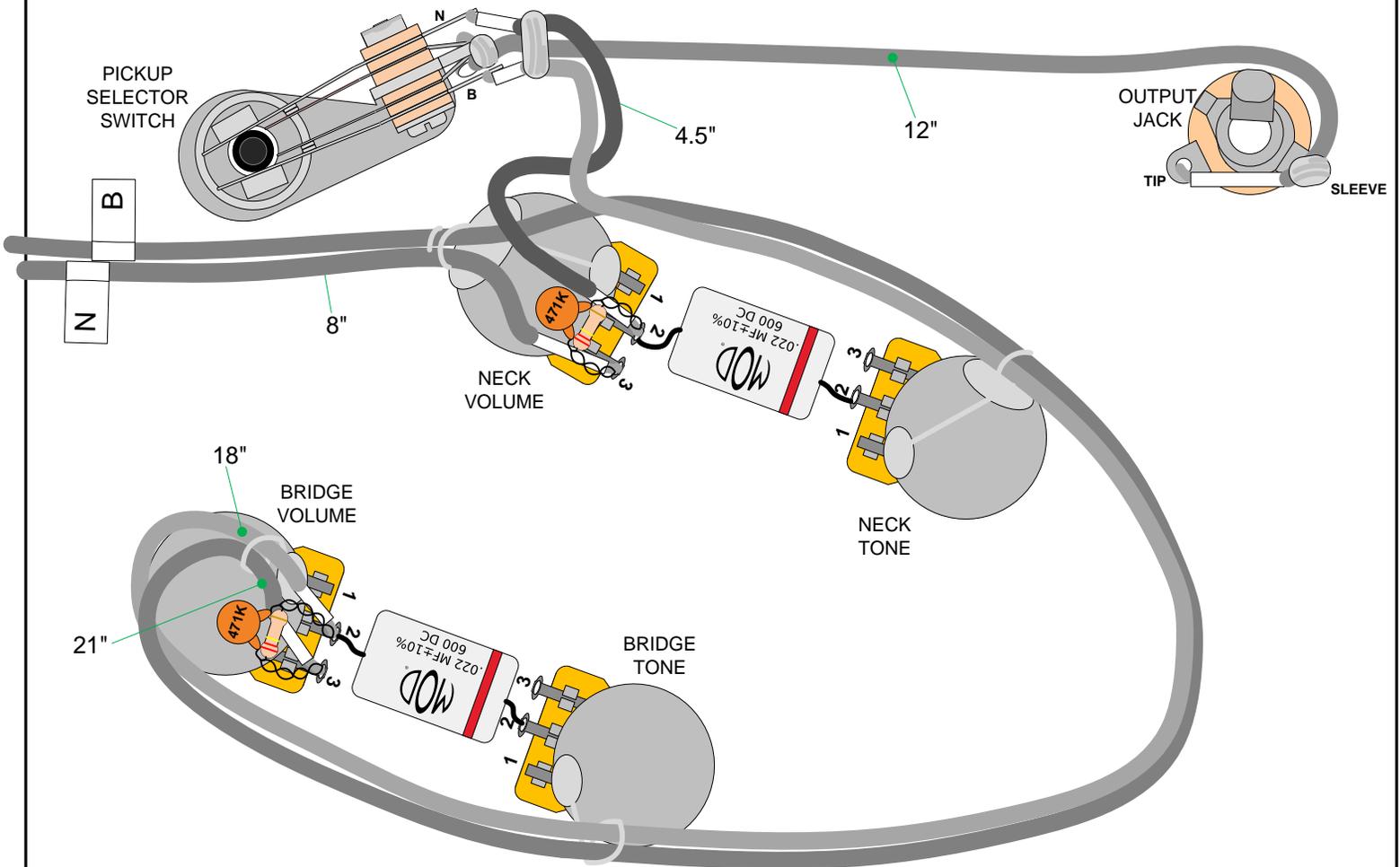
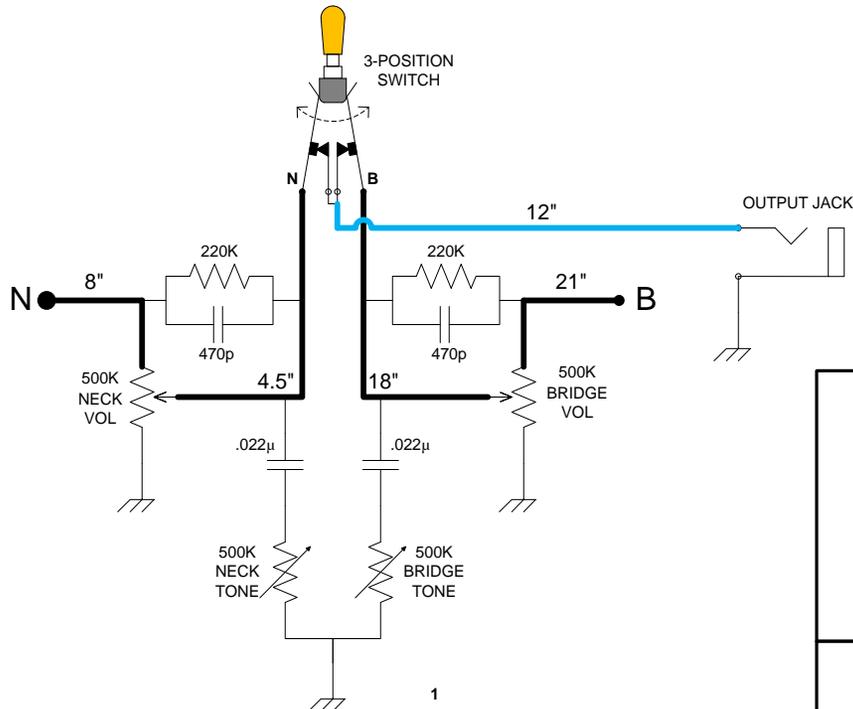


