

# INSTRUCTIONS FOR FUEL INJECTION PRESSURE TESTER WITH TWO PRESSURE GAGES

- TESTS FUEL INJECTION PRESSURE ON MOST DOMESTIC AND IMPORTED VEHICLES.
- DUAL SCALE INDICATES PSI AND BAR
- EASY TO HOOK-UP AND USE

## CONTENTS OF KIT

<u>PART DESCRIPTION</u>	<u>QUANTITY</u>
Pressure Gage with American & Metric Scales. 0 to 50 PSI, 0 to 3.5 BAR...	1
Pressure Gage with American & Metric Scales. 0 to 100 PSI, 0 to 7 BAR....	1
1/4" x 1/4" x 1/4" NPT Tee.....	1
1/4" Barb x 1/4" NPT Male.....	2
1/4" Barb x 1/4" NPT Female.....	1
5/16" Barb x 1/4" NPT Male.....	2
1/4" Hose x 2" Long.....	1
5/16" Hose x 2" Long.....	1
5/16" Hose x 15" Long.....	2
24" Long Hose with fittings attached.....	1
Hose Clamps.....	4
14" Ford Adapter Hose with fittings attached.....	1
1/8" NPT Female x 1/4" NPT Male.....	1

## **I. IMPORTANT PRE-TEST INFORMATION**

**CAUTION: FUEL INJECTION SYSTEMS ARE PRESSURIZED! RELIEVE FUEL PRESSURE BEFORE CONNECTING ANY TEST EQUIPMENT TO SYSTEM OR DISASSEMBLING ANY SYSTEM COMPONENT(S). REFER TO THE VEHICLE'S SERVICE MANUAL FOR SPECIFIC FUEL PRESSURE RELIEF PROCEDURE(S).**

1. Always refer to the vehicle's service manual whenever possible for proper fuel pump pressures and maintenance procedures.
2. **DO NOT USE THIS TEST EQUIPMENT ON DIESEL FUEL SYSTEMS!**
3. Always wear eye protection. **DO NOT SMOKE WHILE PERFORMING ANY FUEL INJECTION TESTS OR REPAIRS.**
4. Have a dry chemical (Class B) fire extinguisher within reach.
5. Provide a suitable container to catch released fuel when the system is de-pressurized.
6. Take extra care to prevent fuel from contacting hot engine surfaces. It is recommended that tests are performed when the engine is cold.
7. If a drop light is used, do not allow fuel to contact the hot surface of the bulb.
8. **NEVER REMOVE ANY FITTINGS WITH THE ENGINE RUNNING!**
9. Never loosen any fittings or attempt to remove hoses of vehicle or test kit until you have relieved the fuel system pressure. Refer to the vehicle service manual for specific fuel pressure relief procedure(s).
10. Always check all connections for leaks during test. At any sign of leaks, turn off the engine or disable the fuel pump. Clean up any spilled fuel and correct all leaks before resuming test.
11. When test is complete, de-pressurize the system and remove test equipment. Re-assemble vehicle's fuel line(s) to original condition. Start engine and check for leaks. If any leaks are present, stop the engine, relieve fuel pressure and repair all leaks.
12. Use caution at all times. Keep yourself, clothing, and test equipment away from all moving engine parts.
13. **DO NOT DRIVE VEHICLE WITH TESTER CONNECTED!**

