INSTALLATION INSTRUCTIONS

SUBJECT: 2003-2005 GM/Allison TapShifter

FITMENT: 2003-2005 GM SILVERADO/SIERRA 2500/3500 6.6L LB7 Duramax
KIT P/N: FPE-TAPSHIFTER35

EST INSTALL TIME: 60-120 MINUTES
TOOLS REQUIRED: 10MM SOCKET, 6" EXTENSION, 7MM SOCKET, T30 TORX BIT, CABLE TIES

KIT CONTENTS:

Item	Description	Qty
1	TapShifter Wiring Harness	1
2	TapShifter Lever	1

NOTE: This product **is not waterproof**. Please take appropriate action to prevent direct exposure to moisture. Exposure to moisture is not warrantable damage and may result in premature failure of this product.

APPLICATION NOTES:

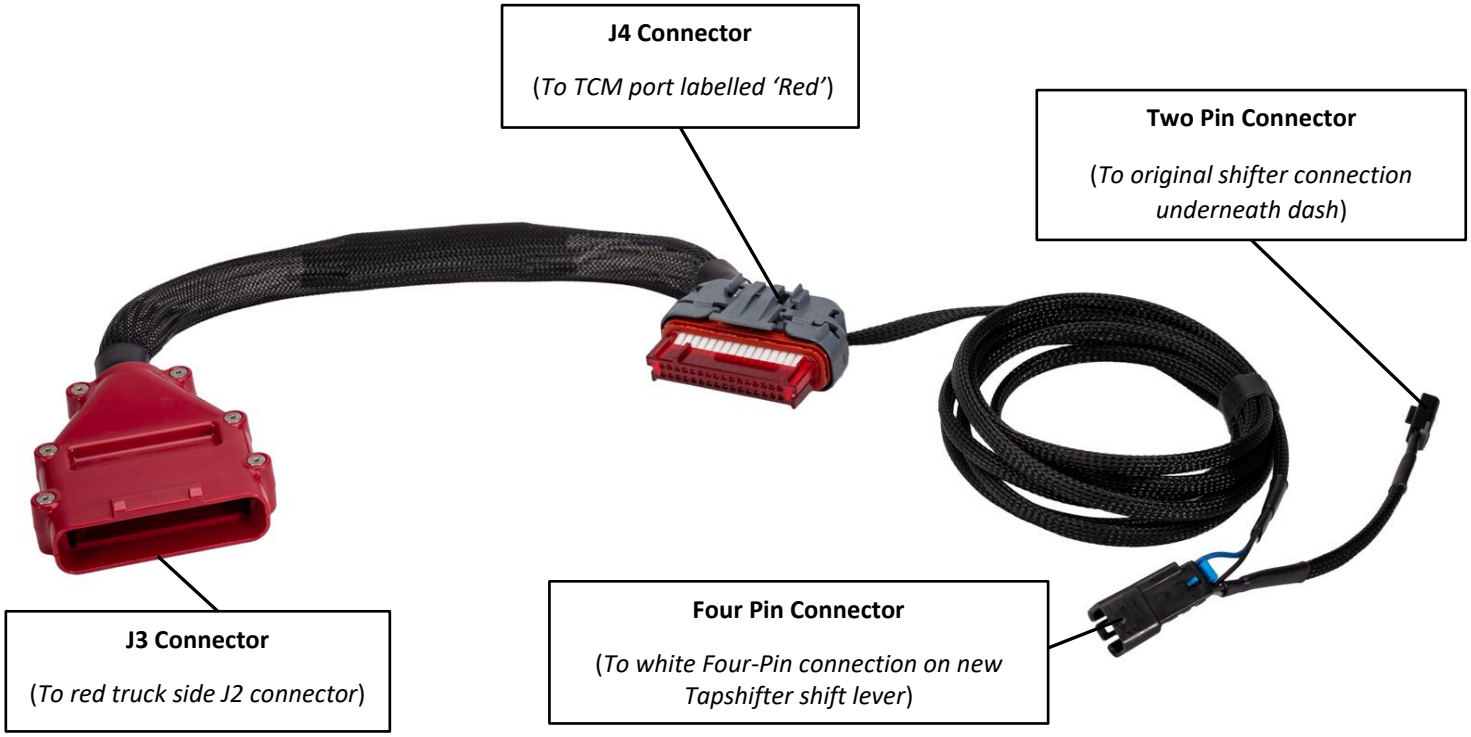
- Fits 2003-2005 GM Silverado/Sierra with 5-speed Allison transmission
- Not compatible in any **6-speed** application

WARNINGS:

- **To avoid possible arcing and component damage disconnect the batteries prior to installation**.
- User assumes sole responsibility for the safe & proper use of the vehicle at all times.
- The purchaser and end user releases, indemnifies, discharges, and holds harmless Fleece Performance Engineering, Inc. from any and all claims, damages, causes of action, injuries, or expenses resulting from or relating to the use or installation of this product that is in violation of the terms and conditions on this page, the product disclaimer, and/or the product installation instructions. Fleece Performance Engineering, Inc. will not be liable for any direct, indirect, consequential, exemplary, punitive, statutory, or incidental damages or fines cause by the use or installation of this product.

