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› Dorman 604-400 HVAC Blend Door Actuator Instruction Manual

Dorman 604-400

Dorman 604-400 HVAC Blend Door Actuator Instruction Manual

Model: 604-400

1. INTRODUCTION

This manual provides detailed information and instructions for the Dorman 604-400 HVAC Blend Door Actuator. This component is designed as a direct replacement for the original actuator in specific Ford vehicle models, ensuring proper operation of the heating, ventilation, and air conditioning (HVAC) system. Understanding its function and proper installation is crucial for restoring climate control functionality.



Figure 1: Top view of the Dorman 604-400 HVAC Blend Door Actuator. This image shows the main body of the actuator with its electrical connector port and mounting points.

2. VEHICLE COMPATIBILITY

The Dorman 604-400 HVAC Blend Door Actuator is engineered to directly replace the original actuator in specific vehicle applications. It is important to verify compatibility with your vehicle before installation.

2.1 Compatible Vehicles

- **Ford Fiesta:** 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019

Important Note: Many vehicles utilize several different air door actuators for various positions and functions within the HVAC system. Always review the application notes for this specific part to confirm it matches the required position and function for your vehicle. If unsure, consult a qualified service technician.

3. PRODUCT FEATURES

The Dorman 604-400 HVAC Blend Door Actuator offers the following key features:

- **Direct Replacement:** Designed to match the fit and function of the original equipment actuator.
- **Position Specific:** Engineered for a particular location and function within the vehicle's HVAC system.
- **Durable Construction:** Manufactured from plastic, designed to resist wear and electrical burnout for extended service life.
- **Quality Assurance:** Backed by Dorman's engineering and manufacturing standards.

