NYC BIG MUFF PI

TONE BYPASS MOD INSTRUCTIONS

StewMac®

WITH THIS MOD YOU'LL KEEP YOUR MIDS AND GET ALL THE FUZZ YOU WANT.

It's a necessary mod for anyone who loves the BMP, but dislikes the way it scoops the middle frequencies of your tone. This switch was a feature on the 1970's Big Muffs, but was not included in the 2000's "reissues" of the pedal. This mod is only intended for the big box NYC Big Muff Pi pedals released in the 2000's.

If you run into issues with this modification, a StewMac tech advisor is a click or call away:
stewmac.com/contactus or 1.800.848.2273

PARTS LIST

[1] **Black and white pushback wire**

[2] **1/8" heat shrink - 2" length**

[1] **Mini toggle switch**

[1] **NYC Big Muff Pi Tone Bypass Mod instructions**

TOOLS YOU'LL NEED

Fine-gauge Wire Stripper
#1606

Guitar Tech Screwdriver and Wrench Set
#3693

Wire Cutter
#1607

1/4" Drill Bit
#4850

Kester Pocket-Pak Solder
#0505

Solder Sucker
#0503

Solder Wick
#0504

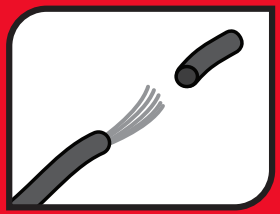
Solomon SR-965 Soldering Station
#0502

CONNECTING THE NEW SWITCH

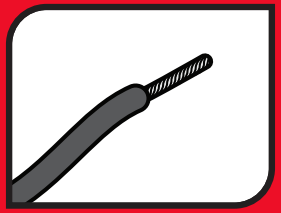
For your new switch to be connected properly, an understanding of tinning and soldering is necessary.

TINNING

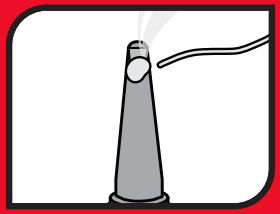
Tinning is an important part of the soldering process as it helps to make stronger solder joints. Tinning a wire is done by heating the wire with a soldering iron and then melting a layer of solder on it. If the wire you plan to tin is made up of many strands of wire, follow all of the steps below.



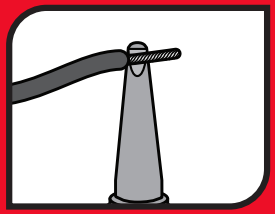
1. Strip roughly 1/4"of the wire sheathing from the end of the wire you intend to solder.



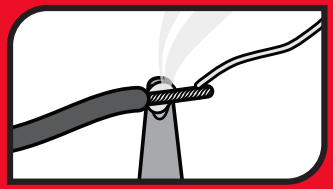
2. Twist the wire strands of the exposed wire firmly. ***Don't twist solid core wires.***



3. Dab a tiny amount of solder onto the end of your soldering iron.

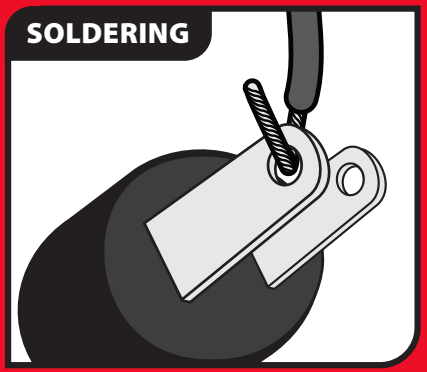


4. Touch the soldering iron with its dab of solder to the exposed wire closest to the sheathing. This will help to hold the iron in place as it heats the exposed wire. Wire will heat within a few seconds.

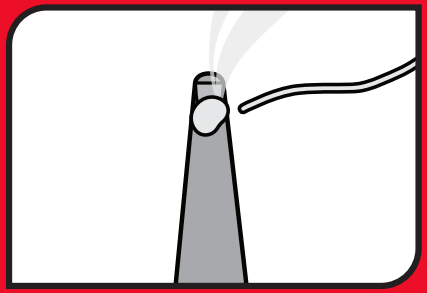


5. With the iron still touching the wire, take a length of solder and touch it on the exposed end of the wire and slide it along the wire slightly towards the sheathing and iron. The solder will find its way into the braids of the exposed wire.

