

Owner's Manual & Safety Instructions

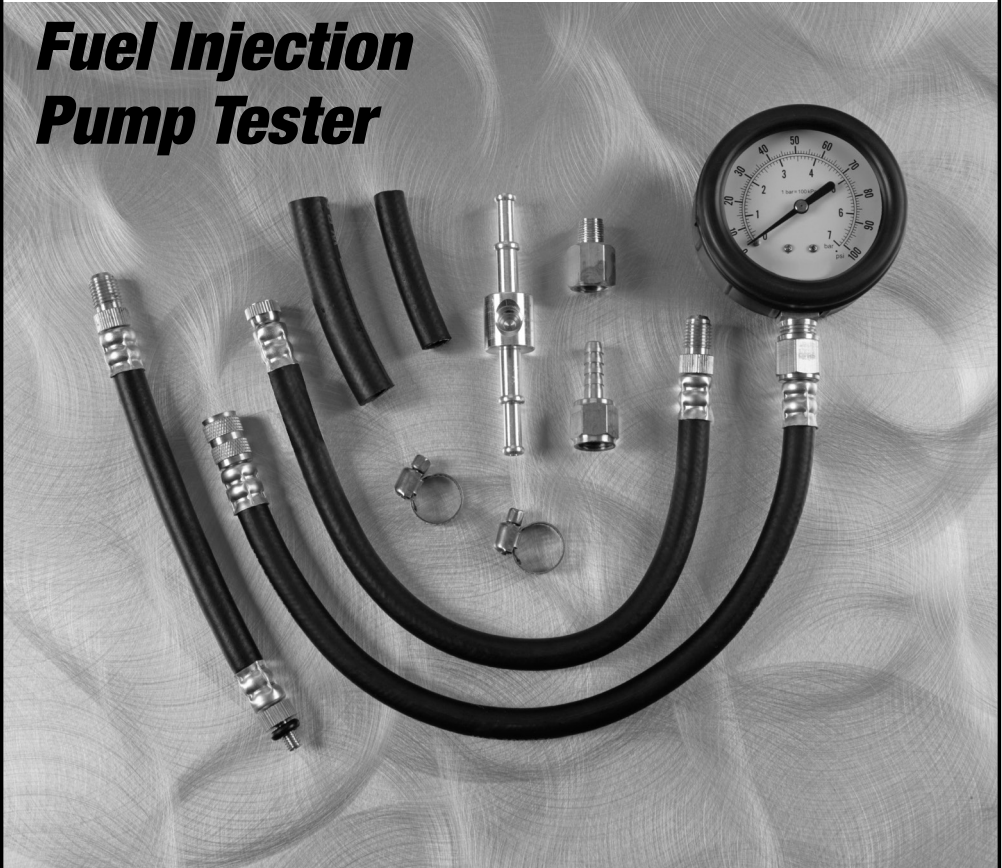
Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

REV 15c

PITTSBURGH[®] AUTOMOTIVE

ITEM 62623

Fuel Injection Pump Tester



Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠ WARNING

**Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.**

Specifications

Compatibility	For most fuel injection systems except: Bosch® CIS Jetronic® Throttle Body Systems on GM® vehicles
Pressure Gauge	0~100 PSI, 0~7 Bar, 1/4" - 18 NPT Swivel

IMPORTANT SAFETY INFORMATION

The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

1. Do not use on diesel engines.
2. Stop engine, loosen gas cap and relieve fuel pump pressure (see service manual) before opening fuel line. Do not change fittings with engine running.
3. Before testing fuel system, verify all connections are tight to eliminate leaking.
4. **Gasoline is highly flammable.** Do not smoke, or test near open flames or a source of electrical sparks. Do not allow gasoline to come in contact with the hot manifolds or other engine components. If additional lighting is required, use only explosion proof drop-light.
5. Do not drive the vehicle while under test.
6. Before testing, review and follow instructions from the vehicle manufacturer's service manual.
7. After testing, turn engine off and depressurize system before removing test components. Place absorbing cloths around fittings before disconnecting. Wipe up any spilled fuel immediately. Place cloths in a fireproof container.
8. Clean all testing components of residual fuel before storing.
9. Wear ANSI-approved safety goggles and heavy-duty work gloves during setup and use.
10. This product is not a toy. Do not allow children to play with or near this item.
11. Use as intended only.
12. Inspect before every use; do not use if parts are loose or damaged.
13. Perform service in a well-ventilated, outdoor location. Not only are gasoline fumes flammable, but carbon monoxide is produced by a running engine. This is a deadly gas that you cannot see or smell.
14. **WARNING!** The brass components of this product contain lead, a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. (California Health & Safety Code § 25249.5, *et seq.*)
15. **WARNING:** This product contains di (2-ethylhexyl) phthalate (DEHP), a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. (California Health & Safety Code § 25249.5, *et seq.*)
16. Maintain product labels and nameplates. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

Operating Instructions



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this document including all text under subheadings therein before set up or use of this product.

1. **WARNING!** Before making connections and testing, place a dry chemical (Class B) fire extinguisher nearby.

NOTE: Pressure Gauge connections are made either directly to the pump, or in-line between the pump and engine.

