Two-Rock

SENSOR

22/35/50

OWNERS MANUAL

Dear Customer,

Thank you for your purchase of a *Two-Rock* amplifier from Premier Builders Guild.

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.

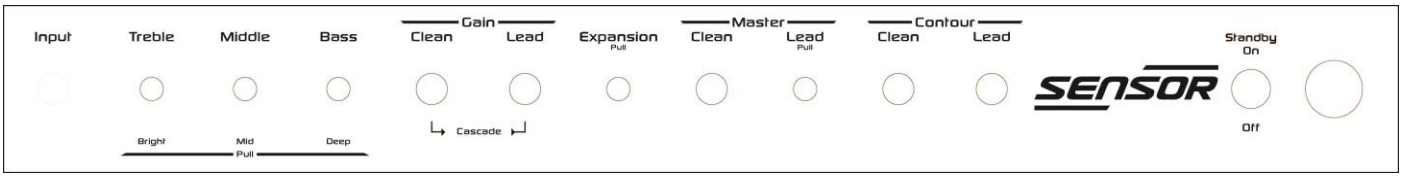
Please take the time to read this manual. We hope it will answer any questions that you may have.

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



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

2. Push/Pull Treble Control- Adjusts the high frequency response. In the full counter-clockwise position, high frequencies are cut. In the full clockwise position, high frequencies are allowed to pass to the gain stage. When the knob is in the “out” position, the high frequency response is boosted. This is most effective when the input gain is set at 12 o’clock or lower. The effect is less dramatic as the gain control is adjusted past the 12 o’clock position.

3. Push/Pull Mid Control- Adjusts the mid-range response. In the full counter-clockwise position, the tone will be somewhat “scooped” of mid-range response, emphasizing the highs and lows. In the full clockwise position, mid-range frequencies are allowed to pass to the gain stage. When the knob is in the “out” position, the mid frequencies are boosted.

4. Push/Pull Bass Control- 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. In the full clockwise position, low frequencies are allowed to pass to the gain stage. When the knob is in the “out” position, the low and low-mid frequencies are boosted. This is a low frequency contour switch, changing the low and low-mid response.

5. Clean Gain- Adjusts the overall gain of the amplifier. Start with this control in the 12 o’clock position. Keep in mind that the amount of gain set here determines the signal level feeding the lead channel. Low gain settings of this control will require higher lead gain settings for the same amount of overdrive.

6. Lead Gain- Adjusts the input level (gain) of the lead channel

7. Expansion- This feature cuts the EQ section out of the signal path allowing more input signal to hit the gain stage. With it engaged it will allow the natural frequencies of the input tube and guitar to come through. This adjustable control allows how much gain passes through and as it is turned up (clockwise) it will increase the amount of high and mid frequencies. When engaged with the lead channel on, the feature while cutting out the pre-gain EQ allows the internal post-gain EQ to be isolated. Pulling the knob engages the expansion function. (Feature is Foot-switchable and the push/pull control needs to be in the “In” position for the footswitch to work)

8. Clean Channel Master Volume- Adjusts the output level of the clean channel.

9. Lead Channel Master Volume- Adjusts the output level of the lead channel. Pulling the knob engages the lead channel. (Feature is Foot-switchable and the push/pull control needs to be in the "In" position for the footswitch to work)

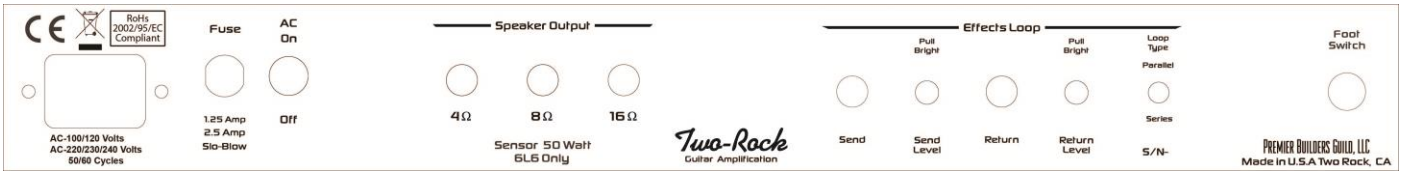
10. Contour Control- Individual controls for both Clean and Lead. The contour control is an active wide band sweep. In the 12 o'clock position, the amps' frequency response is flat. Counterclockwise rotation reduces high end response and increases low frequencies. Counterclockwise rotation decreases 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 (PRS Humbucker to Strat, 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.