K-GMOD-6 - ES-335 Standard Wiring Kit



In these instructions, the "N" and "B" wires are intended to connect to the pickup wires to reduce the amount of soldering required with parts routed through the guitar's body. If you would prefer to mount the pickups directly, simply use the neck pickup wire in place of "N" and the bridge pickup wire in place of "B". Be sure to give yourself plenty of slack with the pickup wires if you choose to do it this way.

K-GMOD 6 Schematic Representation



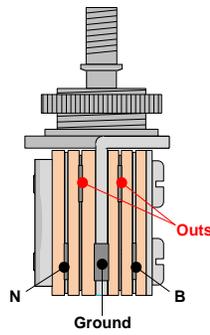
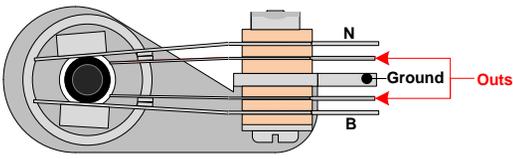
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**K-GMOD-6
Wiring Diagram**

K-GMOD-6 PARTS LIST

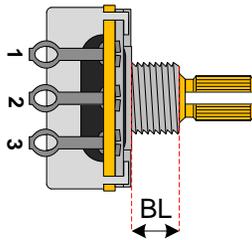
Gibson style pickup selector switch – L-type

W-SC-W01 (1)



Potentiometers with Audio Taper
(3/8" Bushing Length)

R-VC500KA-SP (4)



Bus Wire (20 AWG), Tin Plated, Lead Free
S-W3817 (12")

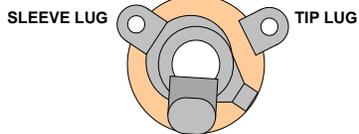
Shielded Wire
S-W901 (6 ft)

Wire Labels:



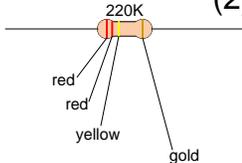
1/4" Mono Jack (Output Jack)

W-SC-11 (1)



220kΩ Resistor 1/4 W

R-C220K (2)



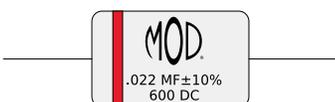
470pF Ceramic Disc Capacitor

C-CD470-500 (2)



0.022μF Mod Oil Cap

C-MOD022-600 (2)



(Capacitor may appear smaller in drawings to more easily show connections)

Prepare the Template

Locate the template sheet. This will be cut out and adhered to a board before drilling. For a single use, a material as simple as a strong piece of cardboard will work. Hardboard or wood would work better if you plan on reusing the template.

