

How to replace regular Tele pickups with the '**Kinman**' **NoSoldering Harness TK4** for Telecasters with specially made CTS Volume pot, guaranteed to maximize sonic performance.

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NOTE-1: Read this completely first before beginning the project.

NOTE-2: The pickup selector switch has 4 positions.

1. Bridge
2. Br + Mid in parallel
3. Neck
4. Neck + Mid in series (fat sound with increased output for crunch)

NOTE-3: If you hear a buzz after this install it is most likely a shielding issue. Please refer to the Harness Diagnostics sheet on this Webpage to diagnose your noise issue.

Tools needed:

- Smallish/Medium X head screwdriver to remove and replace the pickguard and Control Plate mounting screws.
- Small blade screwdriver to tighten the terminal block connections.
- Razor blade or other small sharp blade to cut plastic insulation on Black ground wire. If you have cloth covered wires you don't need to cut it, just push it back to expose bare wire. (see #2)
- **USA Models:** ½" (or 13mm) tube spanner (or nut driver) to tighten the jack socket.
Non USA models: In addition to above you will need an 11mm tube spanner (or other nut driver) to remove the original jack socket.

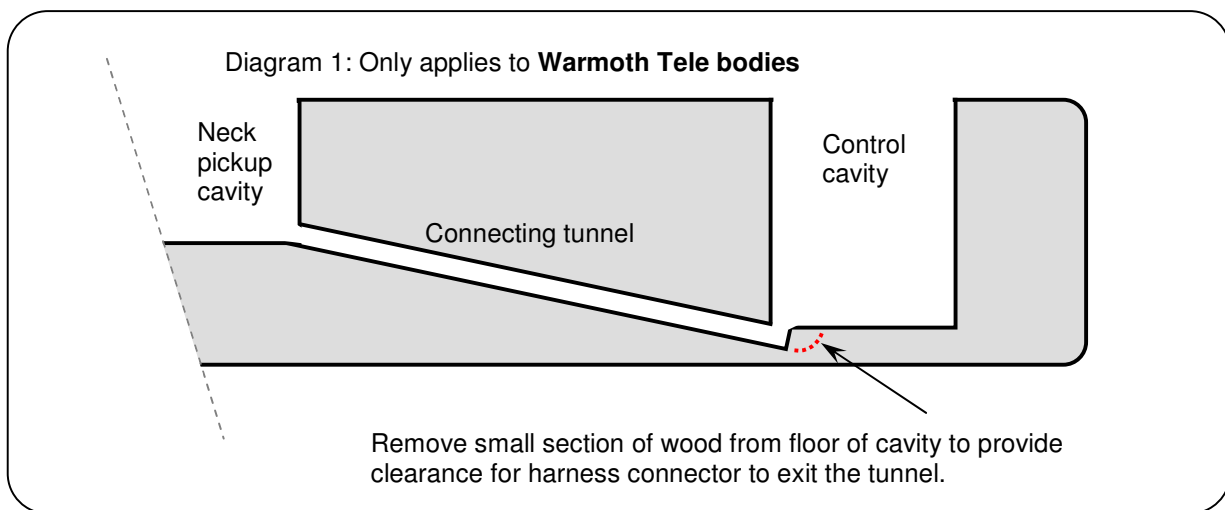
- 1) Remove both the strings and the pickguard.
- 2) Cut or break the ground wire(s) (coming from the bridge -and/or- from the central ground point, as the case may be) away from the casing of the volume pot by working the wire(s) around and around in a circle at the solder point until it breaks. Then cut and strip or push the insulation back about 1/4" (6mm) so it or they are ready to insert into one of the ports of the screw terminal block mounted on the PCB.
- 3) **DO NOT disturb** the Shielding screw and solder tab attached to the floor or wall of any cavity. Doing so will render the Shielding ineffective and you will get more noise than usual when you let go of the strings.
- 4) Remove the Control plate and cut or break the pickup connections and output jack connections.
- 5) Remove the pickups and bridge from the guitar.
- 6) Remove the output jack socket by unscrewing the outside nut and withdrawing the socket into the control cavity.

