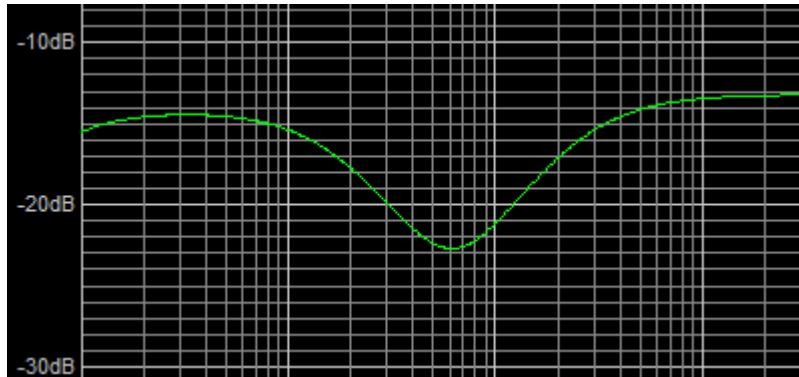


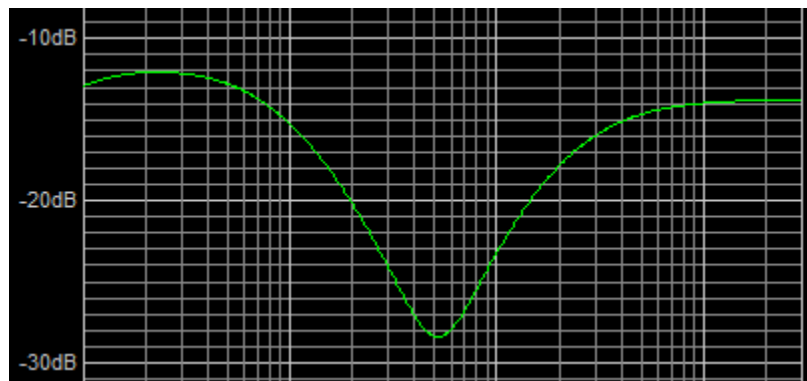
# Fender FTSMBD Tone Stack Modification Kit for Fender Hot Rod Deluxe and Hot Rod DeVille, (All Versions)

This modification kit is designed to change the tone stack in the above amplifiers to the tone stack design used in the Fender Twin Reverb. Many consider the tone in these amps to be a bit “honking” in the mid-range and less defined in the bass and treble regions. This mod provides more of a “scooped” midrange and more articulate bass and treble.

The graphs below demonstrate the difference. Bass, treble, and mid controls set at their midpoint in both graphs:



The above display shows the frequency response of the stock Hot Rod Deluxe and DeVille, with a wide and also minimal 8 dB scoop in the midrange. This does not display the wonderful deep mid scoop for which Fender amps are known.



This display shows the response after modification. A narrower, more defined and much deeper 16dB mid scoop, much improved treble response for the classic Fender 'chime'. This graph is the classic Fender sound.

Remember to unplug the amplifier before starting work, and then to discharge the filter capacitors on the main board for safety. If you are uncertain about this, we recommend

obtaining the help of a qualified amp technician. The first task is to disassemble the amplifier chassis. The best way to learn how to do this is by watching the video at <https://tinyurl.com/bluesdel>. The amplifier in the video is a Fender Blues Deluxe, but the process is the same.

A desoldering tool (suction pump) and/or desoldering braid is recommended for desoldering the old potentiometers. The traces on the PC can be fragile, and may lift off the board unless care is taken. Please be sure to have a good quality soldering iron with sufficient heat so that you do not overheat the PC traces.

Also, be careful when folding the board forward to access the printed side to remove the pots. The ribbon cables going to the tube PC board can be fragile, and excessive pressure or movement can break the ribbon cable conductors.

Remove one pot at a time, and then replace it with the one provided of the new value.



#### **Locations of the new components:**

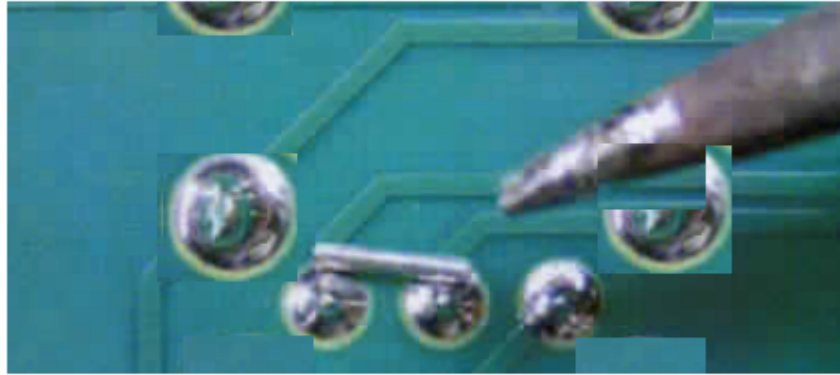
The new pot goes in the mid position, which is location R15 on the circuit board. Remove the old pot carefully by desoldering. (Do not install the new pot just yet). Be careful, as the traces on Fender circuit boards are fragile. Immediately behind the mid pot is C6, which is the location for the new capacitor.

Carefully remove the old C6 (0.022uF) and replace with the new 0.047 capacitor. After the new capacitor is in place, install the new A10K pot.

R12 is the location of the slope resistor which will be replaced by the new resistor from the kit. R12 is located directly behind the bass control. Remove this resistor (old value of 130K) and replace with the new 100K resistor.

In addition, the mid pot needs to be changed from potentiometer wiring to variable resistor wiring in order to match the circuit of the Twin Reverb. In order to do this, two terminals on the mid pot are bridged together. You can use a scrap piece of wire for doing this operation. See the next picture on the next page for details.

## **Bridge two terminals of the mid pot as shown.**



**FRONT OF PC BOARD**

Make sure you bridge the correct terminals on the pot – the center and the left terminal, as you face the PC board with the front of the board at the bottom, as shown in the picture. Also make sure you select the correct pot on which to bridge – look at the front panel on the amp to locate the mid pot and count how many pots over from the end the mid pot is located. Then, count the same number of pots over from the end on the PC board.

Reassemble and test the amplifier.

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