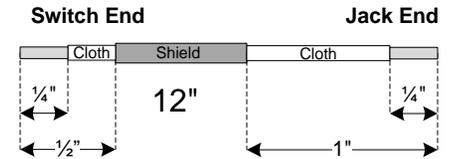
Prepare 5 Wires For Each Assembly

Cut 1 piece of each of the following lengths of shielded wire for each assembly.

- 21" - Bridge Volume (3) to Pigtail "B"
- 18" - Bridge Volume (2) to Switch "B"
- 12" - Switch Outs to Output Jack
- 8" - Neck Volume (3) to Pigtail "N"
- 4½" - Neck Volume (2) to Switch "N"

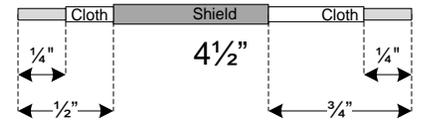
Prepare the 12" (Switch Outs to Output Jack) piece of wire by:

- Removing ½" of shielding from one end and ¾" of shielding from the other end.
- Trim the frayed ends of the shield for a clean appearance.
- Strip ¼" of cloth from **both ends**



Prepare the 4½" piece of wire by:

- Removing ½" of shielding from one end and ¾" from the other.
- Trim the frayed ends of the shield for a clean appearance.
- Strip ¼" of cloth from both ends.



Prepare the 18" piece of wire by:

- Removing ½" of shielding from both ends.
- Trim the frayed ends of the shield for a clean appearance.
- Strip ¼" of cloth from both ends.



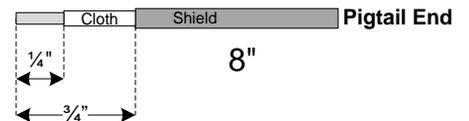
Prepare the 21" piece of wire by:

- Removing ½" of shielding from only one end.
- Trim the frayed end of the shield for a clean appearance.
- Strip ¼" of cloth from the one end.



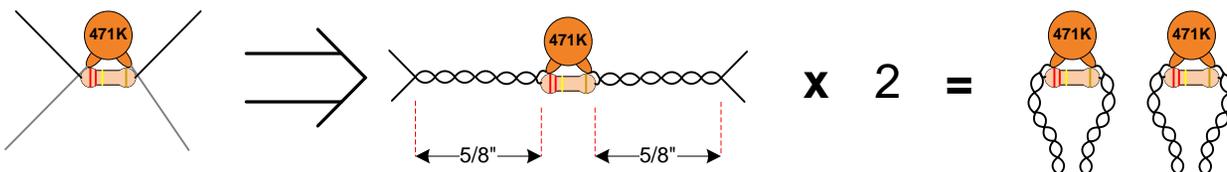
Prepare the 8" piece of wire by:

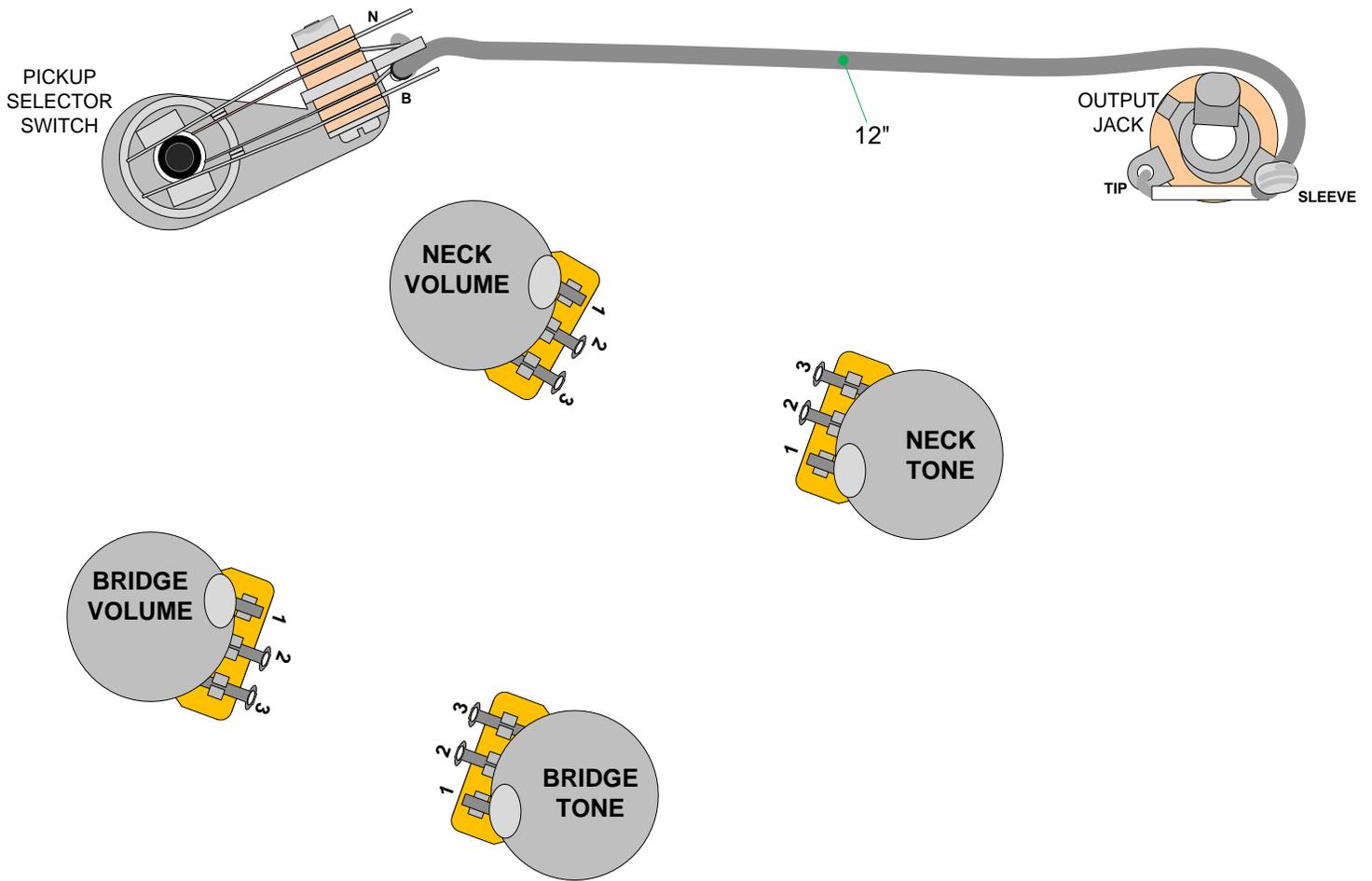
- Removing ½" of shielding from only one end.
- Trim the frayed ends of the shield for a clean appearance.
- Strip ¼" of insulation from the one end.



Prepare 2 Cap & Resistor Sub-Assemblies For Each Assembly

Wind the leads of a 220K resistor and a 470pF capacitor together in parallel. Make two sets of these parallel component assemblies. (Cut the wound lead ends so that the lead lengths are about 5/8").



