



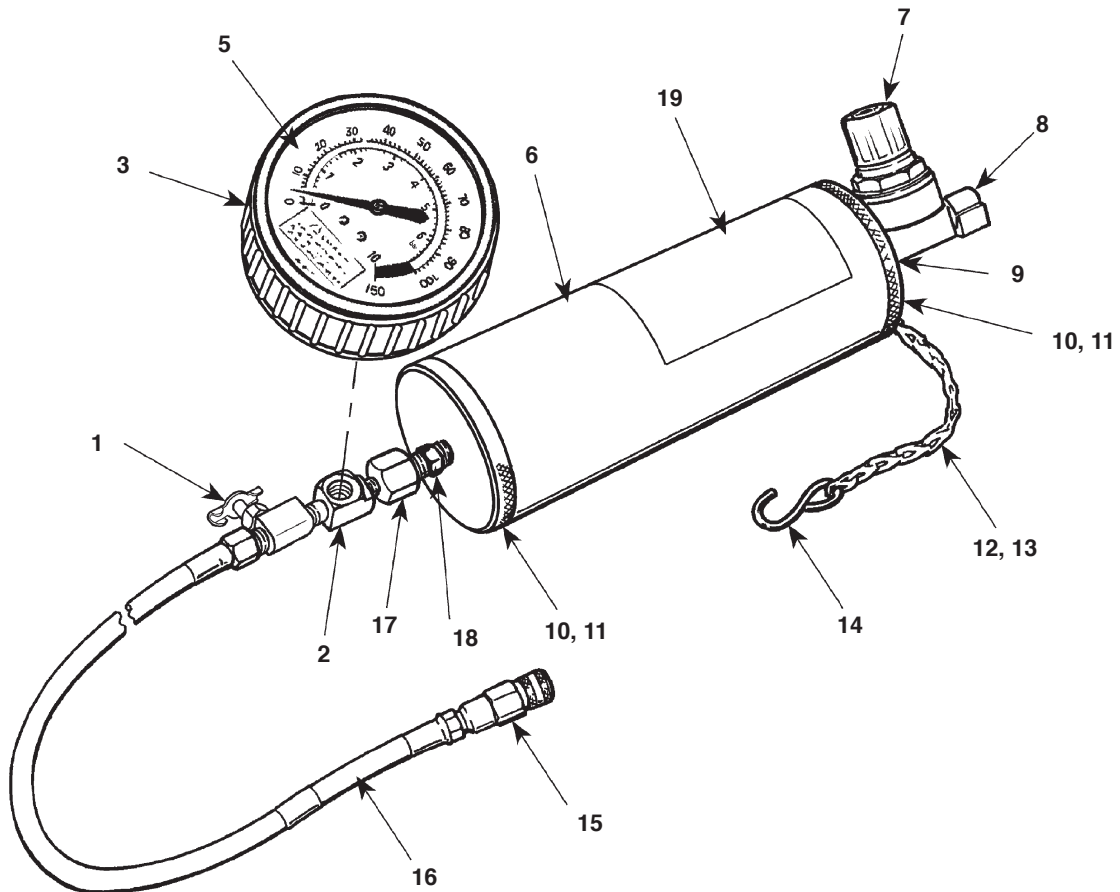
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Form No. 107340

**Parts List &  
Operating Instructions  
for:**

**7448**

## Fuel Injector Cleaner



| Item No. | Part No. | Qty. | Description                             | Item No. | Part No. | Qty.                            | Description   |
|----------|----------|------|---|----------|----------|---------------------------------|---|
| 1        | 208389   | 1    | Valve                                   | 11       | 213209   | 2                               | O-ring<br>(2 <sup>11</sup> / <sub>16</sub> x 2 <sup>1</sup> / <sub>2</sub> x 3 <sup>3</sup> / <sub>32</sub> , -144) |
| 2        | 19463    | 1    | Tee Fitting                             | 12       | 10473    | 6 <sup>7</sup> / <sub>8</sub> " | Sash Chain  |
| 3        | 517145   | 1    | Rubber Gauge Cover                      | 13       | 213876   | 1                               | Split Ring  |
| 5        | 313575   | 1    | Pressure Gauge<br>(0-100 PSI / 0-7 BAR) | 14       | 15665    | 1                               | "S" Hook  |
| 6        | 47955    | 1    | Cylinder Body                           | 15       | 206878   | 1                               | Coupler Socket  |
| 7        | 213299   | 1    | Air Regulator                           | 16       | 306905   | 1                               | Hose (1/8 NPTF x 6' Lg.)  |
| 8        | 15373    | 1    | 90° Elbow Fitting                       | 17       | 17022    | 1                               | Straight Fitting  |
| 9        | 16494    | 1    | Straight Fitting<br>(1/4 NPTF)          | 18       | 216297   | 1                               | Check Valve   |
| 10       | 309796   | 2    | Cylinder Cap                            | 19       | 313576   | 1                               | Decal   |

Sheet No. 1 of 2

Issue Date: Rev. C, May 31, 2012

## Safety Precautions



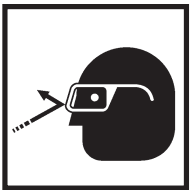
**WARNING:** The following safety precautions must be carefully observed to reduce the risk of fire and personal injury.