11. Stand-by Switch- Should be in the "down" or "stand-by" position when you apply power to the unit. After a few seconds, place the switch in the "up" position to use the amplifier. You may leave the unit "powered up" and place this switch in the "stand-by" position to mute the output.

12. Indicator Lamp- This lamp will illuminate when the power switch is in the "up" position, indicating the unit is receiving A/C power.

13. Internal Lead EQ- An internal EQ (Preset at Factory) is located post lead gain in the circuit. EQ is active with and without expansion engaged.

Rear Panel Functions



1. 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, ONLY.

2. Fuse- See Fuse Chart

3. Power Switch- Turns power on.

4. 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.

5. Effects Loop- The loop, which is a fully buffered tube circuit, incorporates a **Send** and **Return** control. Both controls are active even if no effects are introduced into the system. The loop also has the ability to be run in series or parallel. The circuit incorporates two 12AX7VKA tubes. These tubes are run as a cathode follower pair that creates a unity gain high/low impedance system. Perfect analog circuit for running signal in and out of analog or digital gear with minimal insertion loss

Send Jack - Sends signal to effects. (1/4" Mono Jack)

Send Control - Adjust the amount of signal that passes from the preamp stage to the effects. Adjust this control to keep clipping down within effect signal chain.
A unity setting with nothing inserted into loop is 3 o'clock.

Return Jack -Signal from effects is reintroduced into the amplifier here. (1/4" Mono Jack)

Return Control - Adjust the amount of signal that is reintroduced from effects.
Adjust this control to keep clipping within the power stage down.
A unity setting with nothing inserted into loop is 12 o'clock.

Push/Pull Bright - Both the **Send** and **Return** levels have a pull bright option.
This will increase the amount of high frequency that can sometimes be lost within digital effects or long cable runs.

Parallel/Series Switch - The switch allows the user to choose how the wet and dry signals interact with each other. With the switch set to **Parallel** the signal will be split with one side "wet" running from the preamp to effects to power stage, while the "dry" signal runs from the preamp to the power stage. This setting is more versatile with vintage effects that don't have any wet/dry mixing controls. With the switch set to **Series** the signal will not be split and will run from the preamp through the effects and then into the power stage. This setting will be better suited to rack or digital gear that have onboard mixing controls.
With nothing plugged in the loop the **Parallel** setting will yield a fatter fuller signal.

6. Footswitch Jack- The footswitch connects here using a ¼" stereo cable. The Expansion and Lead functions can be activated via the footswitch. The respective front panel Push/ Pull pots must be in the "off," or "in" position, to enable the footswitch functions.

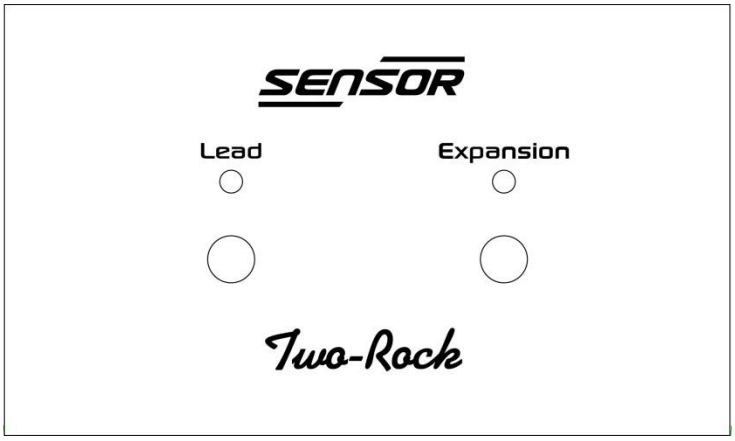
17. S/N- Your serial number is located here. We strongly suggest that you record this number and have it

