Replacing Your 2-Button Non-LED Footswitch Box with a 2-Button Battery Powered LED Box

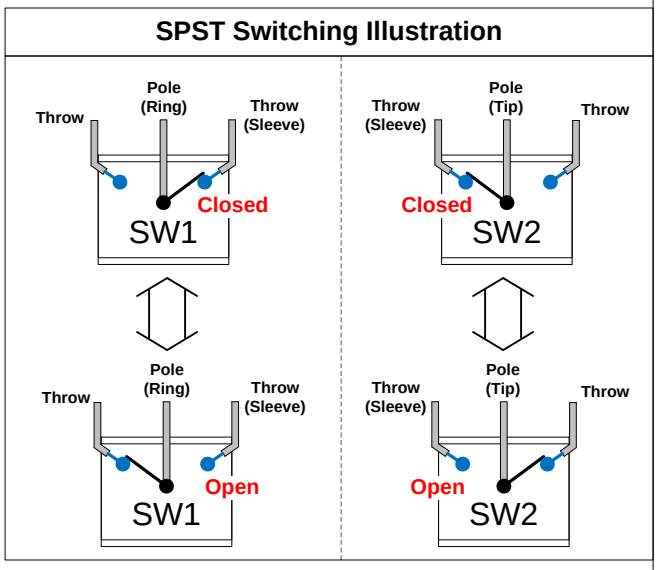
1. Connect your original 2-button non-LED footswitch box to your amp and stomp on the footswitches so that they are both switched to the settings for which you would like to have LED's turned on.

2. Don't press the footswitches again and carefully open the footswitch box.

3. If you have the Marshall™ P802 (a.k.a. PEDL-91004), the inside should look similar to the drawing below. Use an ohm meter to measure the electrical continuity between the switch terminals.

In this P802 example, we see two SPDT (single pole, double throw) switches. Let's call them SW1 and SW2.

- SW1 switches the plug's **ring** connection so that it is either closed or open with respect to the sleeve.
- SW2 switches the plug's **tip** connection so that it is either closed or open with respect to the sleeve.



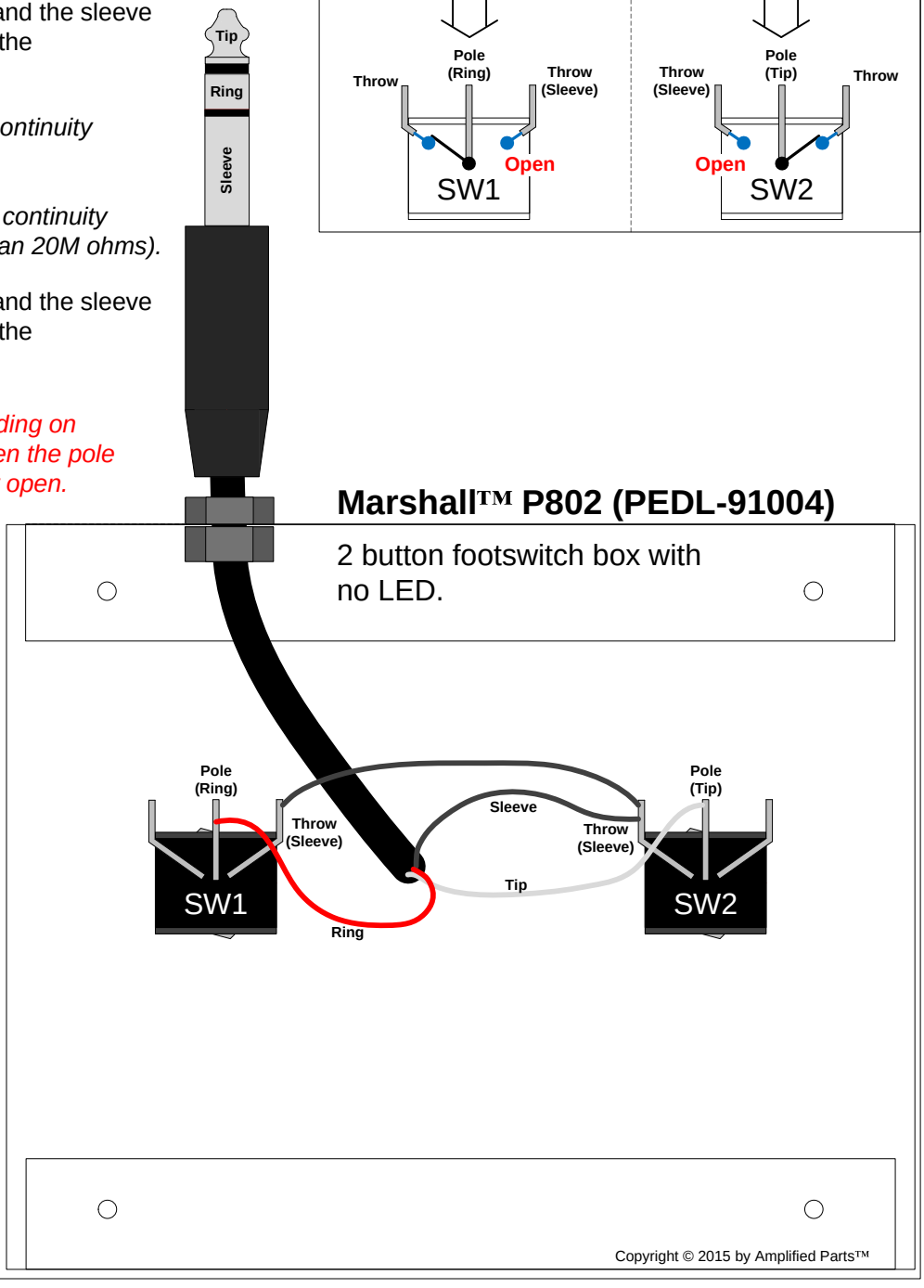
A) Measure continuity between the pole and the sleeve throw of SW1 and make note of whether the connection is open or closed.

