

Get 276 Pickup Tones From Your Instrument With Our T4-Switch

5-4-2017

This upgrade is for your HSH instrument with true **two 4-wire humbucker pickups** (*You cannot use either 2-wire humbucker pickups or 3-wire coil tapped pickups with this circuit*) and **one single-coil pickup**. In summary, you use our T4-Switch product to control the two 4-wire humbucker pickups – which are typically located in the instrument's Bridge and Neck position.

This upgrade uses our **T4-Switch** and the two push-pull potentiometers of our **VT-4 Volume-Tone Control** assembly. It *also* requires a *User-Installed* DPDT (on-off-on) switch (**ASY-M1**) to control the middle single-coil pickup. This switching configuration will give your instrument 276 pickup tones.

This upgrade lets you put four pickup coils in series to give you **QuadraBucker™** pickup tones. In addition, this is the *only* upgrade *also* lets you put all five pickup coils in series to give you **PentaBucker™** pickup tones. Now you can get incredible pickup tones that are so "Fat", they are... OBESE!

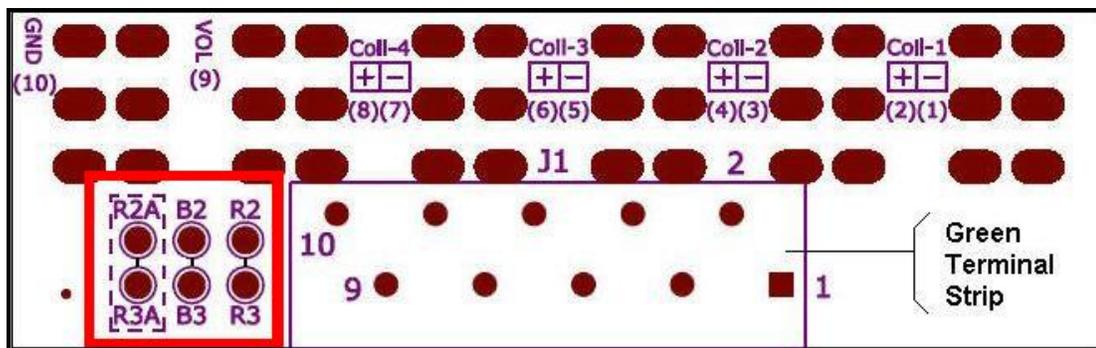
Upgrade candidates for this HSH pickup tone enhancement include Fender, Ibanez Jem, and other instruments that have two 4-wire humbucker pickups and one single-coil pickup.

You should know that this upgrade will give you several "groups" of pickup tones that are almost identical. However, it will *also* give you one single instrument that can produce virtually every pickup tone ever created – pickup tones ranging from *Blues* to *Metal* to *Jazz* to *Surf* to *Country* to glass-shattering *tin-canny* and every analog pickup tone in between. This means your instrument will likely sound like every electric guitar ever made. Best of all, you will also have the Signature Sounds of pretty much every guitar god since the early 40's. Now you can truly *be what you want to be* – because our products will help you be more creative. Our website's Document Library (*See document # G*) has a worksheet that lets you *map* all the pickup tones.

Page two contains the wiring for our T4-Switch product (*REV E2*). **Page three** has information about 4-wire *asymmetric* humbucker pickups.

Shown below is our T4-Switch product (*REV E2*) circuit board. It has three sets of pads to directly connect the push-pull pots to the circuit board. This simplification lets you connect your two 4-wire humbucker pickups directly to the T4-Switch via the green solderless terminal strip. On the Terminal Strip side, there are narrow circuit board "traces" that connect the pairs of pads highlighted in the red square (e.g., R2-R3, B2-B3, and R2A-R3A) permitting the product to electrically behave as the "standard" T4-Switch version.

