WELCOME!
Your decision to purchase a ToneShaper product was a good one! Your new toy should give you lots of tone tweaking enjoyment, and will prove to be a valuable tool in getting the tone you’re looking for from your guitar. Please read over these instructions to become acquainted with your new unit, and keep them handy for future reference.

INSTALLATION
This unit is designed to work as either a volume pot or a tone pot. The spacing of the switch was determined by the spacing of the pots on a Telecaster, so that whether using the unit as a volume or tone pot in a Tele, the switch will lie precisely in the middle, between the two pots.

Regardless of what type of guitar you’re using the switch on, the first step will be to drill a hole for the switch. We’ve included a couple of paper templates - which may be taped to your pickguard or control plate - that will allow you to precisely position the hole.

Please note that these templates are made using Fender’s control spacing, so if you have a non-Fender guitar then all bets are off. You may find that your guitar’s control spacing is the same as Fender’s, but there’s no guarantee that this will be the case, so you may have to improvise.

The squarish templates are useful for Strat installations, while the other template is used to locate the switch hole in between the two pots on a Tele, or to randomly locate the switch hole in any other application. Note that the Tele/freeform template has two drill holes, but you’ll only use one of them. Here’s an illustration showing a Strat template mounted on the back of a pickguard:

Note that there are two Strat templates, depending on what your specific scenario is (please refer to the table packaged with the templates to determine which to use).

Here’s an illustration showing the other template mounted on a Tele control plate:

Finally, you can use the freeform end of the template by attaching it with a single pot and rotating it into the position you want:

Once you have the template positioned where you need it, then you’ll use it to mark the hole location. This can be done with a pick or center punch, or (if you’re drilling plastic) a brad-point or Forstner bit. If you’re using a regular twist drill then you’ll want to use some method that will keep the drill bit from wandering as it’s starting the hole, because the placement of the hole needs to be pretty exact. The hole size will be 5/16”.

Once you have the hole drilled, the next step is to mount the pot. You’ll probably find that it’s easier to line the switch up with the hole you just drilled if you have the switch cap on, so select which cap you want to use and push it firmly onto the switch until it snaps into place.

Presumably at this point you’ll have decided whether to use the pot as a volume or tone control, so mount it to your pickguard or control plate like any other pot, with the included lockwasher in-between the pot and the mounting surface, and the flat washer on the other side of the mounting surface, under the nut.
The easiest way to get your head around the ToneShaper switch is to think of it in terms of a push/pull pot. In fact, there is a direct correlation between the two, so any diagrams that you may have where a push/pull pot is used can easily be adapted for use with the ToneShaper switch.

The illustration above maps the 9 connections on the ToneShaper switch to the 9 connection points on a typical push/pull pot. So if you’re looking at a wiring diagram for a push/pull pot that has a wire connected to the upper-left lug on its switch (4), then that wire would plug into slot 4 on the ToneShaper’s terminal block (the green block that’s numbered 1-9). A wire that goes to the middle lug on the push/pull pot (7) would plug into slot 7 on the ToneShaper. Simple, right?

We’ll have some diagrams on our website specifically for the ToneShaper switch, but in the end it’s simply a DPDT switch with a pot attached to it, and so can be used in any application calling for a DPDT switch.

Connections to the switch are quick and easy. Just strip about 1/4" of insulation from the wire, depress the plunger on the terminal block as shown below, insert the stripped section of the wire, and release the plunger. To ensure a solid connection, verify that the spring contact down inside the terminal block is in direct contact with the wire, not the wire’s insulation.

COMPONENT LAYOUT
Your ToneShaper unit can be used as a volume pot or as a tone pot. When used as a volume pot, you’ll have the option of enabling a volume kit. The volume kit is completely optional and will be described in greater detail in a minute.

If you use the unit as a tone control, you’ll find that there are three capacitors built into the unit, and these will provide a total of seven different values that you can assign to the tone control.

As you can see in the illustration above, you enable the volume kit (A) and the tone capacitors (B) by flipping the little switches on SW1. The mini switches are large enough for many people to move with their fingers, but we’ve also included a dandy pointed stick that you fingernail-challenged folks can use instead.

As you might expect, the mini switches have an OFF side and an ON side:

This is pretty straightforward, but in the interest of making things really clear and easy-to-discern, we’re going to use color coding to illustrate when switches are on, off, or optional, as follows:
- CYAN (BLUE) = ON
- MAGENTA (PINK) = OPTIONAL
- YELLOW = SELECT ANY
- BLACK = OFF

TURN ON AS MANY OF THESE AS YOU WANT (BUT AT LEAST ONE)

MAKE SURE THESE ARE OFF
**USING THE POT AS A VOLUME CONTROL**

You can see in the illustration above that the first switch (for the volume kit) is magenta, so you can turn it on or off at your discretion. The second switch is cyan, so this must be on in order for the unit to function properly. Switches 3-5 must be off.

The last three connections on the terminal block are for the pot:
(7) = output (typically the jack's white wire)
(8) = hot input (either from a pickup or pickup-selector switch)
(9) = ground (typically the jack's black wire)

The **volume kit** is a resistor/capacitor that can be engaged to address the problem of treble roll-off that accompanies rolling back your guitar’s volume control. Perhaps you’re aware of this. When you roll the volume control down, there is a discernible tonal change that comes along for the ride. This is the case with all traditional guitars, and it’s something that many people have never noticed, while it drives other people crazy. The volume kit may be switched on or off at any time, it’s use is optional. If you check it out then you’ll find that the treble roll-off that exists without it really is there, even though you may never have noticed.

**USING THE POT AS A TONE CONTROL**

Here you can see that the first two switches are off, and the last three can be selected singly or can be combined. You can turn on any or all of them, but you must turn on at least one in order for the unit to function properly.

The capacitor values are .015μF, .022μF, and .033μF (μF means “microfarad”). Selecting a higher value will make the tone control roll off more treble when you turn it counterclockwise, so you can play with these switches to adjust your tone control to your liking. Turning on more than one switch combines the capacitors in parallel, in which case their values add. This provides for seven possible values:

- .015μF
- .022μF
- .033μF
- .037μF (.015 + .022)
- .048μF (.015 + .033)
- .055μF (.022 + .033)
- .071μF (.015 + .022 + .033)