

## **INSTALLATION MANUAL**

## GM TH350, TH700-R4 Kickdown Kit PFETCS6051/PFETCS6053

Included Items	QTY
PFETCS6051 or PFETCS6053 Kickdown Kit	1

<u>WARNING</u>: PLEASE READ ALL INSTRUCTIONS BEFORE PROCEEDING. PROFLOW WILL NOT BE RESPONSIBLE FOR ANY DAMAGE AS A RESULT OF THE INCORRECT INSTALLATION OF THIS PRODUCT. IT IS RECOMMENDED THAT A QUALIFIED AUTOMOTIVE TECHNICIAN PERFORMS THIS INSTALLATION. BEFORE BEGINNING THE INSTALLATION, DISCONNECT THE NEGATIVE BATTERY CABLE AND USE WHEEL CHOCKS TO BLOCK THE VEHICLES WHEELS.

**NOTE:** This Proflow Kickdown Kit is designed to be installed with a Proflow Cable Mounting Bracket (not included, available separately). The cable housing and inner wire are designed to be cut-to-fit.

## TYPICAL INSTALLATION

Refer to Figures 1, 2, and 3 for component names.

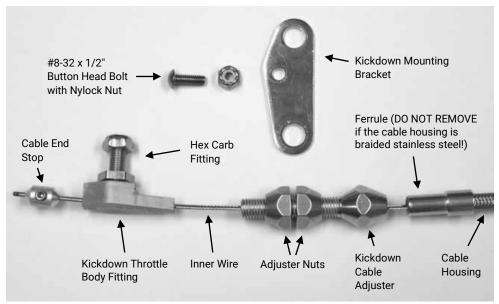


Figure 1: Throttle End

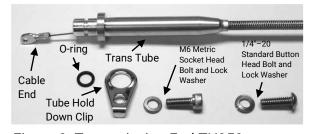


Figure 2: Transmission End TH350

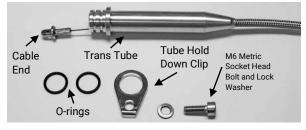


Figure 3: Transmission End TH700- R4



 Remove the cable end stop, kickdown throttle body fitting, and kickdown cable adjuster from the new LKickdown Cable. DO NOT remove the ferrule from the cable housing. Fig. 4 Leave the kickdown mounting bracket on the kickdown cable adjuster. Remove the inner wire from the cable housing.

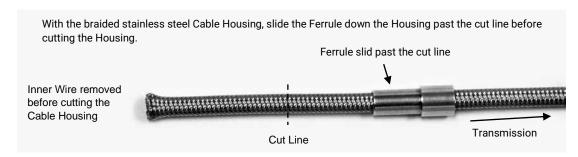
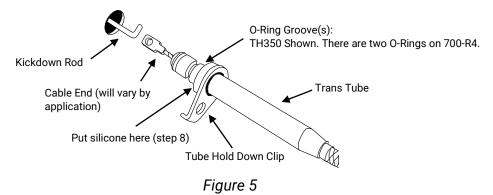


Figure 4

2. From the engine end of the kickdown cable housing, install the tube hold down clip onto the cable housing with the lip pointed downwards, and slide it down to the trans tube at the end of the cable housing. Temporarily install the cable housing into the transmission without the O-ring(s) and inner wire. Note: Some original kickdown cables used a top-hat style seal in the transmission. Verify that there isn't a seal remaining in the kickdown cable hole in the transmission.

Loosely install the bolt for the tube hold down clip, to keep the cable housing from accidentally coming out of the transmission.



Note: TH350 transmissions could have come with either a standard or a metric bolt for the trans tube hold down clip. For those applications, we have included both a standard 1/4"-20 and a metric M6 bolt and lock washer for the trans tube hold down clip. The standard 1/4"-20 bolt has a rounded button head, and the metric M6 bolt has a squareshouldered socket head. Fig. 2 The 700-R4 will only have a metric bolt and washer in the kit.

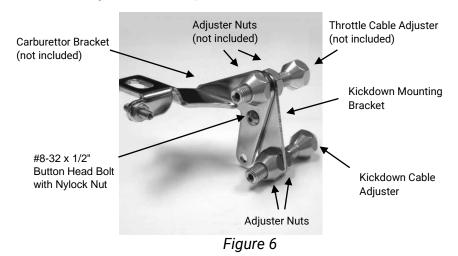
3. If the throttle cable has already been installed, disconnect the throttle cable from the throttle linkage arm. If the engine already has a Cable Bracket installed, remove the throttle cable adjuster. Leave the Cable Bracket in place. If the engine does not have a Cable Bracket already installed, install one now, following the installation instructions that were provided with the Cable Bracket (not included).