## **GAGE SELECTION AND ASSEMBLY**

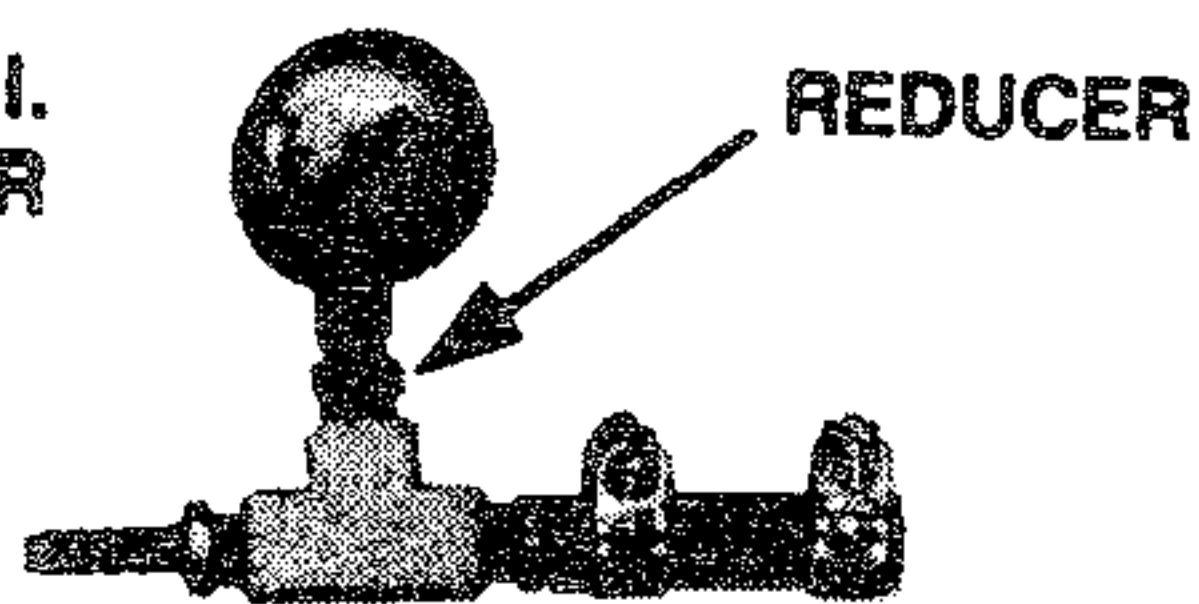
1. Select the gage that has a scale which can comfortably handle the fuel pressure specified for the vehicle. Ideally, the recommended pressure should fall at the middle of the gage scale. This is located at the 12 o'clock position on the gage face.
2. **IF THE SPECIFIED PRESSURE IS NOT KNOWN, USE THE LARGE PRESSURE GAGE (0-100 PSI & 0-7 BAR)**
3. Use a small amount of pipe compound or gasket sealer on the pipe threads of the gage and hose couplings that thread into the "tee" fitting of the tester.



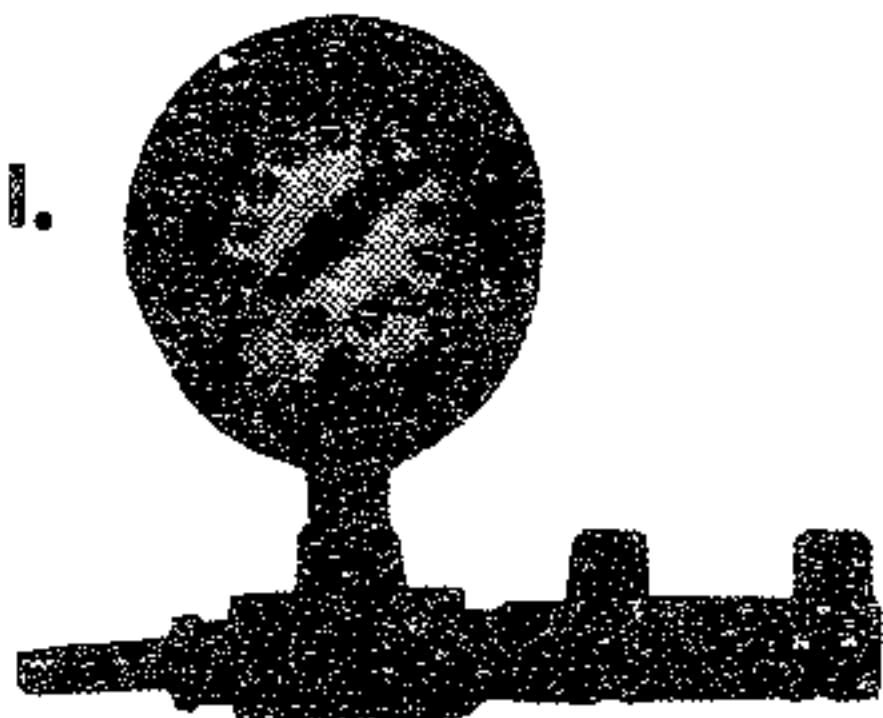
## II. VARIOUS HOOK-UPS & TEST PROCEDURES