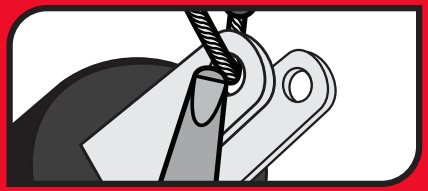
SOLDERING



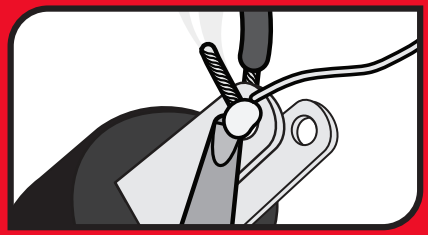
1. Insert tinned wire through lug hole before soldering and bend to secure.



2. Melt a small amount of solder onto the tip of the iron ("tinning" the iron).



3. Hold the tip against the connection until the connection reaches soldering temperature. This should take just a few seconds.



4. Feed solder to the connection, not to the iron. Stop feeding solder once the lug hole is filled. Keep the iron on the connection for a second longer; this pause gives time for all of the flux to cook out of the joint. After the joint has cooled, trim away the excess wires.

MORE HELPFUL SOLDERING TIPS AND TRICKS

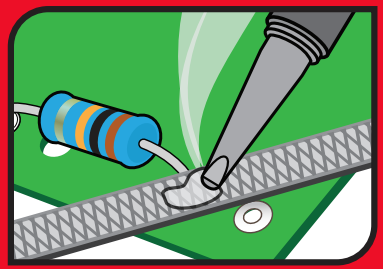
- *Keep your soldering tip clean by wiping it often on a damp sponge.*
- *Also keep it tinned by occasionally melting a little solder onto it.*
- *Don't blow on the hot solder or touch anything until the joint has cooled completely. A good solder joint is shiny – a sign that it was left to cool undisturbed.*
- *Plan so each joint is only soldered once. Resoldered joints are messy and more likely to fail.*

DESOLDERING

Much like soldering, you run the risk of damaging the circuit board while desoldering. If too much heat is applied to a circuit board the solder pad can pull away from the board, breaking its electrical connection. A solder sucker and solder wick are your best friends when desoldering. Here are a few tips on how to use them:

1. USE A SOLDER SUCKER

Depress the plunger on the solder sucker to prepare it. Tin your soldering iron, apply it to the solder joint, and hold the solder sucker a fraction of an inch away. Within a few seconds, the joint will liquefy. As soon as it does, push the button on the side of the solder sucker and remove the soldering iron from the joint. Inspect the solder joint and repeat the process until all of the solder is removed.



2. USING SOLDER WICK

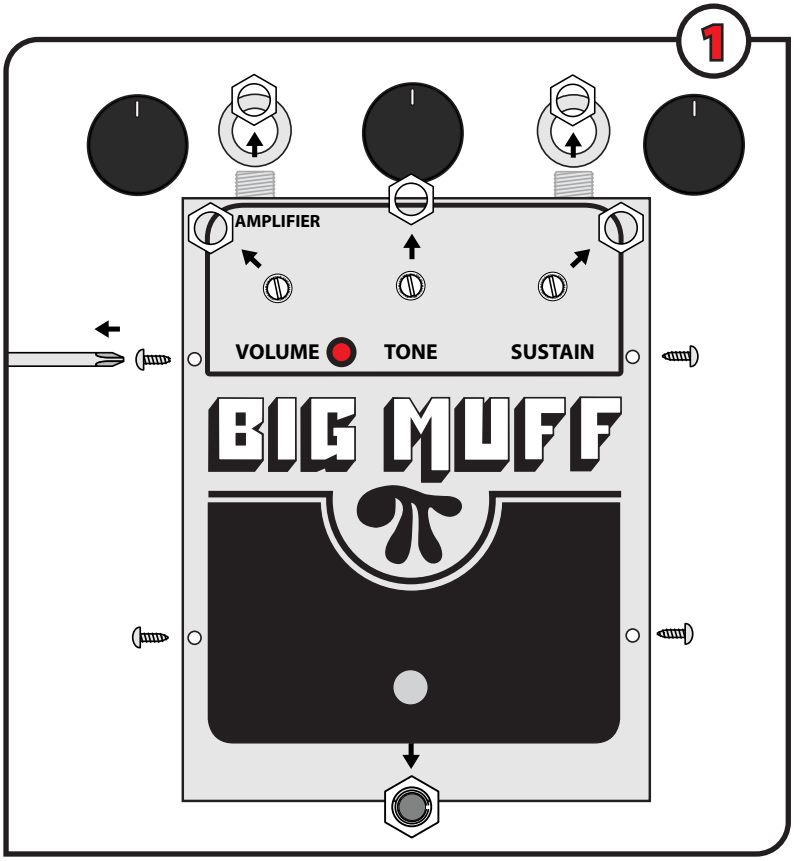
Solder wick is a flat, braided wire that can be used to remove solder from a joint. Simply place the wick on the solder joint and press your soldering iron against the wick, heating the joint through the wick. The solder will liquefy and absorb into the wick. Keep inching the wick down as it absorbs solder so it does not become saturated.

