

**QUICK DRIVE
TORQUE CONVERTER
DRIVE UNIT**

**TURBOCHARGED
SUPPLEMENT**

**Quick Drive, LLC
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Thornton, CO 80241
303-783-1290**

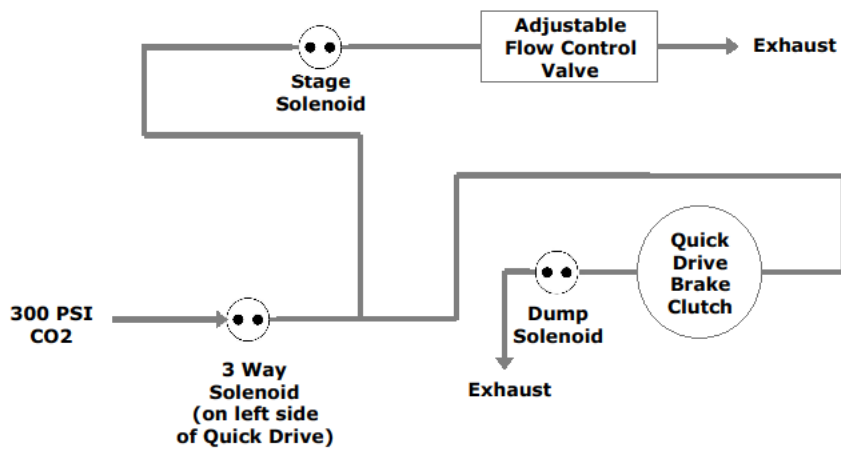
Thank you for purchasing your Quick Drive, drag racing's finest torque converter drive unit! We have devoted much effort into developing the Quick Drive to work extremely well in today's high horsepower turbocharged applications. As you know, one of the greatest difficulties in drag racing a turbocharged car equipped with a torque converter is the staging process. The engine and turbocharger(s) need some amount of time to spool up to a race-able level of engine RPM and boost pressure. That time is generally not afforded once the car has entered the stage beam, particularly in heads-up, pro-tree type racing.

We have developed a system that allows the racer to pre-stage the vehicle, set the Quick Drive transmission brake, bring the engine RPM and boost up to the levels needed to launch the car, then smoothly slide the car into the staged beam, ready to launch. Check with your sanctioning body as to the legality of this type of staging system. Each race car is a different animal, so some effort and trial & error on your part is required to "dial in" this system to meet your requirements. The concept behind this system is simple: once the stage RPM and boost levels are achieved, the driver activates a pushbutton switch which energizes a staging solenoid. The staging solenoid is to be plumbed in conjunction with the staging flow control valve as shown in the illustration. The staging solenoid / valve will allow the driver to pre-stage the car, set the trans-brake, bring the engine RPM up to the required launch RPM, then, while still holding the trans-brake switch, press a second switch to activate the stage solenoid. The stage valve should be set in the pit area prior to going to the lanes. Once set, this procedure will lower the brake clutch pressure enough to allow the car to be smoothly rolled forward into the stage beam. Release the switch that activates the stage solenoid, and the car is ready to launch. We recommend the use of a Line-Lock solenoid wired so that it energizes while the trans-brake is engaged. You may want to have the Line-Lock solenoid power interrupted while the Stage Solenoid Switch is depressed (see attached wiring diagram). Although the Quick Drive is equipped with a brake clutch friction material that is very robust and will withstand slippage to a medium degree, slipping the clutch in this fashion will result in somewhat shorter friction life expectancy than applications that do not slip the brake clutch to stage the car. Replacement clutch & steel packs are available under part number QD-927T. We have made a pair of tools to make replacement of the brake clutch without removing the Quick Drive from the vehicle easier. These tools consist of a handle (QD-RBH \$49.95*) that attaches to the rear piston housing to assist in removal and reinstallation of the housing, and

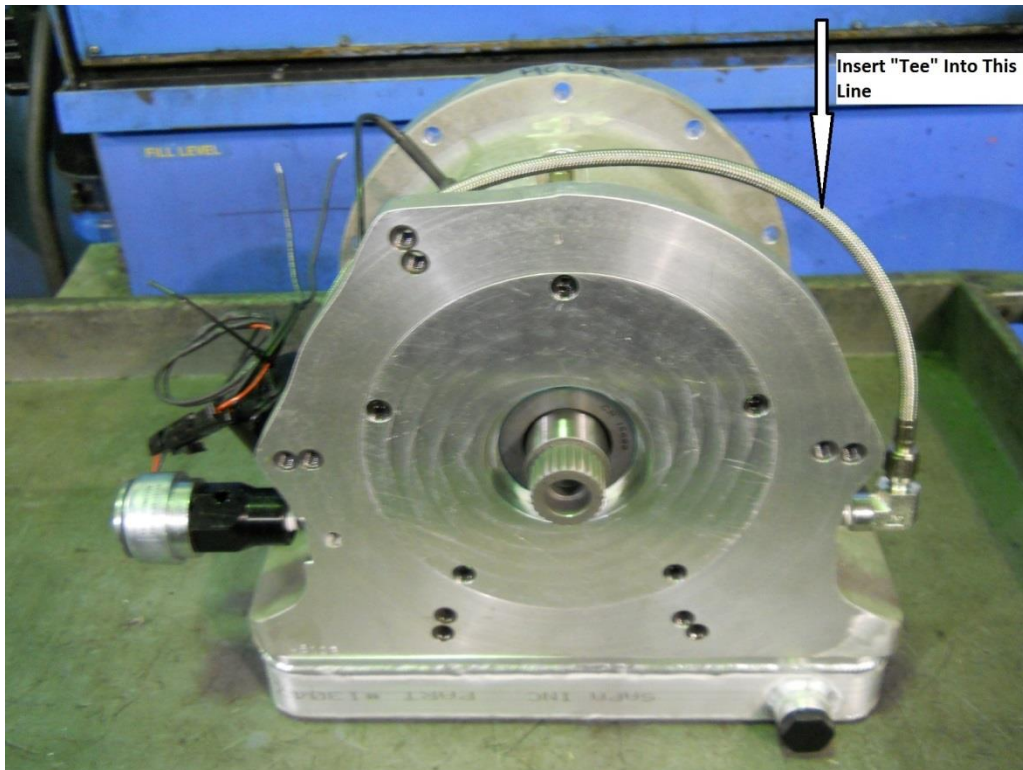
an alignment shaft (QD-CAS \$19.95*) to assist in keeping the clutch hub and clutch pack in place while the drive unit is in the vehicle. Tools are shown below.

