

General Motors 52461156

General Motors 52461156 A/C Condenser Instruction Manual

Model: 52461156

INTRODUCTION

This manual provides essential information for the installation, function, and maintenance of your General Motors 52461156 A/C Condenser. This component is a critical part of your vehicle's air conditioning system, designed to ensure efficient cooling performance. Please read these instructions carefully before proceeding with installation or service.

SAFETY INFORMATION

WARNING: Automotive air conditioning systems contain refrigerants under high pressure. Improper handling can lead to serious injury, including frostbite, chemical burns, or eye damage. Always wear appropriate personal protective equipment (PPE) such as safety glasses and gloves.

- Ensure the vehicle's engine is off and cool before beginning any work.
- Disconnect the vehicle's battery to prevent accidental electrical discharge.
- Refrigerant must be recovered by a certified technician using proper equipment before opening the A/C system. Do not vent refrigerant into the atmosphere.
- Always refer to your vehicle's specific service manual for detailed procedures and torque specifications.
- If you are not experienced with automotive A/C system repair, it is highly recommended to seek professional assistance.

PRODUCT OVERVIEW

The General Motors 52461156 A/C Condenser is a genuine OEM replacement part designed to fit specific General Motors vehicles. It is responsible for dissipating heat from the refrigerant, converting it from a high-pressure gas to a high-pressure liquid, which is a crucial step in the air conditioning cycle.



Image: General Motors 52461156 A/C Condenser. This image displays the front view of the condenser unit, showing its finned structure and connection ports.

INSTALLATION

Installation of an A/C condenser requires specialized tools and knowledge. Professional installation by a certified automotive technician is strongly recommended.

General Installation Steps (Consult Vehicle Service Manual for Specifics):

1. **Refrigerant Recovery:** Have a certified technician recover all refrigerant from the A/C system using an approved recovery machine.
2. **Access:** Gain access to the condenser by removing necessary front-end components (e.g., grille, bumper, radiator support).
3. **Disconnect Lines:** Carefully disconnect the refrigerant lines from the old condenser. Be prepared for residual refrigerant or oil. Cap open lines immediately to prevent contamination.
4. **Remove Old Condenser:** Unbolt and remove the old condenser from its mounting brackets.
5. **Install New Condenser:** Position the new General Motors 52461156 A/C Condenser into place. Ensure proper alignment with mounting points.
6. **Connect Lines:** Install new O-rings on the refrigerant lines and connect them to the new condenser. Tighten fittings to the vehicle manufacturer's specified torque.
7. **Vacuum and Recharge:** The A/C system must be evacuated using a vacuum pump to remove air and moisture. After evacuation, the system should be recharged with the correct type and amount of refrigerant and PAG oil, as specified by the vehicle manufacturer.
8. **Leak Test:** Perform a leak test on the entire A/C system to ensure there are no leaks.
9. **Test System:** Start the vehicle and test the A/C system for proper operation and cooling performance.
10. **Reassemble:** Reinstall all removed components.

FUNCTION AND SYSTEM INTEGRATION

The A/C condenser is located at the front of the vehicle, typically in front of the radiator. Its primary role is to cool the hot, high-pressure gaseous refrigerant that exits the compressor. As air flows through the condenser's fins, heat is transferred from the refrigerant to the ambient air, causing the refrigerant to condense into a high-pressure liquid. This liquid then flows to the expansion valve or orifice tube, where its pressure drops, allowing it to evaporate in the evaporator and absorb heat from the passenger cabin.

Proper airflow through the condenser is vital for its efficiency. Obstructions like debris, bent fins, or a malfunctioning cooling fan can significantly reduce the condenser's ability to dissipate heat, leading to poor A/C performance.

MAINTENANCE

While the condenser itself requires minimal direct maintenance, ensuring the overall A/C system and surrounding components are well-maintained will prolong its life and efficiency:

- **Keep Clean:** Periodically inspect the condenser fins for debris (leaves, insects, dirt) and gently clean them with a soft brush or low-pressure water spray. Avoid high-pressure washers that can bend the delicate fins.
- **Inspect for Damage:** Check for bent fins, corrosion, or signs of impact damage. Minor fin damage can be carefully straightened with a fin comb. Significant damage may require replacement.
- **Check for Leaks:** Regularly inspect the condenser and its connections for signs of refrigerant leaks (e.g., oily

residue).

- **System Checks:** Have your vehicle's A/C system professionally inspected annually to ensure proper refrigerant levels and overall system health.

TROUBLESHOOTING

If your vehicle's A/C system is not performing optimally, the condenser might be a contributing factor. Here are some common issues:

- **Poor Cooling Performance:**
 - *Possible Cause:* Restricted airflow through the condenser due to debris or bent fins.
 - *Possible Cause:* Internal blockage within the condenser.
 - *Possible Cause:* Refrigerant leak from the condenser or its connections.
 - *Possible Cause:* Malfunctioning cooling fan not pulling enough air through the condenser.
- **Visible Leaks:**
 - *Symptom:* Oily residue or visible dye (if UV dye was used) on the condenser surface or connections.
 - *Action:* A leak indicates the condenser needs to be replaced.
- **System Overheating:**
 - *Symptom:* High-pressure readings on the A/C system gauges.
 - *Possible Cause:* Inefficient heat transfer from the condenser due to blockage or damage.

For accurate diagnosis and repair, consult a qualified automotive technician.

SPECIFICATIONS

Attribute	Detail
Brand	General Motors
Model Number	52461156
Manufacturer Part Number	52461156
OEM Part Number	52461156
ASIN	B00M38C6PE
Date First Available	July 24, 2014

WARRANTY AND SUPPORT

For specific warranty information regarding your General Motors 52461156 A/C Condenser, please refer to the documentation provided with your purchase or contact General Motors directly. Warranty terms typically cover manufacturing defects for a specified period.

For technical support or assistance with installation and troubleshooting, it is recommended to consult a certified automotive technician or contact General Motors customer service.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

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