K&M
Custom

Owner's Manual

Thank you for your purchase of a

***K&M Custom** amplifier from*

K&M Analog Designs, LLC.

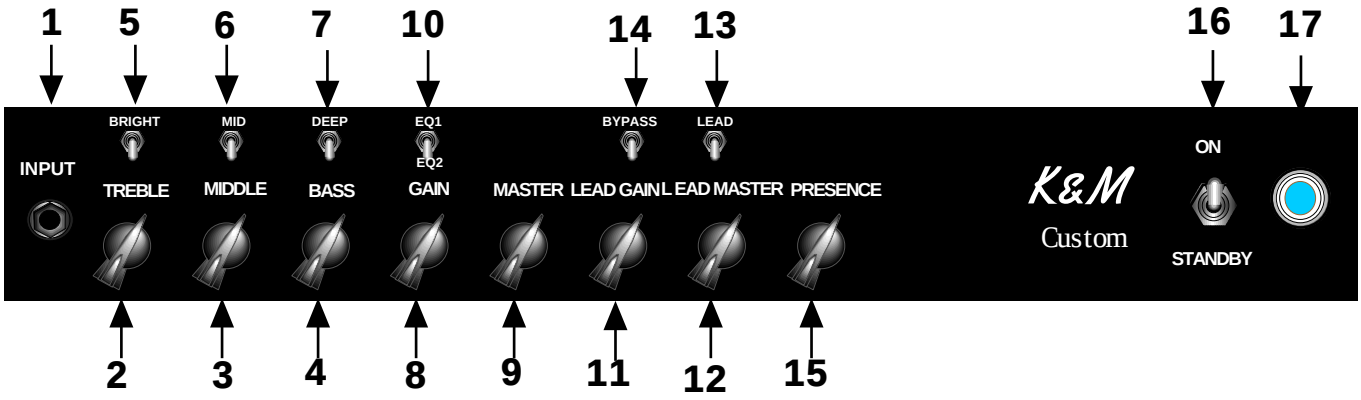
As a discerning guitarist, you know the road to great tone begins with great components.

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. **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.

6. **MID SWITCH-** Boosts the mid range frequency response.
7. **DEEP SWITCH-** Boosts the low and low-mid frequencies. This is a low frequency contour switch, changing the low and low-mid response.

8. **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.
9. **MASTER VOLUME-** Adjusts the overall output level of the amplifier (Both "clean" and "lead" channels).

10. **EQ1/EQ2-** This switch allows you to choose between 2 completely different equalization setting. **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.

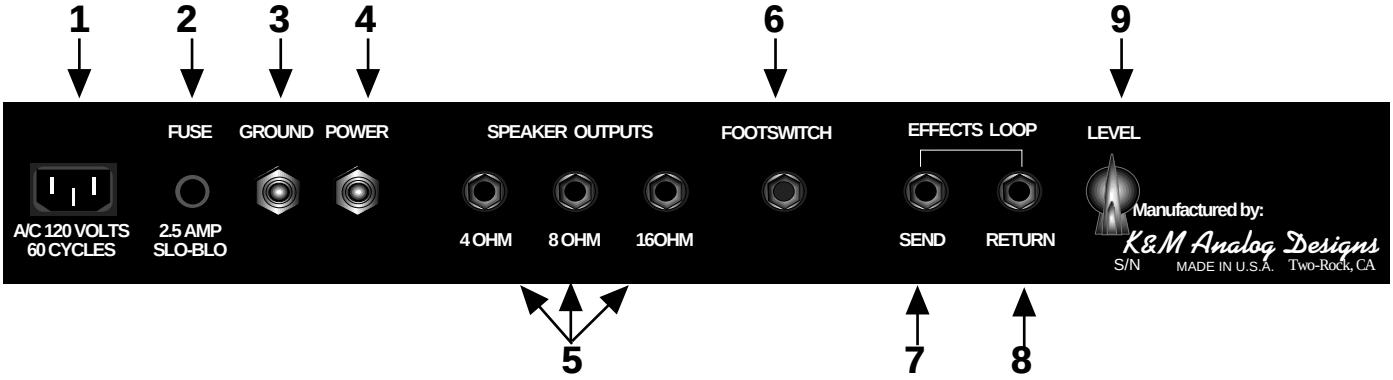
15. **PRESENCE CONTROL-** Adjusts the contour of high-frequency response. The high-frequency response will increase as you advance the control clockwise.

16 **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.

17. **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. **POWER SWITCH**- Turns the power on.

5. **SPEAKER OUTPUT JACKS-** There are 3 speaker output jacks- 4 ,8 and 16 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.

6 **FOOTSWITCH JACK-** Connect the foot switch assembly here to enable remote switching of the lead/rhythm and bypass functions

Effects Loop

The Custom's effects loop is a series loop. The effects level control is 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.

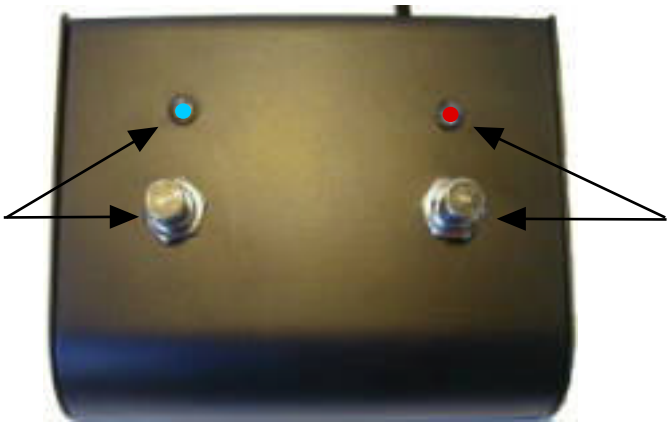
8. **EFFECTS RETURN-** Use this jack to connect the output of your effects to the amplifier.

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.

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

FOOT SWITCH

Lead
(Blue LED)

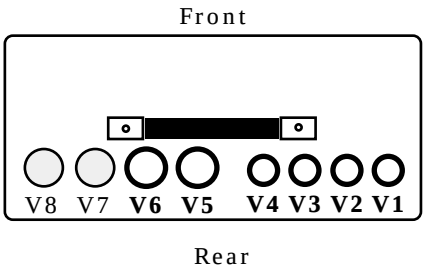


Bypass
(Red LED)

TUBE COMPLEMENT

V1- 12AX7, Rhythm channel
V2- 12AX7, Lead channel
V3- 12AX7, Effect loop
V4- 12AX7, Phase inverter
V5, V6- 7581, Output
V7, V8- 7581, Output(100 watt only)

The Tube Location



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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Serial Number:_____