SONICTONE AMPLIFICATION®

PATRIOT

Modern Series

60-Watt or 120-Watt
Fixed-Biased
4-Channel High-Gain
Tube Amplifier Head
(Mark II)

Owner's Manual

www.sonictoneamps.com
Made in the USA

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SONICTONE AMPLIFICATION®

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Introduction

I'd like to personally thank you for purchasing the SonicTone Patriot tube amplifier. I know how important every player's tone is to them and that consideration goes into every amp. Part of the flagship Modern Series line up, the Patriot is an American-voiced 4-channel high gain machine. Carefully designed and hand-built here in the U.S., the Patriot is full of features and can produce blistering tones for the most demanding players. Whether playing live or in the studio, this amp will deliver for you. Good luck and enjoy the amp!

Sincerely,

Nick Sagona

Safety Instructions

1. Always use the correct types of tubes for this amplifier.
2. Always match the impedance to correct value of the speaker load.
3. Do not attempt to bypass the fuses or use different fuse values.
4. Please only use the provided SonicTone footswitch, which is compatible with this amplifier.
5. Please only use an active 7-pin DIN cable to connect the footswitch to the amplifier.
6. Please operate the amplifier in dry and safe conditions.
7. Please store the amplifier in a reasonable, climate-controlled environment.
8. Prolonged exposure to high sound levels may cause permanent hearing loss. Please take the necessary precautions. See page 7 for more information.
9. If you are experiencing issues with the amplifier, please have it worked on by a qualified service technician only. Do not attempt to open the amp and work on it yourself.

WARNING!

Dangerous and potentially lethal voltages may be present in the amplifier even after it has been turned off and unplugged. Do not open the amp yourself or touch the inside of it. Only have a qualified service technician open up and work on the amplifier.

Features

The Patriot is a fixed-biased, high-gain 4-channel tube amplifier that uses five (5) 12AX7 preamp tubes. The 60-watt model uses two (2) 6L6GC power tubes and the 120-watt model users four (4) 6L6GC power tubes. The features include:

- 4 channels with independent gain, EQ and volume controls
- Presence and resonance controls
- Master volume
- Bright switch on channel 1
- Classic/Hotrod switch on channel 2
- Independent mid cut/boost switches on channels 3 and 4
- Buffered FX loop, bypassable and footswitchable
- FX loop series/parallel switch with send and return controls
- Mono preamp out & mono power amp in jacks
- 3-way output impedance switch (16, 8 or 4 ohm)
- Birch plywood cabinet with finger-jointed construction

Footswitch Operation:

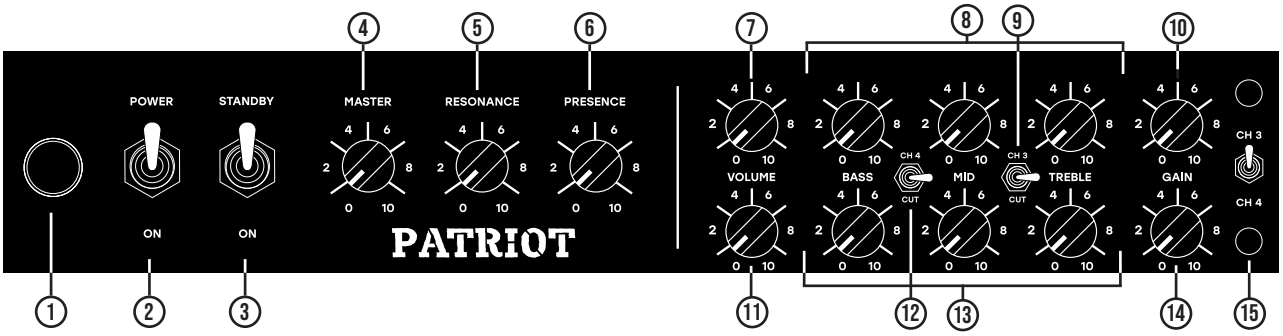
The 5-button footswitch requires the active 7-pin DIN cable to be inserted into the footswitch jack on the rear panel as well as the jack on the footswitch. In order for the footswitch to operate correctly, the corresponding amp panel switches must be set to their correct positions. The CH 1/2-CH 3/4 switch must be set to CH 3/4 and the CH 3/CH 4 three-way switch must be set to the middle OFF position. The CH 1/2 switch must be set to CH 1. The FX loop must also be off.

