

# **Two-Rock**

**Akoya**

**50 Watt**

**Dual Tube Rectified**

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.

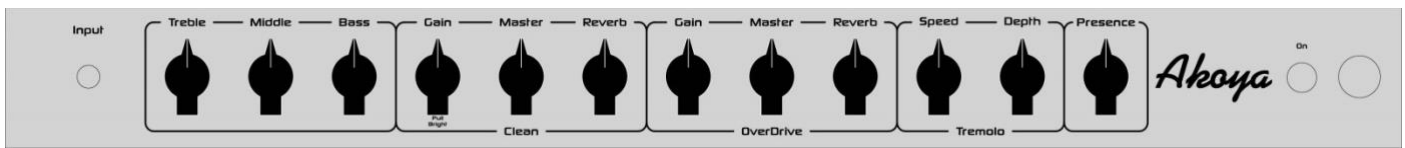
Please take the time to read this manual. We hope it will answer any questions that you may have.

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

**Treble** - 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.

**Middle** - 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.

**Bass** - 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.

**Clean Gain + Pull Bright**- 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:** 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.

**Clean Master** - Adjusts the output level of the amplifier. Both the clean and overdrive output is controlled by this level. This level will also control how much signal is passed to any pedal that is inserted into the effects loop.

**Clean Reverb** - Mixes the reverb effect signal with the dry clean signal. At full counterclockwise rotation, the reverb effect is defeated.

**OverDrive Gain** - Adjusts the input level (gain) of the lead channel. Although we refer to this as the “overdrive channel” it is actually an additional “cascading” gain stage in the amp’s circuit driven by the Bass, Middle, Treble, Bright, Mid, Deep, Gain, EQ Shift, and Bypass controls. It has been meticulously designed to add a very dynamic and touch responsive overdrive capability to the amplifier. The setting of the amp’s controls has a direct effect on the gain, tone and feel of the overdrive channel. Experimentation is key to striking the desired balance between the clean and overdrive modes.

**OverDrive Master** - Adjusts the output level of the overdrive channel. Use this control to set the desired volume of the overdrive mode in relation to the clean mode.

**OverDrive Reverb** - Mixes the reverb effect signal with the dry overdrive signal. At full counterclockwise rotation, the reverb effect is defeated.

**Speed** – Adjusts the rate of the tremolo effect.

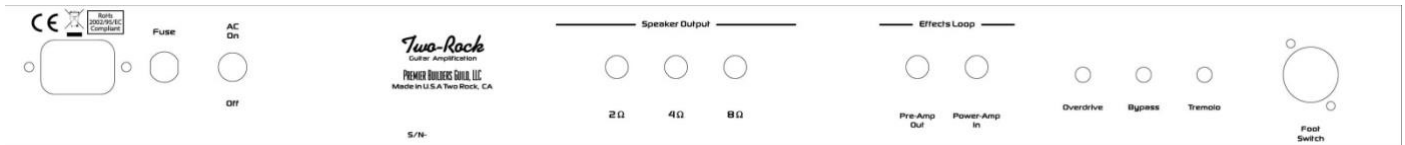
**Intensity** – Adjusts the effect and depth of the tremolo.

**Presence** - Adjusts the contour of the high-frequency response. Turning this control up gradually increases the intensity of the upper frequencies. This is a subtle control which can be used to either emphasize sparkle and brightness when needed or smooth out your overall tone by turning the control down.

**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 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

**AC Power Switch** - Turns power on.

**Speaker Output Jacks** - Multiple impedance  $\frac{1}{4}$ " jacks for speaker connection.

**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.

**Effects Loop –**

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

**Effects Send** - Use this jack to send the amplifier's signal to outboard effects.

**Effects Return** - Use this jack to connect the output of your effects to the amplifier.

**OverDrive Switch** - Engages OverDrive circuit. To enable footswitch control of this function, the switch must be in the down position.

**Bypass Switch** - Enables the Tone Boost circuit. The Tone Boost is a secondary EQ setting that increases gain and mid-range. It will affect the control aspect of the Tone Controls. This can be used on both Clean and Overdrive modes. This function is also foot switchable. To enable footswitch control of this function, the switch must be in the down position.

**Tremolo Switch** - Engages Tremolo circuit. To enable footswitch control of this function, the switch must be in the down position.

**S/N** - Your serial number is located here. We strongly suggest that you record this number and have it handy in case you need service, or in the event that your amp is lost, stolen, or damaged.

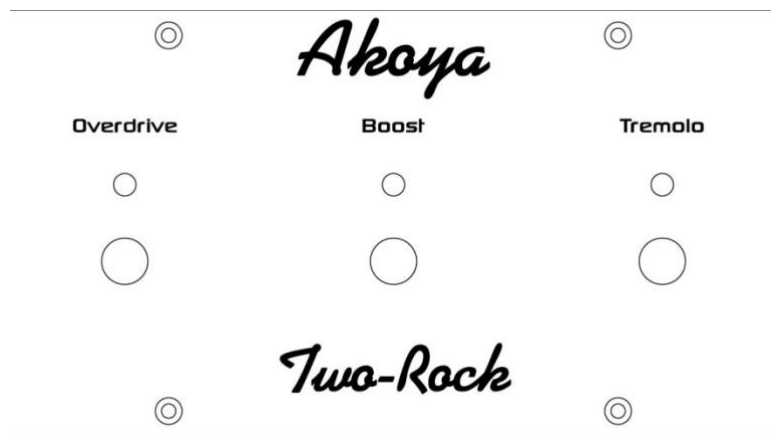
**Footswitch Jack** - The footswitch connects here. This switch utilizes a 4-pin XLR style cable. The overdrive on/off, tone stack bypass, and tremolo functions can be activated via the footswitch. The respective rear panel switches must be in the "off," (down position), to enable the footswitch functions.