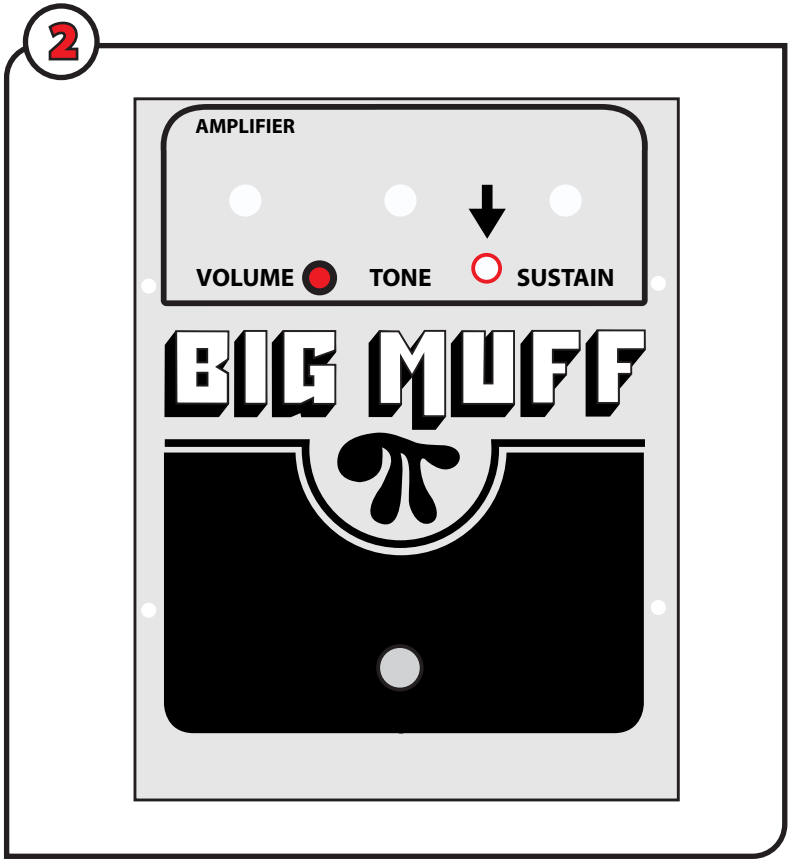
3. LIFT THE LEAD

Once the solder is removed from the joint, use a pair of pliers to lift the lead from the circuit board contact. If the lead doesn't want to come up, heat the solder joint up to liquefy the residual solder which will free the lead. Once the lead is lifted, use the solder sucker or solder wick to remove any leftover solder.

