

Two-Rock

Coral

50 Watt

100 Watt

OWNERS MANUAL

Dear Customer,

Thank you for your purchase of a **Two-Rock** amplifier!

As a discerning guitarist, you know the road to great tone begins with great components. Our classic design of carefully selected parts and hand-built approach combine to make an extremely versatile instrument.

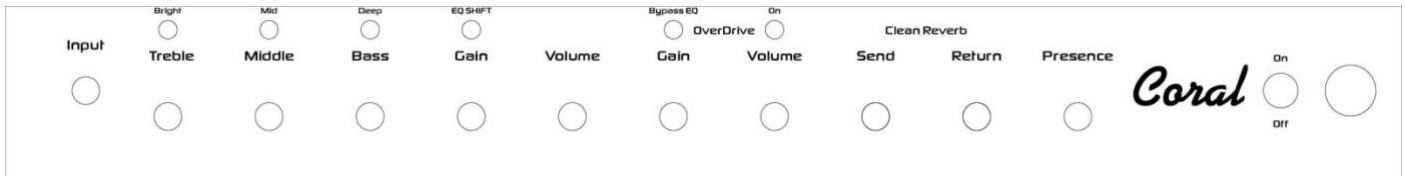
Please take the time to read this manual. We hope it will answer any questions that you may have.

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. This control is very interactive with the Bright switch, Middle control, and Deep switch. 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.

Bright Switch - 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 - 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 as well as when playing the amp outdoors. In the full clockwise position, mid-range frequencies are allowed to pass to the next gain stage.

Mid Switch - Boosts the midrange frequency response.

Bass - Adjusts the bass response. In the full counter-clockwise position, low frequencies are cut and the response of the treble and mid-range controls is greatly reduced. As this control is turned up, the bass frequencies are increased and allowed to pass to the next gain stage.

Deep Switch - Boosts the lower bass frequencies. This low frequency contour switch also shifts the emphasis from the upper bass frequencies to the lower bass frequencies which helps smooth out and clarify the midrange response.

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. Keep in mind that the amount of gain set here also determines the signal level feeding the overdrive channel. Lower settings of this control will reduce the available signal level in the overdrive channel so higher settings of the Overdrive Gain control may be required to achieve the desired amount of overdrive.

EQ Shift Switch – This switch alters the way that the tone stack passes to the input gain stage. In the up position the eq curve allows for more dynamic interaction between treble and bass. In the down position the amount of gain is doubled and some of the dynamics between the controls are minimized.

Volume - 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 raising 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. The control also determines how much signal is passed through the effects send jack.

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.

Bypass Switch - Referred to as Tone Stack Bypass, this switch bypasses the Bass, Middle, and Treble controls effectively turning them up all the way and increasing both the volume and perceived mid-range response. The Bright, Mid, and Deep switches remain active in the Bypass mode. This function is also foot switchable. To enable footswitch control of this function, the switch must be in the down position.

OverDrive Volume - 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 Switch - This switch engages the overdrive channel. This function is also foot switchable. To enable footswitch control of this function, the switch must be in the down position.

Clean Reverb Send - The reverb send control determines the amount of signal applied to the reverb tank. Low settings will create short decay times. Advancing the control clockwise increases the signal applied to the tank for longer decay times.

Clean Reverb Return - 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. Use this return control in conjunction with the reverb send control to create a wide range of natural reverb effects.

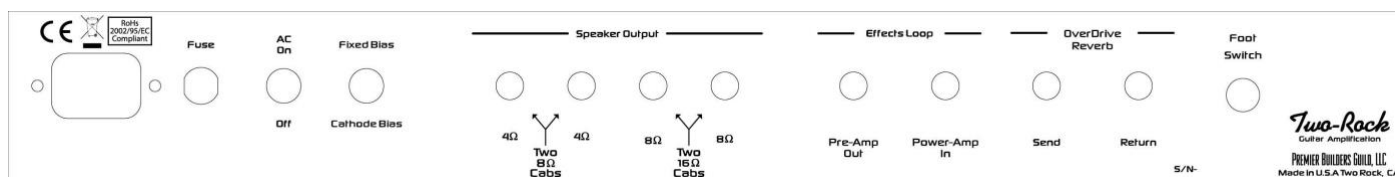
Presence - Adjusts the contour of the high-frequency response. Turning this control up gradually increases the intensity of the upper frequencies. This is a subtle control which can be used to either emphasize sparkle and brightness when needed or smooth out your overall tone by turning the control down.