NOTE: The 5-button footswitch may power-on with multiple LEDs on at the same time. This is okay - just click one of the channel switches to clear the logic state and continue to use the footswitch as its intended.

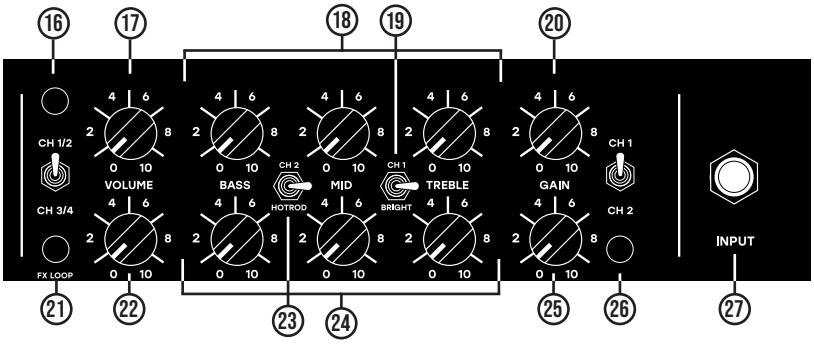
! NOTICE !

Tube amplifiers are voltage-sensitive devices that require a certain amount of AC input voltage (VAC.) If the provided input voltage is too low, the amplifier may not function properly. If the provided input voltage too high, it may damage the amplifier. Please take care to ensure that the correct AC input voltage is provided to the amplifier. See the **specifications** section of this manual for more info.

Front Panel

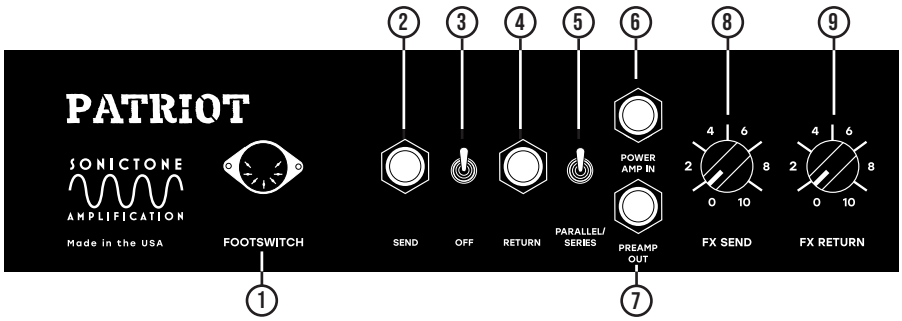


1. **Pilot Light** – illuminates when the amp is turned on.
2. **Power Switch** – turns the amp on.
3. **Standby Switch** – allows the amp to be played. When the standby is off, the tubes are kept warm, but the amp will not make any sound.
4. **Master** – the overall master volume of the amp.
5. **Resonance** – active tonal control that can be used to thicken up the amp's overall sound.
6. **Presence** – active tonal control that can be used to brighten up the amp's overall sound.
7. **Volume 3** – control to adjust the volume on channel 3.
8. **Bass, Middle and Treble** – passive equalization controls to adjust the tone of the channel 3.
9. **Mid Cut/Boost Switch** – switch to engage a mid-range cut or boost on channel 3.
10. **Gain 3** – control to adjust the gain on channel 3.
11. **Volume 4** – control to adjust the volume on channel 4.
12. **Mid Cut/Boost Switch** – switch to engage a mid-range cut or boost on channel 4.
13. **Bass, Middle and Treble** – passive equalization controls to adjust the tone of the channel 4.
14. **Gain 4** – control to adjust the gain on channel 4.
15. **CH 3 / CH 4 Switch & LED** – switch to change between channel 3 and channel 4. The appropriate LED illuminates when one of the channels is engaged. (The switch must be set to the middle OFF position for the footswitch to operate.)



