



MUSIC MAN, INC.

RD-50 SERIES AMPLIFIERS

OWNER'S MANUAL



The MUSIC MAN RD-50 Series guitar amplifiers combine state-of-the-art vacuum tube design, in a compact package with a built in reverb and switchable two stage preamp. Thanks to MUSIC MAN's many circuit refinements, you get the warm sound of tubes, plus cool running, low noise and dependability.

The "R" in "RD Series" stands for "Reverb" and our built in reverb has the new fuller sounding three spring delay, a genuine advantage over older two spring types. The reverb can be adjusted with a front panel control, and turned ON and OFF via an optional footswitch.

The "D" in "RD Series" stands for "Distortion." A front panel rocker switch or optional illuminated footswitch lets you select between two separate preamplifier stages: the CLEAN STAGE or the LIMITER/DISTORTION

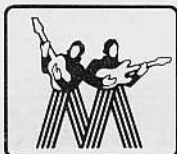
STAGE. The Clean Stage provides a smooth, clean, full sound that you can preset with a full compliment of BRIGHT SWITCH, VOLUME, TREBLE and BASS controls. The Limiter/Distortion Stage includes separate VOLUME, TREBLE, BASS and GAIN controls, that allow an exceptionally wide range of sound . . . from clean to all-out sustained distortion, depending on how you preset the controls.

The RD-50 Series Amplifiers deliver a solid 50 WATTS R.M.S. of vacuum tube power to a heavy duty MUSIC MAN 10 or 12 inch loudspeaker. Included with the speaker output jack is an extension speaker jack to connect an additional 8 ohm load, and a low impedance unbalanced line out that can be used to feed a monitor, reinforcement, or recording mixer.

SPECIFICATIONS

Dimensions	112RD-50	17 1/2" H x 11 1/2" W x 10" D	
	110RD-50	15" H x 17 5/8" W x 10" D	
Weight	112RD-50	32.5 lbs.	
	110RD-50	31.5 lbs.	
Power Output	50 Watts RMS into 4 or 8 ohms (See Speaker Jack information)		
Minimum Input Sensitivity	Less than 1 mV		
Input Impedance	319K ohms		
Tone Control	CLEAN	DISTORT	
	Treble	4.7 kHz	2.4 kHz
Center Frequencies	Bass	75 Hz	168 Hz
Bright Switch	+10.5 dB @4.1 kHz		
Reverb	Footswitchable, three spring		
Power Requirements	120 V AC, 60 Hz		
Fuse	3 Amp, 3 AG		

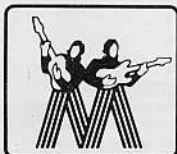
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FRONT PANEL



- A. INPUT.** Standard phone jack instrument input.
- B. BRIGHT.** Provides instantaneous treble boost in the clean mode only.
- C. VOLUME.** Adjusts the overall loudness of the amplifier when in the clean mode.
- D. TREBLE.** Adjusts the amount of boost (accentuation) or cut (attenuation) in the high frequency range while in the clean mode.
- E. BASS.** Adjusts the amount of boost or cut in the low frequency range while in the clean mode.
- F. CLEAN/LIMITER.** Provides instantaneous switching from the clean mode into the limiter mode. (Note: When this switch is in the limiter mode, it has priority over the distort footswitch. For proper footswitch operation, this switch should be set in the clean position.)
- G. VOLUME.** Adjusts the overall loudness of the amplifier when in the limiter mode. Volume is essentially independent of the gain (J) settings; if gain is turned up for more distortion, also increasing the level, volume can then be set for any desired power level.
- H. TREBLE.** Adjusts the amount of boost or cut in the high frequency range when in the limiter mode.
- I. BASS.** Adjusts the amount of boost or cut in the low frequency range when in the limiter mode.
- J. GAIN.** Adjusts the amount of amplification in the tube limiter stage when in the limiter mode. If the gain is increased, the limiter can be more easily overdriven for more distortion. Cleaner sound is achieved at lower gain settings; if a louder output is needed at the speaker, the volume control (G) can then be turned up.
- K. REVERB.** Adjusts the amount of reverb (spring delayed sound) that is mixed together with the direct-from-the-instrument sound. This control can be disabled by the reverb footswitch.
- L. POWER ON/OFF SWITCH.** Turns AC power on and off. When the switch is off, the amplifier is completely shut down.
- M. POWER INDICATOR LIGHT.** A red indicator lamp is illuminated whenever the power switch is in the on position and the amplifier is receiving power.
- N. AC SOCKET.** (Domestic and CSA models only.) This is an unswitched and unused AC source to be used to power accessories. Be sure to observe the 300 Watt rating.
- O. FUSE.** This fuse is in the AC supply of the amplifier and will protect the amplifier and operator in the event of an electrical fault. If a fuse blows, it should only be replaced with a fuse in accordance with the listing at the fuseholder. If the amplifier repeatedly blows fuses, it should be checked out by a qualified technician. Under no circumstances should a fuse with a higher current rating or a fuse bypass be used as this could cause equipment damage and present a serious safety hazard. (Note: The amplifier is also equipped with an internal thermal breaker which will cut off the AC supply [the entire amp will shut off] when the chassis exceeds normal operating temperature. If this happens, the amplifier should be unplugged from its AC source and be allowed to cool. The thermal breaker will reset after approximately one hour, depending on how fast the chassis cools down.)