*If it's **closed**, there will be electrical continuity between the terminals (i.e. 0 ohms).*

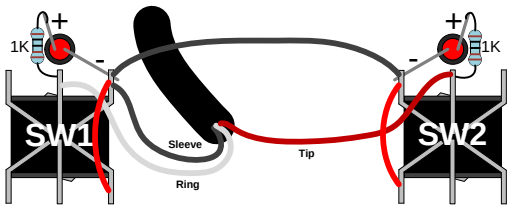
*If it's **open**, there will be no electrical continuity between the terminals (i.e. greater than 20M ohms).*

B) Measure continuity between the pole and the sleeve throw of SW2 and make note of whether the connection is open or closed.

Your switch connections will differ depending on whether you want the LED to light up when the pole and the sleeve connections are closed or open.



4. If you use the P-H471-LED replacement footswitch box, the inside should look similar to the drawing below. We can see that it uses two DPDT footswitches, two 1K resistors and two LED's.

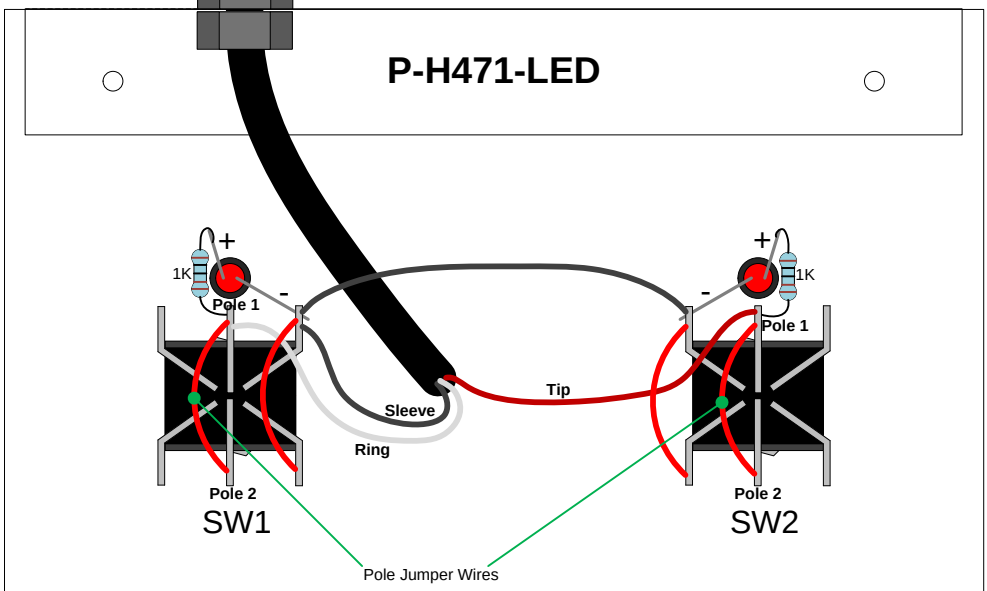


5. Remove the pole jumper wires (one per switch).

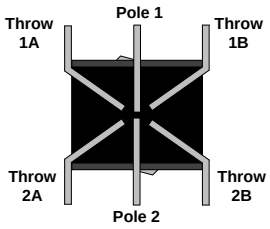
6. Check the electrical continuity between the plug's tip, ring and sleeve sections to make sure the same switches will control the same amp functions as your original footswitch box.

