



Instructions for

## Trick Flow® TFX™ Universal Bypass Regulator TFS-27001

### CAUTION:

Installation of this product requires detailed knowledge of automotive systems and repair procedures. We recommend that this installation be carried out by a qualified automotive technician. Installation of this product requires handling of gasoline. Ensure you are working in a well ventilated area with an approved fire extinguisher nearby. Extinguish all open flames, prohibit smoking and eliminate all sources of ignition the area of the vehicle before proceeding with the installation. When installing this product, wear eye goggles and other safety apparel as needed to protect you from debris and sprayed gasoline.

### WARNING:

The fuel system is under pressure. Do not open the fuel system until the pressure has been relieved. Refer to the appropriate vehicle service manual for the procedure and precautions for relieving the fuel system pressure.

NOTE: Testing the enclosed regulator by applying air pressure or vacuum to the vacuum port with a hand-held pump will yield poor results, due to the slight air leakage through the adjustment screw threads. This minute leakage, which is typical of all adjustable fuel pressure regulators, does not, in any way, affect the performance of the regulator.

The enclosed Trick Flow TFX regulator utilizes four 3/8 NPT pipe thread inlet/outlet ports and one 3/8-NPT pipe thread bypass port. In order to use the enclosed regulator in your vehicle's fuel system, you must install the necessary adapter fittings, high pressure fuel lines and/or fuel injector rails to adapt your system to the configuration and ports of this regulator. The following instructions assume that your fuel system has already been configured for use with this regulator.

This Trick Flow TFX system component is not legal for sale or use on emission controlled motor vehicles.

### Performance Specifications:

<b>Outlet Fuel Pressure, adjustable</b>	3-20 psi low pressure spring (installed from factory) 20-60 psi high pressure spring
<b>Max Pump Flow Rate</b>	250 GPH
<b>Inlet / Outlet ports</b>	4ea. 3/8-NPT
<b>Bypass port (located at bottom of regulator)</b>	1ea. 3/8-NPT
<b>Fuel Compatibility</b>	Gasoline/ Alcohol

The following steps are typical of most installations:

1. Once the engine has been allowed to cool, disconnect the negative battery cable and relieve the fuel system pressure.
2. Remove any cosmetic covers necessary to allow access to the fuel pressure regulator.
3. Remove the vacuum line from the regulator.
4. Place shop towels around the regulator to catch any gasoline that is spilled during this step of the installation. Remove any regulator mounting hardware and connecting fuel lines, then carefully remove the regulator.
5. Find a suitable place in the vehicle's engine compartment to mount the Trick Flow TFX regulator. Using the supplied mounting bracket as a template, mark the bracket mounting hole and drill to accept mounting bolt.
6. Determine approximate fuel pressure your system will require. If your fuel pressure requirement is between 3 and 20 psi, the factory installed regulator spring is the proper spring. If your fuel pressure requirement is between 20 and 65 psi, insure the pressure adjustment set screw is backed out all the way, remove the 4 cover screws and cover, remove the factory installed spring, replace it with the high pressure spring, and reassemble the regulator.
7. With the bracket attached to the regulator, mount the regulator to the vehicle.
8. Attach the fuel supply line(s) to the regulator using any of the 3/8-NPT ports located around the perimeter of the regulator. Install 3/8-NPT pipe plugs into any of the unused regulator inlet ports.  
**Please note that these ports are pipe threads and will require the use of a pipe thread sealant.**
9. Attach the fuel return line to the 3/8-NPT port located on the bottom of the regulator. Use the chart below to determine the minimum recommended return line size for your system.  
**Please note that these ports are pipe threads and will require the use of a pipe thread sealant.**

**Regulator with 3-20 psi spring  
Fuel Line ID Chart**

Return Line Length (ft.)	Fuel Pump Free Flow Rating (GPH)			
	1 to 60 GPH	60 to 120 GPH	120 to 180 GPH	180 to 250 GPH
0-5 feet	3/8"	3/8"	1/2"	1/2"
5-10 feet	3/8"	1/2"	1/2"	5/8"
10-15 feet	3/8"	1/2"	5/8"	3/4"
15-20 feet	1/2"	1/2"	5/8"	3/4"

**Regulator with 20-60 psi spring  
Fuel Line ID Chart**

Return Line Length (ft.)	Fuel Pump Free Flow Rating (GPH)			
	1 to 60 GPH	60 to 120 GPH	120 to 180 GPH	180 to 250 GPH
0-5 feet	3/8"	3/8"	3/8"	3/8"
5-10 feet	3/8"	3/8"	3/8"	3/8"
10-15 feet	3/8"	3/8"	3/8"	1/2"
15-20 feet	3/8"	3/8"	3/8"	1/2"

10. Tighten all connections.
11. Once the regulator is installed, attach a suitable fuel pressure gauge to the fuel system.
- 12. Ensure that any spilled gasoline and any gasoline soaked shop towels are cleaned up and removed from the vicinity of the vehicle!**
13. Reconnect the battery and turn the ignition to the ON position **WITHOUT** starting the car. After several seconds, check the fuel pressure. If there is no fuel pressure, turn the ignition key to the OFF position, wait one minute, return the ignition to the ON position, and recheck the fuel pressure. Repeat this ignition OFF and ON procedure until the fuel pressure gauge registers fuel pressure.
- 14. With the fuel pressure gauge registering fuel system pressure, check for fuel leaks from and around the Trick Flow TFX regulator and all fuel lines and connections near the regulator! If any fuel leaks are found, turn the ignition key to the OFF position, remove any spilled fuel and repair the leak before proceeding!**
15. Once the fuel pressure gauge registers fuel system pressure and there are no fuel leaks, start the engine and adjust the regulator to the desired fuel pressure. Turning the adjustment screw clockwise will increase fuel pressure.
16. Once the desired fuel pressure is achieved, tighten the regulator adjustment jam nut and attach the vacuum line.
17. Test drive the car to insure proper operation and re-check the fuel system for leaks.  
**If any leaks are found, immediately shut off the engine and repair the leak(s)!**

### **Ultimate Bolt-On Performance® Lifetime Warranty**

**Trick Flow Specialties cylinder head castings are backed by a lifetime warranty. If a cylinder head casting fails to provide the original purchaser with complete satisfaction, Trick Flow Specialties will repair or replace it free of charge — guaranteed!**

Moreover, the valves, valve guides, valve seats, valve job, valve springs, valve spring retainers, valve locks, rocker arm studs, guideplates, and valve stem seals included on assembled Trick Flow Specialties cylinder heads are warranted to the original purchaser to be free from defects in materials and workmanship for a period of two years from the date of purchase. All other Trick Flow Specialties products are warranted to be free from defects in materials and workmanship for a period of 90 days. There are no mileage limitations.

#### **Extent of Warranty**

Customers who believe they have a defective product should return it to the dealer from which they purchased or ship it freight prepaid to Trick Flow Specialties along with proof of purchase and a complete description of the problem. If a thorough inspection indicates defects in materials or workmanship, our sole obligation is to repair or replace the product.

This warranty is only if the product is properly installed, subjected to normal use and service, did not fail due to owner negligence or misuse, and has not been altered or modified.

Trick Flow Specialties warranties do not cover any installation or removal costs.

Trick Flow Specialties is not liable for consequential damages for breach of contract of any warranty in excess of the purchase price of the product sold.

#### **PROPOSITION 65 WARNING**

This product may contain one or more substances or chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

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