4. The kickdown mounting bracket mounts onto the back side of the Cable Bracket. The throttle cable adjuster will pass through the top hole in both the new kickdown mounting bracket AND the Cable Bracket. Position the kickdown mounting bracket behind the Cable Bracket so that the 5/16" diameter holes at the top of both brackets are aligned, the small 3/16" diameter holes near the center of the two brackets are aligned, and the kickdown cable adjuster is offset towards the driver side of the vehicle.

Attach the kickdown mounting bracket to the Cable Bracket using the supplied #8- $32 \times 1/2$ " button head bolt and nylock nut through the small 3/16" diameter center holes in both brackets, but do not tighten yet. Insert the throttle cable adjuster (with the rear nut still installed) from the rear through the top holes in both brackets. Position the throttle cable adjuster so that the bracket is roughly centered in the threaded part of the cable adjuster. Install the front adjuster nut.

Tighten the throttle cable adjuster nuts, the button head bolt and nut, and the kickdown cable adjuster nuts. Fig. 6



5. Route the cable housing up to the kickdown cable adjuster. Make sure that the inner wire is removed from the cable housing. Slide the ferrule down the housing towards the transmission, away from the end that is being cut. DO NOT remove the ferrule if your cable housing is braided stainless steel!

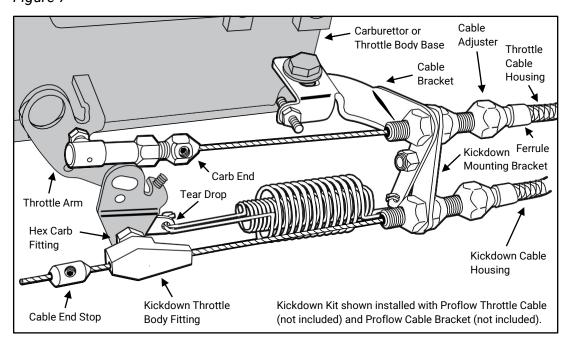
Measure the distance between the kickdown cable adjuster and the tube hold down clip. Add 1" to the measurement and cut the cable housing to that length.

Wrap tape around the area to be cut and use a cutoff wheel or fine-toothed hacksaw.

After cutting the cable housing, put the ferrule back in place at the end of the cable housing. Insert the cable housing and ferrule into the kickdown cable adjuster. The ferrule does NOT need to be crimped or otherwise attached in place.



**6.** The tear drop will be attached to the throttle arm by the hex carb fitting. Separate the hex carb fitting from the kickdown throttle body fitting. Install the hex carb fitting and the tear drop onto the throttle arm as shown in Fig. 7. Hook the springs to the tear drop and tighten the nylock nut on the hex carb fitting. Then, back the nylock nut off just enough so that the tear drop can pivot freely. *Figure 7* 



- **7.** Remove the kickdown cable housing from the transmission. Re-install the inner wire into the kickdown cable housing.
- 8. On the trans tube at the transmission end of the Kickdown Cable there will be either one or two O-ring grooves. TH350 use one O-ring, and the 700-R4 use two O-rings. Lightly lubricate the kickdown cable O-ring(s) with clean transmission fluid and slide the O-ring(s) into the groove(s) on the trans tube. To help prevent leakage add a small amount of silicone sealant (RTV) around the trans tube above the top O-ring. Fig. 5
- **9.** Insert the hook on the transmission kickdown rod into the hole in the cable end. Install the trans tube into the transmission, and secure with the tube hold down clip and bolt.
- 10. Before connecting the Kickdown Cable to the throttle arm, install and adjust the throttle cable. Verify that the throttle is wide open while you have a helper hold the accelerator pedal to the floor. Once you are sure that the throttle linkage is adjusted correctly, slide the kickdown throttle body fitting onto the kickdown cable inner wire, and connect the kickdown throttle body fitting to the hex carb fitting.
- **11.** This step will also be much easier with a helper. Slide the kickdown cable end stop onto the inner wire. Move the throttle to wide open and hold it there while pulling the kickdown inner wire as tight as possible. Slide the cable end stop up against



the kickdown throttle body fitting and tighten the set screw using the supplied 5/64" Allen wrench. Release the throttle. When the Kickdown Cable is properly adjusted you should be able to open the throttle to the wide open position without interference from the Kickdown Cable; and with the throttle wide open, you should not be able to pull the Kickdown Cable out any further.

Double check to be sure that all throttle and kickdown linkage operates freely without binding. Then, test drive the vehicle. Once the Kickdown Cable is correctly adjusted and operating properly you can cut off the excess inner wire, leaving about 1/2" extending beyond the cable end stop to allow for future adjustment if needed. Final installation should look like Fig. 7 and Fig. 8.



Figure 8