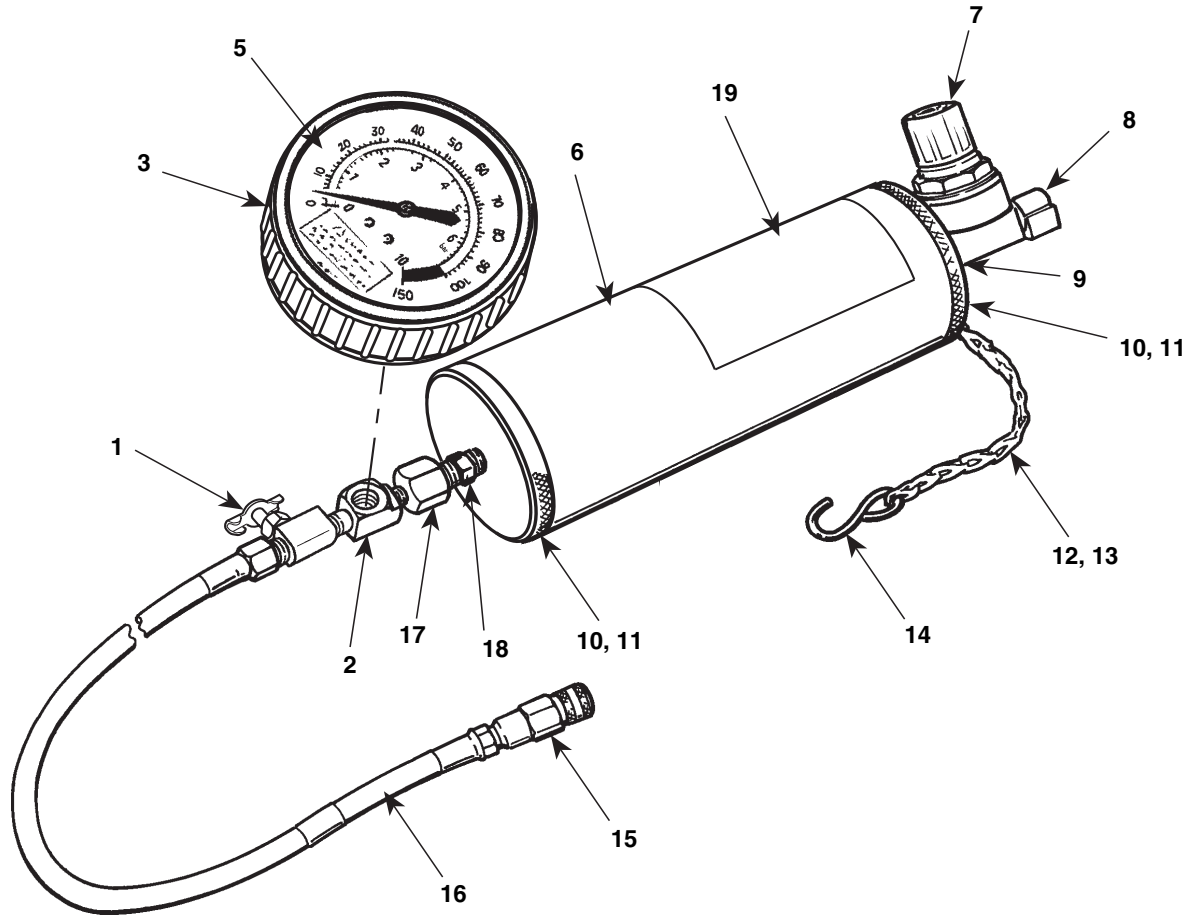


**Parts List &
 Operating Instructions**
 for:

7448

Fuel Injector Cleaner



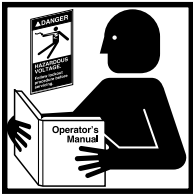
Item No.	Part No.	Qty.	Description
1	208389	1	Valve
2	19463	1	Tee Fitting
3	517145	1	Rubber Gauge Cover
5	313575	1	Pressure Gauge (0-100 PSI / 0-7 BAR)
6	47955	1	Cylinder Body
7	213299	1	Air Regulator
8	15373	1	90° Elbow Fitting
9	16494	1	Straight Fitting (1/4 NPTF)
10	309796	2	Cylinder Cap

Item No.	Part No.	Qty.	Description
11	213209	2	O-ring (2 ¹¹ / ₁₆ x 2 ¹ / ₂ x ³ / ₃₂ , -144)
12	10473	6 ⁷ / ₈ "	Sash Chain
13	213876	1	Split Ring
14	15665	1	"S" Hook
15	206878	1	Coupler Socket
16	306905	1	Hose (1/8 NPTF x 6' Lg.)
17	17022	1	Straight Fitting
18	216297	1	Check Valve
19	313576	1	Decal

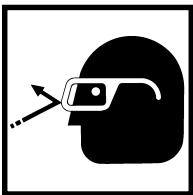
Parts Included but Not Shown
 106103 1 Instruction Manual

Safety Precautions

⚠ WARNING: The following safety precautions must be carefully observed to help 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 the Fuel Injectors

Refer to the *Fuel Injection System Specifications* manual (#106103), which is included in the #7448 kit. The manual contains diagrams and instructions specific to each vehicle system.

