

Two-Rock

Jet

22/35

OWNERS MANUAL

Dear Customer,

Thank you for your purchase of a **Two-Rock** amplifier from Two-Rock Amplifiers, LLC.

As a discerning guitarist, you know the road to great tone begins with great components.

Our Classic Design, carefully selected parts and hand-built approach combine to make an extremely versatile instrument.

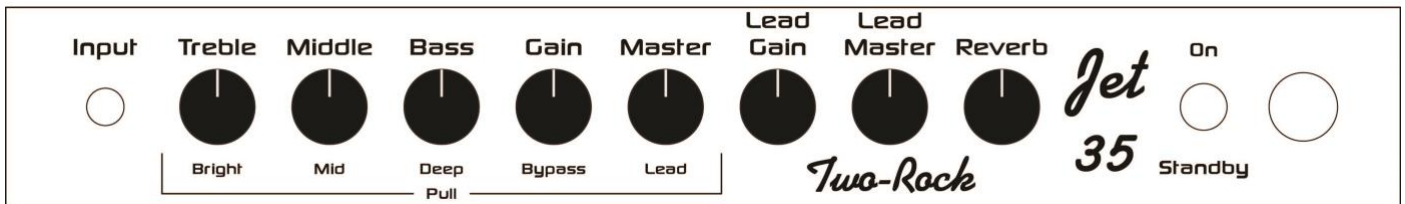
Please take the time to read this manual. We hope it will answer any questions that you may have.

We extend a warm welcome to you as a member of a select group of musicians who have chosen a **Two-Rock** amplifier.

Important Safety Instructions

1. Read these instructions
2. Keep these instructions
3. Heed all warnings
4. Follow all instructions
5. Do not use this apparatus near water
6. Clean only with dry cloth
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions
8. Do not install near any heat sources such as radiators, heat registers, plugs, and the point where they exit from the apparatus
9. Protect the power cord from being walked on or pinched particularly at plugs and the point where they exit from the apparatus
10. Only use attachments/accessories specified by the manufacturer
11. Unplug this apparatus during lightning storms or when unused for long periods of time
12. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped
13. CAUTION: To disconnect the unit completely from the MAINS, unplug the unit. Turning the power switch off does not disconnect the unit completely from the MAINS.

Front Panel Functions



INPUT - High impedance input to the amplifier. Plug in your instrument here.

TREBLE + Push/Pull BRIGHT - Adjusts the high frequency response. At lower settings of this control the tone will be warmer and smoother. As you turn this control up the highs become more prominent and aggressive adding gain to the signal as well. In the full counter-clockwise position, high frequencies are bypassed to ground. In the full clockwise position, high frequencies are allowed to pass to the next gain stage. Pulling the knob to the “out” position: boosts the high frequency response. This is most effective when the Gain control is set at 12 o'clock or lower. This is great for adding sparkle to clean tones. The effect is less dramatic as the Gain control is adjusted past the 12 o'clock position.

MIDDLE + Push/Pull Mid - Adjusts the midrange response. At low settings of this control the tone will be “scooped” of midrange response, emphasizing the highs and lows. As this control is turned up, the midrange frequencies are increased. This creates the “body” of your guitar’s tone and is very critical to both the tonality, feel and overall response of the amplifier. Higher settings of this control also help your tone to cut through the mix in both a live band situation and when playing the amp outdoors. In the full clockwise position, mid-range frequencies are allowed to pass to the next gain stage. **Pulling the knob to the “out” position: Midrange is further boosted.**

NOTE for 22watt version: The Pull Mid function is not included!

BASS + Push/Pull DEEP - Adjusts the bass response. In the full counter-clockwise position, low frequencies are cut. In addition, the response of the treble and mid-range controls is greatly reduced. It’s easiest to start with this control at noon, then adjust to taste. In the full clockwise position, low frequencies are allowed to pass to the next gain stage.

Pulling the knob to the “out” position: Boosts the lower bass frequencies. This low frequency contour switch also shifts the emphasis from the upper bass and low mid frequencies to the lower bass frequencies which helps smooth out and clarify the midrange response.

NOTE for 22watt version: The Pull DEEP function is not included!

