This is a unique switch that reconfigures the tone stack to deliver a flatter response (*like on many early tube hi-fi amplifiers*). Most amplifiers have scoop within the mid range response of the amplifier to counter the hump of mid frequency response within the speaker. The normal position will make the

amplifier respond in the traditional fashion. The alternate position brings a flatter response, which can benefit certain instruments (**such as lap-steel, pedal steel, electric violin, etc...**). The alternate tone stack also works great for the jazz guitarist, helping to show the true tone of a classic hollow body.

**5 - BASS** – adjusts the response of bass frequencies within the tone stack. This is a very dominant control and can bring the response of the amplifier from “woofy” to “boomy” and everything in between. All the knobs on the G1 are powerful and slight adjustments of one can radically change the response of the others.

**6 - MIDS** – This very powerful knob in guitar amplifiers can bring a sound from harsh to beautiful just by the turn of a knob. Changing the amount of mid range, this knob has a significant control over the overall tone.

**7 - TREBLE** – Controls the amount of highs, and is as equally as important as the mid. The treble is very important and powerful knob in respect to the overall tone. The Treble knob can bring the amplifier from dark singing full on mid range punch, to bright crisp attack.

**8 - LOW DETAIL** – Details, or kinda-tightens the low-end response of the amplifier, **it does not cut or boost any bass**. This enhancement can

tighten and produce a more detailed bottom sound if desired.

**9 – OD LEVEL** – Sets the output level of the overdrive channel. It provides a way to balance the overdrive signal to the clean signal for a balanced sound or even a boost or cut within the overdrive function.

**10 – MID SHIFT**– This control shifts the mid-scoop point from around 400 Hz to 300 Hz. Once again, **it does not cut or boost any mids.**

**11 - OVERDRIVE** – Adjust the amount of overdrive or crunch. Switched by either footswitch or front panel toggle switch (**with footswitch unplugged**). The adjustment of the first-stage GAIN knob is crucial to the response of the OVERDRIVE knob, Another way to describe this knob is your “overdrive sound” or how much gain you can get out of the amplifier adding dirty tones to the clean in response to the position of the gain knob. The gain and overdrive represent a cascading gain stage in a fashion that delivers smooth singing gain.

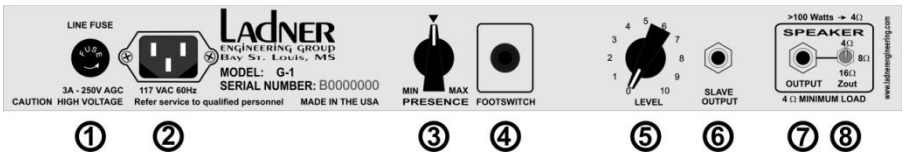
**12 – CLEAN / OD** – Switches between Clean and Overdrive channels. **NOTE: This switch is disabled when the footswitch is plugged into the rear of the amp. The footswitch takes precedence when connected.**

**13 – MASTER** – Controls the over all volume and output of the amplifier.

**12 – PLAY/STANDBY/OFF** – An all-inclusive function control - go from Off/Standby/On, with one switch.

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## Rear Panel



**1 – FUSE-** 3Amp 250V AGC fuse.

**2 - AC POWER** – an IEC standard removable power cable. This unit is shipped for US domestic markets with a nominal line voltage of 117VAC 60Hz.

**3 - PRESENCE** - Brings in highs through the Output section of the amplifier. Turing the PRESENCE all the way counter-clockwise produces a dark, beefy tone. The knob in the middle is “design center” where the amp was designed and most effective to the over all tone. Turning the knob more clockwise

produces more high-end sparkle. The Presence control is very functional and powerful to the overall tone and has more range than most conventional amplifiers.

**4 - FOOTSWITCH** – Connection for the channel selection footswitch, a standard TRS or Tip Ring Sleeve cable is required. **NOTE: The front panel selector switch is disabled when the footswitch is plugged into this jack. A faulty footswitch or flaky cable can cause the amp to default to the OverDrive Channel!!!**

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## FOOTSWITCH CONNECTION DETAILS



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**5 – SLAVE LEVEL** - A tap off the output to send an unbalanced signal to a power amplifier or recording console. The slave level controls how much signal is sent to the Slave Output jack. The slave level can deliver signals above line level. **NOTE: A proper load must be connected to the amplifier (i.e. Speaker cab or load box) or you will (possibly, pretty good chance) blow the amp up ... which is no fun.**



