

*Two-Rock*

*Crystal*

*22/40/50/100*

OWNER'S 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.

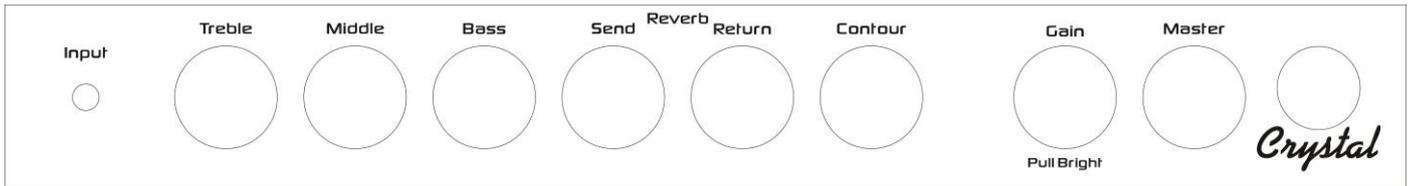
Please take the time to read this manual. We hope it will answer any questions that you may have.

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. **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.

3. **Middle 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.

4. **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.

8. **Reverb Send**- The 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. 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.

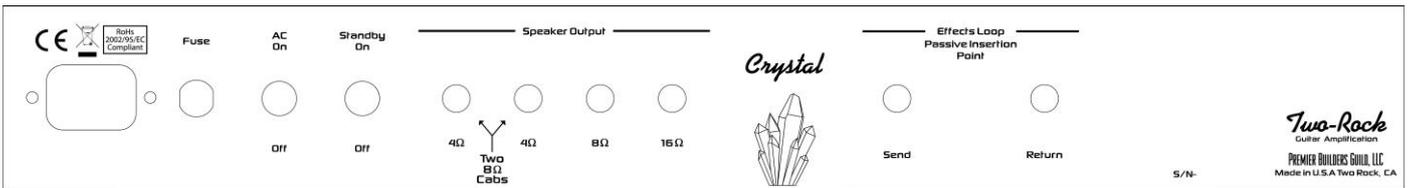
9. **Reverb return**- The reverb return control mixes the reverb effect signal with the dry signal. At full counterclockwise rotation, the reverb effect is defeated. Using the return control in conjunction with the reverb drive control, a wide range of natural reverb effects can be produced.

**Contour**- The contour control is an active wide band sweep. In the 12 o'clock position, the amps' frequency response is flat. Clockwise 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.

5. **Push/Pull Gain**- Adjusts the overall gain of the amplifier. Start with this control in the 12 o'clock position. 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.

6. **Master Volume**- Adjusts the output level of the amplifier. Also acts as the send level control for any effects inserted in the loop.

# Rear Panel Functions



1. **A/C Input**- Connects the amplifier to A/C power via the power cord supplied. Please check to make sure you have the correct cable for the voltage rating of your country.
2. **Fuse**- See Fuse Chart
3. **Power Switch**- Introduces AC line level voltage to amplifier. Charges Input filter caps and allows filament warm-up.
4. **Standby Switch** – Allows DC voltage to output sections and to charge preamp circuit. Turn on for playing.
4. **Speaker Output Jacks**- There are 4 speaker output jacks; 2x4, 8, and 16 ohms. Dual 4 ohm jacks can be used to take two 8ohm speaker loads and combine them in parallel to create a 4 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.
5. **Effects Loop** - The effects loop is a passive insertion point. Any effects inserted into loop will be run in series after the preamp and before the power section. Any effect should have buffers on the input and output section to correctly match the signal leaving and coming back.
  - Effects Send**- Use this jack to send the amplifiers signal to outboard effects
  - Effects Return**- Use this jack to connect the output of your effects to the amplifier.
6. **S/N**- Your serial number is located here.

