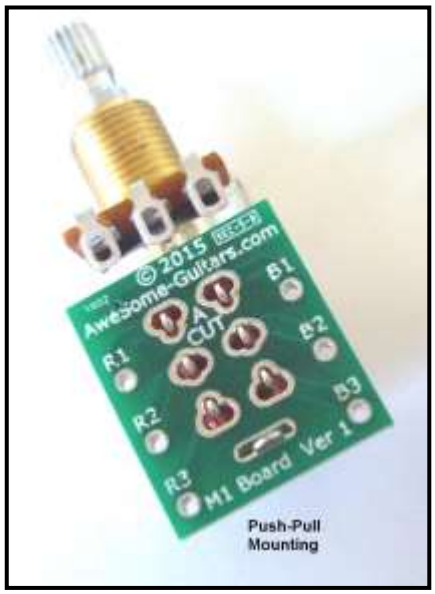
AweSome Enhanced Push Pull Controls – General Installation Instructions

Updated: 01/09/20

These *General Installation Instructions* describe how to install our enhanced push-pull controls. These controls minimally include our M1-PCB, and may also contain either our Treble Bleed Upgrade and Grease Bucket Upgrade products, which are described later in this document. We assume that you *(or someone you know)* can solder and use simple hand tools; and is familiar with electrical connections and wiring processes. This document has examples to show you how to configure our enhanced push-pull pots for different needs. The push-pull pot is like a regular pot, but it also contains a DPDT switch.

The M1-PCB Solution

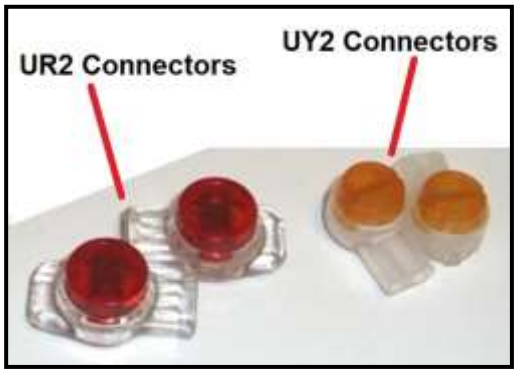


Your AweSome enhanced push-pull control has our **M1 Printed Circuit Board** *(M1-PCB)* attached to it. It contains six wires (3 red and 3 black) that simplifies wiring projects and reduces wiring mistakes. *(wires not shown here for clarity)*

This enhanced push-pull control solves the frustrating problem of connecting and soldering wires to six very tiny switch pins. You just use the included UY2 and UR2 connectors to join the wires that are connected to the M1 circuit board pads (R1, R2, R3 and B1, B2 B3). They are connected to the six pins of the push-pull switch. When the shaft of the push-pull pot is Down, wire pairs R2, R3 and B2, B3 are electrically connected. When the shaft is Up, wire pairs R1, R2 and B1, B2 are connected.

The M1-PCB has six separate attached wires *(R1, R2, R3 and B1, B2, B3)* that connect to each switch terminal of the push-pull control. You can use **R**ed and **B**lack wiring for any needed pickup coil or other polarity needs.

Several connectors *(both UY2 and UR2)* come with your enhanced push-pull control to easily connect the wires.



The **UY2** connector has a yellow button and is used to electrically connect *two* wires together. The **UR2** connector has a red button and is used to electrically connect *three* wires together. You simply push the unstripped wires into the connector housing so that all wires are *"bottomed"* out. You can visually confirm this because the housing is clear plastic. Squeeze the colored button with pliers so it is flush with the clear body.

If your wire insulation is too thick to completely insert into the connector, you can strip the wire and fold the bare wire in half, then insert it into the connector.

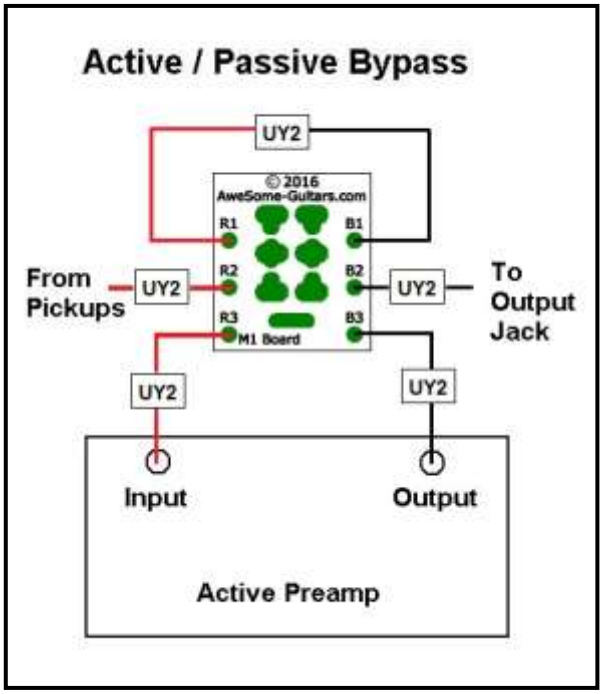
Here are some of the ways the AweSome enhanced push-pull control can be used.