### A. Typical hook-up with 1/4" or 5/16" fuel line

0 to 50 P.S.I.  
0 to 3.5 BAR  
GAGE



0 to 100 P.S.I.  
0 to 7 BAR  
GAGE



**Note:** This is only one of several typical hook-ups which can be made.

1. Turn ignition OFF.
2. RELIEVE FUEL PRESSURE. Refer to vehicle service manual for specific procedure(s).
3. Loosen hose clamp on high pressure side of fuel pump.
4. Connect tester as shown into the system between the loose fuel line and the fuel pump. Use either the 1/4" or 5/16" fittings and hose depending on the sizes on the vehicle.
5. Tighten hose clamps securely on the hose.
6. Start engine and allow it to idle. CHECK ALL CONNECTIONS FOR LEAKS.
7. Read gage and compare result with pressure in service manual.
8. Stop engine and turn ignition OFF.
9. Refer to Pre-Test Information before disconnecting tester from vehicle.
10. Replace vehicle's fuel line hose and re-tighten clamp securely. Check all connections for leaks.

### B. Special hook-up for some Volkswagen models



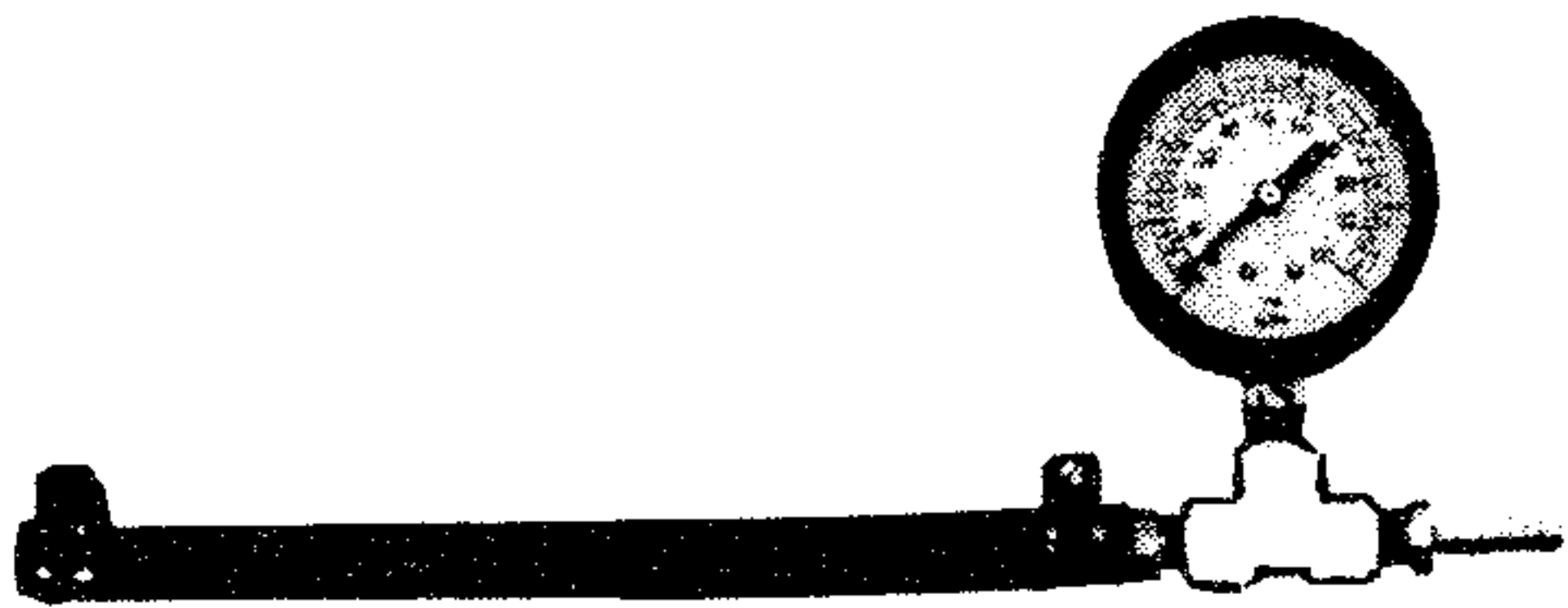
1. Turn ignition OFF.
2. RELIEVE FUEL PRESSURE. Refer to vehicle service manual for specific procedure(s).
3. Assemble gage with 1/4" hose and clamps as shown. Tighten upper clamp securely.
4. Remove cap from special testing hose barb on vehicle.
5. Install hose assembly with gage onto test barb and tighten lower clamp securely.
6. Start engine and allow it to idle. CHECK ALL CONNECTIONS FOR LEAKS.
7. Read gage and compare result with pressure in service manual.
8. Stop engine and turn ignition OFF.
9. Refer to Pre-Test Information before disconnecting tester from vehicle.
10. Replace cap onto special hose barb on vehicle. Check all connections for leaks.