# Fuse Chart

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

## Export 100 Volt

2A – 22/35/40 Watt

2.5 - 50 Watt

3.2 - 100 Watt

## Domestic Fuses:

2A – 22/35/40 Watt

2.5 - 50 Watt

3.2 - 100 Watt

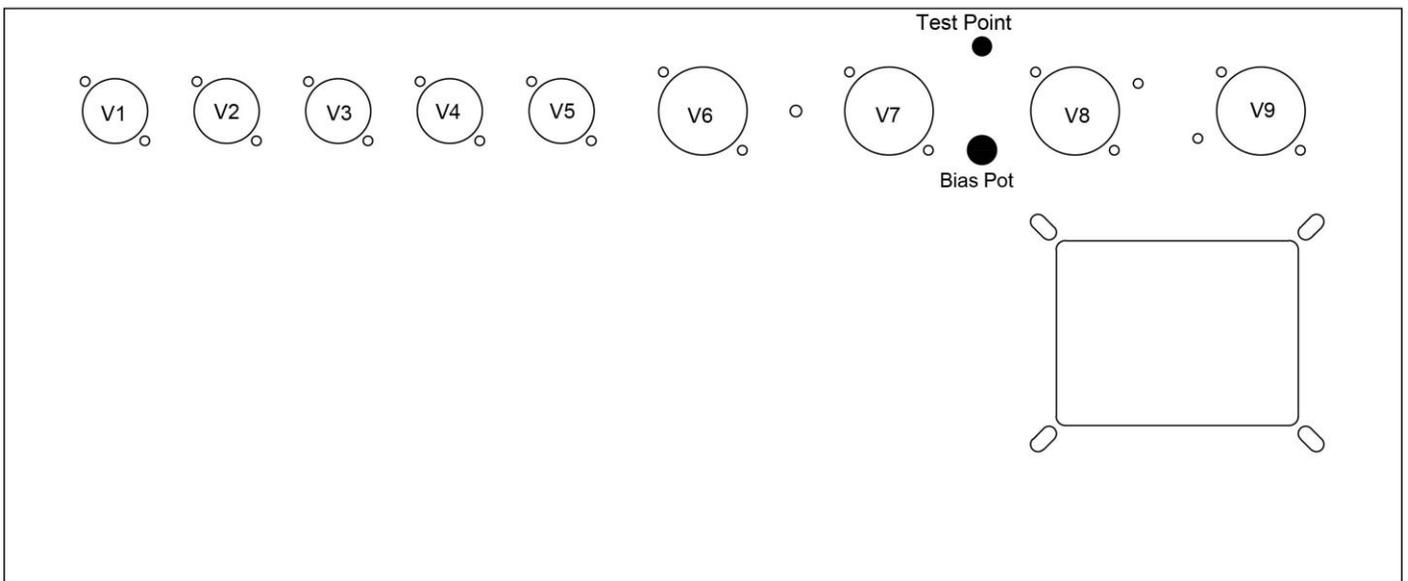
## Export 220, 230, 240 Fuses:

1A-22/35/40 Watt

1.6 - 50 Watt

2.5 - 100 Watt

## (Tube Complement)



V1- 12AX7, Input and Gain

V2- 12AX7, Reverb Send

V3- 12AT7, Reverb Drive

V4- 12AX7, Mixing Stage

V5- 12AX7, Phase Inverter

Power Tubes:

22 Watt- V6 & V7 6V6GT, V8 5AR4 Rectifier

40 Watt- V6, V7, V8, V9, 6V6GT

50 Watt- V6 & V7 6L6GC-STR, V8 & V9 optional 5AR4 rectifiers tubes

100 Watt- V6, V7, V8, V9, 6L6GC-STR

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 multi-meter 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 in the amplifier 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: .044V

6V6: 40 watt amplifiers: .088V to .100V      Factory setting: .090Volts

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 connects 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 6  
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SERVICE: [service@two-rock.com](mailto:service@two-rock.com)

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

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

SERIAL NUMBER: \_\_\_\_\_

*Two-Rock*

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



**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:

Crystal	Coral
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

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