

*Two-Rock*

*Custom Reverb*

OWNERS MANUAL

Thank you for your purchase of a *Two-Rock* amplifier  
from *K&M Analog Designs*

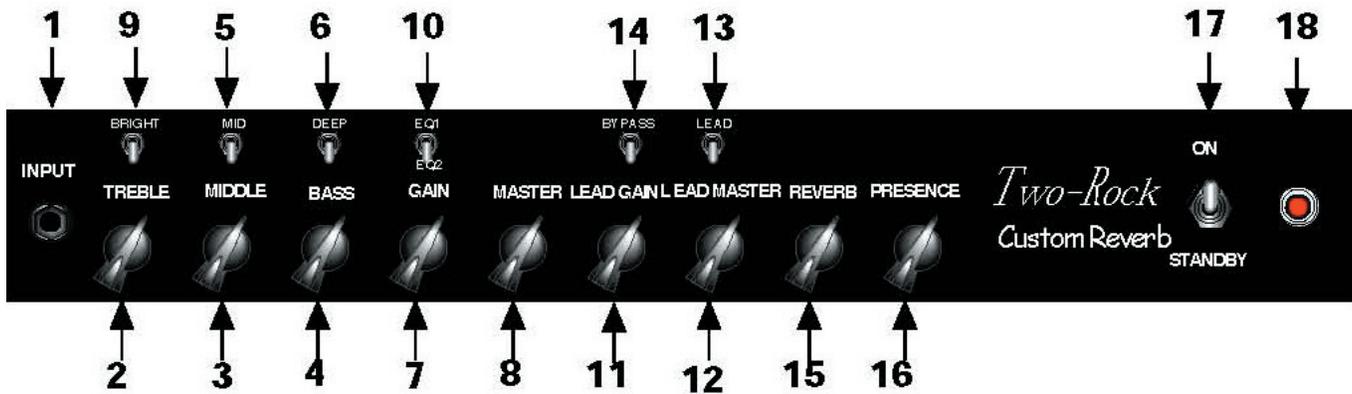
As a discerning guitarist, you know the road to  
great tone begins with great components.

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.

## FRONT PANEL FUNCTIONS

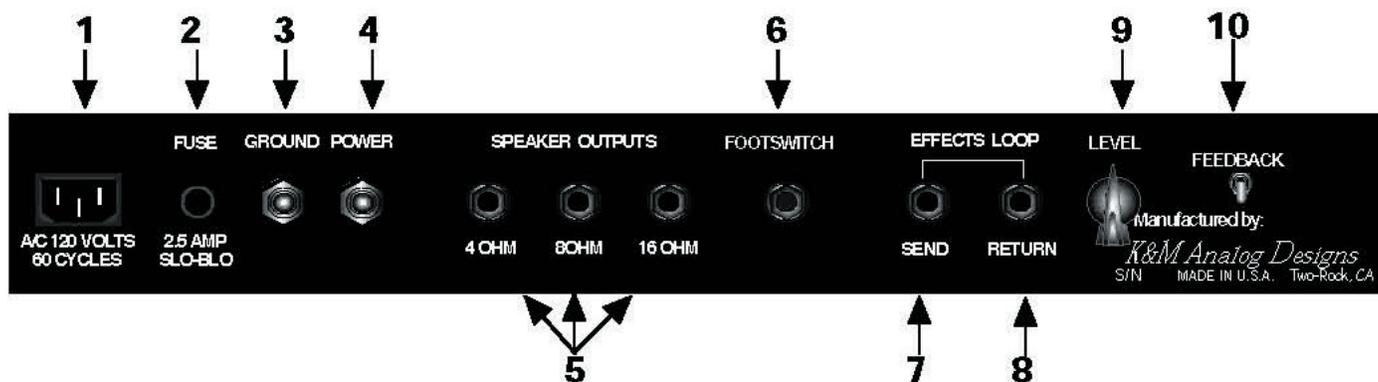


1. **Input Jack**- High impedance input to the amplifier. Plug in your instrument here.
2. **Treble Control**- Adjusts the high frequency response. In the full counter-clockwise position, high frequencies are bypassed to ground. In the full clockwise position, high frequencies are allowed to pass to the next 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 next 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 next gain stage.
5. **Mid Switch**- Boosts the mid range frequency response.
6. **Deep Switch**- Boosts the low and low-mid frequencies. This is a low frequency contour switch, changing the low and low-mid response.
7. **Input 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.
8. **Clean Channel Master Volume**- Adjusts the output level of the clean channel.
9. **Bright Switch**- 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.
10. **EQ1/EQ2**- This switch allows you to choose between 2 completely different equalization settings. **EQ1** 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. **EQ2** is a higher gain setting, allowing a greater signal level to pass to the lead channel. This setting is suitable for any style requiring a clean to slightly distorted tone in clean mode, and more gain in the lead mode.