KIT OVERVIEW

TAPSHIFTER HARNESS:



SHIFT LEVER:

PROCEDURE:

STEP 1: Disconnect Batteries.

STEP 2: To gain access to TCM, remove the TCM shroud located on the driver side of the radiator. Using a 10MM socket, remove each of the two retaining bolts and set them aside (*Figure 1*).

Figure 1: TCM Shroud, retaining bolts highlighted with arrows.

STEP 3: The TCM is labeled **"Red"** and **"Gray"** to identify connectors. Starting with the side labeled "Red**",** remove the red (J2) Connector from the TCM (*Figure 2*). This can be done by squeezing the plastic tabs on the back of the connector while pulling away from the TCM.

Figure 2: Red (J2) Connector

STEP 4: Inspect the red (J2) Connector from the truck side harness. Verify condition of the connector before proceeding with this installation. Corrosion on the pins can result in improper function of the Tapshifter.

Once condition of the (J2) connector has been verified, install the connector into the red (J3) Connector on the Tapshifter harness (*Figure 3*). ***The terminal insulators are keyed to be installed in only one direction.*** To prevent unnecessary damage to the harness, it is very important not to ***force*** the two connectors together.

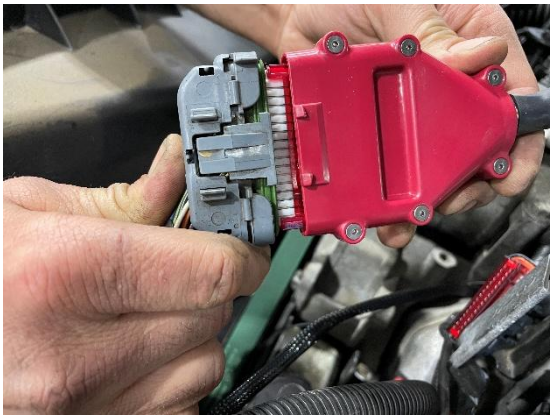


Figure 3: Red (J2) Connector and (J3) Connector.

STEP 5: Insert the (J4) Connector from the ***opposite*** end of the Tapshifter harness into the red (J2) connector on the TCM (*Figure 4*).

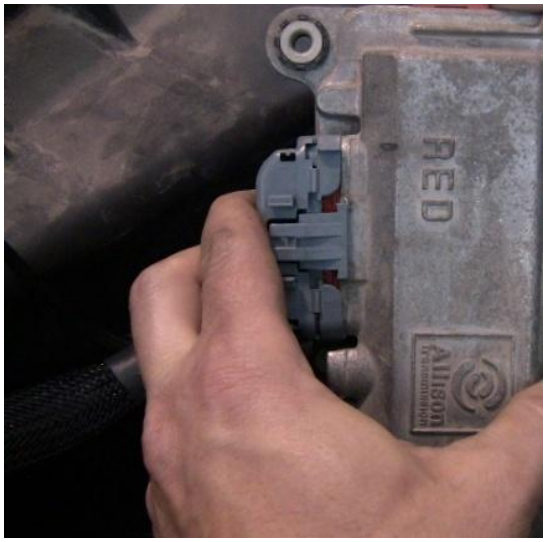


Figure 4: (J4) Connector installed into the red J2 connector on the TCM.

STEP 6: **Route Tapshifter harness through engine compartment, avoiding any moving parts or hot components**. Appropriate route will vary depending on the vehicle and its specific components.

Figure 5: (J3) Connector installed into (J2) connector from the truck side harness.

STEP 7: Create or find an opening in the firewall to pass the opposite end of the Tapshifter harness through to the cab. A good location for this is at the factory bulkhead. To use this location, make an incision through the top side of the rubber boot, being careful to not cut any of the wiring underneath, then route the Tapshifter harness through the incision (*Figure 6*).

Figure 6: Factory Bulkhead. Incision can be made in rubber boot to route Tapshifter harness.

STEP 8: Once the harness is in the cab, **remove the Dash Instrument Bezel** on the top side of the steering column. Then, using a 7MM socket, remove **lower dash panel** directly underneath the steering column (*Figure 7*). Depending on the truck, there will be two or three fasteners holding this panel in place.

STEP 9: Utilizing a 10MM socket, remove the steel support located directly under the steering wheel. The steel support is held in place with four nuts, using a 10MM socket remove all four to gain access under to the wiring underneath.