DISASSEMBLE THE PEDAL

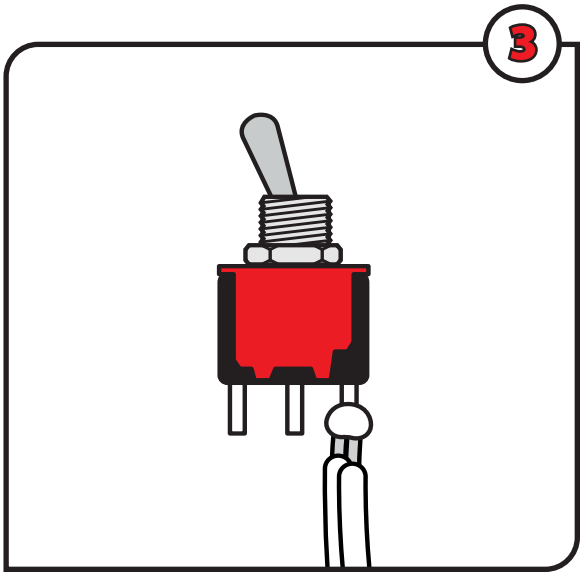
Remove the four screws that secure the back of the pedal housing. As you are removing the back panel, be careful not to catch the circuit board on any of the wires. If your pedal has a glued LED light, do not remove it. Pull the knobs off of the front of the pedal, unscrew the mounting nuts for the potentiometers and the switch, and unscrew the mounting nuts for the instrument and power jacks on the top panel. Set all of the components to the side for now.





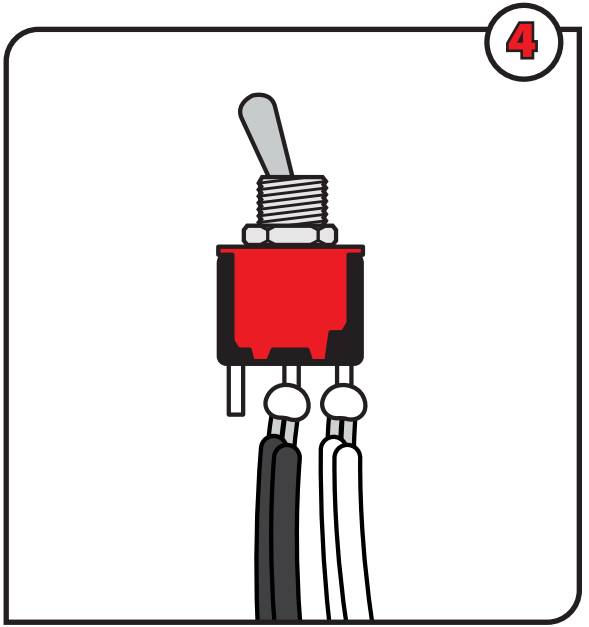
DRILL A HOLE FOR THE NEW SWITCH

Use a 1/4" drill bit to drill a hole in the pedal housing directly between the tone and sustain holes and just above the black line (pictured). Measure the location of the hole you will drill and mark that location on the underside of the housing. Drill the hole from the underside of the housing to avoid bending the housing while drilling.



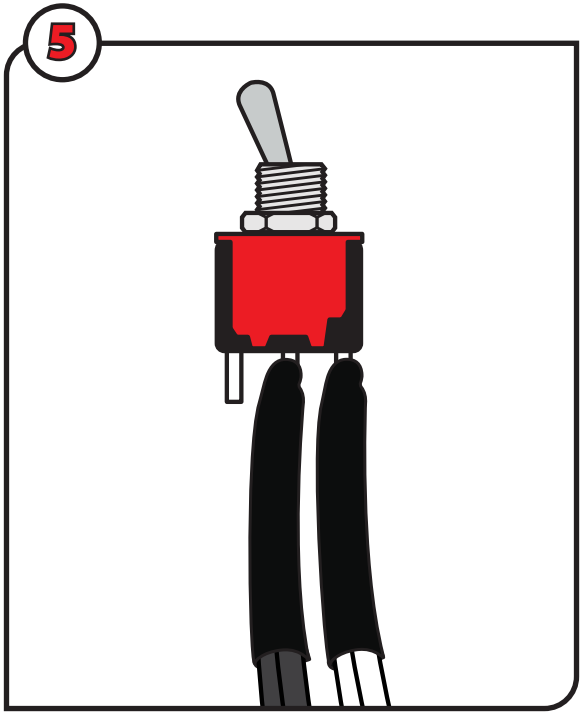
INSTALL JUMPERS ON THE SWITCH

Cut two 4" white jumpers, strip roughly 1/4" of insulation from the end of the wires, and tin the freshly exposed wire. Wrap the wires through the eyelet of one of the outside solder lugs on the switch and solder them. Even though it's called "pushback wire" you must strip the insulation to make a solid solder connection.