### C. GM Multiport and Chrysler Multiport:



1. Turn ignition OFF.
2. Attach gage to non-swivel female fitting on 24" hose.
3. Remove protective cap from test fitting (Schrader Valve) on vehicle. This fitting is usually located on the vehicle's fuel rail.
4. RELIEVE FUEL PRESSURE. Refer to vehicle service manual for specific procedure(s).
5. Attach female fitting from tester hose to test fitting on vehicle.
6. Start engine and allow it to idle. CHECK ALL CONNECTIONS FOR LEAKS.
7. Read gage and compare result with pressure in service manual.
8. Stop engine and turn ignition OFF.
9. Refer to Pre-Test Information before disconnecting tester from vehicle.
10. Replace cap onto vehicle test fitting. Check all connections for leaks.

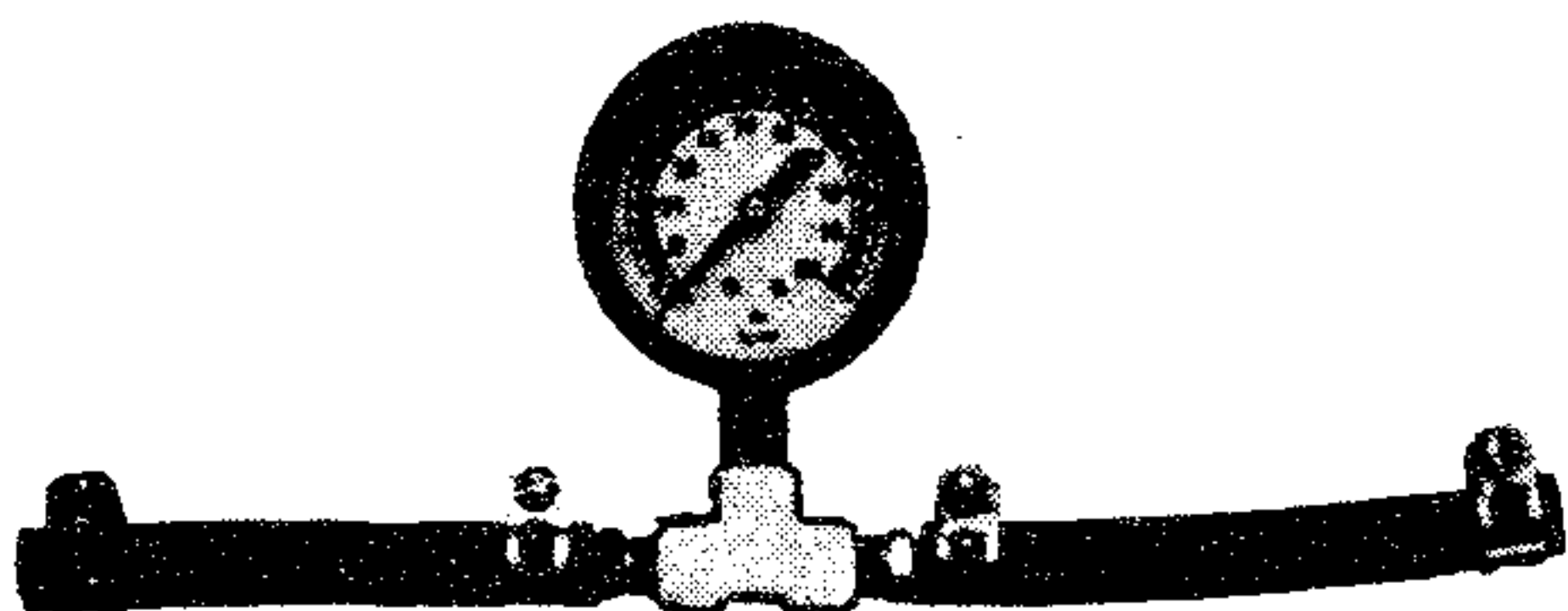
#### D. Older GM Throttle Body Injection (T.B.I.):