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.

NOTE: All switches are **ON** in the “up” position

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 On/Off - Turns power on or off.

Fixed Bias/Cathode Bias Switch – The fixed bias mode allows the output/tube section bias to be controlled by an adjustable bias pot located under the chassis. This adjustment can be used to set the tubes bias in a range of settings. This mode will allow the end user to maximize the amount of clean headroom available with the tubes that are installed. Or to push the tubes to a “hot” point allowing more output section breakup. Note: Caution must be observed when setting the bias and use of the suggested values stated in our bias section.

The Cathode bias mode allows the output/tube section to be biased by an internal hard wired circuit. This circuit allows the end user to be able to install a set of tubes and not need to adjust any values to set the bias on the tube section. This mode sets the tubes internal bias to a point where it more closely resembles Class A function. This will decrease the amount of clean headroom but will add more complex tonal harmonics to the signal path.

Speaker Output Jacks - There are two sets of speaker output jacks. Nominal impedance is 4-8 ohms. The output section has the ability to run a set of speaker loads in parallel. Duel 4ohm jacks can be used to take two 8ohm speaker loads and combine them to a 4 ohm load. Duel 8ohm jacks can be used to take two 16ohm speaker loads and combine them to a 8 ohm load.

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

Pre-Amp Out - Use this jack to send the amplifier’s signal to the effects that you want to use in the loop. The Master volume controls how much signal is output to the pre-amp out jack.

Power-Amp In - Use this jack to connect the output from the effects in the loop back to the amplifier.

Overdrive Reverb Send - This control determines the amount of overdrive channel signal applied to the reverb tank. Low settings will create a very open, small room reverb effect with a short decay time. Advancing the control clockwise increases the signal applied to the driver and a very saturated effect with a sharp attack and a long decay can be obtained.

Overdrive Reverb Return – 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. Use this return control in conjunction with the overdrive reverb send control to create a wide range of natural reverb effects specific to the overdrive channel.

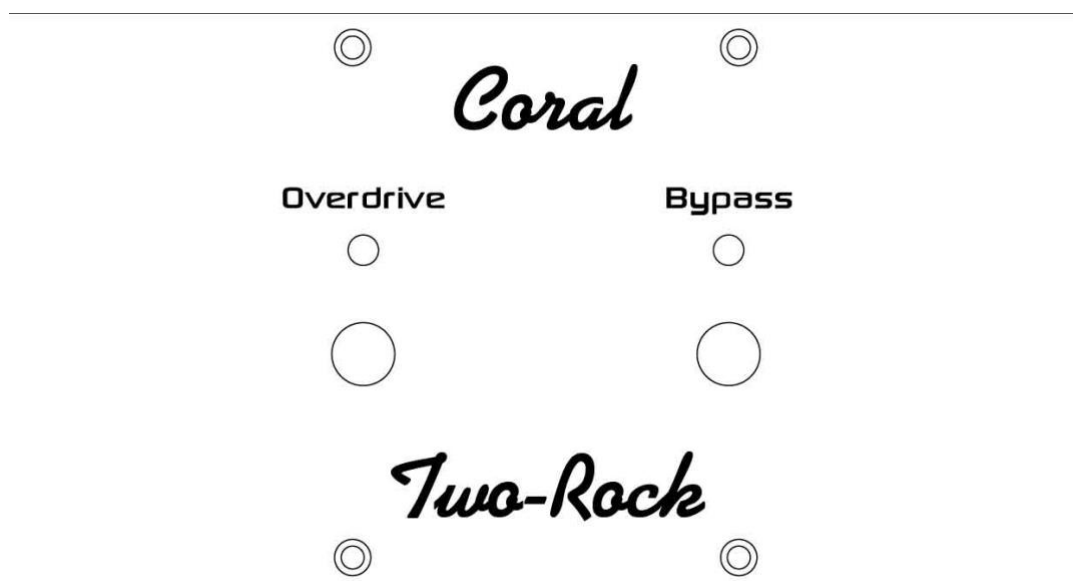
S/N- Your serial number is located here. We strongly suggest that you record this number and have it handy in case you need service, or in the event that your amp is lost, stolen, or damaged.

Footswitch Jack -The footswitch connects here. The overdrive channel, and tone stack bypass functions can be activated via the footswitch. The respective front panel switches must be in the “off,” or down position to enable the footswitch functions.