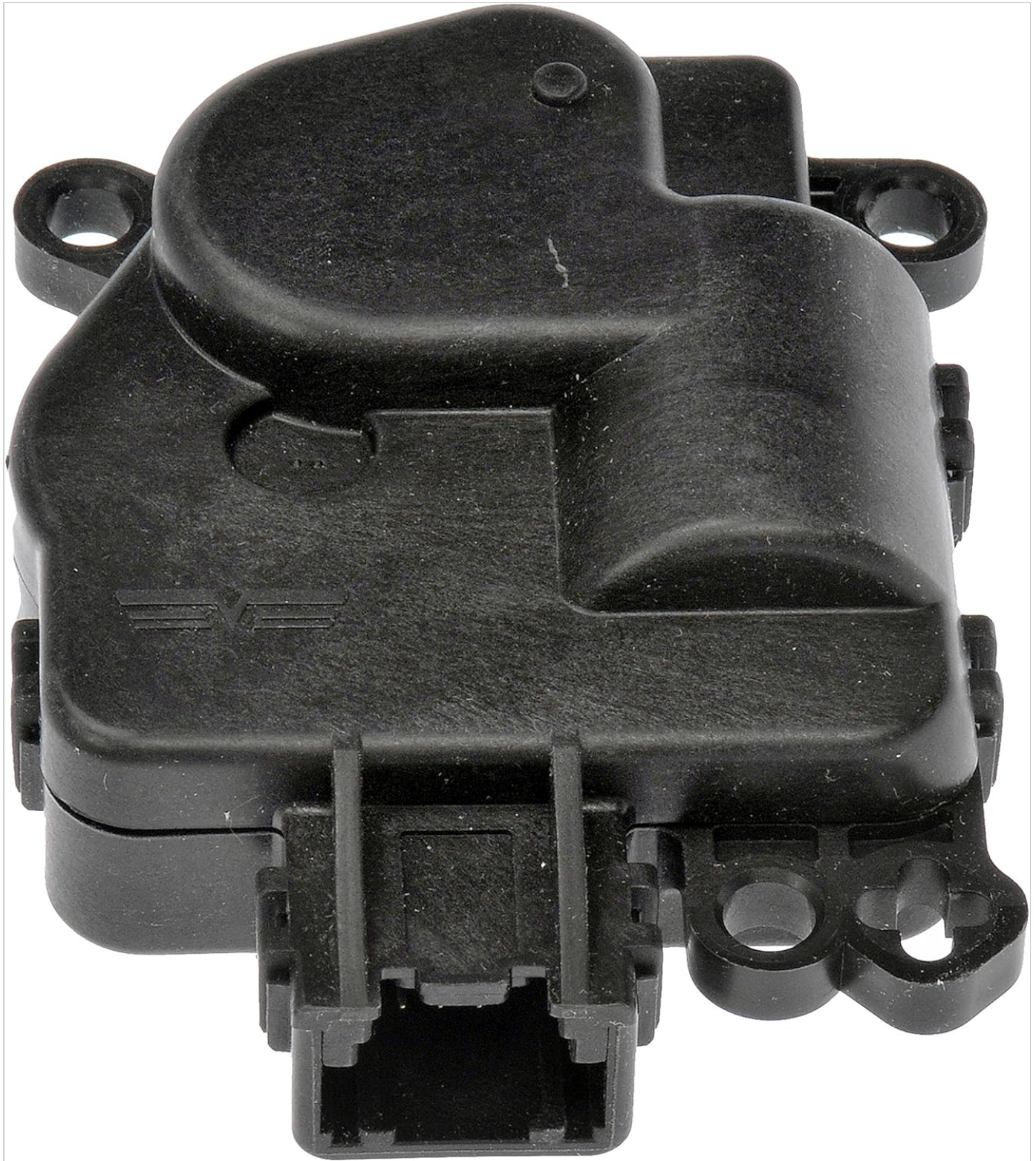


Figure 2: Side view of the Dorman 604-400 HVAC Blend Door Actuator. This angle highlights the compact design and the electrical connector.

4. INSTALLATION

Installation of the Dorman 604-400 HVAC Blend Door Actuator typically involves replacing the existing faulty unit. Due to the

varying locations and complexities of HVAC systems across different vehicle models, professional installation is recommended. The following general steps outline the process:

1. **Safety First:** Disconnect the vehicle's battery to prevent electrical hazards.
2. **Locate the Actuator:** Identify the specific blend door actuator that needs replacement. Its location can vary significantly (e.g., behind the dashboard, near the glove compartment, or under the steering column).
3. **Access and Remove:** Depending on the location, dashboard components or trim panels may need to be removed to gain access. Disconnect the electrical connector and remove the mounting screws securing the old actuator.
4. **Install New Actuator:** Position the new Dorman 604-400 actuator, ensuring the blend door shaft aligns correctly with the actuator's drive mechanism. Secure it with the mounting screws.
5. **Connect Electrical:** Reconnect the electrical harness to the new actuator.
6. **Test Functionality:** Reconnect the vehicle's battery. Turn on the ignition and test the HVAC system's blend door operation across various temperature and mode settings to ensure proper function.
7. **Reassemble:** Reinstall any removed dashboard components or trim panels.

For detailed, vehicle-specific instructions, consult your vehicle's service manual or a qualified automotive technician.

