

Dorman 624-624

Dorman 624-624 Automatic Transmission Oil Cooler Hose Assembly User Manual

For Buick Lucerne (2006-2011) and Cadillac DTS (2006-2011)

1. INTRODUCTION

This manual provides essential information for the Dorman 624-624 Automatic Transmission Oil Cooler Hose Assembly. It covers product overview, compatibility, safety guidelines, installation procedures, maintenance, and troubleshooting. Please read this manual thoroughly before installation and operation to ensure proper function and safety.

2. PRODUCT OVERVIEW AND COMPATIBILITY

The Dorman 624-624 Automatic Transmission Oil Cooler Hose Assembly is a direct replacement component designed to match the fit and function of the original equipment assembly. It is engineered to ensure proper transmission fluid cooling, replacing original lines that may be leaking or damaged due to corrosion, collision, vibration, or fitting issues.

Key Features:

- **Direct Replacement:** Designed to match original equipment fit and function.
- **Reliable Solution:** Addresses issues like leaks or damage in the original assembly.
- **Durable Construction:** Manufactured from quality materials for extended service life.
- **Quality Assurance:** Backed by Dorman's automotive experience.

Compatible Vehicles:

- Buick Lucerne: 2006, 2007, 2008, 2009, 2010, 2011
- Cadillac DTS: 2006, 2007, 2008, 2009, 2010, 2011

To confirm exact fitment for your vehicle, refer to the manufacturer's specifications or use a vehicle fitment tool.

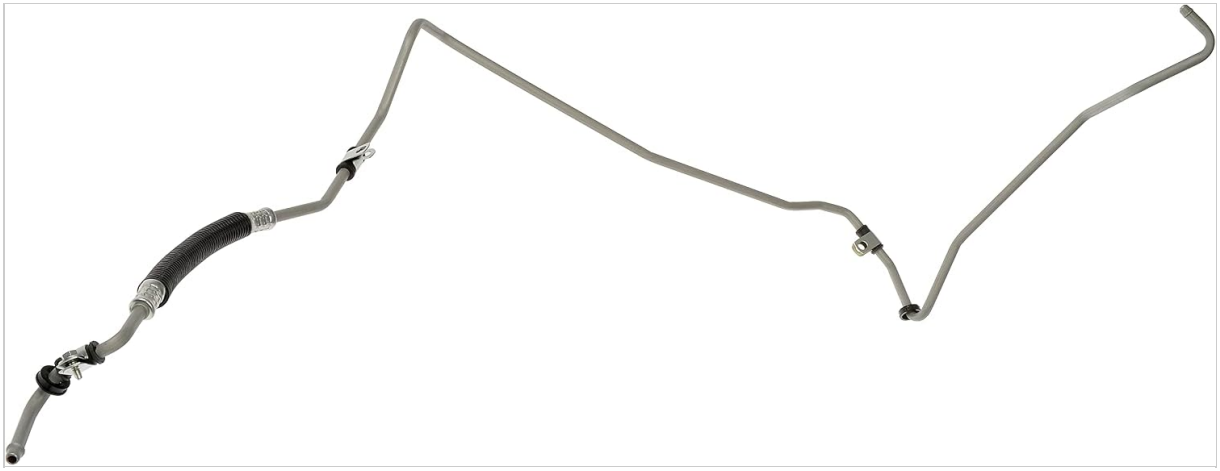


Image 1: The Dorman 624-624 Automatic Transmission Oil Cooler Hose Assembly. This image displays the complete hose assembly, including the metal lines and flexible hose sections, designed for direct replacement in compatible vehicles.

3. SAFETY INFORMATION

Working with automotive components requires adherence to strict safety protocols. Failure to follow these guidelines may result in personal injury or damage to the vehicle.

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the vehicle is securely supported on jack stands or a lift before working underneath it. Never rely solely on a jack.
- Allow the engine and transmission to cool completely before beginning work to avoid burns from hot fluids or components.
- Disconnect the vehicle's battery before performing any electrical work or if there is a risk of short circuits.
- Be aware of potential fluid leaks. Transmission fluid can be hot and may cause skin irritation.
- Dispose of old fluids and parts responsibly according to local regulations.
- If you are unsure about any step of the installation process, consult a qualified automotive technician.

4. INSTALLATION / SETUP

This section outlines the general steps for installing the Dorman 624-624 Automatic Transmission Oil Cooler Hose Assembly. Specific procedures may vary depending on the vehicle model. It is recommended to consult a service manual for your specific vehicle for detailed instructions.