1. Turn ignition OFF.
2. Assemble hose, fittings and clamp to gage as shown. Tighten all clamps.
3. RELIEVE FUEL PRESSURE. Refer to vehicle service manual for specific procedure(s).
4. Remove hose clamp and hose from lower fitting of vehicle's fuel filter.
5. Attach tester assembly to fuel filter and fuel line hose. Tighten all clamps.
6. Start engine and allow it to idle. CHECK ALL CONNECTIONS FOR LEAKS.
7. Read gage and compare result with pressure in service manual.
8. Stop engine and turn ignition OFF.
9. Refer to Pre-Test Information before disconnecting tester from vehicle.
10. Re-attach hose and hose clamp to lower fitting on vehicle's fuel filter. Check all connections for leaks.

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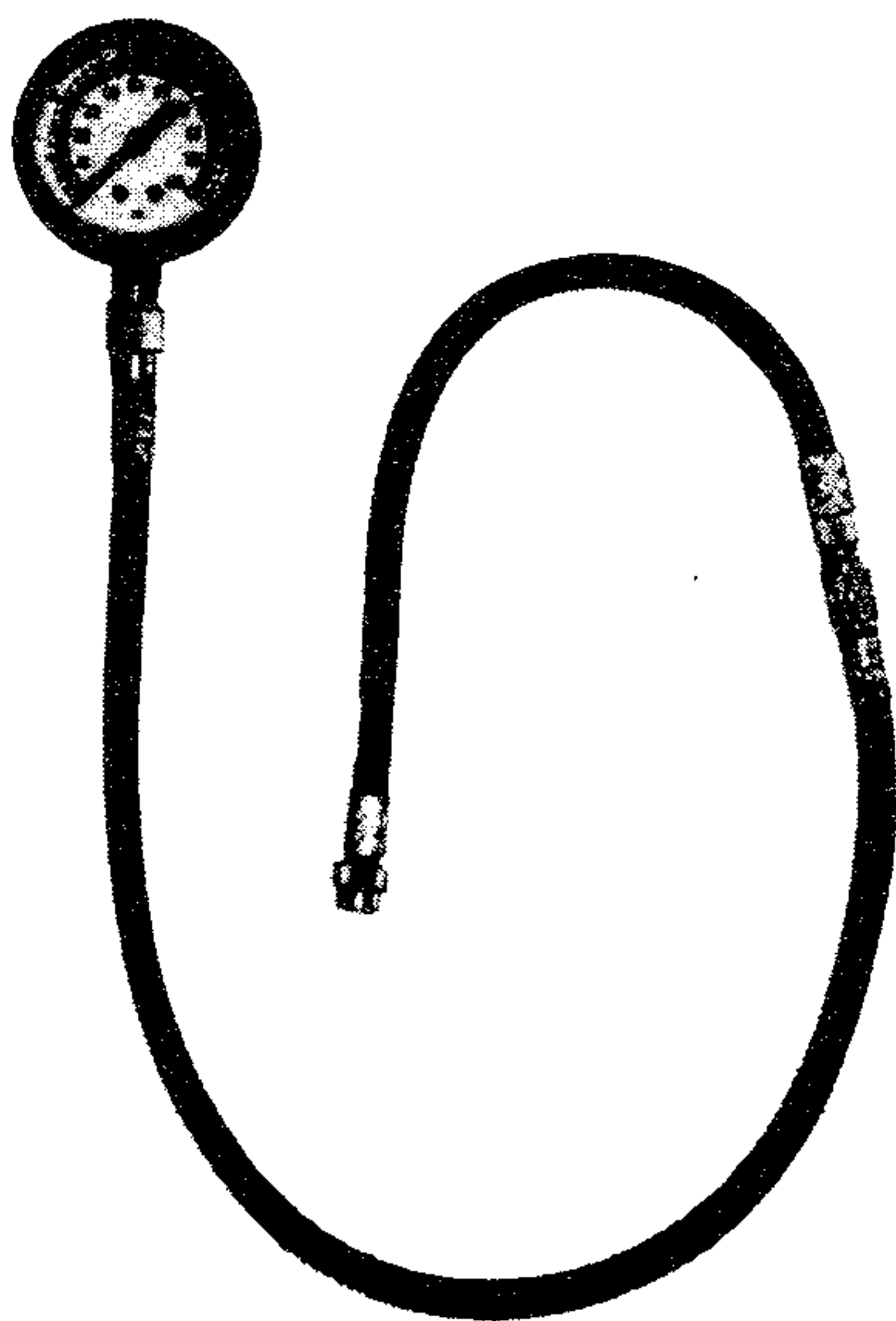
#### E. Chrysler Throttle Body Injection (T.B.I.):



1. Turn ignition OFF.
2. Assemble hose, fittings and clamp to gage as shown. Tighten all clamps.
3. RELIEVE FUEL PRESSURE. Refer to vehicle service manual for specific procedure(s).
4. Remove fuel hose between fuel filter and throttle body on vehicle.
5. Attach tester assembly to vehicle. Tighten all clamps.
6. Start engine and allow it to idle. CHECK ALL CONNECTIONS FOR LEAKS.
7. Read gage and compare result with pressure in service manual.
8. Stop engine and turn ignition OFF.