ATTACH BLACK WIRES TO SWITCH

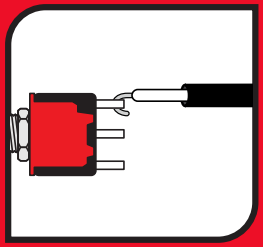
Cut two 4" black jumpers, strip roughly 1/4" of insulation from the end of the wires, and tin the freshly exposed wire. Wrap the wires through the eyelet of the middle solder lug on the switch and solder them.



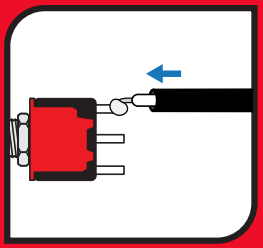
HEAT SHRINK SOLDER JOINTS

Add a 1" length of heat shrink to each solder joint and use a heat source to shrink the insulation over the solder joints and wires.

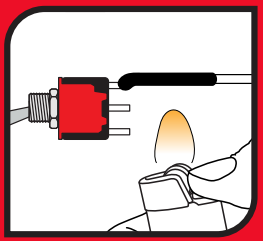
TIPS ON HEAT SHRINKING



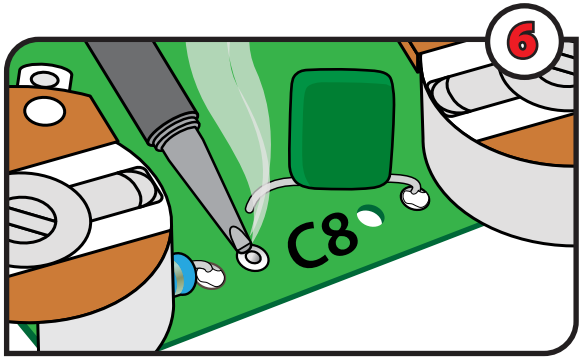
1. Heat shrink is used to insulate an electrical connection, like a solder joint, to prevent the connection from shorting.



2. Slide the heat shrink all the way up to the switch, completely covering the solder joint and solder lug.

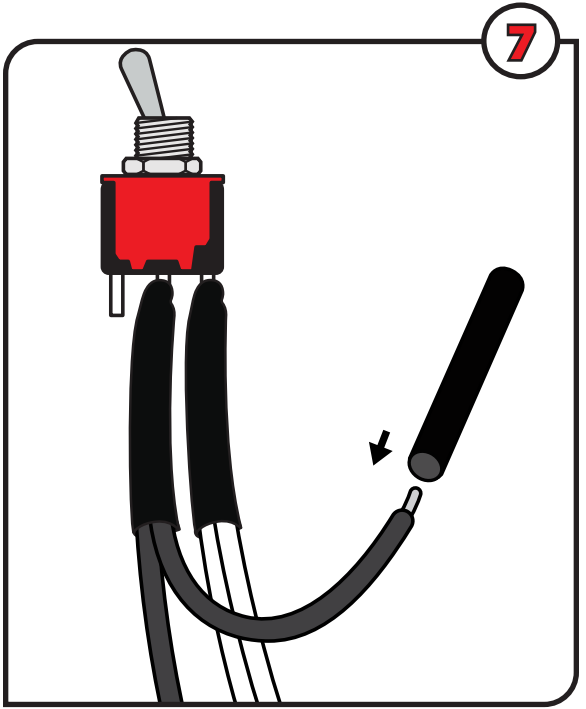


3. Wave the flame from a lighter or the tip of a soldering iron near the positioned heat shrink until the wrap constricts to a firm hold. Allow heat shrink to cool.