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

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

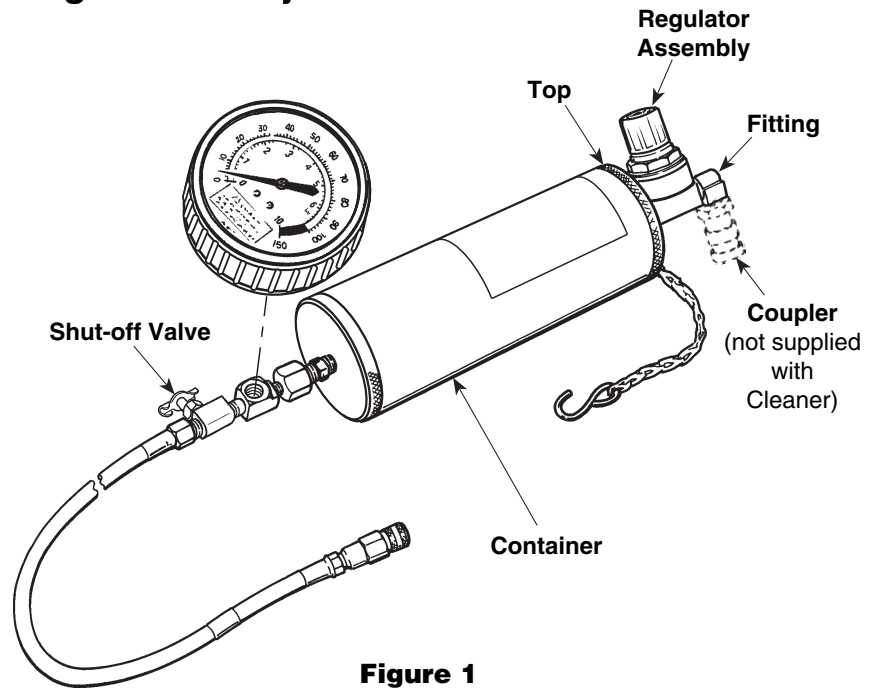


Figure 1

5. Turn OFF shut-off valve at bottom of Fuel Injector Cleaner container. See Figure 1. **Note:** Valve is OFF if it's turned all the way clockwise.
6. Remove top and regulator assembly from top of Fuel Injector Cleaner container. Pour fuel injector cleaner (one can of OTC #7000 - Pro Inject-R-Kleen®) into container. Install top and regulator assembly again.
7. Hang Fuel Injector Cleaner from hood of vehicle.
8. Refer to vehicle service manual or the *Fuel Injection System Specifications* manual to find fuel pressure operating specifications. **IMPORTANT: To keep cleaner fluid from going back to tank, block fuel return line or adjust regulator to run vehicle at 5 PSI under the 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 again to obtain a smooth RPM, if necessary.
14. Run engine until container is empty and engine stalls.
15. Turn ignition OFF.
16. Turn valve on bottom of cleaner to full OFF position (clockwise).
17. Disconnect air supply. Turn regulator to full OPEN position (counterclockwise) to release pressure in container.
18. Remove cleaner. Remove fuel adapter fitting. Connect fuel line again. Remove block on fuel return line and connect fuel return line again, if applicable. Connect fuel pump power again.
19. Start engine and check for fuel leaks.

Decarbonizing the Engine

1. Read, understand, and follow "Safety Precautions" before using Fuel Injector Cleaner.
2. Run the vehicle until the engine reaches normal operating temperature. Shut the engine OFF.
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's turned all the way clockwise.
5. Remove top and regulator assembly from top of Fuel Injector Cleaner. Fill the container with one can of D-Karbonizer⁴ (OTC No. 7904). Install top and regulator assembly again.
6. Connect the canister hose to a decarbonizing adapter (No. 7666).
7. Locate a manifold vacuum port (NOT ported vacuum) near the throttle body or carburetor. (This will distribute the decarbonizing solution more evenly.)

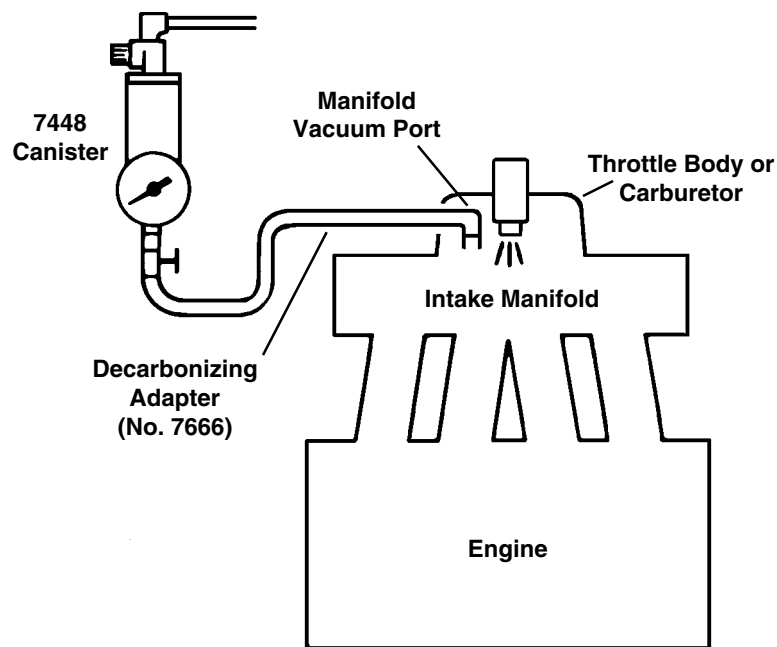


Figure 2

8. Connect the decarbonizer hose (with adapter) to the manifold vacuum port. See 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 the engine OFF.
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.*