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Denso 477-0576

Denso Condenser A/C - 477-0576 User Manual

Model: 477-0576 | Brand: Denso

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Denso 477-0576 A/C Condenser. The condenser is a critical component of your vehicle's air conditioning system, responsible for dissipating heat from the refrigerant. Please read this manual thoroughly before proceeding with any installation or service.

2. SAFETY INFORMATION

Warning: Automotive air conditioning systems contain pressurized refrigerant. Improper handling can lead to serious injury, including frostbite or chemical burns. Always wear appropriate personal protective equipment (PPE) such as safety glasses and gloves when working with A/C systems.

- Always disconnect the vehicle's battery before beginning any work.
- Ensure the A/C system is properly discharged by a certified technician before removing components.
- Refer to your vehicle's service manual for specific procedures and torque specifications.
- Do not attempt repairs if you are not familiar with automotive A/C systems. Professional installation is highly recommended.
- Keep children and pets away from the work area.

3. SETUP AND INSTALLATION

The Denso 477-0576 A/C Condenser is designed as a direct-fit replacement. Installation typically involves removing the old condenser and installing the new unit. Due to the complexity and safety requirements of automotive A/C systems, professional installation by a qualified technician is strongly advised.

3.1 Pre-Installation Checks

- Verify that the new condenser matches the original unit in size, mounting points, and connection types.
- Inspect the new condenser for any shipping damage.

- Ensure all necessary O-rings and seals are available. (Note: This product may not include O-rings; acquire them separately if needed).

3.2 General Installation Steps (Consult Vehicle Service Manual)

1. Safely discharge the vehicle's A/C system using proper recovery equipment.
2. Disconnect the battery.
3. Remove any components obstructing access to the condenser (e.g., grille, bumper, radiator support).
4. Disconnect the refrigerant lines from the old condenser. Cap the lines immediately to prevent contamination.
5. Remove the mounting bolts and carefully extract the old condenser.
6. Install the new Denso 477-0576 condenser, ensuring proper alignment with mounting points.
7. Replace O-rings on refrigerant lines with new, A/C-compatible O-rings and lubricate them with appropriate refrigerant oil.
8. Connect the refrigerant lines to the new condenser, tightening to the vehicle manufacturer's specified torque.
9. Reinstall any removed components.
10. Evacuate the A/C system to remove air and moisture.
11. Recharge the A/C system with the correct type and amount of refrigerant and oil, as specified by the vehicle manufacturer.
12. Check for leaks using a leak detector.
13. Reconnect the battery and test the A/C system for proper operation.



Image 1: Denso 477-0576 A/C Condenser. This image displays the front view of the Denso 477-0576 A/C Condenser, showing its fin and tube construction, mounting brackets at the top, and refrigerant line connections on the right side. The unit is designed for efficient heat exchange within the vehicle's air conditioning system.

4. OPERATING PRINCIPLES

The A/C condenser does not have direct user-operable controls. Its function is integral to the vehicle's air conditioning system. When the A/C system is activated, the compressor pumps high-pressure, high-

temperature gaseous refrigerant into the condenser. As air flows over the condenser's fins and tubes, heat is transferred from the refrigerant to the ambient air. This process causes the refrigerant to condense from a gas into a high-pressure, high-temperature liquid, which then flows to the expansion valve or orifice tube.

5. MAINTENANCE

Proper maintenance of your vehicle's A/C system, including the condenser, can extend its lifespan and ensure optimal performance.

- Regular Inspection:** Periodically inspect the condenser for debris (leaves, bugs, road grime) lodged between the fins.
- Cleaning:** Carefully clean the condenser fins with a soft brush or low-pressure water spray to remove accumulated debris. Avoid high-pressure washers, which can bend or damage the delicate fins.
- System Checks:** Have your A/C system professionally checked annually for proper refrigerant levels and overall system health.
- Protection:** Ensure the front grille and any protective screens are intact to minimize debris impact on the condenser.

6. TROUBLESHOOTING

If your vehicle's A/C system is not performing correctly, the condenser may be a contributing factor. Always consult a qualified technician for diagnosis and repair.

Symptom	Possible Cause	Action
Poor A/C cooling performance	Clogged or damaged condenser fins, refrigerant leak, insufficient airflow over condenser.	Inspect and clean condenser. Check for leaks. Ensure cooling fan operates correctly. Professional diagnosis recommended.
A/C system cycles on and off frequently	High system pressure due to inefficient heat transfer from condenser.	Inspect condenser for blockages. Verify cooling fan operation. Professional system pressure check.
Visible damage to condenser	Impact from road debris, corrosion.	Condenser replacement is likely necessary.

7. SPECIFICATIONS

Feature	Detail
Brand	Denso
Model Number	477-0576
Item Weight	9.65 pounds
Exterior	Machined
Position	Front, Rear <i>(Note: This typically refers to the application, not the physical location on the condenser itself.)</i>
Manufacturer Part Number	477-0576

8. WARRANTY AND SUPPORT

For specific warranty information regarding your Denso 477-0576 A/C Condenser, please refer to the documentation provided with your purchase or contact Denso customer support directly. Warranty terms and conditions may vary based on the retailer and region.

For technical support or further assistance, please visit the official Denso website or contact their authorized service centers.

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