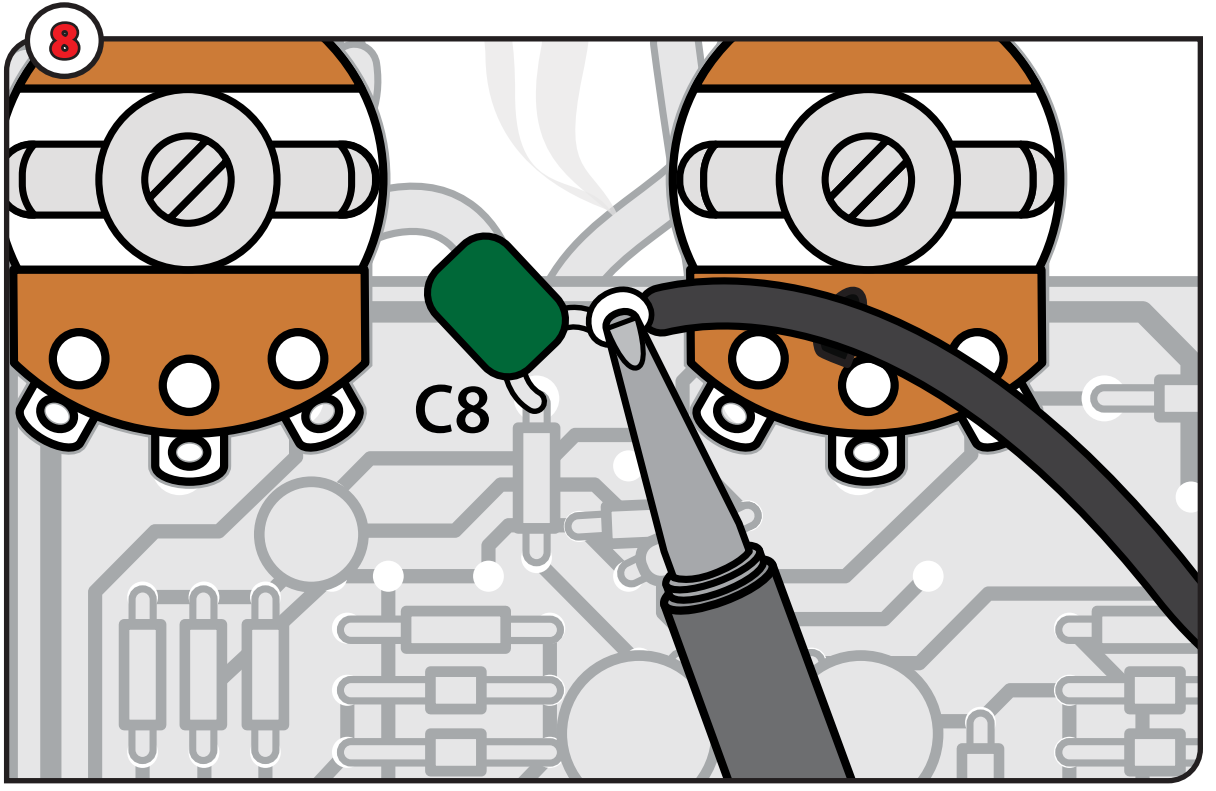
FIND CAPACITOR C8

The location of this capacitor varies by model. To find out which model you have, locate the version code. The code (similar to "EC3003 REV B") is printed in large white letters along the bottom of the board. The last letter in that code (A, B, C, D, or E) is the version you have. Now locate capacitor C8. It will be either yellow or green. **On version A or B**, C8 will be located between the volume and tone pots. On this version, desolder and lift the leg of C8 that is closest to the edge of the board. **On version C, D, or E**, C8 is located between the tone and sustain pots. On this version, desolder and lift the leg of C8 that is closest to the sustain pot.



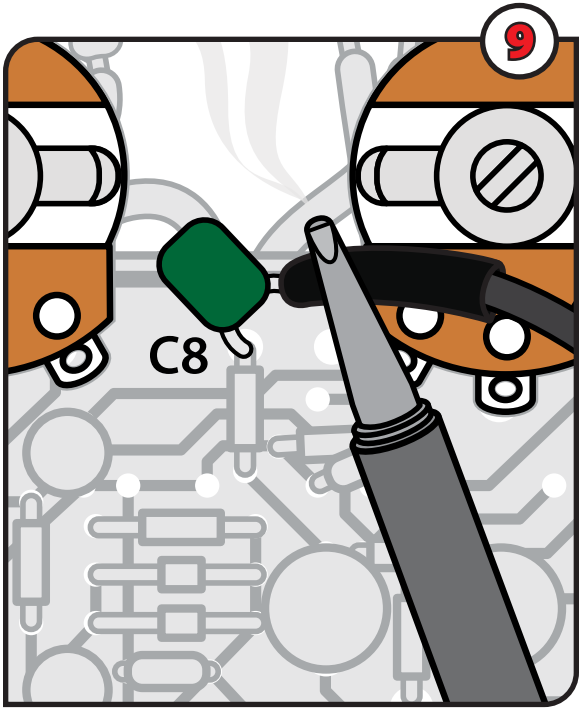
ADD HEAT SHRINK TO ONE LEG

Slide another 1" length of heat shrink over one of the black wires that you just soldered to the new switch.