- **Universal connections.** Now you can implement any wiring application.
- **Active / Passive bypass.** It's easy do with the enhanced push-pull control.
- **Pickup coil phase reversal.** This lets you reverse the phase of a pickup coil.
- **Put two pickup coils in series.** Put two pickup coils in series for a more intense sound.
- **Jimmy Page and other wiring needs.** Makes that challenging wiring project simple.

Common Control Wiring Examples

These examples show how to connect the six *(3 red, 3 black)* wires attached to the M1 board of the enhanced push-pull control. The connections are made by using the included UY2 (yellow) and/or UR2 (red) connectors.

1. Active / Passive Bypass

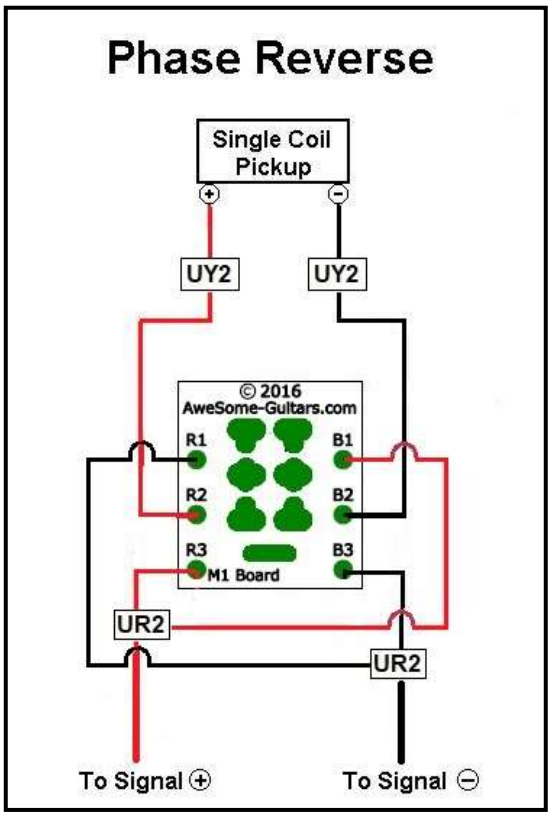


This example uses the AweSome enhanced push-pull pot to switch on or bypass an Active Preamp.

It uses five UY2 connectors.

With the pot shaft Down, the active preamp is in the circuit. When the shaft is Up, the preamp is bypassed.

2. Phase Reverse

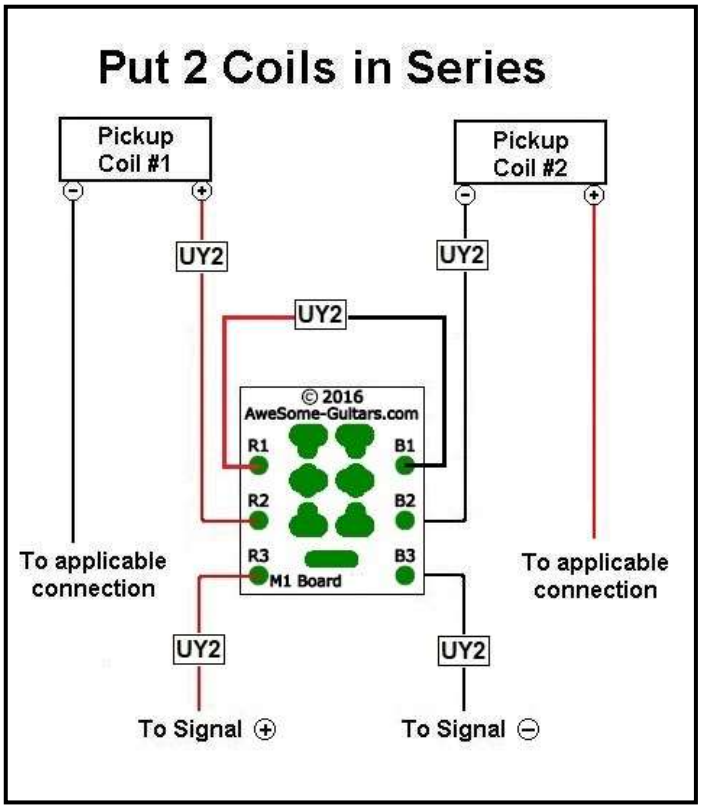


This example uses the AweSome enhanced push-pull pot to reverse the phase of a pickup coil.

