

*Two-Rock*

*TS-1*

OWNER'S MANUAL

Dear Customer,

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

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.

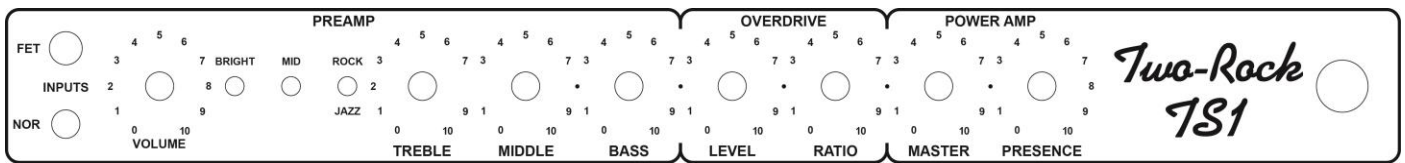
Please take the time to read this manual. We hope it will answer any questions that you may have.

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



**NOR Input Jack-** High impedance input to the amplifier. Plug in your instrument here.

**FET Input Jack-**This input sends the signal through a single FET (Field Effect Transistor) stage.

## PREAMP Section

**Volume-** - 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.

**Bright-** Boosts the high frequency response. This is most effective when the input gain is set at 12 o'clock or lower. The effect is less dramatic as the input gain control is adjusted past the 12 o'clock position.

**Mid-** Boosts the mid-range frequency response.

**Rock/Jazz-** This switch allows you to choose between 2 completely different equalization settings. **JAZZ** is a lower gain setting, with extended midrange and bass available when used in conjunction with the middle and bass controls as well as the deep switch. This setting is suitable for any style requiring a pure clean tone with a nice round bottom and plenty of headroom. **ROCK** is a higher gain setting. This setting is suitable for any style requiring a clean to slightly distorted tone in clean mode, and more gain in the lead mode.

**Treble Control-** Adjusts the high frequency response. 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.

**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 next gain stage.

**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 next gain stage.

## **OVERDRIVE Section**

**Level-** Adjusts the input level (gain) of the lead channel.

**Ratio-** Adjusts the output level of the lead channel.

## **Power Amp Section**

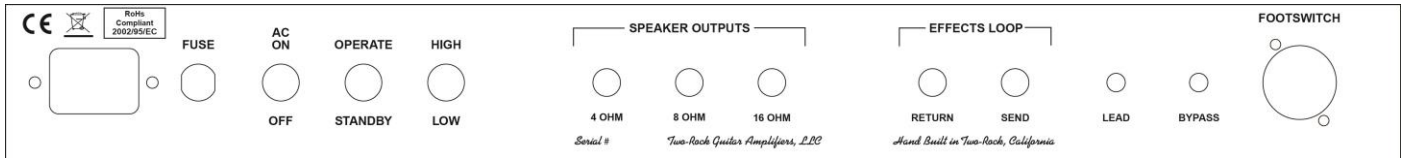
**Master-** Adjusts the overall output level of the amplifier.

**Presence-** Adjusts the contour of high-frequency response. The high-frequency response will increase as you advance the control clockwise.

**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

**Power Switch-** Turns power on.

**Operate/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.

**HIGH/LOW Switch-** On 50 Watt Models, the HIGH/LOW power mode is not available. On 100 watt (4x6L6) models, the HIGH power mode is 100 watts, the LOW power mode is 50 watts. With the 100 watt TS1’s output transformer, when switching from 100 to 50 watts, the transformer will compensate for impedance differences so you will not have to change impedances.

**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 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.

**NOTE:** This model does not utilize a full (input and output) buffered effects loop. For best results, you will need an Effects Loop Interface (ELI1 or ELI2) or similar unit.

**Lead Switch-** Sends the instrument signal through the lead circuit, adding extra stages of gain to the signal and enabling the lead gain and lead master controls. To enable foot switch control of this function, switch must be in the down position.

**Bypass Switch-** This switch bypasses the tone controls, increasing both level and mid-range response. To enable footswitch control of this function, switch must be in the down position.

**Footswitch Jack-** The footswitch connects here. The clean/lead and tone bypass functions can only be activated via the footswitch.

**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.

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

## FUSE CHART

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

### **Export 100 Volt:**

3.5- 100 Watt Signature  
2.8- 50 Watt Signature

### **Domestic Fuses:**

3.25-100 Watt Signature  
2.5-50 Watt Signature

### **Export 220,230, 240 Fuses:**

1.6-100 Watt Signature  
1.25-50 Watt Signature

## FOOTSWITCH

LEAD - BLUE LED  
BYPASS - RED LED

## TUBE COMPLIMENT

V1- 12AX7, Rhythm channel  
V2- 12AX7, Lead Channel  
V3- 12AX7. Phase Inverter  
V4-V7- 6L6WGC 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 ADJUSTMENTS:**

1. Power up unit and connect proper speaker load.
2. Set master volumes and effects return controls to zero.
3. **DO NOT** apply any signal to the input during the biasing procedure!
4. Take unit off standby and allow a few seconds for the circuit to stabilize.
5. Set voltmeter to Millivolt scale (or lowest volt scale 60 millivolts=.060 volts.)
6. With meter grounded to chassis and + probe at test point, measure voltage. A reading of 0.055 to 0.060 volts is normal for 50 Watt amplifiers with (2) 6L6's. A reading of 0.115 to 0.120 volts is normal for 100 Watt amplifiers with (4) 6L6's. If not in this range, adjust by turning bias screw SLOWLY a small amount. **Do not set above .070!**

Settings higher than .065 with 6L6 tubes may cause premature tube wear and possibly damage the amplifier.

Keep in mind that tubes vary in quality, and some tubes can handle upwards of 40 ma each (a reading at the test point of .080!) However, to be on the safe side, use the above as a guide.

**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)

FAX: 1(707)584-8661

ADDRESS: Two-Rock  
619 Martin Avenue  
Suite 5  
Rohnert Park, CA 94928

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.

*Two-Rock*

619 MARTIN AVENUE, SUITE 6

ROHNERT PARK, CA 94928

707-584-8663

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

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





**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