**6 – SLAVE OUTPUT** - ¼" jack to deliver signal to a console or to facilitate "re-amping".

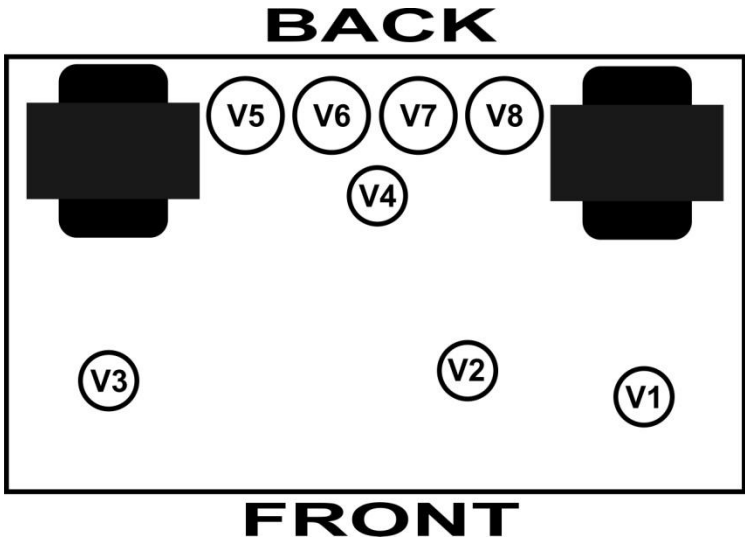
**7 – SPEAKER OUT** - ¼" jack to deliver signal to a speaker cabinet.

**8 – Zout** - Impedance selector 4,8,16 ohm – Avoid changing this selector with the unit in the "PLAY" mode.

## SPECS

OUTPUT POWER	>100 Watts – Clean
OUTPUT IMPEDENCE	Selectable 4, 8, 16 Ω
INPUT	1 MΩ
CHANNEL SELECTION	Front Panel/Footswitch
EQUALIZATION	Bass, Mids, Treble Presence
VOICING	Alt Tone, Mid-Shift, Low Detail

## TUBE PLACEMENT



**V1-V4:** 12AX7

**V5-V8:** 6L6

**V1:** Input stage (Mullard 12AX7A)

**V2:** Tone

**V3:** Overdrive (12AX7LPS)

**V4:** Phase Inverter (12AX7LPS)

**V5-V8:** Output (6L6 WXT+)

**CAUTION:** Tubes are **HOT** when in use, and for a while after the unit has been turned off, use extreme caution when changing.

## WARRANTY

All Ladner amplifiers sold by authorized Ladner dealers are warranted by Ladner Engineering Group to be free from defects in material or workmanship under normal use and service for a period of **five (5) years\*** on parts and **three (3) years\*** on labor from the original date of purchase. Speaker cabinets are covered for a period of **three (3) years\*** on parts and labor from the original date of purchase.

Any products found to be defective within the applicable period will be repaired or replaced at the option of the Ladner Engineering Group, without any charge provided that; (1) the product was not misused, abused, improperly maintained, or repaired by any person not authorized by Ladner Engineering Group; (2) its failure resulted from a defect in material or workmanship and was not damaged due to use other than its intended use; (3) the product was not used under abnormal, excessive, or unusual operating conditions and (4) the product is promptly delivered prepaid to the seller at the place of purchase or to an authorized Ladner Engineering Group warranty service center together with proof of purchase within the applicable period.

There are no warranties, expressed or implied, other than those expressed herein. Further, there is no warranty of merchantability or fitness for a particular purpose. This warranty does not cover units used for loan or rental.

Limitation of Liability: the above warranty represents purchaser's exclusive remedy and Ladner Engineering Group, LLC shall not be liable for any special, incidental, or consequential damages relating to the product sold.

Some states do not allow limitations on the duration of implied warranty or the exclusion may not apply to some purchasers. This warranty gives purchasers specific legal rights and purchasers may also have other rights that vary from state to state.

**\* Exceptions:**

Speakers	1 Year
Sound Reinforcement Products	3 years
Tubes, Cables	90 days
Vinyl Covers/Bags/Accessories	No Warranty

# **ALWAYS TURN POWER OFF WHEN CHANGING OR REPLACING TUBES**

## **SAFETY INFORMATION**

- Do not expose this amplifier to moisture or water (i.e. avoid dropping into swimming pools, most lakes, water ways or use during times of excessive storm surge)\*\* or extreme heat.
- Turnoff and unplug before any tube change.
- Only use a 3 amp, AGC fuse. *Remember ONLY!!!!*
- Keep the back of the amplifier away from curtains or other flammable materials.
- Remove speaker (*head version*) and power cable before moving to avoid damage.
- Only clean with a soft towel and mild cleaner. *Remember ONLY!!!!*
- Unlike Trix, these amplifiers are NOT for kids, so keep it away from them.
- Unplug during lightning storms, hurricanes, tsunamis or the like.

\*\* ... unless it's a competitors amplifier, of course.

This amplifier produces **EXTREME SOUND VOLUMES** and can cause **PERMANENT HEARING DAMAGE**, handle with care.

**THIS MEANS YOU!**

**Common sense is a valuable tool, so use it.**

*Always have this Amplifier serviced by a*

**QUALIFIED SERVICE**

**PROFESSIONAL**

**ONLY!**

# LADNER

## ENGINEERING GROUP

**Thank you for your purchase, and welcome to the Ladner Engineering family. We wish you many years of great tonal bliss with your hand-built G-1 amplifier.**

**A toast to you and the future,**

*Andrew and D.C. Ladner*