It uses two UY2 connectors and two UR2 connectors.

With the pot shaft Down, the pickup is in normal phase. With the shaft Up, the pickup is in reverse phase

3. Put 2 Pickup Coils In Series



This example uses the AweSome enhanced push-pull pot to put two pickup coils in series.

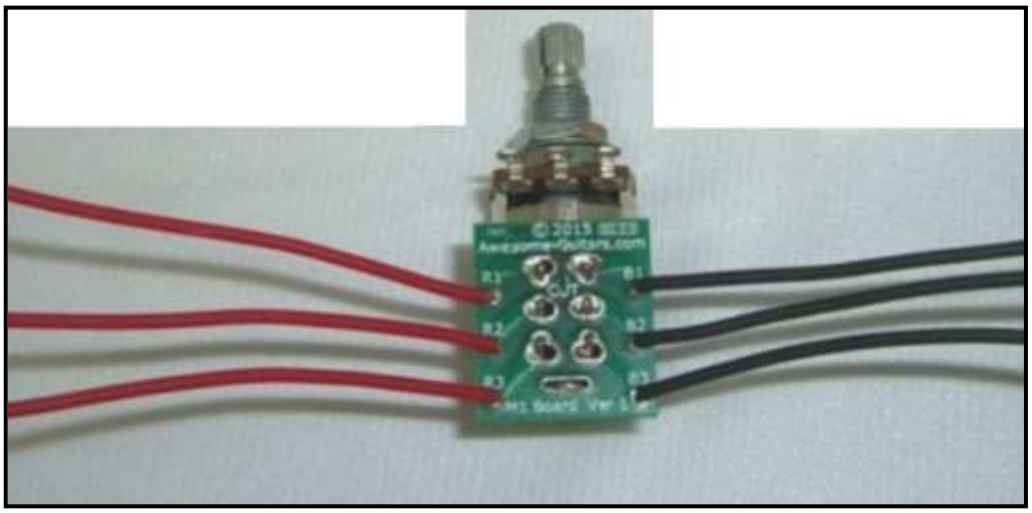
It uses five UY2 connectors.

With the pot shaft Down, the pickup is in normal phase. With the shaft Up, the pickup is in reverse phase

Enhanced Push-Pull Control Products

Here are the three versions of AweSome enhanced push-pull pots. Each is available in either either 500K or 250K. Manufacturer choices are either Bourn or Import version.

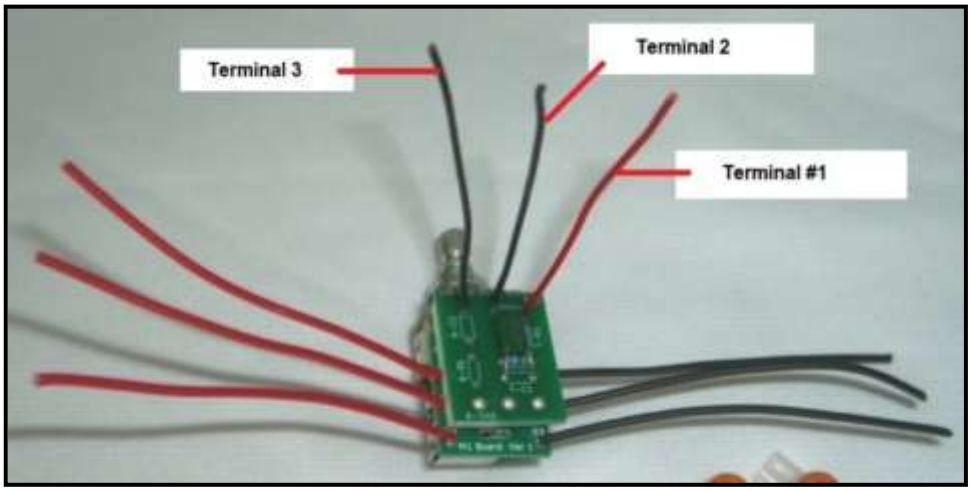
1. The "plain" enhanced push-pull pot



The plain enhanced push-pull pot has our M1-pcb with six attached wires. It includes the UY2 connectors to let you configure it for your specific needs.

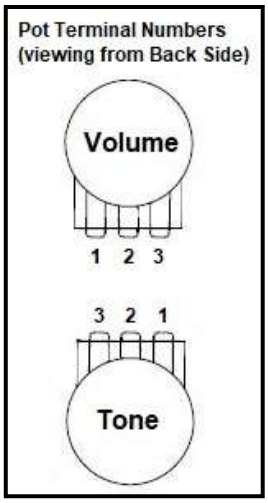
You attach the wires that were on your previous control to the applicable three pot terminals.