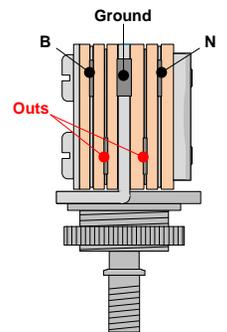


1. Mount the components to their respective mounting holes with the same orientation as shown here.

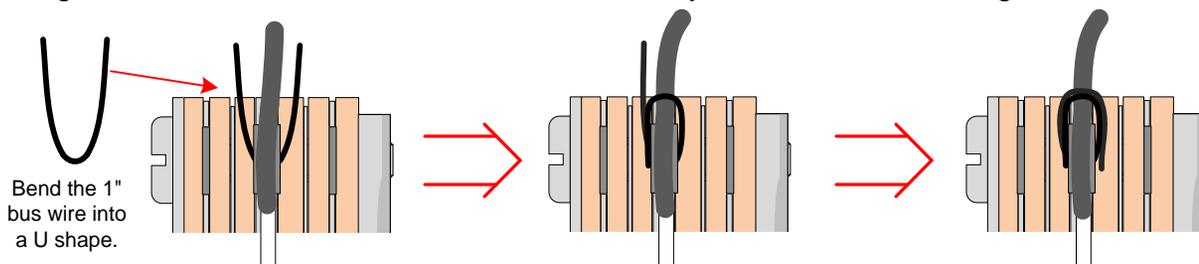
- 4 x 500KA pots
- 1 x 3-way switch
- 1 x output jack

2. Bend back each pot's lug "1" so that it touches the pot body. Solder each pot's lug "1" to its own body, but **leave an opening in this lug** for connecting bus wire through it later.

3. Press the two output lugs of the selector switch together and grab the 12" wire. Insert the tinned "switch end" of the wire through both switch out lugs, hook it around and crimp it with needle nose pliers to hold the two output lugs together. Solder this connection.



4. Cut a 1" piece of bus wire, insert it through the switch's ground lug, and use it to tie the shielded wire to the ground lug. Apply solder to the ground lug, bus wire and shield for both a good mechanical hold and electrical continuity between shield and ground.



5. Solder the “jack end” of the wire to the output jack’s tip lug.
6. Cut a 1" piece of bus wire, insert it through the output jack’s sleeve lug, and use it to tie the shielded wire to the sleeve lug near the end of the cut shield. Apply solder to the sleeve lug, bus wire and shield for both a good mechanical hold and electrical continuity between the output jack’s sleeve and the selector switch’s ground. *(Be sure that you have routed the shielded wire in such a way that it will not interfere with an inserted ¼" plug at the output jack).*
7. Grab the 4½" wire and insert the ½" striped end of the wire through the switch’s “N” lug from above, hook it around and crimp it with needle nose pliers. Make sure that the connection is made in such a way that the “N” terminal will not short out against the “ground” terminal. Solder the connection.
8. Route the ¾" striped end of this wire up and over the switch to insert through neck volume pot lug 2, but **DO NOT solder this connection, yet.**
9. Grab the 18" wire and insert one end of the wire through the switch’s “B” lug from above, hook it around and crimp it with needle nose pliers. Make sure that the connection is made in such a way that the “B” terminal will not short out against the “ground” terminal. Solder the connection.
10. Route the other end of this wire up and over the switch and down around the outside of all the pots (as shown in the drawing) to insert through bridge volume pot lug 2, but **DO NOT solder this connection, yet.**
11. Cut a 2" piece of bus wire and wrap it around the three shielded wires (which are now connected to the selector switch) to bundle them together at a point near the shield ends of the 4.5" and 18" wires. Apply solder to the bus wire and all three wire shields for both a good mechanical hold and electrical continuity between shields and ground. Be sure to coat the shield ends for a clean look.
12. Connect one lead of a .022µF capacitor to tone pot lug 2 for both neck and bridge controls as shown in the drawing. The other lead of these caps should be wrapped around lug 2 on the volume pots for both neck and bridge controls, but **DO NOT solder this connection until step 15 below.**
13. Grab the 21" wire and insert the stripped end into the bridge volume pot lug 3, but **DO NOT solder this connection, yet.** Route this wire around the outside of all the pots (as shown in the drawing) side by side with the wire connected to bridge volume lug 2 and selector switch “B”.