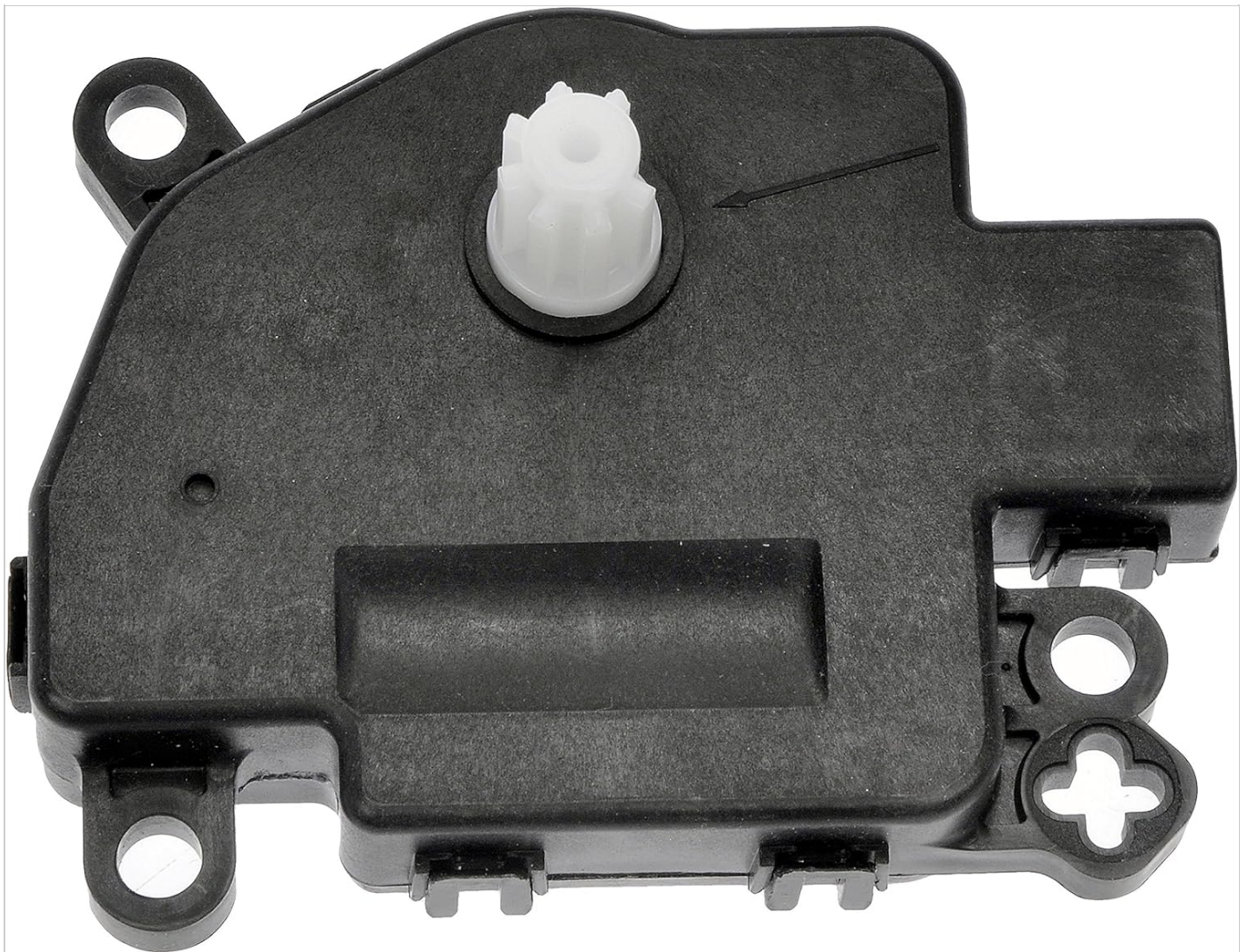


Figure 3: Bottom view of the Dorman 604-400 HVAC Blend Door Actuator, showing the white gear mechanism. This gear interfaces with the blend door shaft to control airflow.

5. OPERATION

The Dorman 604-400 HVAC Blend Door Actuator is an electromechanical device responsible for controlling the position of the blend door within your vehicle's HVAC system. This blend door regulates the mix of hot and cold air, allowing you to adjust the cabin temperature. It also directs airflow to different vents (e.g., defrost, floor, dash).

- When you adjust the temperature or airflow mode settings in your vehicle, the climate control module sends an electrical signal to the actuator.
- The actuator's internal motor then rotates a gear, which in turn moves the blend door to the desired position.
- This precise movement ensures that the correct amount of heated or cooled air is delivered to the cabin, and directed to the appropriate vents.

Proper operation of the actuator is essential for maintaining comfortable cabin temperatures and effective defrosting/defogging.

6. MAINTENANCE

The Dorman 604-400 HVAC Blend Door Actuator is designed to be a maintenance-free component. Regular inspection of the HVAC system for proper airflow and temperature control is recommended. If issues arise, refer to the troubleshooting section.

- Keep the vehicle's cabin air filter clean to ensure optimal airflow and reduce strain on HVAC components.
- Avoid forcing climate control knobs or buttons if they feel stuck, as this could damage the actuator or other components.

7. TROUBLESHOOTING

Common symptoms of a failing HVAC blend door actuator include:

- Clicking or ticking noises from the dashboard when changing temperature or mode settings.
- Inability to change airflow direction (e.g., stuck on defrost, no air from dash vents).
- Inability to control cabin temperature (e.g., always hot or always cold air).

For comprehensive troubleshooting steps and diagnostic information, please refer to the official Dorman Troubleshooting Guide: [Download Troubleshooting Guide \(PDF\)](#)

If you are unable to resolve the issue, it is recommended to consult a certified automotive technician.

8. SPECIFICATIONS

Attribute	Detail
Brand	Dorman
Model Number	604-400
Material	Plastic
Item Weight	0.32 ounces (9.07 g)
Product Dimensions	5.19 x 4.05 x 2.55 inches
UPC	885484715950
OEM Part Numbers	ADS240; J04032; SK604400; BE8Z19E616B

9. WARRANTY & SUPPORT

Dorman products are manufactured to high-quality standards. For specific warranty information regarding the Dorman 604-400 HVAC Blend Door Actuator, please refer to the warranty documentation included with your purchase or visit the official Dorman website.

For technical support or further assistance, you may contact Dorman customer service through their official channels. Always provide your product model number (604-400) when seeking support.

You can find more information and contact details on the [Dorman Brand Store](#).

