

# Quantum Tone X Upgrade Installation and Use

Revised December 1, 2024

This document describes how to install and use our Quantum Tone X Upgrade. To install our Quantum Tone X Upgrade, your guitar must have a swimming pool route. Although designed for an American or MIM Stratocaster, other Stratocaster types (*and clones*) can use this upgrade.

## Installing The Upgrade

1. Remove your strings.
2. Remove your stock pickguard (save the attaching screws in a safe place.)  
**Note:** you will need to cut the wires from your guitar's Output Jack (make sure the wires are as long as possible). You need to disconnect the Bridge Ground Wire (making sure this wire is as long as possible).
3. Place the Quantum Tone X Upgrade on the top of the guitar body and confirm it will lay flat. The mounting holes are aligned to the body's mounting holes. If you are installing this upgrade on a non-US Stratocaster, you may need to drill extra pickguard mounting holes in your guitar body.
4. Attach the upgrade's Red and Black wires (marked as Output Jack) to your guitar's Output Jack wires. Red wire goes to the Output Jack signal (+) wire, black wire goes to the Output Jack ground (-) wire.  
**Note:** also attach your Bridge Ground Wire to the Output Jack ground wire.  
Twist the bare wires in a clockwise direction.
5. Using the two included **gray wire nuts**, twist one in a clockwise direction onto the Output Jack signal wire bundle. Twist the other in a clockwise direction onto the Output Jack ground wire bundle. This make electrical connection to the Output Jack and insulates the wires from shorting.
6. Use the attaching screws (*see step 2 above*) to attach your upgrade.

## Using The Upgrade

Your Quantum Tone X Upgrade comes complete and includes the following four pickups:

1. A standard humbucker pickup mounted vertically in the bridge position.
2. A single-coil size humbucker pickup mounted horizontally under the high E/B string pair.
3. A single-coil size humbucker pickup mounted horizontally under the G/D string pair.
4. A single-coil size humbucker pickup mounted horizontally under the low A/E string pair.

This upgrade also comes with our **T4H4 Switch** that has five mini toggle switches and are laid out as follows: (closest to the guitar rear) **S5B SW1 SW2 SW3 SW4** (closest to the guitar neck)

Here is a description and function of each switch.

**S5B:** This is a two way (*On-On*) switch. A black vinyl cap is on the switch paddle. It is used to put applicable pickups in either a Parallel circuit (down) or a Series circuit (up). When this switch is Up, both the bridge and at least one horizontal pickup must be On (in either normal-phase or reverse-phase. Also see Additional Use Details.

**SW1:** This is a three ways (*On-Off-On*) switch. A white vinyl cap is on the switch paddle. It is used to control the bridge pickup. It uses the Off position (center), On position, normal- phase (down) or On position reverse-phase (up).

**SW2:** This is a three ways (*On-Off-On*) switch. A white vinyl cap is on the switch paddle. It is used to control the horizontal pickup under the high E/B string pair. It uses the Off position (center), On position, normal- phase (down) or On position reverse-phase (up).

**SW3:** This is a three ways (*On-Off-On*) switch. A white vinyl cap is on the switch paddle. It is used to control the horizontal pickup under the high G/D string pair. It uses the Off position (center), On position, normal- phase (down) or On position reverse-phase (up).

**SW4:** This is a three ways (*On-Off-On*) switch. A white vinyl cap is on the switch paddle. It is used to control the horizontal pickup under the high A/E string pair. It uses the Off position (center), On position, normal- phase (down) or On position reverse-phase (up).

## Additional Use Details

This upgrade gives you unequalled versatile flexibility to get interesting pickup tones that are simply not possible with any standard guitar setup.