A) In the original switch, SW1 controlled the ring to sleeve connection. Connect your meter to the ring and sleeve sections of the ¼" plug and press SW1. You should notice the switch changing the ring to sleeve connection between open and closed each time you press SW1.

B) In the original switch, SW2 controlled the tip to sleeve connection. Connect your meter to the tip and sleeve sections of the ¼" plug and press SW2. You should notice the switch changing the tip to sleeve connection between open and closed each time you press SW2.



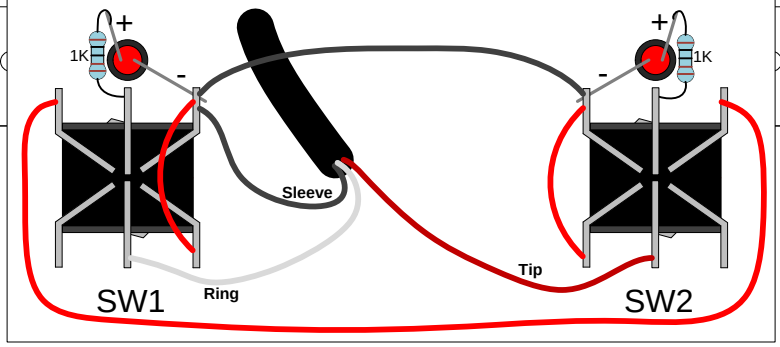
If you find that the wrong switch is controlling the ring to sleeve and tip to sleeve connections, you can reverse the wires connected to the pole 1 switch terminals.



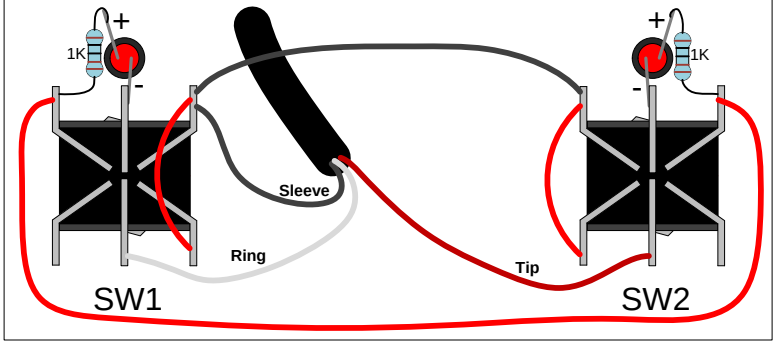
7. Wire SW1 for the LED to be on when the ring to sleeve connection is open or closed by modifying the switch connections to match the drawings below.

8. Wire SW2 for the LED to be on when the tip to sleeve connection is open or closed by modifying the switch connections to match the drawings below.

Both ON when pole to sleeve connections are OPEN.