NOTE: As much as possible try to keep the original wiring harness in tact for possible resale.

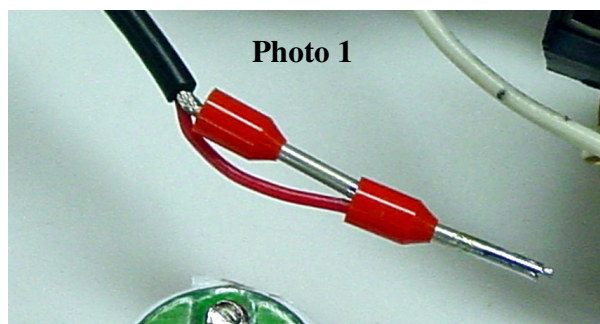
The guitar should now have no remaining connections to the original pickup or controls and you now should be ready for the Kinman install.

- 7) Unpack and remove the replacement pickups, Control plate and output jack socket from the Red plastic shipping plate.
- 8) Mount the neck pickup to the body or pickguard as the case may be, using the Red silicone rubber tubes as springs around the screws.
 - mounted from the pickguard: Use the Kinman 4-40 UNC (Tele) & 6-32 UNC (Strat) mounting screws.
 - mounting direct to wood: Use only the Red silicon rubber tubes over the original long wood screws to mount the pickup. The tubes may have to be shortened so cut with sharp blade or scissors. **Do not pack foam under the pickup as this will stress and bend the pickup and it may become damaged.**

- 9) Mount the bridge pickup into the bridge plate using the three 6-32 UNC screws supplied and the Red silicon rubber spring tubes over those screws.
NOTE: The bridge pickup has a layer of copper over the baseplate which provides a grounding path via the mounting screws to the bridge and strings. The screws should always protrude at least slightly through the baseplate in order to contact the copper plate. No other bridge ground wire is necessary, but will not harm anything if it already exists and is re-used, although the screw terminal block has limited access.
CAUTION: Failure to get a good connection between the 3 screws and the copper plate will result in dreadful noise, especially when you touch the strings.
- 10) Poke the pickup cables through the connecting tunnels into the control cavity. **Hint:** If you have a Warmoth Tele body you will see they drill the wiring connecting tunnel for the neck pickup on an excessively steep angle causing the tunnel to exit below the control cavity floor. To provide clearance for the harness connector it will be necessary to remove a small amount of wood as shown in the diagram below. This is preferable to cutting the harness cable.

