

Two-Rock

Studio Pro

35

OWNER'S 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.

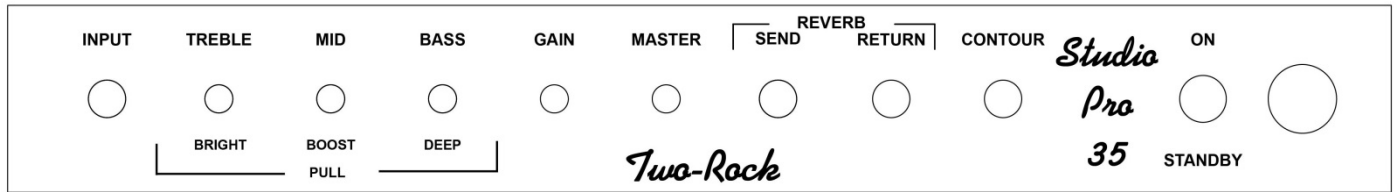
Please take the time to read this manual. We hope it will answer any questions that you may have.

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. This control is very interactive with the BRIGHT switch, MID 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. 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.

MID + Push/Pull BOOST - 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: EQ section is 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.

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.

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.

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.

REVERB SEND - 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.

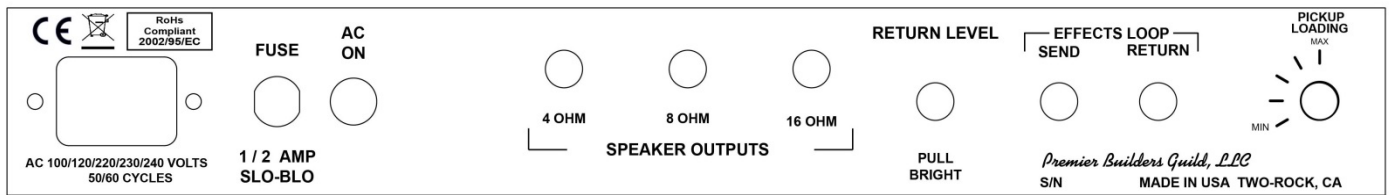
REVERB RETURN - This is the reverb return control which mixes the reverb effect signal with the dry signal. At full counterclockwise rotation, the reverb effect is defeated. Using this return control in conjunction with the reverb drive control on the rear panel, a wide range of natural reverb effects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

CONTOUR - The contour control is an active wide band sweep. In the 12 o’clock position, the amp’s frequency response is flat. Counterclockwise rotation reduces high end response and increases low frequencies. Clockwise rotation decreases low end and increases the high frequency response. This control is very useful for maintaining preamp tone control settings, while allowing a global adjustment to compensate for differences in room acoustics, speaker cabinets, or bright to dark guitars (single coils to humbuckers, for example). This control also actively reduces the articulation available, allowing a softer setting, or extremely open and revealing, depending on your individual style and requirements.

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.

Effects Loop –

The effects loop on this amplifier is a “half active” type of loop, see FAQ on two-rock.com

RETURN LEVEL + Push/Pull BRIGHT – Adjusts the effects loop return level. The loop is active in the circuit even with no effects connected, so the level control also can be used as a additional master volume control. This function can be useful but also a bit confusing so as appoint of reference, set this control at 11:00 for unity gain when not using the effects loop. The pull-bright feature is useful when playing at a lower volume, or when connecting more than a few pedals into the loop, which sometimes causes high frequency insertion loss.

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.

Pickup Loading- Loading the guitar pickup(s) to varying degrees changes the impedance relationship between the pickup and the amplifier’s first gain stage. Loading reduces inductive “ringing” in the pickup coils. The result is a more controlled high frequency response and a reduction in high frequency artifacts produced when a pickup’s magnets and coils feedback with each other, usually at or near the pickup’s saturation point. The damping effect will also reduce the gain, which is normal. Tonally speaking, reducing these artifacts results in a cleaner waveform and an apparent lack of harshness in the upper frequencies. This control has 5 settings. In the first position (fully counterclockwise), there is no additional pickup loading, with 4 additional settings available. Fully clockwise (last position) is full loading.

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.

