

Two-Rock

Emerald Pro

Owner's Manual

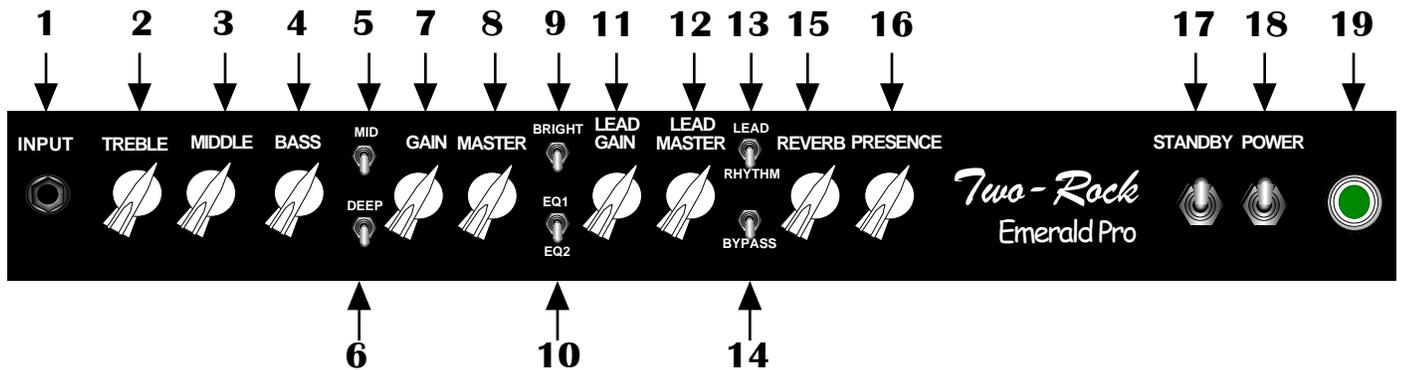
*Thank you for your purchase of a
Two-Rock amplifier from K & M Analog Designs*

*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 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.*