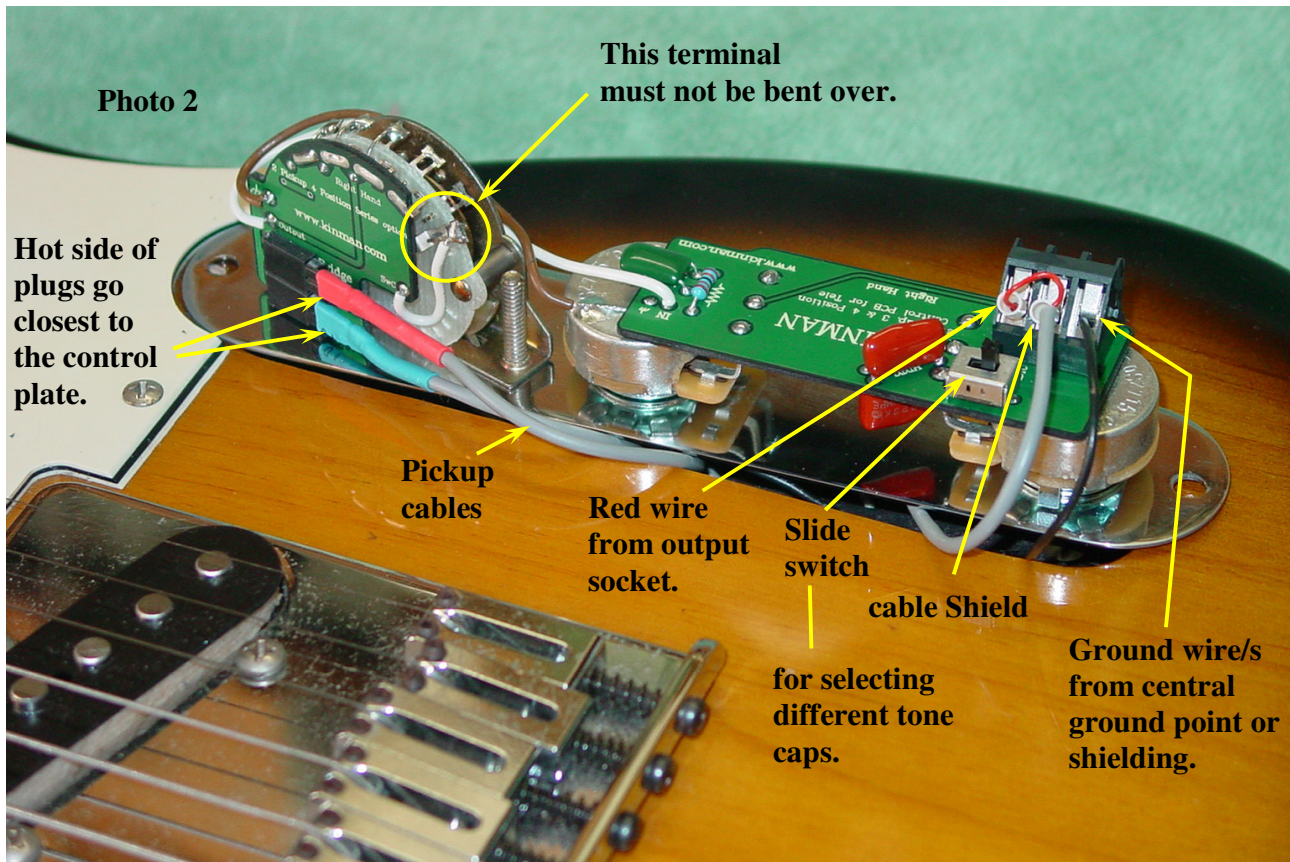


- 11) Mount the output jack socket to the side mounting plate (recessed or flush). On most Teles it is preferable not to remove the mounting plate from the guitar, the socket can be inserted via the control cavity into the socket cavity. However with certain Teles it may be necessary to remove the jack mounting plate to gain access to the jack socket. On these types of guitars there may be a small diameter tunnel connecting the socket cavity to the control cavity. Thread the cable through the tunnel into the control cavity. The two plugs on the cable should be piggy backed, one inside the back of the other, as depicted in the photo (1) below. This arrangement makes it easier to thread through the connecting tunnel.
- **NOTE:** The Star washer should **not** be fitted on the outside underneath the nut, but only on the inside between the mounting plate and the socket.
 - **Make sure** the socket is tightened in the position where the *hot* leaf-spring terminal is centred on the recessed jack holder, otherwise it might contact the wall of the cavity and cause a partial short via the wood or shielding resulting in BAD sound. Also this makes the plug difficult to insert.
 - On some copy guitars it may be necessary to enlarge the cavity to avoid the short mentioned above.