9. Refer to Pre-Test Information before disconnecting tester from vehicle.
10. Re-attach the fuel hose between fuel filter and throttle body on vehicle. Check all connections for leaks.

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#### F. Ford Vehicles Equipped with Small Schrader Valve (Multiport and C.F.I.):



1. Turn ignition OFF.
2. Attach 100 PSI gage to 1/4" NPT female end of hose. Use a small amount of pipe compound or Teflon tape on threads. Securely tighten with wrench to prevent leaks.
3. The other end of the blue hose has a female swivel fitting. Attach this end to the male fitting of the Ford adapter. HAND TIGHTEN.
4. The tester is now ready for attachment to the test valve on vehicle.
5. RELIEVE FUEL PRESSURE. Refer to vehicle service manual for specific procedure(s).
6. Remove protective cap from test fitting (Schrader Valve) on vehicle. This fitting is usually located on the vehicle's fuel rail (for Multiport) or on the throttle body (for C.F.I.)
7. Attach female end of Ford adapter to Schrader valve. HAND TIGHTEN.
8. Start engine and allow it to idle. CHECK ALL CONNECTIONS FOR LEAKS.
9. Read gage and compare result with pressure in service manual.
10. Stop engine and turn ignition OFF.
11. Refer to Pre-Test Information before disconnecting tester from vehicle.
12. Replace cap onto vehicle test fitting. Check all connections for leaks.