GAIN - Adjusts the overall gain of the amplifier. Start with this control in the 12 o'clock position then adjust to taste. This control determines the initial character of your tone, from cleaner/brighter tones at low settings to fatter/warmer tones at higher settings. As you turn this control up it also introduces more gain and bass into the signal path, and reduces the amount of available clean headroom especially when the master volume is set higher.

Pulling the knob to the “out” position: Treble, Middle, and Bass controls are passively bypassed boosting the natural high and mid frequencies of the guitar. It also increases the amount of input signal that drives the gain stage. This function is foot switchable.

NOTE for 22watt version: This function is only accessible by the footswitch!

MASTER - Adjusts the overall output level of the amplifier. At lower settings on this control the amp will be much cleaner sounding as well as lower in volume. As this control is turned up the power section of the amp begins to work harder which increases sustain, fullness, and touch dynamics as well as increasing the volume of the amplifier. At higher settings on this control the power section will be pushed into natural overdrive especially if the Gain control is set higher.

Pull this knob “out” to activate the Lead channel.

NOTE for 22watt version: This function is only accessible by the footswitch!

LEAD GAIN - Adjusts the input level (gain) of the lead channel.

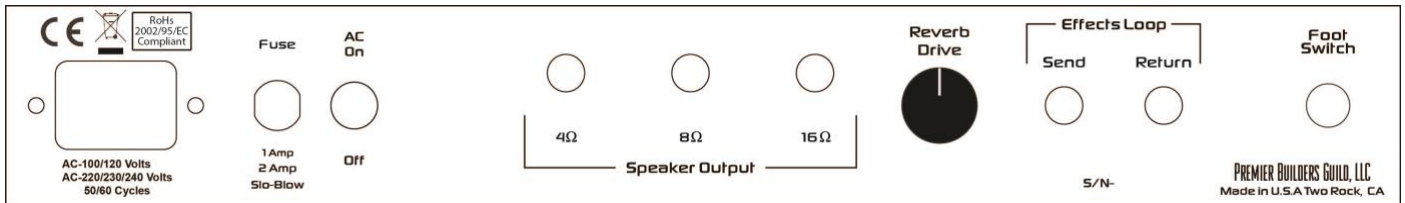
LEAD MASTER - Adjusts the output level of the lead channel.

REVERB - This is the reverb return control which mixes the reverb effect signal with the dry signal. At full counterclockwise rotation, the reverb effect is defeated. Using this return control in conjunction with the reverb drive control on the rear panel, a wide range of natural reverb effects can be produced.

STANDBY - This switch should be in the down/STANDBY position before you place the Power switch to the up/ON position. After 20 seconds or more, place the Standby switch in the “up” position to play the amplifier. When you are taking a break from playing the amp you can leave the amp “powered up” and simply switch to the “stand-by” position to mute the output of the amplifier and prolong power tube life.

INDICATOR LAMP - This lamp will illuminate when the rear panel power switch is in the “up” position, indicating the unit is receiving A/C power.

Rear Panel Functions



A/C Input - Connects the amplifier to A/C power via the power cord supplied. Unless otherwise specified, your amplifier is designed to operate on 120 volts A/C, 60 cycles.

Fuse- See Fuse Chart

Power Switch- Turns power on.

Speaker Output Jacks- There are 3 speaker output jacks; 4, 8, and 16 ohms.

NEVER OPERATE YOUR AMPLIFIER WITHOUT A PROPER SPEAKER LOAD CONNECTED.

Be sure to match the impedance of your cabinet with the impedance (output) of the amplifier.

REVERB DRIVE - This reverb “drive” control determines the amount of signal applied to the reverb tank. Low settings will create a very open, small room reverb effect with a short decay time. Turning the control clockwise increases the signal applied to the reverb driver stage creating a very saturated effect with a sharp attack and a longer decay.