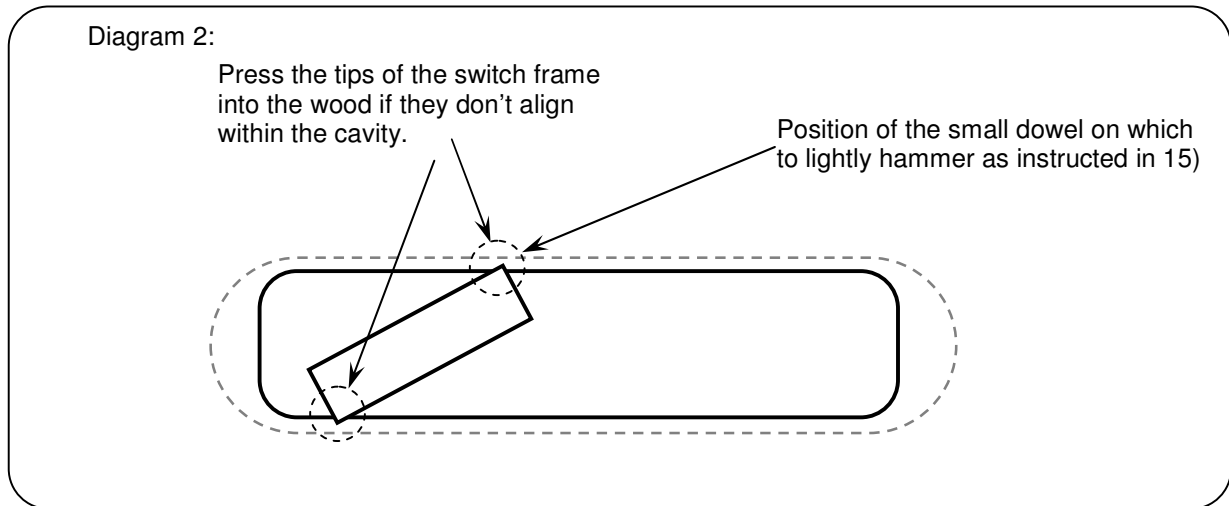
- 12) Undo the 3 screws to open the terminal ports and insert the two Plugs and ground wire(s) into their respective screw terminals as shown in photo (2) next page. The Red wire is plugged into the (left) terminal. The Shield is plugged into the middle terminal and the black ground wire/s (from the shielding and/or bridge –and/or- the central ground point, as the case may be) into the remaining terminal (right). Tighten the screws firmly but not too tightly.

NOTE: I do not advocate Star grounding, in fact it can cause headaches. Bear in mind all shielding and ground wires should be somehow connected (either directly or indirectly) to the right hand port of the Connector-block. This includes the control cavity shielding and output cavity shielding (if present). Since it is *not* recommended to insert more than 2 wires into the connector-block ports all these elements can be connected together at another point and a single wire leading from that point to the right hand port of the connector-block. Failure to ground any shielding will result in excessive unwanted noise.