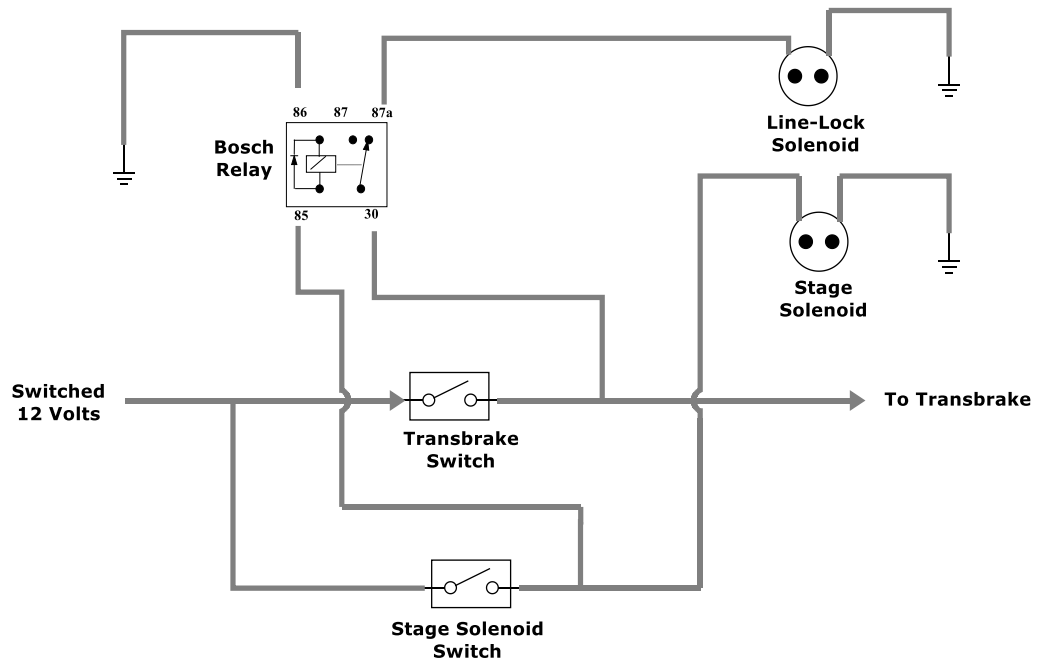
*** Pricing Subject to Change**

Installation is really very straight forward. You need to “tee” into the air line between the 3 way solenoid mounted on the left side of the Quick Drive (refer to the images below) and the clutch housing inlet fitting on the right side of the Quick Drive with a -4AN tee, plumb a -4 TFE hose to the 2 way bleed solenoid inlet. Wire the pushbutton switch that you will be using to energize the bleed solenoid such that when pressed, 12 volts is supplied to the bleed solenoid. The outlet of the stage solenoid should then be plumbed to the inlet of the stage valve. The stage valve outlet needs nothing plumbed to it, as it will exhaust to lower the brake clutch pressure. Some racers wish to use a line lock type solenoid and preset the brake pressure before staging while others find it easier to feather the foot (or hand) brake to slide the car into the beam. Be aware that anything that changes in the set-up of your car (stage RPM, boost level, etc.) will require that you test and adjust the stage valve so that the car will creep when the stage solenoid is activated. Please refer to the following drawing when installing this system. If you have any questions or problems, feel free to give us a call; we'll be glad to help. Thanks again and GOOD LUCK!!



QUICK DRIVE TURBO STAGE SOLENOID PLUMBING





Turbo Stage Solenoid / Line Lock Wiring

- This example energizes the Line-Lock solenoid while Transbrake is depressed, but releases the Line-Lock solenoid while the Stage Solenoid Switch is depressed, thereby allowing the driver to move the car into the beam by modulating the brake pedal / lever. Once the Stage Solenoid Switch is released, the Line-Lock solenoid will be re-energized.