Effects Loop –

The effects loop on this amplifier is a “passive” type of loop, see [FAQ on two-rock.com](http://FAQ.on.two-rock.com)

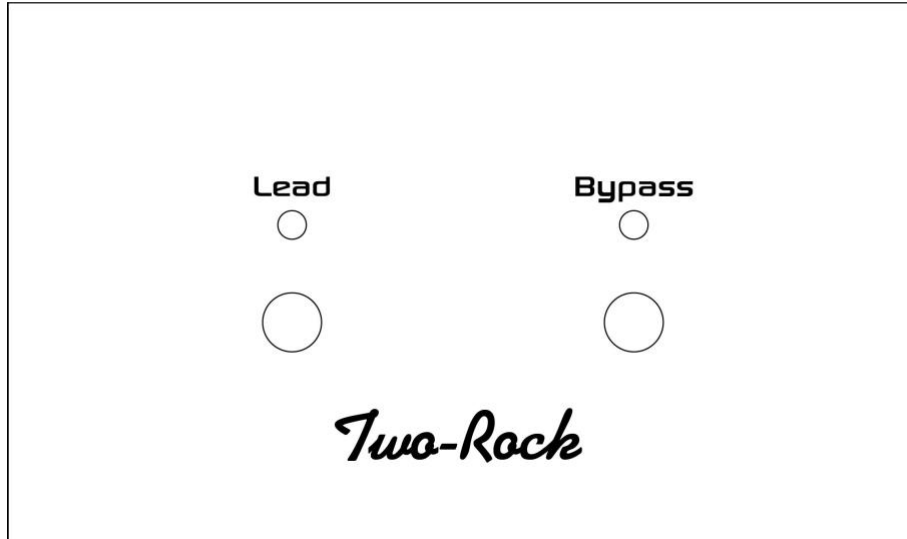
SEND - Use this jack to send the amplifier’s signal to the effects that you want to use in the loop.

RETURN - Use this jack to connect the output from the effects in the loop back to the amplifier.

Foot Switch Jack- The footswitch connects here.

NOTE: The 22 watt 6V6 powered version’s Clean/Lead and Tone Bypass functions can only be activated via the footswitch.

FOOTSWITCH



Fuse Chart

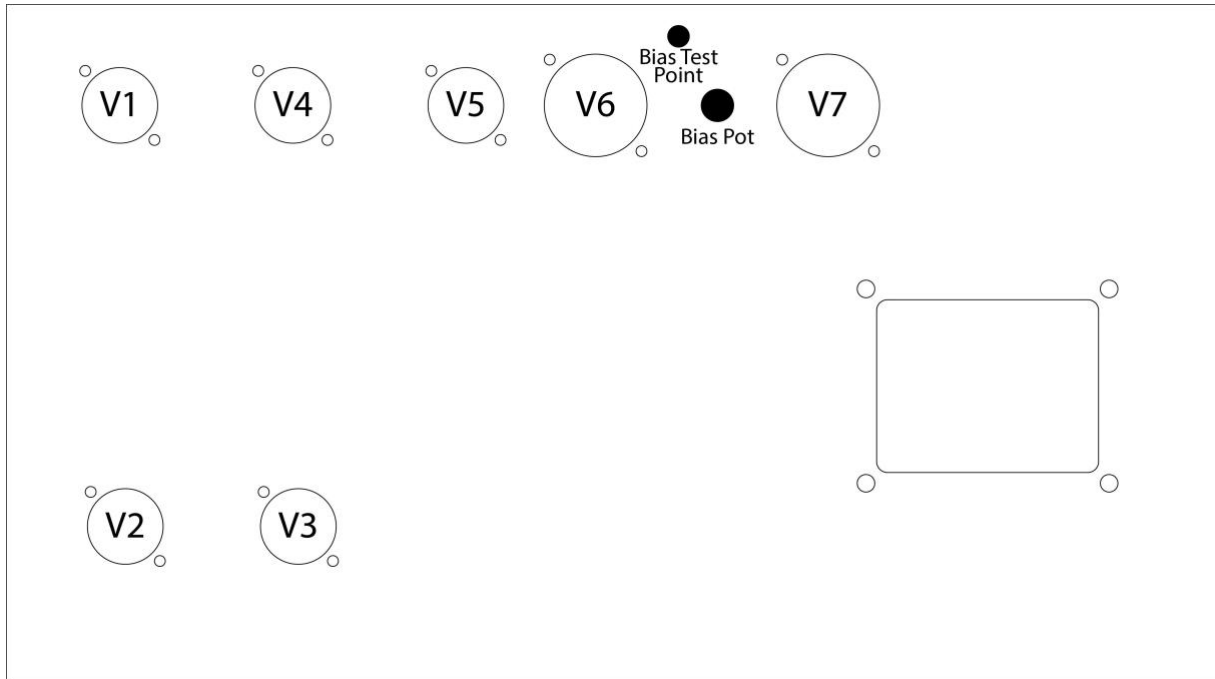
All Fuses are 3AG Type 250 Volt, SLO-BLO