Fuse Chart

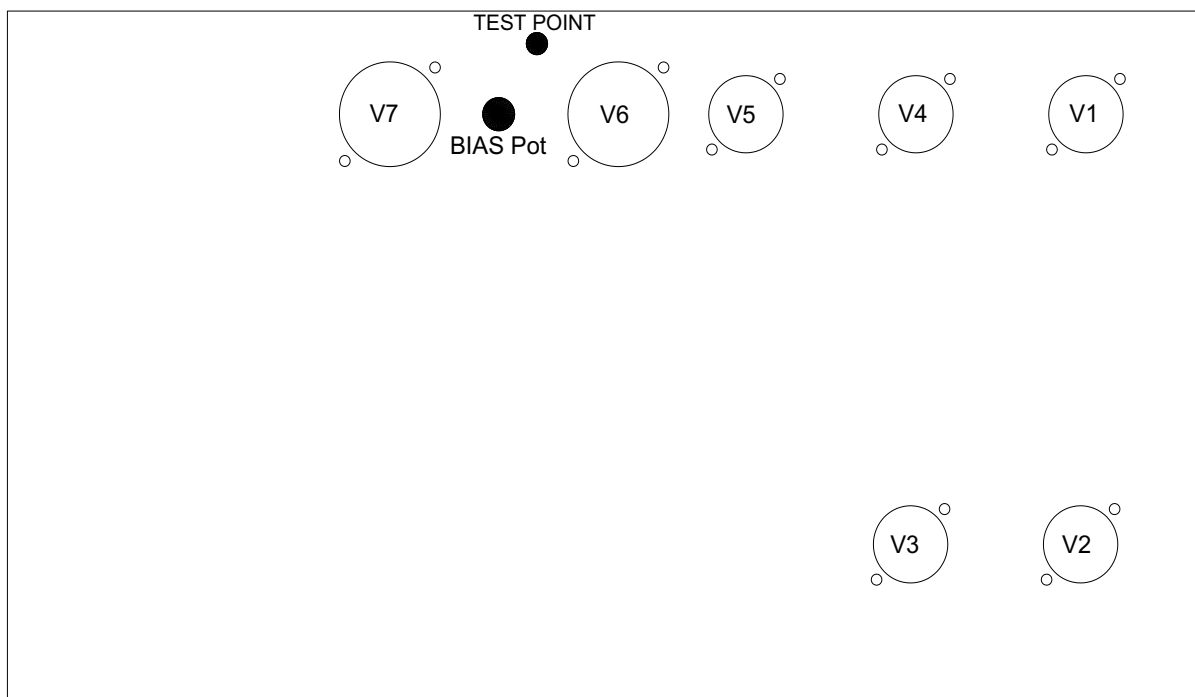
*All Fuses are 3AG Type 250 Volt, SLO-BLO

Export 100V:
2A – 35 Watt

Domestic 120V:
2A – 35 Watt

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

Tube Complement



- V1- 12AX7, Input and Gain
- V2- 12AT7, Reverb Drive
- V3- 12AX7, Reverb Send & Return
- V4- 12AX7- Effects buffer & Mixing Stage
- V5- 12AX7, Phase Inverter
- V6 & V7 - 6L6 (35 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 ADJUSTMENT PROCEDURE:

- Power up amplifier and connect proper speaker load
- DO NOT have an instrument connected to the input during the biasing procedure!
- Switch the amp out of standby and allow a few seconds for the circuit to stabilize
- Set the voltmeter to read DC Volts
- With the meter grounded to the chassis and the meter's positive probe inserted into the test point, measure the voltage
- Using a small flat head screwdriver, insert into bias adjust pot and turn very slightly one way or the other to adjust the bias voltage

When replacing power tubes, it is necessary to only use a similar tube type that your amp's power section is designed for. Below is a limited list of comparable tube types:

<u>35 watt - 6L6 Type</u>	<u>22 Watt - 6V6 Type</u>
6L6GC	6V6GT
6L6WGC	6V6S
5881	5871
7581	CV511

6L6 and type tubes: .060v to .070v for 35 Watt Factory Setting: .064v

6V6 and type tubes: .040v to .050v for 22 Watt Factory Setting: .047v

**Bias ranges are measured and set in volts*

**Do not set bias higher than recommended levels as it can lead to tube failure and possible damage to other components in the amplifier!*

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)

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619 Martin Avenue, Suite 5
Rohnert Park, CA 94928

CONTACT: info@two-rock.com

WEB: www.two-rock.com



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
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

Name surname: Mac Skinner
Title: Owner/COO
Date: 1/1/2017

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SERIAL NUMBER: _____