



## Mute Switch for Model 20 series metronomes

The Model 20 series metronomes have a jack on the back that lets you use a switch to remotely mute the sound. The jack is a 1/8" mono jack that will accept a 1/8" mono or stereo plug. The mute function is accomplished by connecting a switch between the tip and the barrel of the 1/8" plug. (If you use a stereo plug, do not connect anything to the ring.)

For someone handy with mechanics and wiring, the above description should be enough to build a remote mute switch. For everyone else, it might be a relief to know that you can easily purchase the parts you need.

### Fender Footswitch

Fender makes a nice, inexpensive one-button on/off footswitch, part number 0994049000 that is *almost* exactly what you need. The box is marked Footswitch 1 BTN On/Off FM/BLSJR 1/4".

It is sold at tons of music stores. Just Google for the part number and/or description above and you should find several sources for the switch.



### Connecting the Footswitch

Here is the problem. The connector on the Fender footswitch is not right to plug into the Model 20. The Fender plug is 1/4" mono, whereas the jack on the Model 20 series is a 1/8" mono. There are two ways to resolve this: 1) get an adapter, or 2) change the jack on the Model 20. Those options are discussed below.

### Option 1) Get an Adapter

You need an adapter that has a 1/8" stereo male plug on one end and a female 1/4" stereo jack on the other end. One example of this is the Radio Shack part 274-366 shown at the right. It is intended to let you use a 1/4" stereo headphone plug with equipment that has a 1/8" stereo headphone jack.



(An adapter that has a 1/8" mono male plug on one end and a female 1/4" mono jack on the other end will also work, but I have been unable to find such an adapter.)

The picture at the right shows a Model 20 with the Fender footswitch cable plugged into the Radio Shack adapter.

It works, but it is weak, since the adapter sticks way out with a heavy cable on it. Jerk the Fender cable and you could break the plug off of the adapter.

A better solution mechanically would be to use a 1/8" right angle adapter to plug into the metronome and then plug the 1/8" to 1/4" adapter into the right angle adapter. The Radio Shack 274-372 stereo right angle adapter is a suitable choice. It is shown in the inset to the right. You should get the right angle adapter and the 1/8" male to 1/4" female adapter. You will need them both.



**BEWARE:** you will find examples of adapters that have a stereo on one end and mono on the other. They will not work; the metronome remains muted as long as they are plugged in. The 1/8" to 1/4" adapter must be stereo on **both** ends, or mono on **both** ends in order to work.

### **Option 2a) Replace the 1/8" Jack with a 1/4" jack.**

Mechanically, the best solution is to replace the jack on the back of the Model 20 with a 1/4" jack. Then the right angle plug on the Fender footswitch will just plug right in without adapters and will be strong and long-lasting.

The easiest way to do this is to *disconnect the power plug from the wall*; open the front panel; dismount both the audio out and mute jacks, and pull them out the front together; enlarge the mute jack hole; wire the new 1/4" jack in place of the old 1/8" jack (the wire to the tip connection is normally yellow, with the black going to the barrel); remount the jacks and close the front panel. The Radio Shack 274-255 is an example of an appropriate jack. If you use a stereo jack, do not connect anything to the ring terminal, use only the tip and barrel.

### **Option 2b) Let McAdams Instruments replace the jack for you**

For the price of a normal repair plus \$15, we will replace the jack for you and guarantee that the Fender footswitch will work. If you need to get your metronome repaired anyway, this may be your best option. Just make a note on your repair order to replace the mute jack.

If your Model 20 is not in need of repair, it still may be worth the cost of letting McAdams Instruments do the modification since we will look the whole instrument over for problems, do preventive maintenance, and guarantee that the Fender footswitch will work properly. See the Support tab at [www.mcadamsinstruments.com](http://www.mcadamsinstruments.com) for repair instructions and estimated cost.