REAR PANEL



N O P Q R S

P. GROUND SWITCH. The ground switch is used to eliminate AC buzz when the amplifier is not externally grounded. It is a three position switch. By switching it to either of the two outside positions, one position will give a noticeable reduction in noise from the amplifier. This is the correct switch position. This will also eliminate any shocks you may feel between the amp and any grounded surface. The center position is used to float the ground of the amplifier. This position is also used when the amplifier is externally grounded, i.e., through the AC power cord.

Q. SPEAKER. This jack is the main amplifier output and should be connected to an 8 ohm load always. The amplifier will not function if this jack is not used. An 8 ohm speaker is enclosed with the amplifier.

R. EXTERNAL SPEAKER. This jack is used to connect a second 8 ohm load when the speaker jack is already in use. (Power loss will result if a load other than 8 ohms is connected.) (Note: A 4 ohm load may be safely driven if connected to the speaker jack and an open standard phone plug is inserted into the ext. speaker jack.)

The total speaker impedance can be calculated from the following equations:

$$\text{Parallel Speaker Impedance} = \frac{R1 \times R2}{R1 + R2}$$

$$\text{Series Speaker Impedance} = R1 + R2$$

$$\text{i.e. Two 8 ohm speakers in parallel equal } \frac{8 \times 8}{8 + 8} = \frac{64}{16} = 4 \text{ ohms}$$

$$\text{Two 4 ohm speakers in series equal } 4 + 4 = 8 \text{ ohms}$$

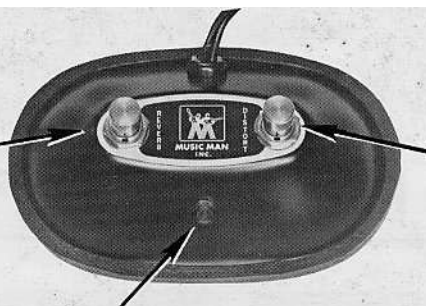


Note Polarity Markings

S. LINE OUT. This jack will deliver a direct line level signal into 600 ohms or higher for use in recording or slaving amplifiers. An isolating direct box is recommended to prevent possible grounding noise.

REVERB FOOTSWITCH

This switch is used to switch the reverb effect on and off in conjunction with the reverb control on the amplifier front panel.



DISTORT FOOTSWITCH

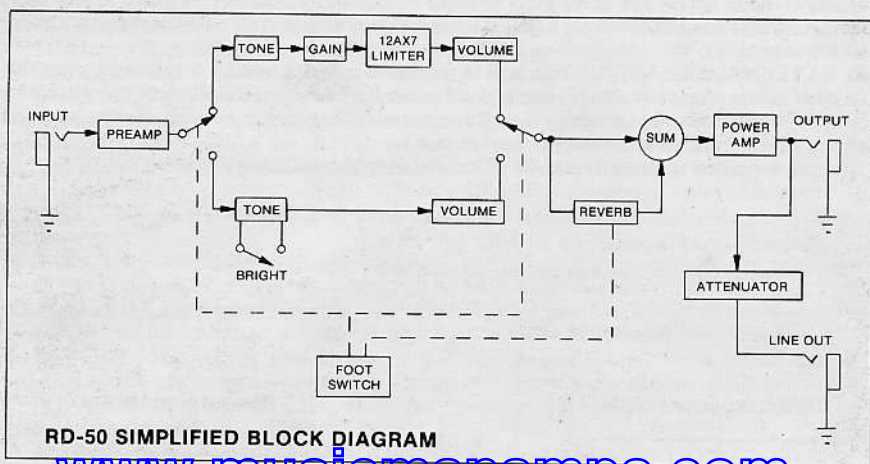
This switch is used to switch the amplifier in and out of the limiter mode. (It will alternate between the two sets of controls.)

LED INDICATOR - When this indicator is lit, the amplifier is in the limiter mode. (The limiter gain and volume controls are activated.)

FOOTSWITCH

The remote footswitch is an optional accessory on the RD-50 Series Amplifiers. Installation is as follows:

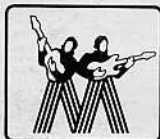
The footswitch jacks are located on the bottom surface of the chassis, adjacent to the two reverb connection jacks. The footswitch plugs should be inserted into the two jacks closest to the center of the chassis with the red plug in the jack marked with a red dot. This will also be the jack that is toward the front of the amplifier. Next remove the cable clamp containing the speaker and reverb wires from the rear of the speaker baffle board. Insert the footswitch cable and re-mount the clamp.



RD-50 SIMPLIFIED BLOCK DIAGRAM

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TUBE REPLACEMENT — Due to the many circuit refinements found in your MUSIC MAN amplifier, the vacuum tubes should run cooler and longer than in most other high power amplifiers. In the event that a tube does fail or become noisy, it should only be replaced with a tube of the same type number. The tube type numbers are listed in the tube location diagram located inside the wooden cabinet. Matched tube pairs are not necessary, but it is good practice to replace the full set in the event of any tube failure as this will help assure a longer time before subsequent replacement. Depending on use and handling, some tubes can last as long as several years.



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P.O. Box 4589 ■ 1338 State College Parkway ■ Anaheim, California 92803
Telephone: (714) 956-9220 TELEX 692-397