- Read and understand the operating instructions and safety precautions before using the Fuel Injector Cleaner. If the operator cannot read English, operating instructions and safety precautions must be read and discussed in the operator's native language.

– *Si el operador no puede leer el inglés, las instrucciones de operación y las precauciones de seguridad deberán leerse y comentarse en el idioma nativo del operador.*

– *Si l'utilisateur ne peut lire l'anglais, les instructions et les consignes de sécurité doivent lui être expliquées dans sa langue maternelle.*



- Wear eye protection that meets ANSI Z87.1 and OSHA requirements.
- Tighten all connections before cleaning injectors; fuel leakage could cause a fire.
- Release fuel system pressure before servicing fuel system components.
- To avoid spilling fuel on the engine, wrap a shop towel around pressure tap fittings when connecting or disconnecting adapters. Pressurized fuel can create a fire hazard. Dispose of the shop towel correctly.



- Keep dirt out of the system.
- Use the vehicle manufacturer's recommended procedures to service injectors. Never exceed recommended pressures when cleaning fuel injectors.
- Replace injector o-rings whenever injectors are removed.
- Use the Fuel Injector Cleaner on gasoline engines only.

- Protect painted surfaces from fuel or cleaner fluid spills.
- Keep tools, electrical cords, and hoses away from moving engine parts.
- Vent exhaust to the outside while running the vehicle.
- Wrap a shop towel around the fitting when removing the cleaner assembly hose. Residual line pressure may spray a small amount of cleaner fluid.
- Observe normal precautions for working with flammable liquids: no smoking, open flames, electrical sparks, etc. Have a Class B fire extinguisher available while working on fuel injection systems.
- Do not modify any components of the Fuel Injector Cleaner. Do not replace any components of the Fuel Injector Cleaner except those specified by the manufacturer.

Refer to any operating instructions included with the product for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

Items found in this parts list have been carefully tested and selected by OTC. **Therefore: Use only OTC replacement parts!**

Additional questions can be directed to the OTC Technical Services Department.

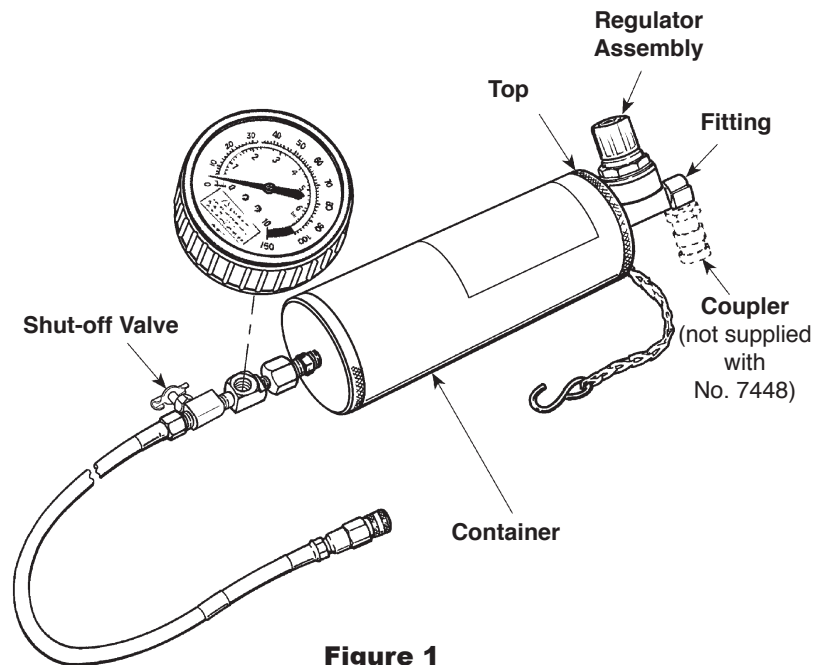
## Cleaning Fuel Injectors

*Note: The optional OTC Professional Fuel Injection Application Manual (OTC No. 6550MAN-08; sold separately) contains instructions and diagrams specific to each vehicle system.*

1. Read, understand, and follow the *Safety Precautions* on the previous page before using the Fuel Injector Cleaner.
2. Run the engine until it reaches normal operating temperature.
3. Shut OFF engine. Turn OFF all accessories.
4. Disable fuel pump.

