

Quintet™ Tone Curve Module Installation Instructions

The THD **Quintet™** Tone Curve Module is a new type of tone control designed to install directly into any electric guitar or bass with passive magnetic pickups. The **Quintet** will give 5 new sounds from each of your existing pickups combinations. As it interacts differently with different pickups, it will give a different sound to a humbucking pickup than to a single-coil, and different sounds to two different pickups of the same type (single-coil, humbucking, etc...) if they are of different designs or have a different number of turns of wire.

Please Note: The **Quintet** will not work properly with active or piezo pickups. (Piezo pickups are used in most acoustic guitars and in the bridges of some solid-body and hollow-body electric guitars to simulate the sound of an acoustic guitar.)

There are five different circuits in the **Quintet**, each with its own effect on your pickups. You can install the unit in such a way as to use all 5, just a few or only one. It's up to your taste what works best in your guitar. This, naturally, means that there are a number of ways to install the **Quintet**, depending upon how you want to use it. In any event, there are a few basic rules to the installation:

1. The **Quintet** should be installed between the pickup and the volume control of the guitar.
2. If your guitar has the volume control before the pickup selector, then you can either use one **Quintet** for each pickup or you can rewire the guitar to have the pickup selector before the volume control and one **Quintet** on all pickups.
3. The **Quintet** requires a proper ground connection to work. **Pad H** needs to be connected to ground either directly or through a potentiometer to control the intensity of the effect of the module.
4. When installing the **Quintet**, care should be taken when soldering to not "bridge" the terminals with excess solder, and to not overheat the "pads" on the board or they may come off, making it more difficult to get a good solder joint.
5. Multi-strand, insulated wire should be used, no larger than 20 gauge and no smaller than 24 gauge. Solid core wire is not recommended.
6. We highly recommend that you install a treble-bypass network from the full clockwise terminal to the center (wiper) terminal of your volume control. This should eliminate any loss of treble as you turn the volume control down. We feel strongly enough about this that we have devised our own favorite combination of capacitor and resistor and have included one of these networks with the **Quintet** free of charge.

Connecting To Get The **Quintet's** 5 Sounds:

The **1st** sound requires the **Quintet** to be in series with the pickup, using **Pad A** as the input and **Pad B** as the output. This connection reduces the bass, gives a slight boost at about 700Hz, and a cut at about

2000Hz. This setting is useful for making a pickup sound a bit brighter and clearer, like taking a pickup from series to parallel coil wiring. It also makes a neck pickup more useful for leads.

The **2nd** sound requires the **Quintet** to be in parallel with the pickup, using **Pad C** as the connection to the "hot" or positive of the pickup. This connection gives a boost at about 500Hz, and a cut at about 1800Hz, with a slight treble reduction above about 4000Hz. This setting will make a Strat® pickup sound more like a Filter'Tron™ type.

The **3rd** sound requires the **Quintet** to be in parallel with the pickup, using **Pad D** as the connection to the "hot" or positive of the pickup. This connection gives a substantial boost at about 400Hz, and a cut at about 1200Hz, with a slight rise at about 2100Hz and a slight treble reduction above about 3900Hz. This setting has a huge effect on the midrange character. It will make a Strat® pickup sound more like a Telecaster in-between setting.

The **4th** sound requires the **Quintet** to be in parallel with the pickup, using **Pad E** as the connection to the "hot" or positive of the pickup. This connection gives a boost at about 300Hz, and a substantial cut at about 800Hz, with a slight rise at about 2200Hz and a slight treble reduction above about 4500Hz. It will make a humbucker pickup sound more like the in-between setting on a guitar with two P-90 pickups.

The **5th** sound requires the **Quintet** to be in series with the pickup, using **Pad F** as the input and **Pad G** as the output. This connection reduces the treble, gives a boost at about 320Hz, and a cut at about 1200Hz, a small rise at 2200Hz, and a drop off as the frequencies go up from there. This setting makes most bridge pickups sound like they are in the neck position.

(Please note, all frequencies listed are approximate and will vary among different pickups and pickup types.)

A few thoughts on installing the **Quintet**:

1. The trim-pot on the **Quintet** board that is labeled "More" with an arrow pointing to the right determines the intensity of the changes that the **Quintet** makes to your guitar's sound. If you chose to connect the **Quintet's Pad H** directly to ground rather than through an externally adjustable potentiometer, you can use this trim-pot to set the level of the effect. Turning the trim-pot all the way clockwise gives the maximum effect. Conversely, turning it all the way counter-clockwise minimizes the effect. We recommend that you start with the trim-pot all the way clockwise and back it off only if the effect is too strong for your taste.
2. You can connect the **Quintet** to ground through a potentiometer to act as an "intensity" control for the unit. This should be a linear potentiometer roughly 100KΩ in value. An audio taper pot will work, but won't be as even in effect as a linear pot. See the diagram for wiring instructions. If you are going to use an external intensity pot, it is best to set the trim-pot

on the board to the full clockwise position.

3. The more inductive the pickup is, the greater an effect the **Quintet** will have. Higher-output pickups tend to have more inductance than low-output pickups, but the **Quintet** will still be quite effective, even on vintage-output Stratocaster® and Telecaster® pickups.

4. If you use an active buffer, booster or tone control on your guitar (as opposed to active pickups), always put the **Quintet** before the active circuit.

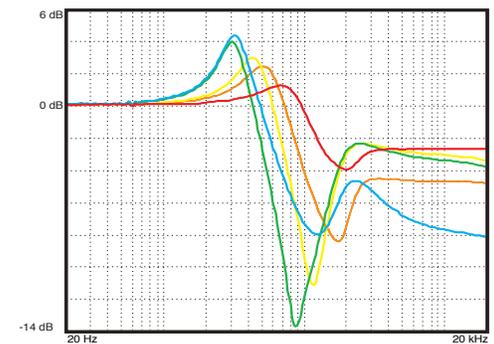
5. You can pick a single sound that you like best from the **Quintet**, wire it in with no switch, and use the tone control as an intensity control in reverse so that, like normal, with the tone control all the way up, the sound is unaltered, but as you turn the tone control down, rather than just reducing high frequencies, you are dialing-in the curve that you have selected. This is a VERY cool and subtle use of the **Quintet**.

6. Find your two favorite settings on the **Quintet**, and use a push-pull or push-push pot to select between them, and use the pot itself to dial in the intensity of the effect.

7. Replace one control on your guitar with a 5-position rotary switch to permit you to select any of the settings on the **Quintet**, and a second control to determine the intensity of the **Quintet's** effect on the pickups. This is especially useful on guitars that have four knobs.

8. On an Esquire®-style guitar, the three-position blade switch can be replaced with a 5-position switch to allow you to select which of the **Quintet's** settings are in the circuit. This can give remarkable flexibility to a single-pickup guitar.

9. Be sure to secure the **Quintet** within the guitar so that it does not flop around and get damaged. Some simple ways to do this are to glue it in place with rtv-silicone adhesive (much like window caulk), double-stick foam squares like those used to glue mirrors to the wall. Alternatively, you can wrap the **quintet** in foam rubber and tuck it into a nice, snug spot inside the cavity of the guitar.



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