11. **Lead Gain-** Adjusts the input level (gain) of the lead channel.
12. **Lead master-** Adjusts the output level of the lead channel.
13. **Lead Channel 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.
14. **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.
15. **Reverb-** The front panel reverb control is the return, or mix, control. The reverb effect is defeated with this control in the full counter clockwise position. Use in conjunction with the reverb drive control (see REAR PANEL FUNCTIONS, next page).
16. **Presence-** Adjusts the contour of high-frequency response. The high-frequency response will increase as you advance the control clockwise.
17. **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.
18. **Indicator Lamp-** This lamp will illuminate when the power switch is in the “up” position, indicating the unit is receiving A/C power.

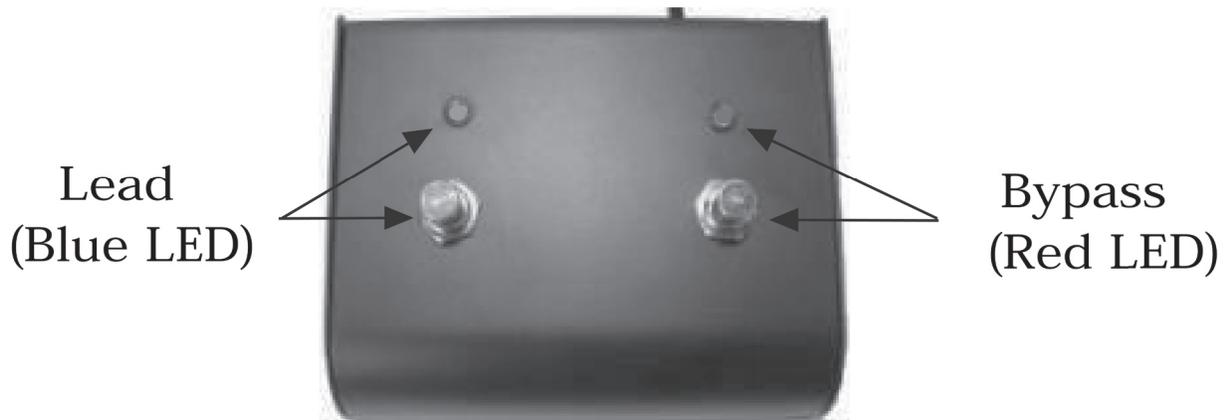
NOTE: All switches are ON in the “up” position

## REAR PANEL FUNCTIONS



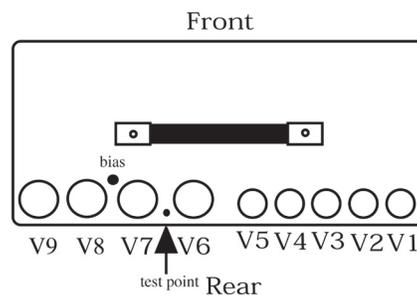
- 1. A/C Input-** Connects the amplifier to A/C power via the power cord supplied. Unless otherwise specified, your amplifier is designed to operate on 120 volts A/C, 60 cycles.
- 2. Fuse-** 3 AG Type, slow blow fuse. 50 Watt amps use 2.5 Amp slo-blo; 100 Watt amps use 3.5 Amp slo-blo.
- 3. Power Switch-** Turns power on.
- 4. Ground Switch-** Normally left in the center “off” position. If you encounter excessive AC hum or ground loop noise, try the switch in the other two positions.
- 5. 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.
- 6. Footswitch Jack-** The footswitch connects here. The clean/lead and tone bypass functions can only be activated via the footswitch.
- 7. Effects Send-** Use this jack to send the amplifiers signal to outboard effects.
- 8. Effects Return-** Use this jack to connect the output of your effects to the amplifier.
- 9. Effects Level-** Adjusts the return signal level. It also acts as a master volume control. Do not set fully counter clockwise, as this will shut off signal to the output section, resulting in no output level. Normally this control should be set at the 12 o’clock position.
- 10. Feedback Switch-** This switch defeats the internal feedback circuit located in the preamp section. The effect is subtle. You will notice a slight increase in high and low frequency response and a decrease in dimensionality and articulation.
- 11. 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.

## FOOT SWITCH



- V1- 12AX7, Rhythm channel
- V2- 12AX7, Lead Channel
- V3- 5751/12AT7, Reverb Driver
- V4- 12AX7, Reverb/effects
- V5- 12AX7. Phase Inverter
- V6,V7- 6L6GC, Output
- V8, V9- 6L6GC, Output (100 Watt)

### The Tube Location



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:

Power up unit and connect proper speaker load.

Set master volumes and effects return controls to zero.

**DO NOT** apply any signal to the input during the biasing procedure!

Take unit off standby and allow a few seconds for the circuit to stabilize.

Set voltmeter to Millivolt scale (or lowest volt scale .60 millivolts=.060 volts.)

With meter grounded to chassis and + probe at test point, measure voltage.

A reading of .055 to .060 volts is normal. If not in this range, adjust by turning bias screw **SLOWLY** a small amount. **Do not set above .070!**

For other tube types (5881, 6550, EL34) check with the manufacturer or contact us for recommendations.

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.

*K&M Analog Designs* amplifiers are brought to you by Bill Krinard and Joe Mloganoski.

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!

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#### 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:

*K&M Analog Designs, LLC*  
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[www.two-rock.com](http://www.two-rock.com)

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