

Service Notes

Tubes

Tubes are consumables, as they have a given usable lifespan. They are part of the heart of the tone, so keeping correctly operating tubes is essential. Tubes can fail catastrophically or gradually, and it's good to know what to look for if they start to go bad. Periodically inspect them and look to see if anything inside the tube is glowing cherry red other than the normal orange glow of the filament. This would indicate a situation where the tube is conducting more current than it is capable of handling and most likely about to fail. Two other conditions to observe are: 1) filaments not glowing or 2) a miniature fireworks display inside the tube. Any of the above conditions indicate serious problems with the tube and should be taken care of immediately. Tubes quite often are the cause of spurious noise in the amp. Microphonic tubes will squeal or rattle with the vibrations of the cabinet. If suspected, tap each tube lightly with a pencil with the amp powered up—the suspect tube will let you know. Note that there is a normal metallic clinking when doing this, but a microphonic tube will be quite loud.

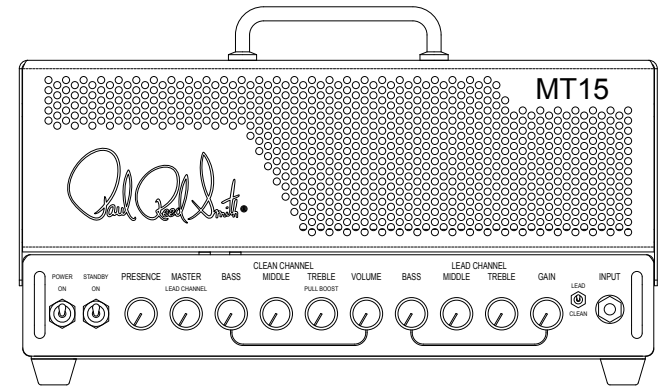
Replacing preamp tubes will not require any adjustment, but the power tubes will need rebiasing to assure proper operation. After power tube replacement, initially inspect the tubes often to assure there are no “cherry red” components within the tube. Tubes today can have a wide variety of tolerances and a re-bias is highly recommended with new ones.

Power tube bias should be adjusted to 30 mV, +/- 5 mV. If power tubes are mismatched by less than 5 mV, average the two around 30. Mis-matched tubes beyond 5 mV will induce noise and may cause a degradation of tone.

NOTE! Capacitors may retain an electric charge and can be dangerous even when the unit is off, unplugged, and has not been played for an extended period of time. USE CAUTION!!!!

The image shows the Paul Reed Smith signature logo in a stylized, cursive font. The letters are interconnected and fluid, with a registered trademark symbol (®) at the end.

Mark Tremonti MT15 User's Manual



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LIT-AMP-MAN-MT15 REV B

Using your PRS Amplifier

IMPORTANT: Before using your amplifier, refer to the **IMPORTANT SAFETY INSTRUCTIONS** insert supplied with the product.

Powering Up:

1. Make sure your speaker or speaker cabinet is connected to the correct speaker output impedance jack with a high quality speaker cable. Do not use guitar cords.
2. Make sure the power cord is connected to the correct grounded outlet.
3. Make sure there is at least 6 inches (150mm) of clearance around the amplifier to allow for proper cooling. Never place the amplifier against a wall or other equipment, and keep it clear of other heat sources, such as other amplifiers or stoves. Make sure there are no flammable items, such as curtains, behind the amp. Do not drape items over the amps that can prevent proper cooling. Do not set drinks or other liquids on top of the amp that can spill into the amp.
4. The amplifier is designed to be able to power up without the use of a Standby Switch. It is OK to turn both switches on at the same time, or to leave the Standby Switch on at all times. Use the Standby Switch to mute the amplifier when necessary.
5. Turn the master volume down (lead channel), volume control down (clean channel) or flip the Standby Switch off to mute the amp, plug in the guitar cable and any effects, switch on the Standby, bring the volumes up and play some tunes. This amplifier can produce very loud volumes so take care with this procedure to avoid volume surprises.



This equipment is capable of very high sound pressure levels. Prolonged exposure may cause hearing damage.

This equipment contains no user-serviceable parts. Refer all repairs to qualified service personnel.