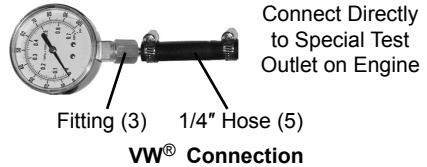
2. Relieve fuel line pressure from vehicle fuel system. Refer to vehicle manufacturer's service manual for instructions on relieving pressure from fuel line, testing procedures and connection points, and normal pressure readings.
3. Use various fittings and hoses to connect Pressure Gauge (1) directly to fuel pump; as in the case of VW®, or in-line between the fuel pump and engine for most other vehicles. See connection examples that follow.



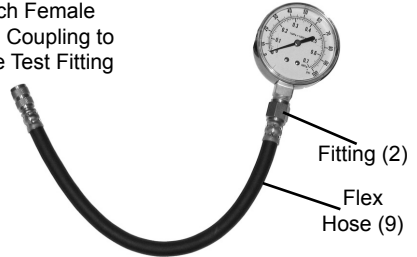
Typical 1/4" Connection



Typical 3/8" Connection



Attach Female Swivel Coupling to Engine Test Fitting



Cadillac® - Bendix® Connection

4. Use small amount of pipe compound or PTFE thread seal tape on connection threads to prevent leaks. Tighten using wrench (not supplied).

CAUTION! Make sure all connections are tight to avoid fuel leaks.

5. Start engine and immediately check for fuel leaks. If fuel leaks are found, turn engine off and fix leaks.
6. Read pressure off Pressure Gauge.
7. Turn off engine and remove keys from ignition.
8. Wrap cloth around hose connection point before relieving pressure from fuel line and removing testing components.
9. Reconnect vehicle's fuel injection line.
10. Wipe up any spilled fuel. Dispose of fuel-soaked rags in a fireproof container.
11. Start engine and check for leaks. Fix leaks if found.
12. Clean and store Fuel Injection Test Kit components and place in plastic kit bag.

Fuel Pump Pressure Examples

Note: Read the vehicle's service manual to determine the actual Fuel Pump pressure. The chart below is only provides a general frame of reference for pump pressure.

U.S. Built Vehicles	Pump Pressure (PSI)
Cadillac® - EFI	37.5 – 41
Cadillac® - DEFI	9 – 12
Imperial®	8
Lincoln® & Versailles®	30 – 40

Foreign Built Vehicles	Pump Pressure (PSI)
Alfa Romeo®	16 – 18
Alliance® (49 states) Bendix® Type	28 – 36
Alliance® (California only) L-Jetronic®	36
Audi-Fox®	66.8 – 75.3
BMW®	21.7 – 40
Datsun®	28 – 43
Fiat®	28 – 30
Jaguar®	28 – 30
Mercedes Benz®	29 – 30
Porsche®	28.4
Renault® 17TS	35
Saab®	27
Volkswagen®	28
Volvo®	28

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Parts List and Diagram

Parts List

Part	Description	Qty
1	Pressure Gauge	1
2	Brass Fitting (1/8" - 27 NPT x 1/4" - 18 NPT)	1
3	Brass Fitting (1/4" Barbed x 1/4" - 18 NPT)	1
4	Aluminum Fitting (1/4" & 3/8" Barbed x 1/8" - 24 NPT)	1

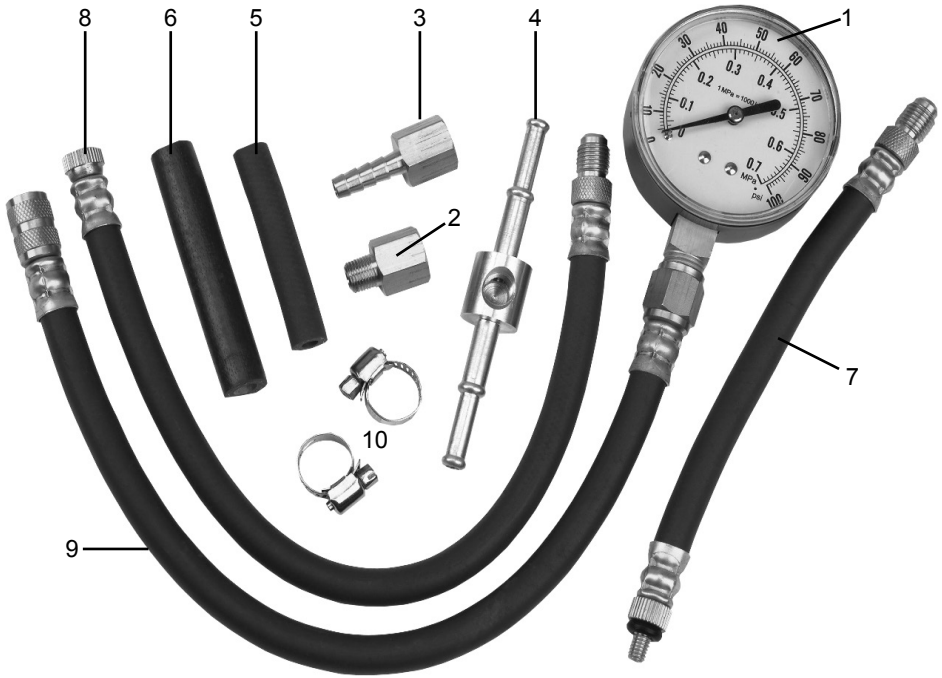
Part	Description	Qty
5	Rubber Hose (1/4" x 2.5" L)	1
6	Rubber Hose (3/8" x 3" L)	1
7	Short Flex Hose	1
8	Medium Flex Hose	1
9	Long Flex Hose	1
10	Hose Clamp	2

Record Product's Serial Number Here: _____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

Diagram



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Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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