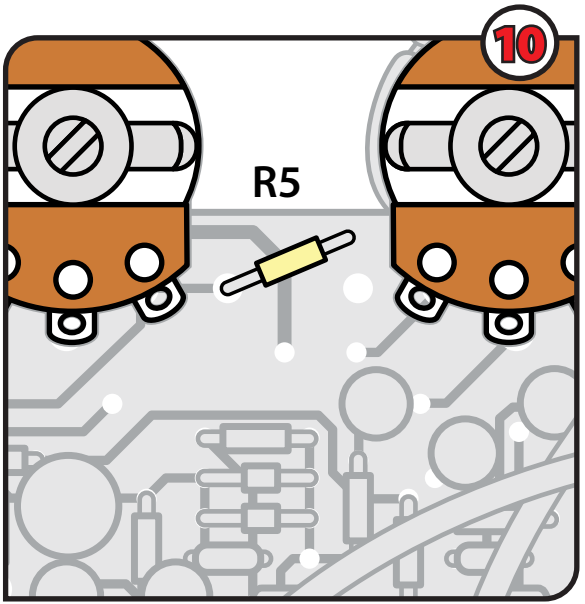
ATTACH BLACK WIRE TO C8

Solder the free end of the same black wire to the lifted leg of C8.



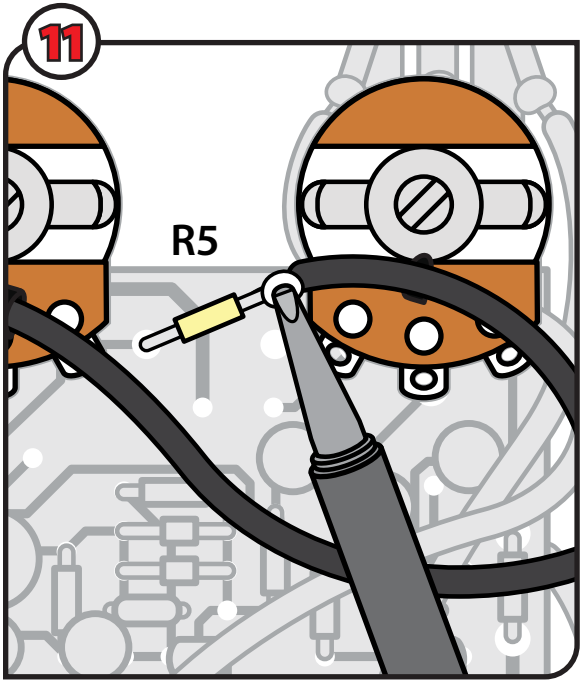
HEAT SHRINK SOLDER JOINT

Slide the heat shrink over the new solder joint and use a heat source to shrink the insulation to the joint.



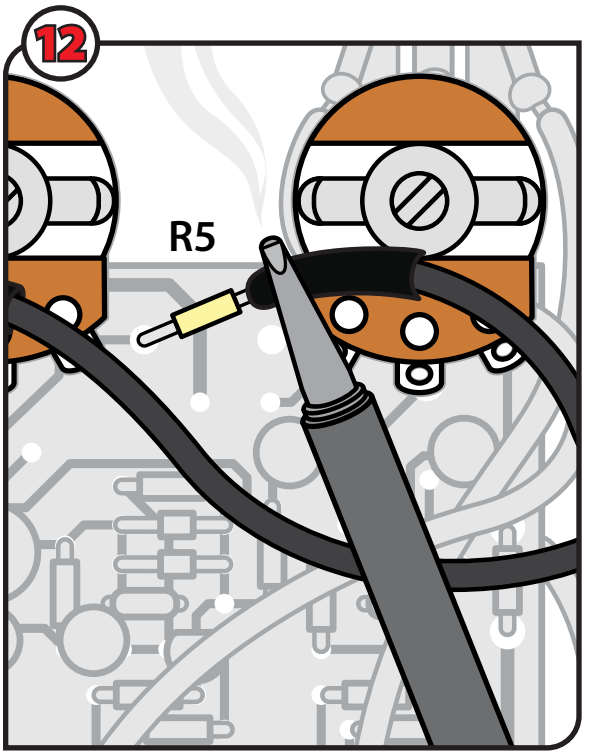
FIND RESISTOR R5

If your Big Muff is version A or B, it will be located between the tone and sustain pots. On version C, D, or E, it will be located just below capacitor C8. For all versions, locate the leg closest to the sustain pot and desolder and lift it.