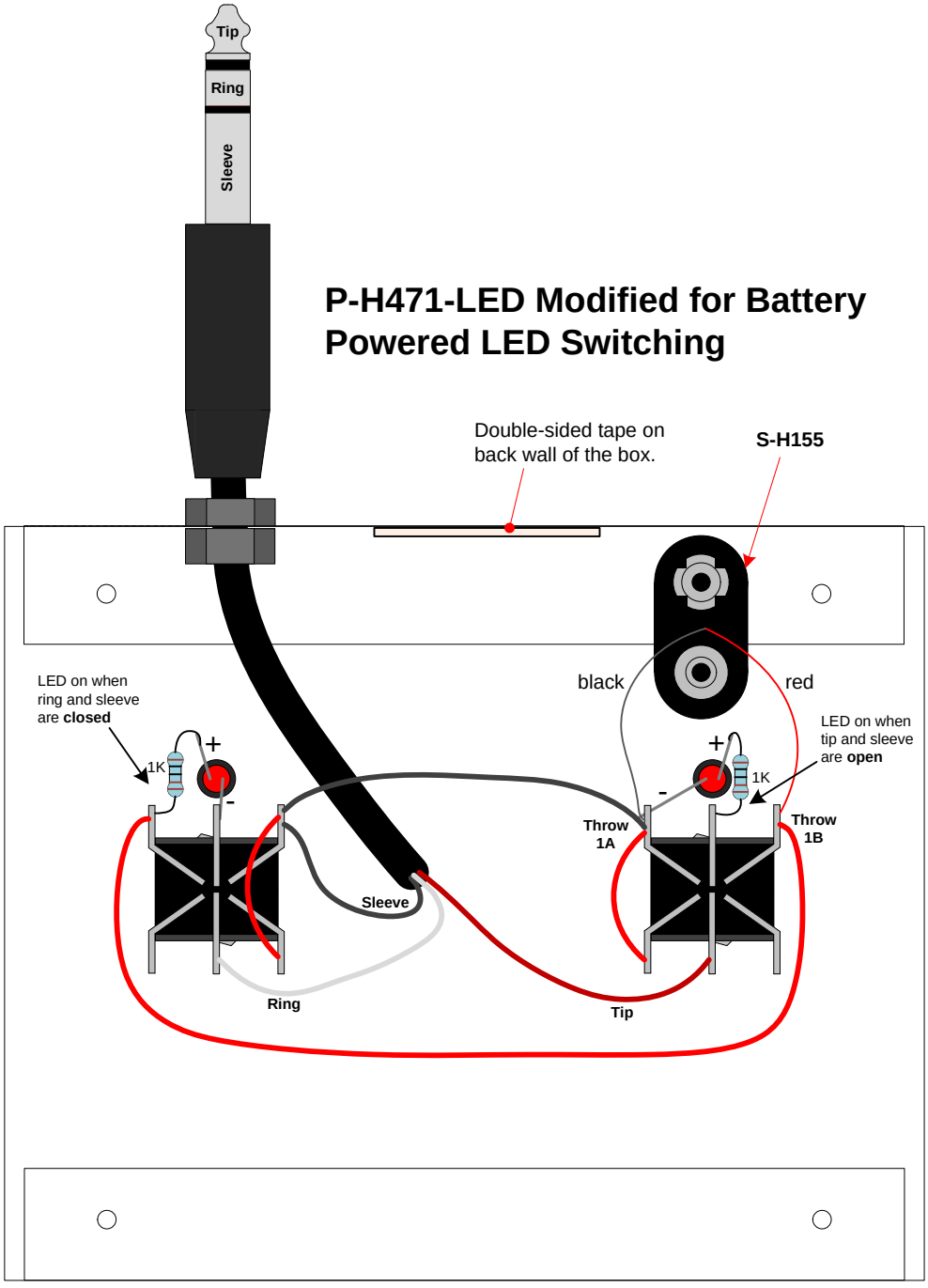


Both ON when pole to sleeve connections are CLOSED.



9. Connect a 9 volt battery snap connecter like S-H155 to the SW2 terminals. The black (negative) wire should be connected to the “Throw 1A” (sleeve) terminal and the red (positive) wire should be connected to the “Throw 1B” terminal.

10. Use double-sided tape stuck to the back wall of the footswitch box or some other reasonable method to secure a 9 volt battery inside the box.



- Each LED circuit draws about 7 mA(DC) from a 9 V battery when the LED’s are on.
- When not using the footswitch, make sure the LED’s are turned off to preserve battery life.