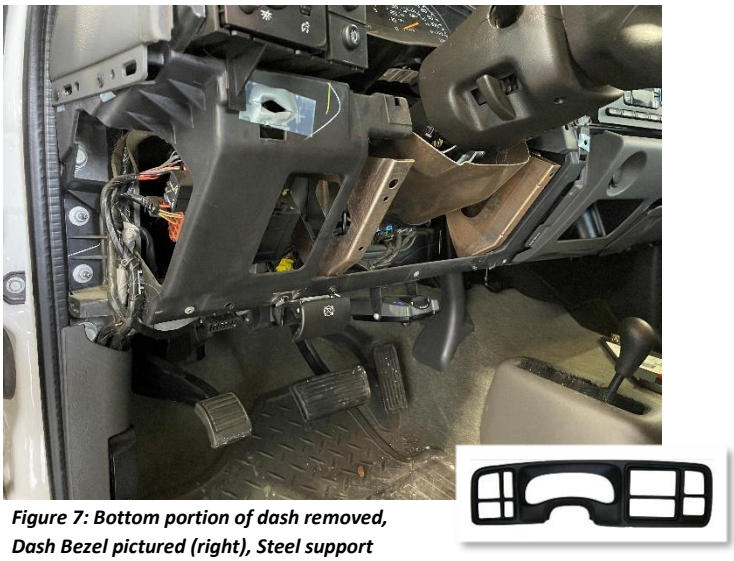


Figure 7: Bottom portion of dash removed, Dash Bezel pictured (right), Steel support (directly under steering wheel).

STEP 10: Remove the Factory Shift Lever and shift lever boot.

Remove the plastic panel covering the top of the steering column. Slide the shift lever boot toward the passenger side of the vehicle and disconnect the four-pin connector underneath the steering column.

Figure 8: Plastic Panel covering the top of the steering column. Four pin connector circled.

This will expose the T30 mounting bolt on the factory shift lever. Using a T30 Torx bit, remove the mounting bolt retaining the factory lever (*Figure 13*), and set aside. Remove the factory shift lever from its mount on the steering column. Remove the shift lever boot from the factory shift lever by gently pulling the boot and lever in opposite directions. The shift lever boot can dry rot and become fragile with age. If replacement is deemed necessary, use GM Part #26093753.

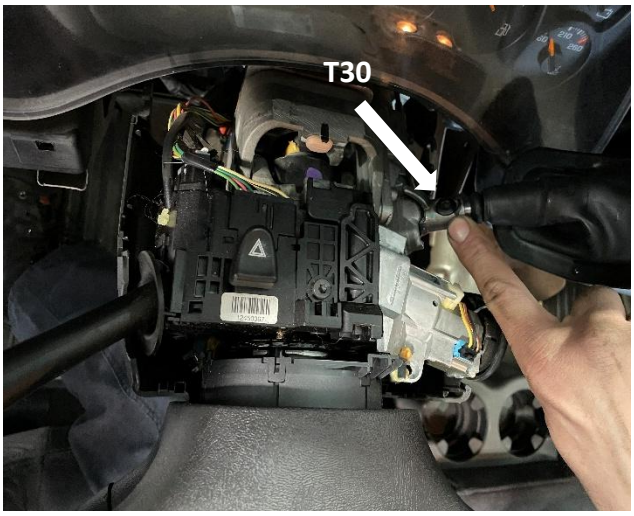


Figure 9: T30 Bolt retaining shift level, labeled for clarity.

STEP 11: Install the Tapshifter lever, which will fit in the same configuration as the factory lever. Install the shift lever boot at the end of the new Tapshifter lever. Then with the new shift lever in place, install the retaining bolt with a T30 Torx bit. Once the shift lever has been secured, push the shift lever boot back into place.

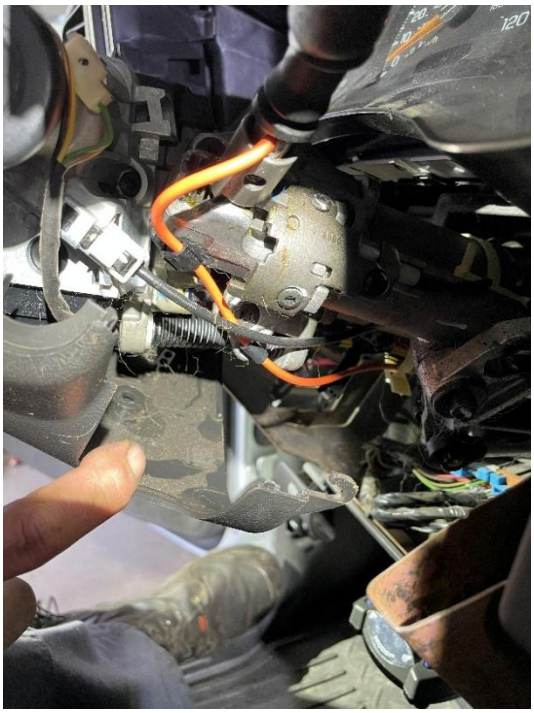


Figure 10: Tapshifter lever wiring harness, routed in factory location.