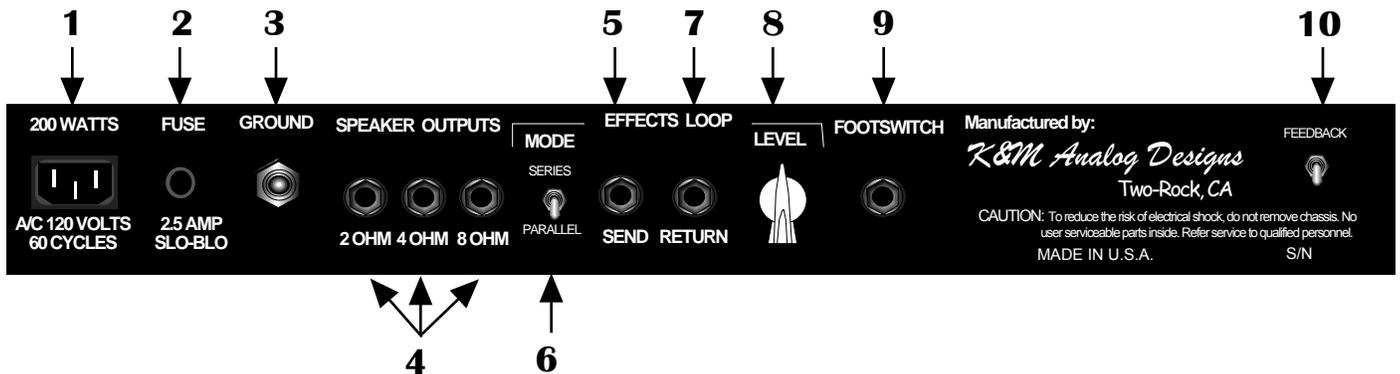
FRONT PANEL FUNCTIONS



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. **EQ SWITCH**- 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. At lower settings, a slightly overdriven tone can be achieved. As the control is adjusted clockwise, the overdrive effect increases.
 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 foot switch control of this function, switch must be in the down position.
 15. **REVERB**- Mixes the dry signal with a high quality spring-type reverberation effect. This effect is defeated with the control in the full counter-clockwise position.
 16. **PRESENCE CONTROL**- 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. **POWER SWITCH**- Turns the power on.
 19. **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. Refer to the legend below the fuse holder for the proper fuse rating for your amplifier. (50 watt-2.5 amp / 100 watt-3.5 amp)
- 3. GROUND SWITCH-** Normally left in the center (Off) position. If you encounter excessive A/C hum or ground loop noise, try the switch in the other 2 positions.
- 4. SPEAKER OUTPUT JACKS-** There are 3 speaker output jacks- 2, 4, and 8 ohm. 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 SEND-** Use this jack to send the amplifiers signal to outboard effects.
- 6. SERIES/PARALLEL SWITCH-** The effects loop can be switched between series and parallel modes. With the switch in the down position, the loop is in parallel mode. The effects level control becomes a blend control for mixing in the desired amount of outboard effects. Since the onboard spring reverb is part of the parallel loop, this control will also defeat the internal reverb if the control is set fully counterclockwise. The recommended basic setting for this control is between the 8 and 10 o'clock positions.

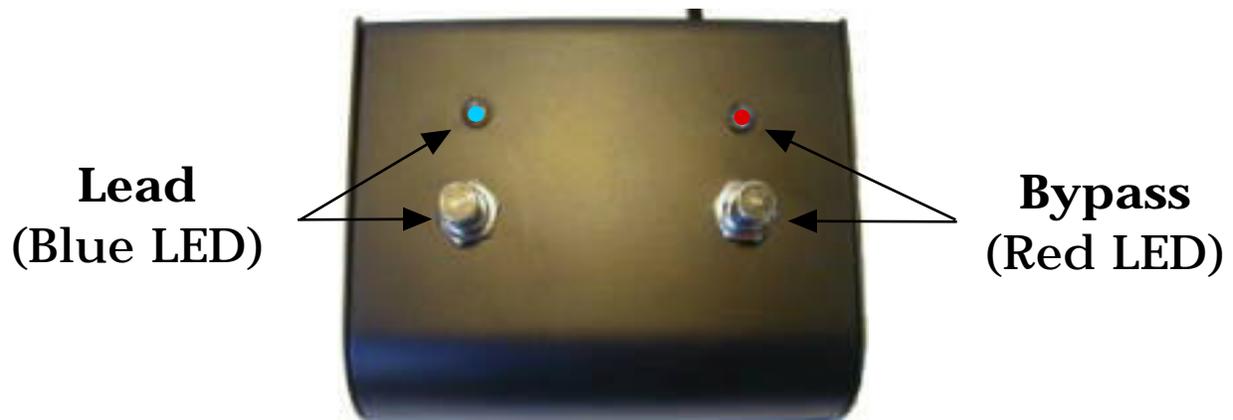
With the toggle in the up position, the loop is in series mode. The effects level control becomes the effects level return control. Because all of the amp's signal passes through the loop, the level control becomes a master volume. At the fully counter-clockwise position, no signal is fed to the output section.

The series mode is useful for delayed echo, slapback, or other effect when no dry signal is desired. It is recommended that other outboard effects such as chorus, digital reverb, etc. be run in the fully "wet" position and blended in to the desired level (via the effects level control) in parallel mode. This will have the least amount of effect on the dry signal and overall tone quality.

7. **EFFECTS RETURN**- Use this jack to connect the output of your effects to the amplifier.
8. **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.
9. **FOOTSWITCH JACK**- Connect the foot switch assembly here to enable remote switching of the lead/rhythm and bypass functions
10. **FEEDBACK** - 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.

NOTE: Both the "Lead" and "Bypass" front panel switches must be in the "down" position to enable footswitch function.

FOOT SWITCH



TUBE COMPLEMENT

- V1- 12AX7, Rhythm channel
- V2- 12AX7, Lead channel
- V3- 5751, Reverb driver
- V4- 12AX7, Reverb / effects
- V5- 12AX7, Phase inverter
- V6, V9- 6L6, Output
- V7, V8- 6L6, Output (100 Watt only)

Tubes are numbered from right to left as you face the rear of the amp. Each fine production tube is tested and matched to our exacting specifications. Individual bias controls are provided for each output, as well as phase-balance adjustment. This ensures maximum tube life, power, and performance.

NOTE: Please do not attempt to adjust tube bias or phase balance. Refer service 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 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.

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K & M Analog Designs

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Cotati, CA 94931**

Serial Number:_____