Ensure that the mains plug is easily accessible to allow the unit to be switched off.

Only connect this unit to an earthed supply socket.

THIS UNIT IS CLASS I CONSTRUCTION AND MUST BE EARTHED!

MT15 Amplifier Front Panel Controls

Input: 1/4" Standard Mono Guitar Cable.

Channel Select: Selects between Lead and Clean channels.

Lead Channel

Gain Control: Adjust for preamp volume/distortion/saturation.

Treble Control: Adjusts the high frequencies within the overall tone. This adjustment allows the tone to become warmer at low settings and brighter at higher settings.

Middle Control: Adjusts the midrange frequencies within the overall tone. This adjustment allows the user to add fullness or body to the sound, or create a "scooped", crisp sound.

Bass Control: Adjusts the low frequencies within the overall tone. Lower settings will sound tighter, especially with more gain and higher settings will add deep fullness and thump.

Lead Channel Master: Adjusts the overall loudness of the lead channel. Work this along with the Gain Control to balance the volume between the Lead and Clean channels.

Clean Channel

Volume Control: Increases the volume and gain of the clean channel.

Treble Control with Pull Boost: Adjusts the high frequencies like the lead channel with an added general gain boost of the clean channel frequencies when pulled.

Middle and Bass Controls: Similar function to the lead channel controls.

Presence Control: Adjusts power amp brightness on both channels globally.

Power On/Off and Standby Switches: The MT15 was designed to not need a Standby Switch as part of properly powering the amp on. However, as a convenience we have provided a Standby Switch that effectively mutes the amp while it is still powered on. Use the switch to mute the amp when changing guitars, effects, or between sets.

Rear Panel Controls

Mains Socket: Always use the mains lead supplied. Your sales outlet can provide a lead suitable for your country. Always disconnect the equipment from the mains and ancillary units before moving.

Fuses: This amplifier is equipped with multiple accessible and inaccessible fuses. Replacement fuses must be of the same type and rating as indicated. Failure to comply may result in permanent damage to the product, and/or create a safety hazard. Always disconnect the equipment from the mains supply before replacing a fuse.

Mains Fuses: These are located in the mains socket. There is one active and one spare.

B+ Fuse and Filament fuses: These are located on the PCB board and should be evaluated and replaced by a qualified technician.

Bias Jacks and Pot: These jacks measure the power tube current draw in milliVolts. $ImV=ImA$. Review the information on the back of this manual for guidance on replacing tubes. Biasing and tube replacement should be performed only by a qualified technician. Bias adjustments can be made with a jewelers Phillips head screwdriver.

Speaker Jacks: These are the main outputs for your speaker cabinet(s). There are 3 total jacks to use. There are two 8 ohm jacks wired in parallel, and a single 16 ohm jack. Determine beforehand what your total speaker loading will be and use the appropriate jacks. Never use the 16 Ohm jack with the 8 Ohm jacks at the same time. For two 16 ohm cabinets in parallel (creating and 8 Ohm load), plug each cabinet into one of the two parallel 8 ohm jacks. Failure to correctly match the speaker load to the appropriate output jacks can cause tube socket arcs, blown power tubes, or failure of the amp.

Half Power Switch: Selecting the half power setting changes the operation of the power tubes from full-power pentode configuration to 8 watts in triode configuration. Power down the amp when changing this switch or make the selection prior to turning on the amp.

Effects Loop: This amplifier features a series effects loop that is integral to the overall sound of the amp. Connect the Send jack with a 1/4" mono instrument cable to the input of your pedal(s). Connect your pedal(s) output to the Return jack also using a 1/4" mono instrument cable. To minimize your cables picking up hum, arrange the cables together for the first few feet away from the amp, and move them away from the power transformer and mains power cable.

Footswitch Jack: Connect the included PRS FSIM footswitch to control Channel switching. Do not use other footswitches as they can possibly damage the amp. When attached, the front panel Channel selector switch becomes inoperable.

Safety Symbols: The following symbols mean:



Warning: read instructions to understand possible hazard



Danger: electrical shock hazard



Warning: This equipment is capable of very high sound pressure levels. Prolonged exposure may cause hearing damage.