## Two-Rock

# JOHN MAYER SIGNATURE

**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 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.

We are proud to introduce what we humbly consider to be another benchmark amplifier, designed and perfected in collaboration with John Mayer. John has been touring and recording with Two-Rock amps since early 2005, and it was only natural for us to join forces and build him an amp that would meet his specific needs. Based on our Custom Reverb Signature amp, the John Mayer Signature amp is a 100 watt, single channel amp with incredible depth, bandwidth, and soundstage.

We have added elements of the Sterling Signature, Overdrive Signature, and Kimock Signature amps to produce pristine cleans with rich harmonics, as well as a sophisticated all tube spring reverb circuit, tuned to John's ear. We've moved the gain and master controls to the far right side of the front panel, separate from the tone controls and reverb, to allow quick adjustment on the fly. A contour control has been added, allowing global fine tuning of overall output EQ. And we've finished each unit in gun metal gray carbon fiber covering, black cane grill cloth, and silver piping. Each amp is individually signed by John, and is shipped road-ready in a Calzone road case. Congratulations on you purchase of Serial #\_\_\_\_ of 25!

## **Quick Specifications:**

- Standard Two-Rock Sized Head (20.5"L x 11" H x 10.5" D)
- Gun Metal Gray Carbon Fiber Covering
- Black Cane Grill with Silver Piping
- 100 watts, single channel, 4X6L6
- 4, 8, 16 Ohm Outputs
- Controls: Treble, Middle, Bass, Bright, Mid, and Deep switches, Reverb Send and Return, Gain, Master, and Contour
- All-tube spring reverb
- Weighs 46 lbs



#### FRONT PANEL FUNCTIONS:

- 1. Input Jack- High impedance input to the amplifier. Plug in your instrument here.
- Treble Control- Adjusts the high frequency response. In the full counterclockwise 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 counterclockwise 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. 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.
- 10. Contour Control- The contour control is an active wide band sweep. In the 12 o'clock position, the amp's frequency response is flat. Counterclockwise 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.
- 11. Input Gain- Adjusts the overall gain of the amplifier. Start with this control in the 12 o'clock position.
- 12. Master- Adjusts the output level.
- 13. 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.
- 14. 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.



- 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. Line cord: for your safety, connect to grounded A/C receptacle only.
- 2. Fuse- 3 AG Type, 3.5 Amp, slow blow fuse.
- 3. Main Power Switch
- 4. 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.
- 6. Effects Return- Use this jack to connect the output of your effects to the amplifier.
- 7. 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.
- 8. Tube Layout:
  - a. V1 preamp 12AX7
  - b. V2Reverb send, reverb return 12AX7
  - c. V3 Reverb drive 12AT7
  - d. V4 reverb /clean mix 12AX7
  - e. V5 phase inverter 12AX7

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. (do not apply any signal to the input during the biasing procedure!)
- 3. Take unit off standby and allow a few seconds for the circuit to stabilize.
- 4. Set voltmeter to Millivolt scale (or lowest volt scale 100 millivolts =
- 5. .1 volts.)
- 6. With meter grounded to chassis and + probe at test point, measure voltage.
- 7. A reading of .110 to .120 volts is normal. If not in this range, adjust by turning bias screw **slowly** a small amount. **Do not set above .130**.

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

Settings higher than .130 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 .160!) 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.

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.