16. **CH 1/2 | CH 3/4 Switch & LED** – switch to change between channels 1/2 and channels 3/4. The LED illuminates when channel 1 is engaged. (The switch must be set to the CH 3/4 for the footswitch to operate.)
17. **Volume 1** – control to adjust the volume on channel 1.
18. **Bass, Middle and Treble** – passive equalization controls to adjust the tone of the channel 1.
19. **Bright Switch** – switch to engage a slightly brighter tone for channel 1.
20. **Gain 1** – control to adjust the gain on channel 1.
21. **FX Loop LED** – illuminates when FX loop is engaged. (The FX loops is a master loop available for all 4 channels.)
22. **Volume 2** – control to adjust the volume on channel 2.
23. **Hotrod/Classic** – switch to engage a bolder tone with more gain on channel 2.
24. **Bass, Middle and Treble** – passive equalization controls to adjust the tone of the channel 1.
25. **Gain 2** – control to adjust the gain on channel 2.
26. **CH 1 / CH 2 Switch & LED** – switch to change between channels 1 and 2 when not using the footswitch. The LED illuminates when channel 2 is engaged.
27. **Input Jack** – mono input jack to plug your guitar into.

Rear Panel



1. **Footswitch Jack** – 7-pin DIN jack to plug the provided footswitch cable into.

2. **FX Loop Send Jack** – mono input jack for the send FX loop instrument level signal.

3. **FX Loop Bypass Switch** – switch to fully bypass the FX loop circuit.

4. **FX Loop Return Jack** – mono input jack for the return FX loop instrument level signal.

5. **FX Series/Parallel Switch** – switch to operate the FX loop in either series or parallel mode. In parallel mode, the original signal is allowed to pass through unaffected and the send control acts as a "wet/dry blend" to mix the level of affected signal into the mix with the unaffected signal. In parallel, depending on the amount of "wet" signal set by the send control, the overall signal may be louder due to the dry and wet signals being mixed together. In this scenario, it is recommended to use the return control to balance out the overall volume.

6. **Power Amp In** – mono unbalanced input jack to send a line level preamp signal from another amp into the power amp of this amp. Once a line is plugged into this jack, the internal preamp is disconnected and the power amp will only amplify the incoming external preamp signal.

7. **Preamp Out** – mono unbalanced output jack to send the post-FX loop line level signal to another external unit or power amp.

8. **FX Loop Send Level** – control to adjust the level of the send signal to the outboard FX chain.

9. **FX Loop Return Level** – control to adjust the level of the return signal to the amp.

A note about the FX Loop – When the FX loop is off (bypassed), the entire signal will bypass the FX loop circuit altogether. However, the send and return jacks are switched jacks that are connected together internally when nothing is plugged into them. Therefore, when the FX loop is on, signal will be allowed to pass through the FX loop even if nothing is plugged into it. If the FX loop is on but not being used, the return control can be used as an additional volume control to reduce the volume when the FX loop is on, and then boost the volume when the FX loop is switched off using the footswitch. This will effectively provide a volume "boost" option.

A note about the insert points – It is important to make a distinction between the FX loop and the "preamp out/power amp in" jacks. The FX loop is a lower instrument level signal designed for FX units and requires the "make-up" gain of the return stage. The "preamp out/power amp in" insert point is post-FX loop and is a higher line level signal that needs no recovery stage. The two insert points have different purposes and behave differently because of this.

In summary, the FX loop is designed to feed external FX units via the send jack and receive the processed instrument level signal to the return jack. The "preamp out/power amp in" insert point is designed to feed other power amps, or receive a line level signal from another preamp.

Rear Panel *(continued)*

10. **Parallel Speaker Jacks** – mono input jacks to plug the speaker(s) into. PLEASE NOTE: The jacks are in parallel, so if you plug two equal impedance speaker loads into them, you must set the impedance switch to half their impedance. For example, with two 16 ohm speaker loads plugged in, the impedance switch should be set to 8 ohms.

11. **Impedance Selector Switch** – switch to select the correct impedance of the speaker load hooked up to the amp.

12. **Bias Probes** – test jacks to check the approximate bias point of each power tube in millivolts (mV).*

13. **Fuse Holders** – receptacles for the amp's fuses.

14. **AC Jack** – jack to plug the provided AC cord into.