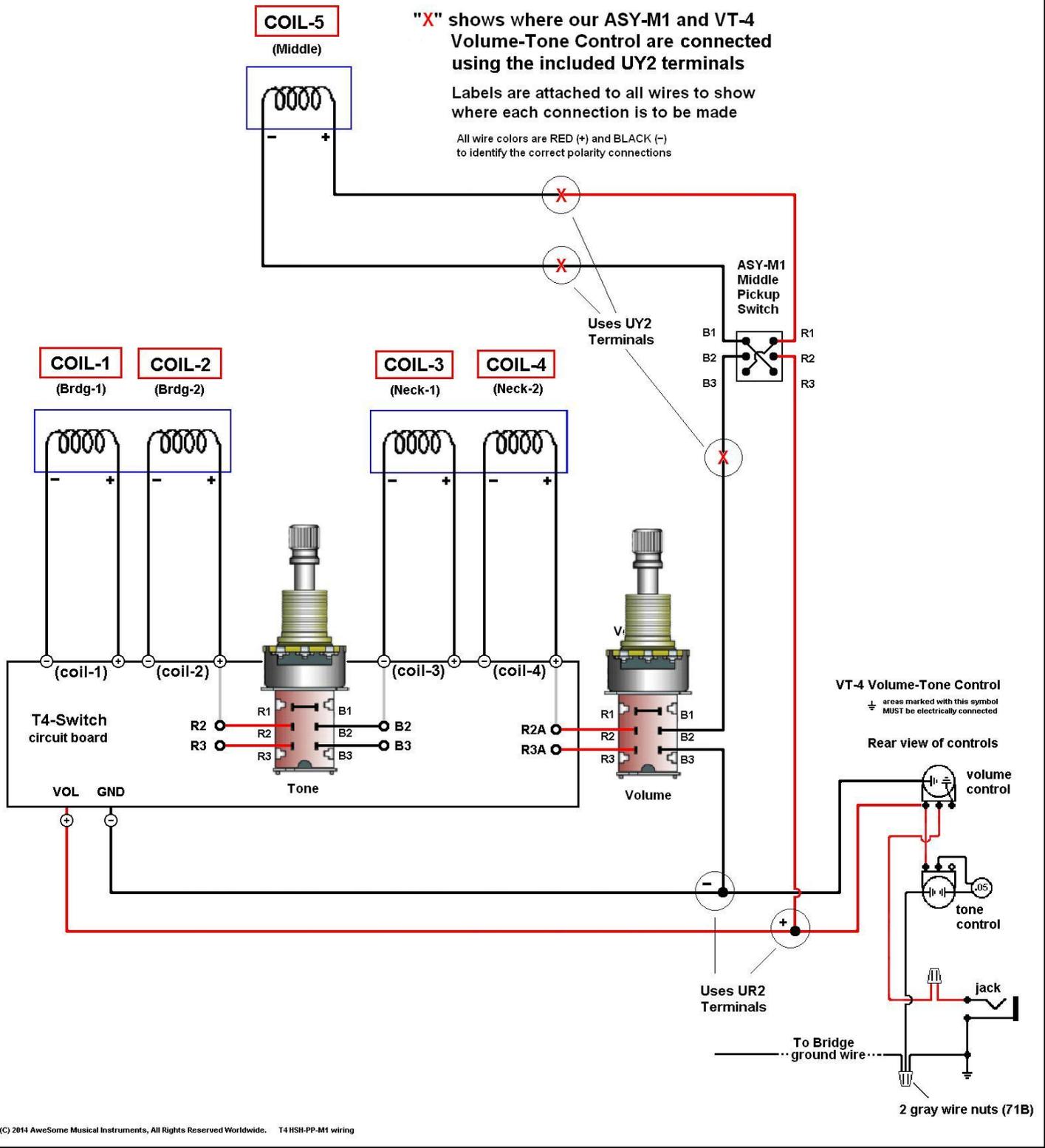
Use an Exacto blade to cut the trace between the pad pairs. This lets you directly connect the push-pull pot switch wires to the circuit board to put the pot switches "in line" with the pickup signal path. You can verify they are completely cut by using an ohmmeter. You will measure continuity between the two pads with uncut trace, and infinity/open when the trace between the pads is correctly and completely cut.



276 pickup tone wiring: T4-Switch (REV E2) + VT-4 Volume-Tone Control + Middle Pickup Switch M1.

Using our **T4 Pickup Switch Upgrade™** product with 2 push-pull pots and a DPDT switch to get a lot more pickup tones. We are the only company that lets you put all five pickup coils in series to create **PentaBucker™** pickup tones

These connections are used with our T4-Switch (E1 version) printed circuit board.



IMPORTANT Notes About 4-Wire Humbucker Pickups

Most 4-wire humbucker pickups are made to be *Symmetrical*. This means that the two coils of the humbucker pickup package are identical (*i.e., same impedance/resistance*). Although not necessarily bad in itself, when each of the two coils are separately controlled the lack of versatility and performance becomes clear. Turn on one of the coils by itself and get a pickup tone. Separately turn on the other coil by itself and get the exact same pickup tone. This design is an obstacle that prevents you from enjoying maximum pickup tone versatility.

When we introduced our T4-Switch in 2011, it became clear that this redundant tone from each separate identical coil of the *Symmetrical* 4-wire humbucker pickup was disappointing because it severely limited the true benefit and pickup tone versatility that our new T4-Switch product was capable of providing.

To address this major shortcoming of the *Symmetrical* 4-wire humbucker pickups, we pioneered the development of *Asymmetrical* 4-wire humbucker pickups that would give players access to a Grand Canyon Wide range of unique pickup tones.

Our criteria was to design the specifications for the *Asymmetrical* 4-wire humbucker pickups. Further, the characteristics of the Bridge pickup needed to be different than that of the Neck pickup. Each of the two coils of the newly designed *Asymmetrical* 4-wire humbucker pickup set have a *differential* of about 15 percent. This means that each coil when separately turned on will produce a noticeably different pickup tone.

We also wanted the Bridge and Neck pickups to have completely different impedance/resistance characteristics to maximize pickup tone versatility with the combinations of these four dissimilar pickup coils.

We spent several months collaborating with the owner of **heartlandtone.com** to assist us with creating truly versatile *Asymmetrical* 4-wire humbucker pickups that harnessed the incredible versatility of our T4-Switch product and produced the maximum in tone versatility.

The owner of **heartlandtone.com** is both a guitar player and custom pickup maker who is expert in technical knowledge of creating pickups and uses expensive impedance measuring equipment to scientifically and precisely quantify the pickup coil characteristics – instead of resorting to misleading words to describe what you are getting.

Using our switch products, he was able to understand how they work. More important, he also clearly knew what we wanted with this new *Asymmetrical* 4-wire humbucker pickup configuration.

The result of this collaboration is the new the true "*golden mean*" of *Asymmetrical* 4-wire humbucker pickups.

If your HSS or HH instrument has Symmetric 4-wire humbucker pickups and you want to use our T4-Switch product, consider replacing them with new *Asymmetrical* 4-wire humbucker pickups from **heartlandtone.com**. Tell them you will be using the AweSome T4-Switch product.

Visit our website's (<http://www.AweSome-Guitars.com>) *Document Library* for more useful wiring tips.

We have an extensive product catalog of upgrade products to help you *transform your dreams into reality*.