# FOOTSWITCH

**Overdrive** - Switches the amp into overdrive mode.

**Boost (Bypass)** - Switches the amp into tone boost mode.

**Tremolo** - Switches the tremolo effect on.

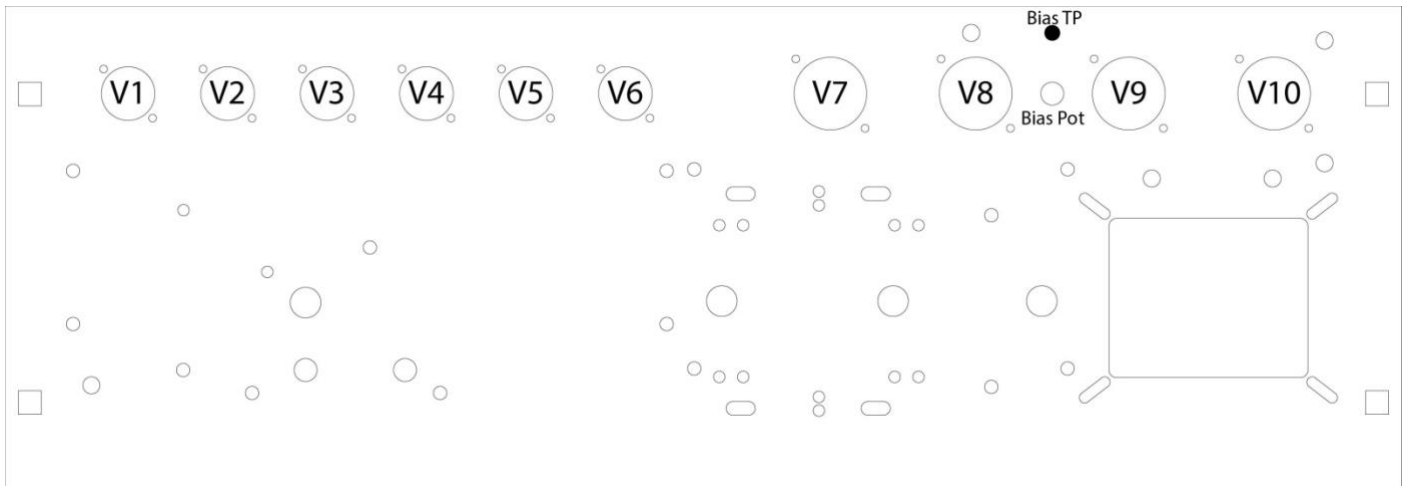


## Fuse Chart

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

	100V	120V	220V/230V/240V
50 Watt:	2.5amp	2.5amp	1.6amp

## (Tube Complement)



- V1 - 12AX7, Input stage & Gain
- V2 - 12AX7, Overdrive stage
- V3 - 12AX7, Reverb Driver
- V4 - 12AX7, Mixing amplifier
- V5 - 12AX7. Phase Inverter
- V6 - 12AX7WA, Tremolo Circuit
- V7 & V8 - 6L6WGC-STR, Output
- V9 & V10 - 5AR4, Dual Tube Rectifiers

Each fine production tube is tested and matched to our exacting specifications. When the time comes that the power tubes need replacing, it's very important to use high quality, matched sets of power tubes. It's also critical that the bias of the amp be reset after installing new, or NOS power tubes. External bias adjustment and test points are located on the bottom of the chassis near the output tube sockets. A digital voltmeter and small screwdriver are required for bias adjustment.

### **BIAS PROCEDURE:**

Make sure the speaker is connected properly, then power up the amplifier.

Set the rear panel power mode switch to Full or Hi

**DO NOT** apply any signal to the input during the biasing procedure!

Insert volt meter's positive probe into the bias test point socket (located underneath the chassis)

Connect volt meter's negative probe to chassis ground

Switch amp out of standby and allow a few seconds for the circuit to stabilize

Set voltmeter to millivolt scale (or lowest volt scale 60 millivolts =.060 volts.)

Observe the display on the meter to see the current bias setting

If an adjustment is needed, use a small flat blade screwdriver inserted into the bias adjust pot and adjust by turning bias screw **SLOWLY** in very small increments until the desired setting is achieved on the meter. Then wait a few moments for the bias to stabilize and re-adjust if necessary. You may need to repeat this procedure a couple of times. It is ok to play test the amp with the meter connected.

**A setting of 0.060 to 0.063 volts is normal for 50 watt amplifiers with (2) 6L6's.**

**WARNING! No user serviceable parts inside! Refer to qualified service person only.**

LINE CORD- For your safety, connect to grounded A/C receptacle only.

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](mailto:info@two-rock.com)

WEB: [www.two-rock.com](http://www.two-rock.com)



# Two-Rock Amplifiers

619 MARTIN AVENUE, SUITE 5  
ROHNERT PARK, CA 94928  
707-584-8663  
[www.two-rock.com](http://www.two-rock.com)

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