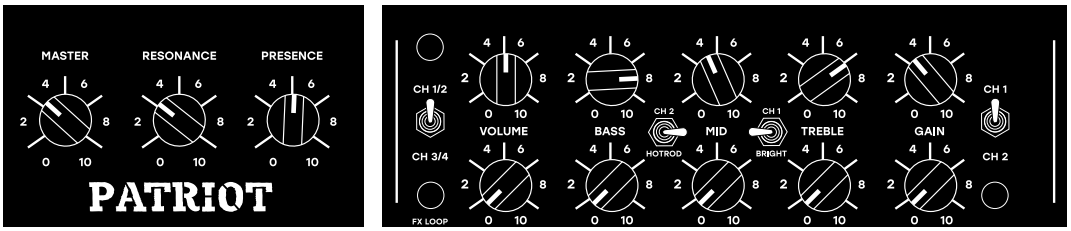
***Important Note About Biasing:**
The value given at the bias probes represents the voltage drop across an internal 1 ohm resistor attached to the cathode of each power tube. Using Ohm's law (V = IR), the value in millivolts (mV) can easily be converted to milliamps (mA) to get the approximate cathode current. For example, a reading of 40mV would equal 40mA. Power tube cathode current can act as a set point for adjusting the amplifier's bias. This is only an approximation to guide you in checking and setting the bias of the amp, as other factors go into calculating an amp's bias, such as the available plate voltage and max plate dissipation of the power tubes. Before leaving the shop, all SonicTone amplifiers are biased by measuring the plate voltage and plate current, and using those values to properly set the plate dissipation of the power tubes at idle.

The bias pot is located on the top of the amp chassis near the power tubes. As always, please have a qualified technician service the amp and set the bias accordingly. When biasing the amp, all measurements should be performed with the amplifier warmed, set to play mode and with all controls set to zero.

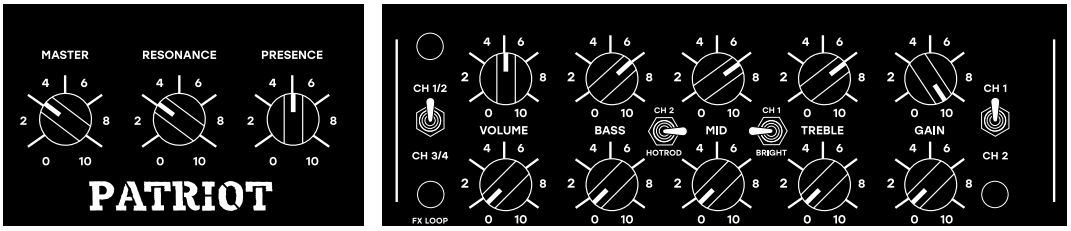
! HIGH SOUND LEVEL WARNING !

Guitar amplifiers produce extremely high sound levels. Any prolonged exposure to high sound levels may cause permanent hearing loss. Please take care to use proper hearing protection when operating and playing through a SonicTone amplifier. For more information on exposure to extreme sound levels and its effects, please visit the **OSHA website here**.