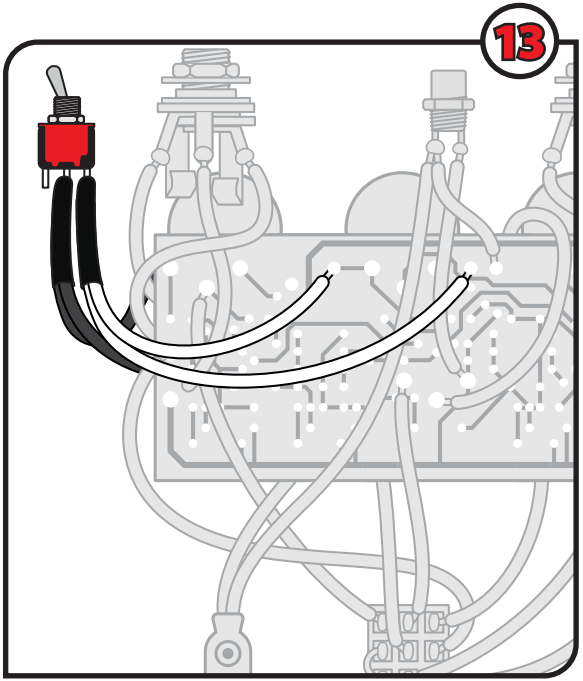
ATTACH BLACK WIRE TO R5

Slide another 1" length of 1/8" diameter heat shrink over the second black wire that you just soldered to the new switch. Solder the free end of the same black wire to the lifted leg of R5.



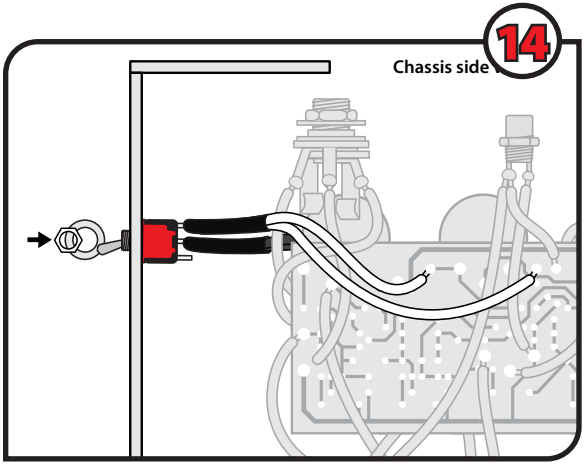
HEAT SHRINK SOLDER JOINT

Slide the heat shrink over the new solder joint and use a heat source to shrink the insulation to the joint.



INSTALL THE WHITE WIRES

Solder the free end of one of the white wires to the hole vacated by the lifted leg of C8, and solder the free end of the other white wire to the hole vacated by the lifted leg of R5.



REASSEMBLING AND TESTING

Install the new switch into its hole first, and then reinstall the rest of the components back in to the pedal housing. Re-attach the back panel with the four mounting screws. Plug in your guitar and an amp, and take your Big Muff for a test drive. When the tone bypass switch is engaged, the pedal should be noticeably louder. If you experience intermittent signal or other irregularities, pull the back panel off the pedal again and inspect your solder joints.

TECHNICAL SUPPORT:
If you have any questions before, during, or after attempting these modifications, please don't hesitate to reach out to our Tech Support Team. They are available by email at service@stewmac.com, and by phone M-F 9:00AM-5:00PM ET at 1-800-848-2273.

DISCLAIMER: Performing the modifications outlined in these instructions will void any warranty on your pedal. StewMac is not responsible for any damage caused by attempting these modifications.

MAKE IT
MOD IT
FIX IT

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