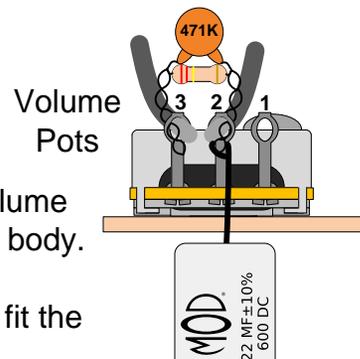
The un-stripped end of this wire will be labeled “B” and used as a pigtail to connect to the guitar’s bridge pickup wires. It should extend about 6½" beyond the neck volume pot.

14. Grab the 8" wire and insert the one stripped end into the neck volume pot lug 3, but **DO NOT solder this connection, yet.** Route this wire along side the extended end of bridge pigtail wire.

The un-stripped end of this wire will be labeled “N” and used as a pigtail to connect to the neck pickup wires. It should extend about 6½" beyond the neck volume pot.

15. Insert the leads of the parallel component sub-assemblies through both volume pot lugs 2 and 3 observing the two bullet points below. **Now, solder all connections at lugs 2 and 3 of both volume pots.**

- Insert the cap and resistor sub-assemblies above the wires inserted into volume pot lugs 2 and 3 so that the leads will remain insulated from the volume pot body.
- Wrap the .022µF cap's lead around the outside of lug 2 to make it easier to fit the wire and sub-assembly leads through this lug.



16. Cut a 1½" piece of bus wire and connect one end to the bridge volume pot's lug 1. Wrap the other end of the bus wire around both shielded wires (which are connected to the same pot's lugs 2 and 3) to bundle them together at a point near the ends of their shields. Apply solder to the bus wire and both wire shields for both a good mechanical hold and electrical continuity between shields and ground.
17. Cut a 1½" piece of bus wire and connect one end to the bridge tone pot's lug 1. Wrap the other end of the bus wire around both shielded wires (being routed from the bridge volume pot) to bundle them together and keep them next to and slightly on top of the pot's body. Apply solder to the bus wire and both wire shields for both a good mechanical hold and electrical continuity between shields and ground.
18. Cut a 2" piece of bus wire and connect one end to the neck tone pot's lug 1.
 - Press this bus wire against the tone pot's body with about ½" extending beyond the pot's back edge.
 - Solder the portion of this bus wire that's touching the back of the pot to the pot body.
 - Wrap the ½" extended portion of bus wire around both shielded wires (being routed from the bridge tone pot) to bundle them together and keep them next to and slightly on top of the pot's body.
 - Apply solder to the bus wire and both wire shields for both a good mechanical hold and electrical continuity between shields and ground.
19. Cut a 2½" piece of bus wire and connect one end to the neck volume pot's lug 1.
 - Press this bus wire against the volume pot's body with about 1" extending beyond the pot's back edge.
 - Solder the portion of this bus wire that's touching the back of the pot to the pot body.
 - Wrap the 1" extended portion of bus wire around both shielded wires (being routed from the neck tone pot) to bundle them together and keep them above of the pot's body.
 - Apply solder to the bus wire and both wire shields for both a good mechanical hold and electrical continuity between shields and ground.
20. Attach the "B" Label to the pigtail end of the wire connected to the bridge volume pot.
21. Attach the "N" Label to the pigtail end of the wire connected to the neck volume pot.

Resistance Test

1. Turn all of the potentiometer shafts to their full volume positions (i.e. full clock-wise rotation when viewed from the shaft side of the board).
2. Connect an ohm meter to the output jack's tip and sleeve terminals and measure resistance.
3. With the pickup selector switch in its middle position the resistance should be about 250kΩ.
4. With the pickup selector switch in either up or down positions the resistance should be about 500kΩ.

In any selector switch position, if the resistance measurement is closer to 0Ω, then you have likely detected the presence of a short. Check that no leads are accidentally touching one another or the back of a pot.

In any selector switch position, if the resistance measurement show OL, then a bad connection is a likely candidate such as a misplaced component or wire.

22. Double check that all connections are soldered and use the final wiring drawing to complete the wiring.

K-GMOD-6 Template

Adhere to surface before drilling