STEP 12: On the new Tapshifter lever (*Figure 10*), will be a 4-Pin connector. Route the connector and wiring in the same way as the factory lever.

STEP 13: Plug the 4-pin connector from the new Tapshifter lever into the **Tapshifter wiring harness** routed into the cab from the engine compartment.

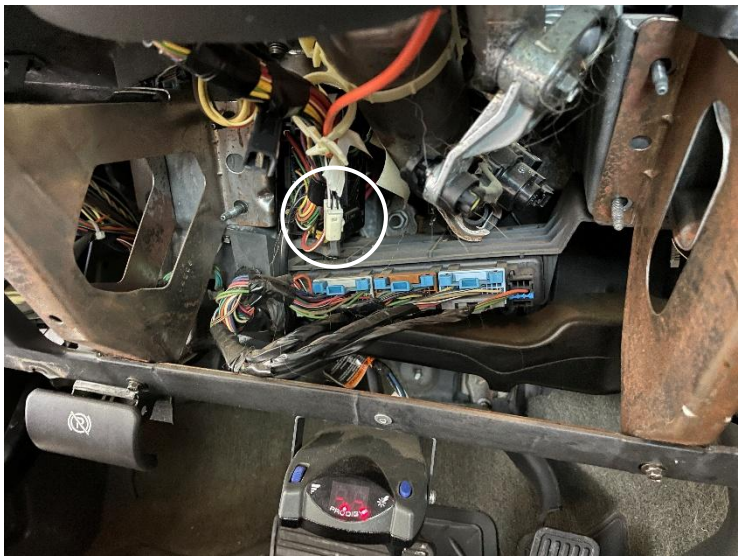


Figure 11: Four pin connector plugged into tapshifter harness. Circled for clarity.

TEST PROCEDURE:

STEP 14: Connect batteries and test Tapshifter for proper function. <u>For this process, it is important that the brake pedal remain depressed the entire time. This action is to ensure safety for the duration of the test, not proper function. Do not start the vehicle.</u>

- Insert the key into the ignition, then turn the key forward to the ***run*** position. In this position, all the lights on the dash will be illuminated and the engine will not be running. For further reference, the key will be two clicks forward from the ***off*** position.
- **With the brake pedal fully depressed**, shift the new Tapshifter lever into the drive position. The dash will function as normal, and the **<u>D</u>** symbol will be highlighted with an underline.
- At this time, using the button on the Tapshifter lever labeled **"- ",** (*Figure 12*) press the button to downshift the transmission. The transmission will be in **<u>fourth gear</u>** and the display on the dash will remain unchanged.
- Press the **"- "**button once more to downshift the transmission into **<u>third gear</u>**. The display on the dash will then show the number **<u>3</u>** highlighted with an underline (*Figure 13*).
- Move through the rest of the gears, ensuring each gear is displayed properly.
- Once this process is complete, use the **"+"** button on the shift lever, shift the transmission back up to **<u>fourth gear</u>**. This is where the **<u>D</u>** symbol is highlighted with an underline. Using the same button, shift the transmission up once more to get it back into the standard gear for **<u>Drive</u>.** The display will remain unchanged.
- Using the new shift lever, shift the transmission back into **<u>Park</u>**. The brake pedal can now be slowly released to prevent the vehicle from rolling.

Figure 12: New Tapshifter lever with shifting button, "+" or "- "

Figure 13: Dash display, example of third gear. All gears will be highlighted in the same way.

STEP 15: Begin reassembly of dash components.

STEP 16: Route the Tapshifter harness behind the dash, **away from moving parts**, and ensure any excess length is tied up out of the way. The use of cable ties may be required during this step.

STEP 17: Note the location of the new Tapshifter harness, then carefully reinstall the steel support. Thread each retaining nut into place, then tighten each using a 10MM socket.

STEP 18: Reinstall the dash instrument bezel by pressing it back into place (*Figure 15*).

STEP 19: **Reinstall** the lower dash panel by threading each retaining bolt into place, then tighten with a 7MM socket.

STEP 20: Reinstall the TCM shroud by threading the two retaining bolts into place, then tighten each with a 10MM socket.

STEP 21: Once everything is verified to be back together, **start the vehicle** and using the Tapshifter lever, test each gear of the transmission once more.

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Figure 14: Steel support reinstalled.

Figure 15: Dashboard panels reinstalled.

Figure 16: TCM shroud reinstalled.