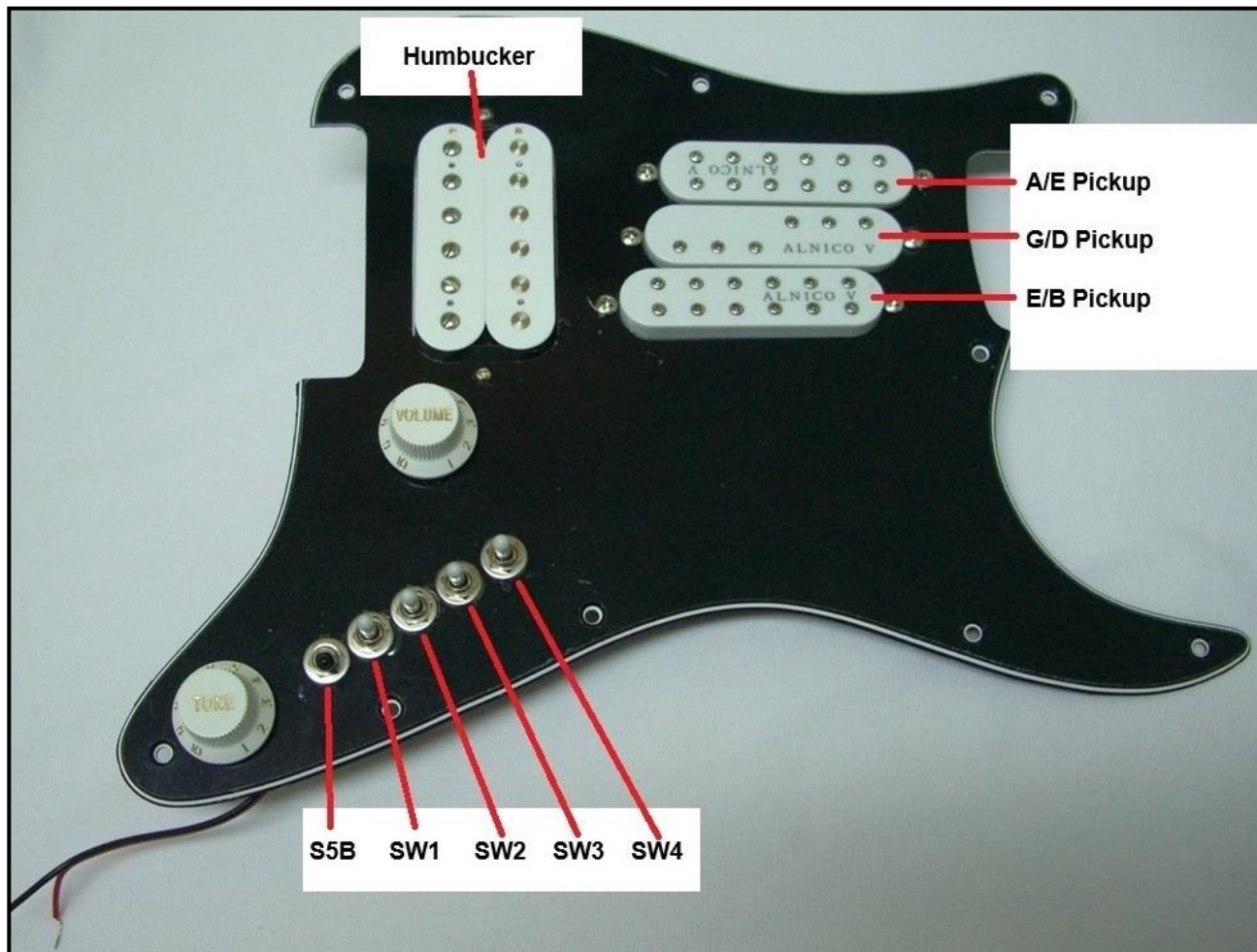
Here are some examples.

1. With the S5B switch in the down (parallel) position, you can combine the Bridge pickup with the E/B horizontal pickup (both in normal-phase) to enhance the high tones. You can also put either the Bridge pickup or horizontal pickup in reverse-phase for additional high tone enhancement. Further, you can also put the S5B switch in the up (series) position to enjoy enhanced output from this pickup combination.
2. You can use the G/D horizontal pickup by itself in the same way as in example #1 for enhanced mid pickup tones.
3. You can use the A/E horizontal pickup by itself in the same way as example #1 for enhanced low pickup tones.
4. You can also combine two or three horizontal pickups (in either normal-phase or reverse-phase) for more varied pickup tones.

## Rules

To successfully use this upgrade, there is one rule that you must follow. When you put the S5B switch in the up (series) position, you must have both the Bridge pickup on (in either normal-phase or reverse-phase) and one (or more) horizontal pickups must also be on (in either normal-phase or reverse-phase).

## Quantum Tone X Parts Layout



# T4H4 Mapping Worksheet

T4H4-Map.xls

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Mapping worksheet for four pickup coils (i.e., HSSS) using 2-wire humbucker pickup and three single-coil pickups.

Gives you **45 Pickup Tones**. (lets you intensify high/middle/low string pickup tones for greater emphasis)

**Switch**

Switches: SW1, SW2, SW3, SW4: D=Down (normal phase), U=Up (reverse phase), blank=Off

**Legend**

Switch: SB5: blank=Down (put pickups in parallel), U=Up (put pickups in series)

Updated 10/21/2024

single-coil pickups							What the Pickup tone sounds like to you
SW4	SW3	SW2	SW1	SB5			
High	Middle	Low	HB				
White	White	White	Red	Black	Transfer your "favorite" three pickup tones switch positions to Fav-1, Fav-2 and Fav-3		
Fav-1							
Fav-2							
Fav-3							
1	D	D	D				
2	D	D	U				
3	D	U	D				
4	U	D	D				
5				D			
6	D	D	D	D			
7	D	D	U	D			
8	D	U	D	D			
9	U	D	D	D			
10	D	D	D	U			
11	D	D	U	U			
12	D	U	D	U			
13	U	D	D	U			
14	D	D	D	D	U		
15	D	D	U	D	U		
16	D	U	D	D	U		
17	U	D	D	D	U		
18	D	D	D	U	U		
19	D	D	U	U	U		
20	D	U	D	U	U		
21	U	D	D	U	U		
22			D	D			
23			U	D			
24		D		D			
25		U		D			
26	D			D			
27	U			D			
28			D	U			
29			U	U			
30		D		U			
31		U		U			
32	D			U			
33	U			U			
34			D	D	U		
35			U	D	U		
36		D		D	U		
37		U		D	U		
38	D			D	U		
39	U			D	U		
40			D	U	U		
41			U	U	U		
42		D		U	U		
43		U		U	U		
44	D			U	U		
45	U			U	U		