FOOTSWITCH

Overdrive – Switches between Clean and Overdrive modes

Bypass - Engages tone stack bypass mode

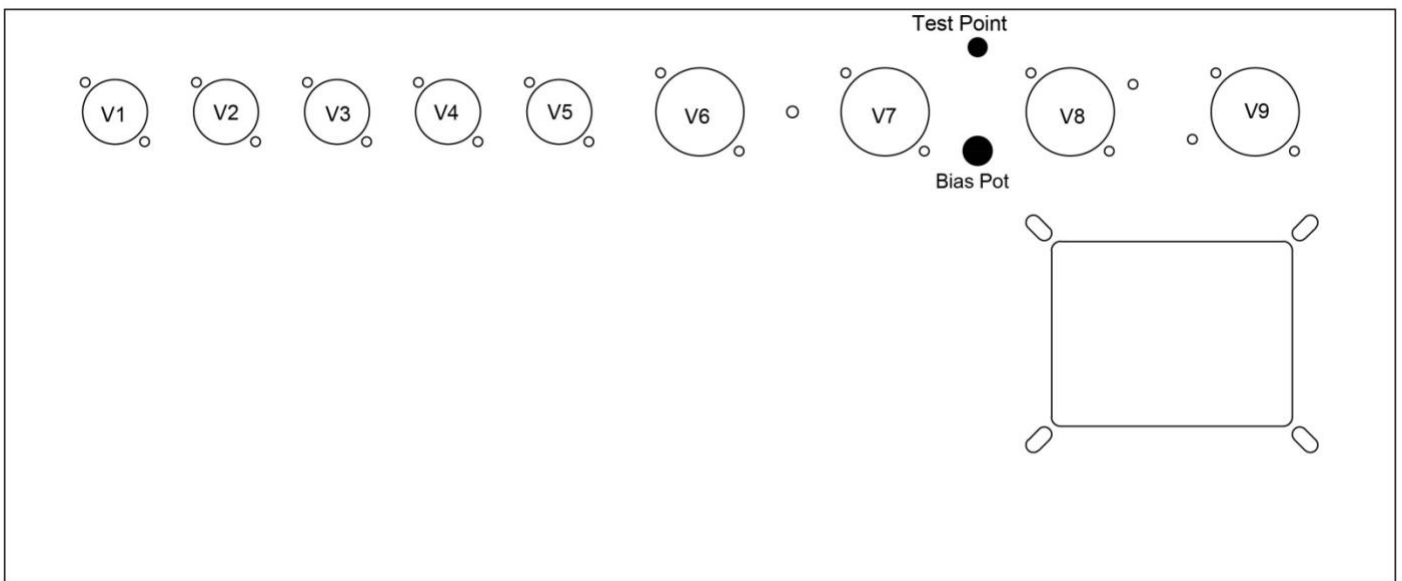


Fuse Chart

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

	100V	120V	220V/230V/240V
50 Watt:	2.5 amp	2.5 amp	1.6 amp
100 Watt:	3.2 amp	3.2 amp	2.5 amp

Tube Complement



V1- 12AX7, Input stage & Gain

V2- 12AX7, Overdrive stage

V3- 12AX7, Reverb Driver

V4- 12AX7, Mixing amplifier

V5- 12AX7, Phase Inverter

V6, V7- 6L6WGC-STR, Output

V8, V9- 6L6WGC-STR, Output (100 Watt) **or**

5AR4, 50 Watt Dual Tube Rectified

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:

1. Make sure the speaker is connected properly, then power up the amplifier
2. Set the power mode switch on the rear panel to Full or Hi
3. **DO NOT** apply any signal to the input during the biasing procedure!
4. Insert the volt meter's positive probe into the bias test point socket
5. Connect the volt meter's negative probe to chassis ground
6. Switch the amp out of standby and allow a few seconds for the circuit to stabilize
7. Set the voltmeter to millivolt scale (or lowest volt scale 60 millivolts = .060 volts.)
8. Observe the display on the meter to see the current bias setting

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

A setting of 0.120 to 0.124 volts is normal for 100 Watt amplifiers with (4) 6L6's

If an adjustment is needed, use a small flat blade screwdriver inserted into the bias adjust pot and adjust by turning the 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.

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

AC POWER CABLE - For your safety, connect to grounded A/C receptacles 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)

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Two-Rock Amplifiers, LLC

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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.

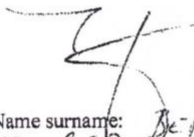
Council Directive and EN Standards:

- 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