Two-Rock

Bloomfield Drive

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 - Input to the amplifier. Plug in your instrument here.

EQ1/EQ2 Switch - This switch lets you choose between 2 completely different global equalization settings greatly affecting the overall personality of the amplifier.
EQ1 is a lower gain, higher headroom setting with extended midrange and bass response. This setting is suitable for any style requiring a pure clean tone with a nice round bottom end response, and plenty of headroom. It may seem weak and thin sounding when first switching to the EQ1 setting from the EQ2 setting. This is due to the lower gain structure of EQ1 thus the gain and master settings as well as the tone controls do need to be readjusted in order to take full advantage of the EQ1 setting.
EQ2 - This setting has more available gain yet still provides plenty of clean headroom if desired, along with a full and balanced response overall. This is the setting that most players will prefer to use especially with single coil pickups, and or any type of lower output pickups.

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 lead channel. Lower settings of this control will reduce the available signal level in the lead channel so higher settings of lead gain may be required to achieve the desired amount of overdrive when in the lead channel mode.

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.

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.

MID Switch - Boosts the midrange frequency response.

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.

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.

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.

LEAD GAIN - Adjusts the input level (gain) of the lead channel. Although we refer to this as the “lead channel” it is actually an additional “cascading” gain stage in the amp’s circuit driven by the FET, EQ1/2, Gain, Bass, Middle, Treble, Bright, Mid, Deep, 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 lead channel. Experimentation is key to striking the desired balance between the clean and lead modes.

LEAD MASTER - Adjusts the output level of the lead channel. Use this control to set the desired volume of the lead mode in relation to the clean mode.

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.

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

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. Use this return control in conjunction with the reverb drive control, located on the rear panel, to create a wide range of natural reverb effects.

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 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.

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 rear panel power switch is in the “up” position, indicating the unit is receiving A/C power.

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

Rear Panel Functions

A/C Input - Connects the amplifier to A/C power via the power cable 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.

FULL/HALF Power Switch - On 100/50w and 40/20w models the up position is full power, and the down position is half power. The 100/50w and 40/20w proprietary output transformers, when switching from full power to half power, will automatically compensate for impedance differences so no impedance adjustment is necessary. On the 50w model the up position is fixed bias, and the down position is cathode bias. The cathode bias setting lowers the amp's clean headroom and power, enhances touch sensitivity but does not create a significant perceivable volume difference.

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 speaker 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

Send - 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 send jack.

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

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. Use this control in conjunction with the **REVERB** (front panel) control.

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 lead 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

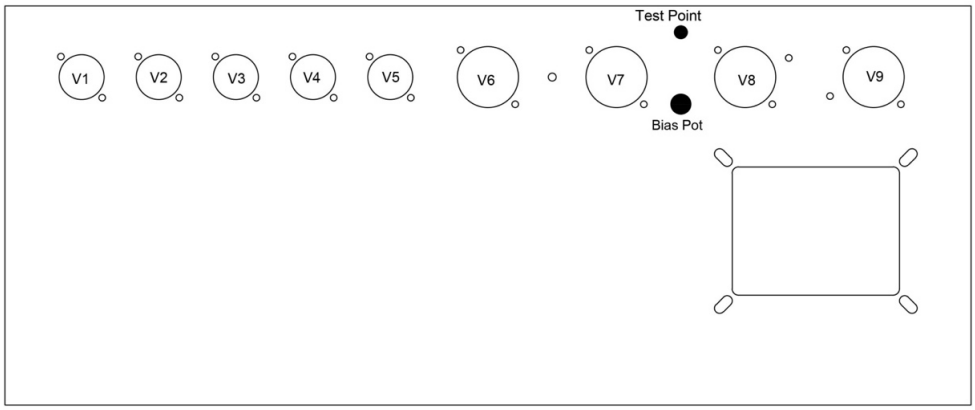
LEAD (BLUE) - Switches amp into overdrive mode
BYPASS (RED) - Switches amp into a tone stack bypass mode

FUSE CHART

Fuse Chart: All Fuses are 3AG Type 250 Volt SLO-BLO

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

TUBE COMPLEMENT



V1- 12AX7, Clean
V2- 12AT7, Reverb Drive
V3- 12AX7, Mixing Stage
V4- 12AX7, Lead
V5- 12AX7, Phase Inverter
V6, V7- Output 6L6GC (100 Watt), 6V6GT (40 Watt) or 6L6GC (50 Watt)
V8, V9- Output 6L6GC (100 Watt), 6V6GT (40 Watt)

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 0.030 to 0.032 volts is normal for 50 and 100 Watt amplifiers with (2) or (4) 6L6's
A setting of 0.020 to 0.022 volts is normal for 40 watt amplifiers with (4) 6V6'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 a 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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WEB: www.two-rock.com

This is a product of
Two-Rock Amplifiers, LLC

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SERIAL NUMBER: _____

CE

DECLARATION OF CONFORMITY

According to EC Directive

Manufacturer: Two-Rock Amplifiers, LLC
Address: 619 Martin Ave.
STE 5
Rohnert Park, CA 94928

Phone: 707-584-8663
E-mail: info@two-rock.com

Product Name: Audio Power Amplifier

Brand Name: Two-Rock
Model Numbers/Report Numbers:

Burnside:	R130829C, R130915
Cardiff:	R160425, SR160430
Classic Reverb(Signature):	R130829C, R130915
Traditional Clean:	R130829C, R130915
Bloomfield Drive:	R070212, R070213
Coral:	R070212, R070213
Crystal:	R130829C, R130915
Sensor:	R070212, R070213
Studio Pro(PLUS):	R130829C, R130915
TS1:	R070212, R070213

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

Low Voltage Equipment 2014/35/EU
Electromagnetic Compatibility 2014/130/EU

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 products: 2007-2017

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

Two-Rock Amplifiers
Mac Skinner

Name surname: Mac Skinner
Title: Owner/COO
Date: 1/1/2018