2. The Treble Bleed enhanced push-pull pot



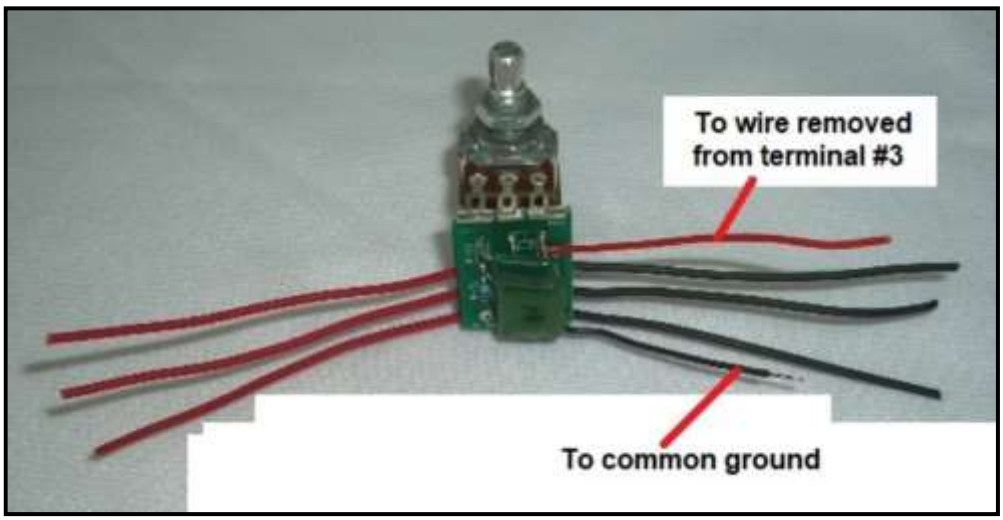
The Treble Bleed enhanced push-pull pot has our M1-pcb with six attached wires. It also has our **Treble Bleed** circuit. This is used as a replacement volume control. It comes with the needed UY2 and UR2 connectors.

Three wires are attached to the Treble Bleed circuit board are electrically connected to the three terminals of the pot. You connect these wires to the wires that were removed from the old pot.



Pot terminal numbers 1, 2 and 3 reference illustration.

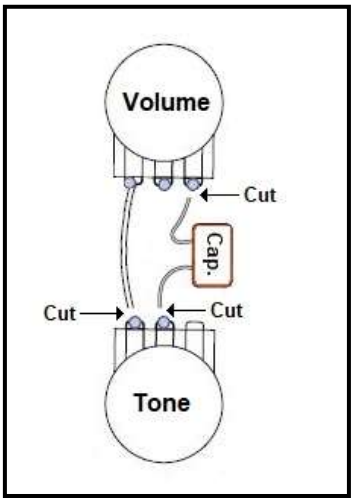
3. The Grease Bucket enhanced push pull pot

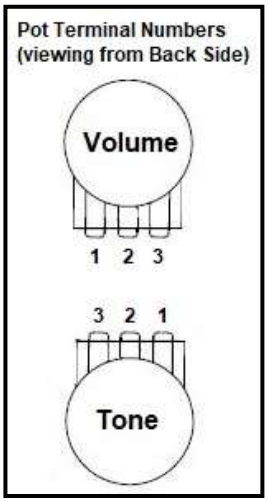


This product has our M1-pcb with six attached wires. It also has our **Grease Bucket** circuit. This is used as a replacement tone control. It comes with the needed connectors.

The two attached wires connect to the applicable locations. The **Red** wire connects to wire removed from terminal 3 of the original tone control. The **Black** wire goes to a common ground.

How To Install The Grease Bucket Enhanced Push-Pull Pot





1. Clip the tone capacitor from the original Tone control. Clip the other end to remove the capacitor.

2. Clip the original wire connected to terminal #3 of the original Tone control.

3. Remove the old tone control.

4. Install the Greasebucket enhanced push-pull pot in the location where the old tone control was removed. A 3/8” (9.5mm) diameter mounting hole is needed for the Bourns product.

5. Using a UY2 connector, slide the unstripped wire you clipped from terminal #3 of the old tone control into the connector. Slide the **Red** wire of the Greasebucket enhanced push-pull pot into the connector. Visually confirm that all wires are "bottomed" in the connector. Use pliers to press down on the UY2 connector yellow button so it is flush with the clear body.

6. Using a soldering iron, attach the **Black** wire of the upgrade to a common ground.

Your Grease Bucket enhanced push-pull pot is now installed and ready for use.

For additional wiring details, go to https://www.AweSome-Guitars.com/docs