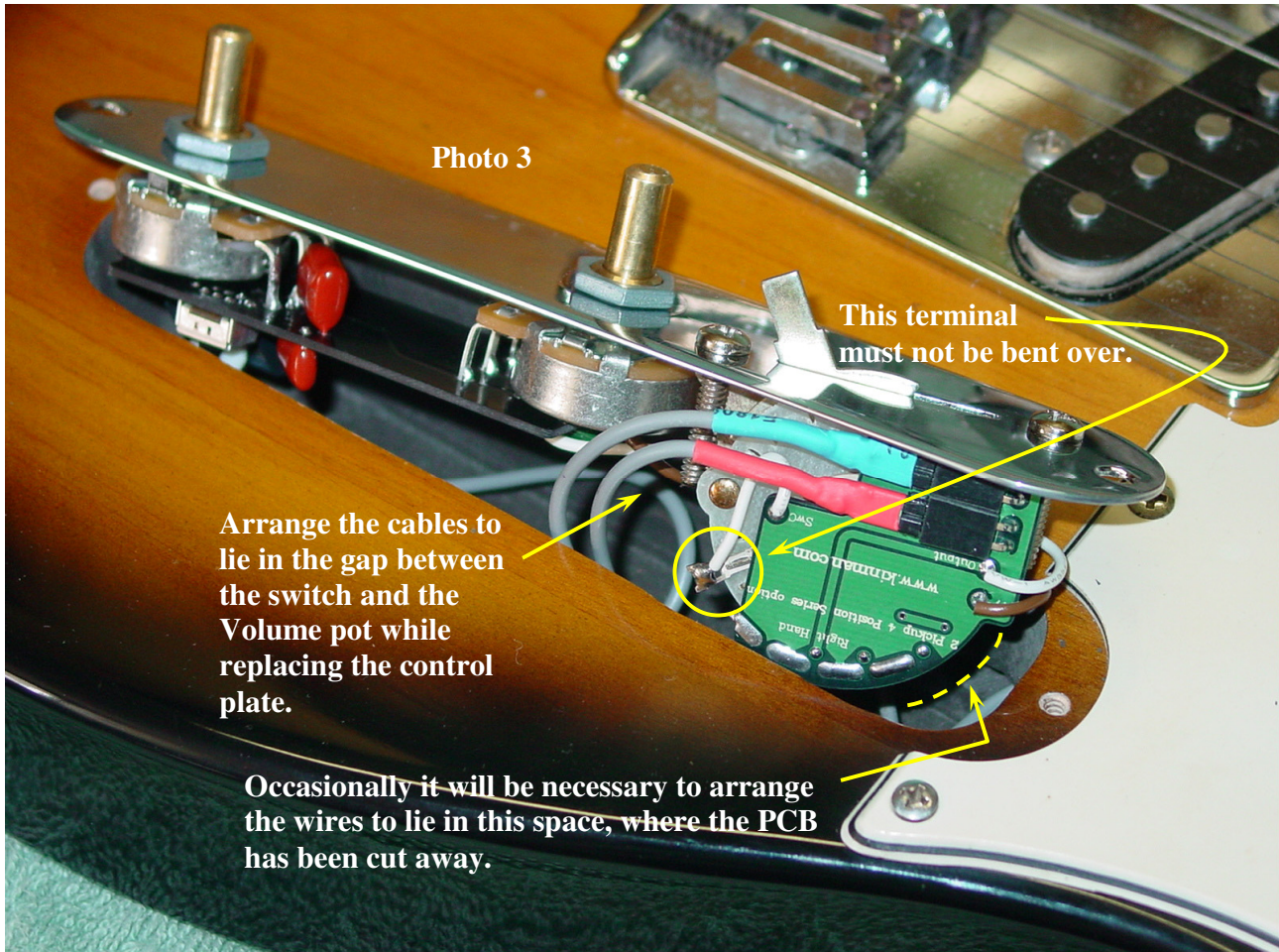


- 13) Plug the pickups into their respective sockets on the plate mounted on the side of the switch. Make sure the hot pin goes to the correct side of the socket. It has HOT handwritten on the side of the plug that is the Hot pin and the socket is also labelled.
- 14) Bringing the control plate to the cavity, arrange the pickup cables to avoid getting squeezed between the walls of the cavity and the hardware parts. The cables should be arranged as shown in Photo 3 (next page) The control plate should sit snug to the body, poorly arranged cables can prevent this.

- 15) Very rarely the angled switch may not fit entirely within the control cavity per Diagram 2 below. Should this be the case simply tighten the 2 control plate mounting screws firmly with the intention of embedding the two extreme tips of the corners of the switch frame into the wood. If they won't push into the wood completely then position a piece of wood like a short length of broom handle or dowel onto the control plate directly above the extreme corners of the switch frame: tap the top of the piece of wood with a small hammer or mallet. Take care that this action does not damage either the guitar or the control plate: tap only sufficiently to seat the control plate flush onto the wood.



- 16) Otherwise fit the screws to the control plate and the pickguard taking care not to cross thread the screws in the wood.
- 17) Proceed to restring and adjust the pickup heights..... Please visit www.kinman.com >Tone Workshop >Tone for detailed info on how to get the best out of your pickups and guitar. There is a wealth of information in this section of my Website that will fascinate and delight you for many hours.



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