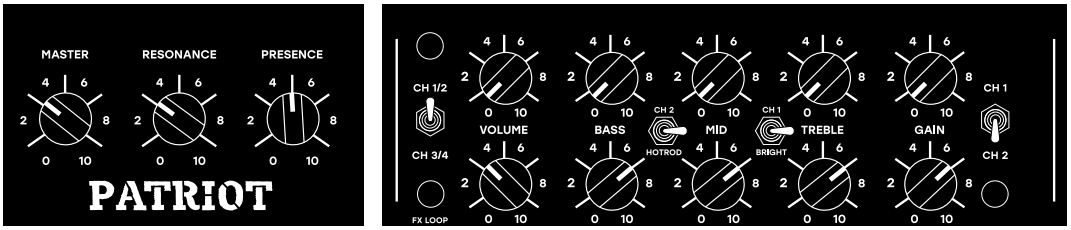
Sample Settings



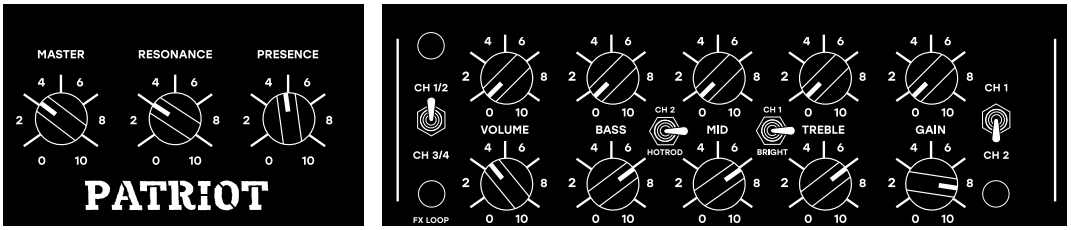
Channel 1:
Chimey Clean



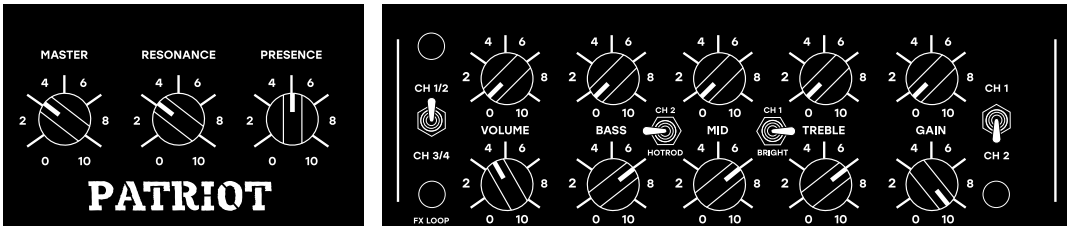
Channel 1:
Edge of Breakup



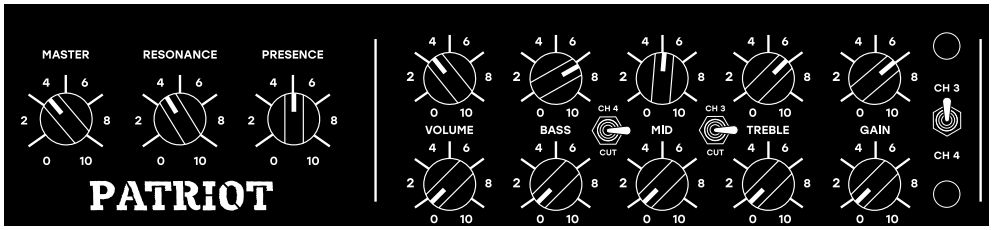
Channel 2:
Blues Crunch



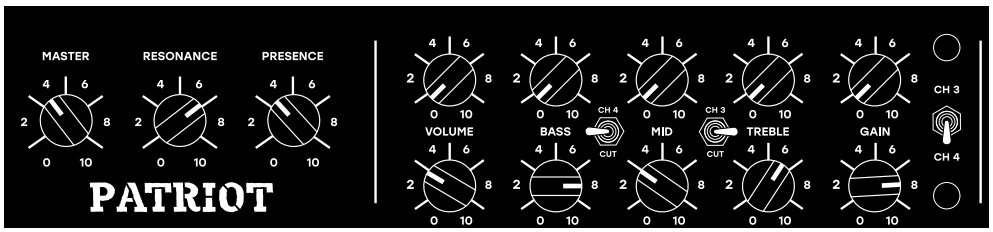
Channel 2:
Classic Rock



Channel 2:
Hard Rock



Channel 3:
Modern Rock



Channel 4:
Heavy Metal

2-Year Limited Warranty

This amplifier is protected with a limited, 2-year warranty for any and all defective issues with the build workmanship and parts, excluding tubes, transformers and speakers. The warranty does not cover general wear and tear, neglect, misuse or abuse, damage from liquids (water, alcohol, etc.), disasters, acts of God or unauthorized modifications. Any modifications made to the amp by the owner or a technician will void the warranty. The owner is responsible for all warranty shipping costs. Once the warranty work is completed, the customer will be notified and sent a final shipping invoice. The owner then is required to pay the shipping invoice to have the repaired amp shipped back to them. Returned warranty shipping will be insured and will require a signature.

Specifications

Product Series: Modern Series

Product Model: Patriot Head

AC Input & Fuses:

- Standard IEC jack for U.S. 120VAC
- Slo-blo mains fuse: US 120VAC **60W** - 3A; **120W** - 4A
- Slo-blo high voltage (B+) fuse: **60W** - 0.5A; **120W** - 1A

Tubes & Power Output:

60-watt Model

- Five (5) 12AX7 preamp tubes
- Two (2) 6L6GC power tubes
- 60W @ 16, 8 or 4 ohms

120-watt Model

- Five (5) 12AX7 preamp tubes
- Four (4) 6L6GC power tubes
- 120W @ 16, 8 or 4 ohms

Footswitch:

- 5-button SonicTone footswitch
- 7-pin active DIN cable required for proper operation

Dimensions:

60W Head

- Width: 30 in
- Height: 10.75 in
- Depth: 9 in
- Weight: 35.0 lbs

120W Head

- Width: 30 in
- Height: 10.75 in
- Depth: 9 in
- Weight: 42.5 lbs

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