*Note: It is best to unplug the fuel pump at the fuel tank. On some vehicles, pulling the fuel pump fuse also disables the ignition system or fuel injectors.*

5. Turn OFF the shut-off valve at the bottom of the Fuel Injector Cleaner container. See Figure 1. *Note: Valve is OFF if it is turned all the way clockwise.*

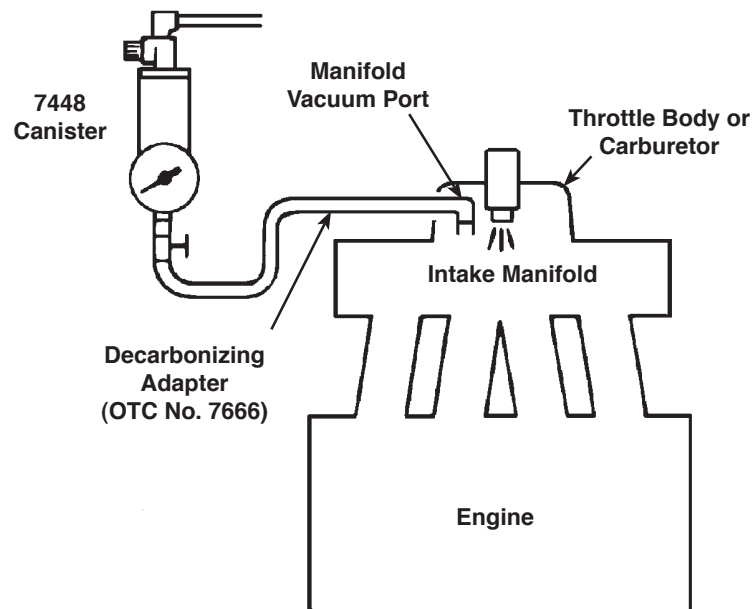


**Figure 1**

6. Remove the top and regulator assembly from the Fuel Injector Cleaner container. Pour fuel injector cleaner (one can of OTC No. 7000 - Pro Inject-R-Kleen®) into container. Install top and regulator assembly.
7. Use the chain and hook to hang the Fuel Injector Cleaner from the hood of the vehicle.
8. Refer to the vehicle service manual — or optional *OTC Professional Fuel Injection Application Manual* — to determine fuel pressure operating specifications. *Note: To keep cleaner fluid from going back to tank, block fuel return line or adjust regulator to run vehicle at 5 PSI under fuel pressure specifications.*
9. Turn regulator on top of Fuel Injector Cleaner to full OPEN position (counterclockwise).
10. Attach a shop air hose to fitting on top of cleaner container.
11. Adjust regulator (by turning it clockwise) to vehicle manufacturer's fuel running specification or 5 PSI under the manufacturer's specs. to prevent fuel return.
12. Open valve on bottom of cleaner to full OPEN position (counterclockwise).
13. Start engine and let it run at 1,000 – 1,500 RPM. *Note: Adjust air pressure to obtain a smooth RPM, if necessary.*
14. Run engine until container is empty and engine stalls.
15. Turn OFF ignition.
16. Turn valve on bottom of cleaner to full OFF (clockwise).
17. Disconnect air supply. Turn regulator to full OPEN (counterclockwise) to release pressure in container.
18. Remove cleaner. Remove fuel adapter fitting. Connect fuel line. Remove block on fuel return line and connect fuel return line, if applicable. Connect fuel pump power.
19. Start engine and check for fuel leaks.

### Decarbonizing the Engine

1. Read, understand, and follow *Safety Precautions* in this document before using the Fuel Injector Cleaner.
2. Run the vehicle until the engine reaches normal operating temperature. Shut OFF the engine.
3. Turn regulator on top of Fuel Injector Cleaner to full OPEN position (counterclockwise). Leave the fitting on the end of the regulator open—do NOT connect shop air.
4. Close the shut-off valve at the bottom of the Fuel Injector Cleaner. *Note: Valve is OFF if it is turned all the way clockwise.*
5. Remove top and regulator assembly from Fuel Injector Cleaner. Fill the container with one can of D-Karbonizer<sup>4</sup> (OTC No. 7904). Install top and regulator assembly.
6. Connect the canister hose to a decarbonizing adapter (OTC No. 7666).
7. Locate a manifold vacuum port (NOT ported vacuum) near the throttle body or carburetor. This will more evenly distribute the decarbonizing solution.
8. Connect the decarbonizer hose (with adapter) to the manifold vacuum port. See Figure 2.



**Figure 2**

9. Start the engine. Manually increase throttle to 1,500 RPM while slowly opening the shut-off valve. The engine will run rough and RPM will decrease. Do NOT manually increase RPM.
10. When the container is empty, turn OFF the engine.
11. Remove the adapter fitting from the engine. Connect the vacuum hose.
12. Let the vehicle sit for at least 30 minutes to allow the solution to work on soft carbon deposits.
13. Test drive the vehicle for at least 15 miles to flush loosened carbon deposits out of the system.

*Note: Until the system is cleaned out, the vehicle may start hard, run rough, and there may be heavy white smoke from the tailpipe.*