

Sawyer Auto PG-1028969

Sawyer Auto Electric Fuel Pump Instruction Manual

MODEL: PG-1028969

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Sawyer Auto Electric Fuel Pump, Model PG-1028969. This fuel pump is designed as a direct-fit replacement for 1989-1991 and 1993-1995 Mazda RX7 vehicles. Please read these instructions thoroughly before proceeding with installation or use to ensure safety and optimal performance.

2. Safety Information

- **Fire Hazard:** Gasoline is highly flammable. Ensure adequate ventilation and work in a well-lit area free from open flames, sparks, or other ignition sources. Have a fire extinguisher readily available.
- **Electrical Hazard:** Disconnect the vehicle's battery before beginning any work on the fuel system to prevent electrical shorts or accidental pump activation.
- **Eye Protection:** Always wear appropriate eye protection to shield against fuel splashes or debris.
- **Fuel Pressure:** The fuel system operates under pressure. Relieve fuel system pressure before disconnecting any fuel lines to prevent injury from spraying fuel. Refer to your vehicle's service manual for the correct procedure.
- **Professional Installation:** Installation of fuel system components can be complex and dangerous. If you are not experienced with automotive repairs, it is highly recommended to seek professional installation by a qualified mechanic.
- **Proper Disposal:** Dispose of old fuel, filters, and other components according to local environmental regulations.

3. Package Contents

Verify that all components are present and undamaged before beginning installation. If any parts are missing or damaged, contact Sawyer Auto customer support immediately.

- 1 x Sawyer Auto Electric Fuel Pump (PG-1028969)
- Installation hardware (gaskets, O-rings, clamps, or connectors as applicable)

4. Installation

This section provides general installation guidelines. Always refer to your specific vehicle's service manual for detailed, model-specific instructions and torque specifications.

1. **Prepare Vehicle:** Park the vehicle on a level surface. Engage the parking brake. Disconnect the negative terminal of the vehicle's battery.
2. **Relieve Fuel Pressure:** Consult your vehicle's service manual for the correct procedure to relieve fuel system pressure. This typically involves disabling the fuel pump and cranking the engine, or using a specialized tool.
3. **Access Fuel Pump:** Depending on your vehicle model, the fuel pump may be located inside the fuel tank (requiring removal of the rear seat or accessing an access panel) or externally mounted. Safely lift and support the vehicle if necessary.
4. **Drain Fuel (if necessary):** If the pump is inside the tank, it may be necessary to drain the fuel tank to a safe level.
5. **Disconnect Components:** Carefully disconnect electrical connectors and fuel lines from the old fuel pump. Be prepared for residual fuel to spill. Use appropriate containers to catch any fuel.
6. **Remove Old Pump:** Unbolt or unclip the old fuel pump assembly from its mounting location.
7. **Install New Pump:** Install the new Sawyer Auto Electric Fuel Pump (PG-1028969) in the reverse order of removal. Ensure all new gaskets and O-rings are properly seated. Connect all fuel lines and electrical connectors securely.
8. **Reconnect Battery:** Reconnect the negative terminal of the vehicle's battery.
9. **Check for Leaks:** Turn the ignition key to the 'ON' position (without starting the engine) for a few seconds to allow the fuel pump to prime the system. Repeat this a few times. Inspect all connections for any signs of fuel leaks.
10. **Start Engine:** Start the engine and allow it to run for several minutes. Re-check for leaks and ensure proper operation.



Figure 1: Typical Electric Fuel Pump Installation Diagram. This diagram illustrates the general placement and connections of an electric fuel pump within a vehicle's fuel system, often located inside the fuel tank. It shows the fuel lines for supply and return, and the electrical connector.

5. Operation

The Sawyer Auto Electric Fuel Pump is designed to deliver a consistent supply of fuel from the fuel tank to the engine's fuel injection system. Upon turning the ignition key to the 'ON' position, the pump will activate briefly to prime the fuel system. Once the engine is started, the pump operates continuously to maintain the necessary fuel pressure for optimal engine performance. Normal operation is typically quiet; unusual noises may indicate a problem.

6. Maintenance

Proper maintenance of your vehicle's fuel system components contributes to the longevity and efficiency of your fuel pump.

- **Fuel Filter:** Regularly inspect and replace your vehicle's fuel filter according to the manufacturer's recommended service intervals. A clogged fuel filter can put excessive strain on the fuel pump, leading to premature failure.

- **Fuel Quality:** Use high-quality fuel to prevent contaminants from entering the fuel system and potentially damaging the pump.
- **Fuel Level:** Avoid consistently running your vehicle with a very low fuel level, as the fuel helps cool and lubricate the pump.

7. Troubleshooting

If you experience issues with your fuel pump, consider the following common problems and potential solutions. For complex issues, professional diagnosis is recommended.

Symptom	Possible Cause	Action
Engine cranks but won't start	No fuel pressure, faulty electrical connection, clogged fuel filter	Check fuel pump fuse/relay. Verify electrical connections. Inspect fuel filter. Listen for pump priming sound.
Engine stalls or loses power	Insufficient fuel delivery, clogged fuel filter, low fuel pressure	Check fuel pressure with a gauge. Replace fuel filter. Inspect fuel lines for kinks.
Whining or loud noise from fuel tank	Fuel pump struggling, low fuel level, contaminated fuel	Ensure adequate fuel level. Check fuel quality. Consider professional inspection if noise persists.
Fuel leaks	Improperly seated gaskets/O-rings, loose connections, damaged fuel lines	Immediately shut off engine. Re-inspect all connections and seals. Tighten or replace as necessary.

8. Specifications

- **Model Number:** PG-1028969
- **Compatibility:** 1989-1991, 1993-1995 Mazda RX7
- **Manufacturer Part Number:** PG-1028969
- **Item Weight:** Approximately 5 pounds
- **Package Dimensions:** Approximately 10 x 10 x 10 inches

9. Warranty and Support

Sawyer Auto products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the official Sawyer Auto website or contact our customer support.

Customer Support:

- **Website:** www.sawyerauto.com (example link)
- **Email:** support@sawyerauto.com (example email)
- **Phone:** 1-800-XXX-XXXX (example number)

When contacting support, please have your product model number (PG-1028969) and purchase information readily available.