Export 100V:
2A - 22/35 Watt

Domestic 120V:
2A - 22/35 Watt

Export 220V, 230V, 240V:
1A - 22/35 Watt

Tube Complement



- V1- 12AX7, Rhythm channel
- V2- 12AX7, Mixing/Effects
- V3- 5751/12AT7, Reverb Driver
- V4- 12AX7, Lead Channel
- V5- 12AX7. Phase Inverter
- V6, V7- 6V6GC/6L6GC, Output

Each fine production tube is tested and matched to our exacting specifications. External bias adjustment and test points are located on the chassis near the output tube sockets. A digital voltmeter and small screwdriver are required for bias adjustment.

BIAS ADJUSTMENT PROCEDURE:

- Power up unit and connect proper speaker load**
- DO NOT have an instrument connected to the input during the biasing procedure!**
- Take unit off standby and allow a few seconds for the circuit to stabilize.**
- Set multi-meter to read DC Volts**
- With meter grounded to chassis and + probe inserted into test point, measure voltage.**
- Using a small flat head screwdriver, insert into Bias pot and turn slowly adjusting Bias level**

It is recommended to only use exact replacement tubes similar to what is installed at the factory. Be careful when deciding to install other types of 6L6, 6V6, or EL-34 based tubes. Not all have the same specs and some can't handle the plate voltage of the amplifier.

Below is a limited list of comparable tube types:

6L6: 6L6GC, 7581, 5881

6V6: 6V6S, 6V6GT

Bias Ranges: Are measured and set in Volts. But can be measured and set in milliamps.

6L6 type tubes: .060V to .070V for 35watt version Factory Setting: .064V

6V6: tube types: .044V to .058V for 22watt version Factory Setting: .050V

6V6: Installed in 22watt versions with tremolo, bias must not be set higher than .044V as it will cause tube failure.

Do not set bias higher than recommended as it can lead to tube failure or failure within the amplifier!

We know your new **Two-Rock** amplifier will provide many hours of enjoyment and inspiration in the years to come.

This manual is a resource for some of your questions.

Please contact us with any other questions or comments that you may have. We look forward to hearing from you!

PHONE: 1(707)584-TONE (8663) (M-F 9am-5pm PST)

ADDRESS: Two-Rock Amplifiers, LLC
619 Martin Avenue, Suite 5
Rohnert Park, CA 94928

CONTACT: info@two-rock.com

WEB: www.two-rock.com

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619 MARTIN AVENUE, SUITE 5

ROHNERT PARK, CA 94928

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SERIAL NUMBER: _____



DECLARATION OF CONFORMITY
According to EC Directive

Manufacturer: Premier Builders Guild LLC
Address: 201 S. Highland Ave., Suite 204
Pittsburgh, PA 15206 USA
Phone: 412-362-0309

Product Name: Audio Power Amplifier
Brand Name: Two-Rock
Model No: Crystal
Studio Pro
Cardiff
Sensor
Coral

Has been designed and manufactured in accordance to the following technical regulation:
Directive Device:

Low Voltage Equipment 2006/95/EC
Electromagnetic Compatibility 2004/108/EC
Conformity with the following standards:
The measurements made in accordance with the procedures according to the European Council Directive and EN Standards.

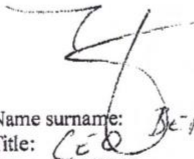
Council Directive and EN Standards:

- EN 55103-1:2009+A1:2012
- EN 55103-2:2009
- EN61000-3-2:2006+A1:2009+A2:2009
- EN61000-3-3:2013
- EN60065:2002+A1:2006+A11:2008+A2:2010+A12:2011

CE mark was affixed on the product: 2007

The product(s) which are defined herein was (were) manufactured under the conditions of the European Union directive and standards. Also, this product(s) responsibility is under our firm's guarantee.

Manufacturer
Stamp & Signature


Name surname: BERNSTEIN
Title: CEO
Date: 8/14/2015