1. **Preparation:** Park the vehicle on a level surface, engage the parking brake, and block the wheels. Raise the vehicle safely using a lift or jack stands.
2. **Drain Transmission Fluid (Optional but Recommended):** Place a drain pan under the transmission. Depending on the line's location, some fluid may drain when the old line is removed.
3. **Locate and Remove Old Assembly:** Identify the existing automatic transmission oil cooler hose assembly. Carefully disconnect the old lines from the transmission and the oil cooler, noting their routing. Use appropriate tools to loosen fittings without stripping them.
4. **Inspect Connections:** Before installing the new assembly, inspect the mating surfaces on the transmission and oil cooler for any debris, corrosion, or damage. Clean as necessary.
5. **Install New Assembly:** Route the new Dorman 624-624 assembly in the same manner as the original. Connect the fittings to the transmission and oil cooler. Hand-tighten first, then use a wrench to tighten to the manufacturer's specified torque. Avoid overtightening.
6. **Secure Lines:** Ensure all mounting clips and brackets are properly secured to prevent vibration and chafing.
7. **Refill Transmission Fluid:** If fluid was drained or lost, refill the transmission with the correct type and

amount of automatic transmission fluid as specified by your vehicle manufacturer.

8. **Check for Leaks:** Start the engine and allow it to reach operating temperature. Carefully inspect all connections for any signs of leaks. Cycle through the transmission gears (P, R, N, D, L) while the vehicle is stationary and the parking brake is engaged, then recheck for leaks.
9. **Final Inspection:** Once no leaks are detected, lower the vehicle. Perform a final check of the transmission fluid level and adjust if necessary.

Note: Professional installation is recommended for optimal results and safety.

5. OPERATING PRINCIPLE

The automatic transmission oil cooler hose assembly plays a critical role in maintaining the optimal operating temperature of the transmission fluid. As the transmission operates, friction generates heat. The transmission fluid circulates through this hose assembly to an external cooler (often integrated with the radiator or a separate unit), where heat is dissipated before the cooled fluid returns to the transmission. This process prevents overheating, which can lead to premature transmission wear and failure.

6. MAINTENANCE

Regular inspection of the transmission oil cooler hose assembly can help prevent future issues.

- **Visual Inspection:** Periodically inspect the entire length of the hose assembly for signs of wear, cracks, chafing, or corrosion. Pay close attention to the connections at the transmission and cooler for any fluid seepage.
- **Fluid Level Check:** Regularly check your transmission fluid level according to your vehicle manufacturer's recommendations. A consistently low fluid level could indicate a leak in the system, including the cooler lines.
- **Cleanliness:** Keep the area around the transmission and cooler lines clean to easily spot any new leaks.

7. TROUBLESHOOTING

If you encounter issues after installation or during regular operation, consider the following:

- **Fluid Leaks:**
 - **Cause:** Improperly tightened fittings, damaged O-rings/seals, or a damaged hose.
 - **Solution:** Re-check all connections for proper torque. If leaks persist, inspect seals and the hose assembly for damage. Replace any compromised components.
- **Transmission Overheating:**
 - **Cause:** Blockage in the cooler lines, insufficient fluid, or a faulty oil cooler.
 - **Solution:** Ensure the lines are not kinked or obstructed. Verify transmission fluid level. If the issue persists, the oil cooler itself may need inspection or replacement.
- **Improper Fit:**
 - **Cause:** Incorrect part for the vehicle model or manufacturing defect.
 - **Solution:** Double-check the part number against your vehicle's specifications. If the part is correct and still does not fit, contact Dorman support.

For persistent issues, it is advisable to seek assistance from a certified automotive technician.

8. SPECIFICATIONS

Below are the technical specifications for the Dorman 624-624 Automatic Transmission Oil Cooler Hose Assembly:

Attribute	Value
Brand	Dorman
Model Number	624-624
Manufacturer Part Number	624-624
OEM Part Numbers	15777138; 25769570
Material	Aluminum
Item Weight	1.1 pounds
Product Dimensions	47.24 x 16.34 x 15.55 inches
UPC	889245410375



Image 2: Dorman's validation testing for transmission lines. This image illustrates various tests performed on transmission lines, including corrosion testing, burst testing, dimensional scanning, and tensile testing, ensuring product reliability.

9. WARRANTY AND SUPPORT

For warranty information regarding your Dorman 624-624 Automatic Transmission Oil Cooler Hose Assembly, please refer to the official Dorman product warranty documentation provided with your purchase or visit the official Dorman website. Dorman stands by the quality of its products and offers support for any manufacturing defects or issues.

For further assistance, technical support, or to inquire about specific product details, please visit the [Official Dorman Store on Amazon](#) or the Dorman corporate website.

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This manual is for informational purposes only. Always consult a qualified professional for vehicle repairs.