Fuse Chart

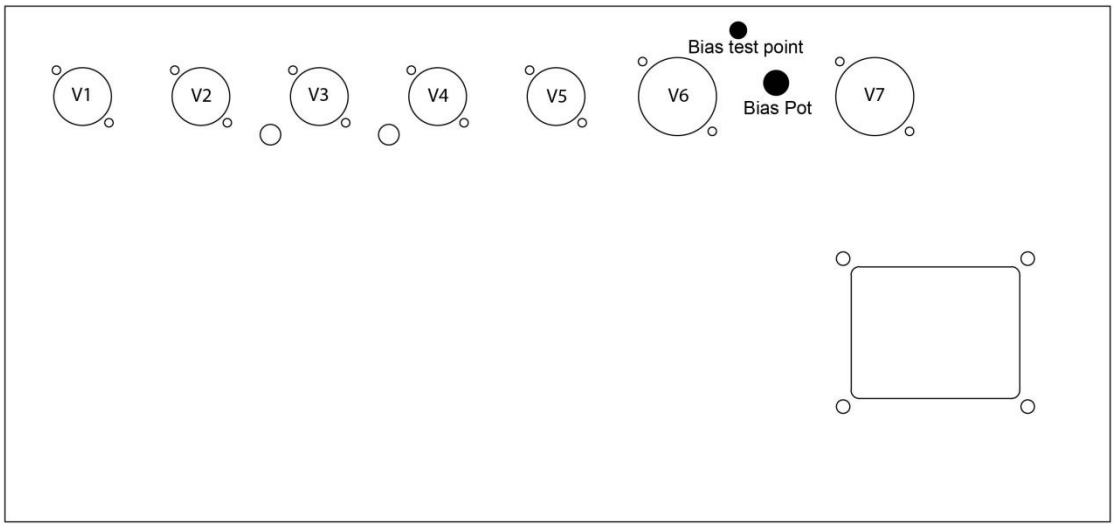
All Fuses are 3AG Type 250 Volt, SLO-BLO

Export 100 Volt	**Domestic Fuses:**	**Export 220, 230, 240 Fuses:**
2A – 22/35 Watt	2A – 22/35 Watt	1A-22/35 Watt
2.5 - 50 Watt	2.5 - 50 Watt	1.6 - 50 Watt
3.2 - 100 Watt	3.2 - 100 Watt	2.5 - 100 Watt

FOOTSWITCH



Tube Complement



V1- 12AX7, Input and Gain
V2- 12AX7, Lead Input and Gain
V3- 12AX7VKA, Effect's loop buffer
V4- 12AX7VKA, Effect's loop buffer
V5- 12AX7, Phase Inverter
V6-V7 - 6L6 (35/50 watt) or 6V6 (22 watt) Power Tubes

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
EL-34: 6CA7

Bias Ranges: Are measured and set in Volts. But can be measured and set in milliamps.
Numbers given are for 2 or 4 tubes combined.

6L6 and EL-34 type tubes: .060V to .070V for 35watt and 50watt Factory Setting: .064V
.1200V to .1400V for 100watt Factory Setting: .1260V

6V6: Installed in the 22watt versions only: .044V to .058V Factory Setting: .054V

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

Do not set bias higher then recommend levels as it can lead to tube failure or failure within 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.

Two-Rock amplifiers are brought to you by Premier Builders Guild.

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)
FAX: 1(707)584-8661

ADDRESS: Two-Rock
619 Martin Avenue, Suite 6
Rohnert Park, CA 94928

SERVICE: service@two-rock.com

WEB: www.two-rock.com

PRECAUTIONS:

DO NOT expose to rain or any other moisture.
DO NOT use cleaning solvents. Wipe exterior with a clean, dry cloth only.
Refer servicing to a qualified service technician.

This is a product of
Premier Builders Guild

Two-Rock

619 MARTIN AVENUE, SUITE 6
ROHNERT PARK, CA 94928
707-584-8663
www.two-rock.com

SERIAL NUMBER: _____

Two-Rock

Guitar Amplification
619 Martin Ave. Ste 6
Rohnert Park, CA 94928
(707)584-8663

CE

DECLARATION OF CONFORMITY
Report #R070212

We, Two-Rock Amplifiers, in coordination with CES Laboratories, declare, taking this declaration under our total responsibility, that the below models are in conformity with the provisions of the following EC Directive(s) when installed in accordance with the installation instructions contained in the product documentation:

2006/95/EEC	Low Voltage Directive
2004/108/EEC	EMC Directive
2011/65/EEC	RoHS-Directive

And that the standards and/or technical specifications have been applied to the following families of products:

Custom Reverb	Jet
Studio Pro	Sensor
Eric Gales	EXO-15
Classic Reverb	Bi-Onyx
TS-1	Classic Type Series
Gain Master	Matt Schofield

Signature:

Name and Title: Mac Skinner / General Manager

February 12, 2007

Approved By:
Chandra Garudachar
President
CES LABORATORIES

Prepard By:
Jyotsna Bedi
23361 Cypress Pt
Mission Viejo, CA 92692