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› DA31-00146E Evaporator Fan Motor Replacement for Samsung RF28HFEDTSR/AA (0000) Refrigerator - Compatible with DA31-00146E Fan Motor - UpStart Components Brand

UpStart Components AP-DA31-00146E-DL43

UpStart Components DA31-00146E Evaporator Fan Motor Replacement Manual

Model: AP-DA31-00146E-DL43

INTRODUCTION

This manual provides essential information for the installation, function, and maintenance of the UpStart Components DA31-00146E Evaporator Fan Motor replacement part. This motor is designed as a compatible replacement for specific Samsung refrigerator models.



Image: The UpStart Components DA31-00146E Evaporator Fan Motor, shown in its product packaging, highlighting the brand and the motor itself.

COMPATIBILITY

This replacement evaporator fan motor is compatible with the following part numbers and refrigerator models:

- DA31-00146E
- AP4136569
- 1486536
- DA31-00146G
- DREP3020LA/HAL
- PS4138376
- Specifically designed for Samsung RF28HFEDTSR/AA (0000) Refrigerator models.

SAFETY INFORMATION

WARNING: Before attempting any repair or installation, ensure the refrigerator is completely disconnected from its power source. Failure to do so can result in serious injury or electrical shock.

- Always wear appropriate personal protective equipment, such as gloves and eye protection.
- If you are unsure about any step, consult a qualified appliance technician.

- Keep small parts away from children.

INSTALLATION (SETUP)

The following steps outline the general procedure for replacing the evaporator fan motor. Specific refrigerator models may vary slightly. Refer to your refrigerator's service manual for detailed instructions if available.

1. **Disconnect Power:** Unplug the refrigerator from the wall outlet or turn off the circuit breaker supplying power to the refrigerator.
2. **Access Freezer Compartment:** Open the freezer door and remove all contents, including shelves and drawers, to gain access to the rear panel.
3. **Remove Rear Panel:** Locate and remove the screws securing the rear panel of the freezer compartment. Carefully detach the panel, which may be held by clips or additional screws.
4. **Locate Evaporator Fan Motor:** The evaporator fan motor is typically located behind the rear panel, near the evaporator coils.
5. **Disconnect Wiring:** Carefully disconnect the electrical connector from the old fan motor. Note the orientation of the wires if necessary.
6. **Remove Old Motor:** Unscrew or unclip the old fan motor from its mounting bracket. Some models may require removing the fan blade first.
7. **Install New Motor:** Attach the new UpStart Components DA31-00146E motor to the mounting bracket, ensuring it is securely fastened.
8. **Attach Fan Blade (if removed):** If the fan blade was removed, carefully attach it to the shaft of the new motor. Ensure it spins freely without obstruction.
9. **Connect Wiring:** Reconnect the electrical connector to the new motor, ensuring a secure connection.
10. **Replace Rear Panel:** Carefully re-install the rear panel, securing it with all screws.
11. **Restore Freezer Contents:** Replace shelves, drawers, and food items in the freezer compartment.
12. **Restore Power:** Plug the refrigerator back into the wall outlet or turn on the circuit breaker.
13. **Test Operation:** Listen for the fan motor to operate and check for proper cooling in the freezer compartment.



Image: Top-down view of the evaporator fan motor, showing its circular housing and central shaft connection point.



Image: Angled view of the motor, clearly displaying the metal shaft where the fan blade attaches, and the electrical specification label.

FUNCTION (OPERATING PRINCIPLES)

The evaporator fan motor plays a critical role in the refrigeration cycle. It circulates air over the evaporator coils, which are responsible for absorbing heat from inside the freezer compartment. This cooled air is then distributed throughout the freezer and, in some models, to the fresh food compartment. Proper operation of this motor ensures efficient cooling and prevents frost buildup on the coils.



Image: Side view of the evaporator fan motor, showing the electrical connector port for power supply.

MAINTENANCE

The evaporator fan motor itself requires minimal direct maintenance. However, ensuring the surrounding components are

clean can prolong its lifespan and maintain refrigerator efficiency:

- **Keep Coils Clean:** Periodically clean the evaporator coils (accessible behind the rear freezer panel) to prevent dust and ice buildup, which can impede airflow and overwork the motor.
- **Ensure Proper Airflow:** Do not block the air vents inside the freezer compartment, as this can restrict airflow and strain the fan motor.
- **Regular Defrosting:** If your refrigerator is not a "frost-free" model, regular manual defrosting is crucial to prevent excessive ice buildup around the evaporator and fan.

TROUBLESHOOTING

If you experience issues after installing the new evaporator fan motor, consider the following common problems and solutions:

Problem	Possible Cause	Solution
Fan motor not running	No power to refrigerator; loose wiring connection; faulty control board.	Check power supply and circuit breaker. Verify all wiring connections to the motor are secure. If issues persist, a professional diagnosis of the control board may be needed.
Refrigerator not cooling properly	Restricted airflow; excessive frost buildup; faulty defrost system.	Ensure vents are clear. Check for excessive ice on evaporator coils; if present, manually defrost the refrigerator. Inspect defrost heater and thermostat if problem recurs.
Unusual noise from freezer	Fan blade hitting ice or debris; motor bearing issue.	Disconnect power and inspect the fan blade for obstructions or ice buildup. Clear any debris. If the noise persists and is mechanical, the motor may need replacement (though this is a new part, inspect for installation errors).

If troubleshooting steps do not resolve the issue, it is recommended to consult a qualified appliance repair technician.

SPECIFICATIONS

- **Part Number:** AP-DA31-00146E-DL43
- **Compatible Part Numbers:** DA31-00146E, AP4136569, 1486536, DA31-00146G, DREP3020LA/HAL, PS4138376
- **Voltage:** DC12V (as indicated on motor label in image)
- **Wattage:** 3.21W (as indicated on motor label in image)
- **Current:** 0.268A (as indicated on motor label in image)
- **RPM:** 2520RPM (as indicated on motor label in image)
- **Manufacturer:** UpStart Components
- **Product Type:** Evaporator Fan Motor Replacement

WARRANTY AND SUPPORT

This product is an UpStart Components Brand replacement part. Any warranties for this product are offered solely by UpStart Components. This product is not affiliated with any other brands and is not covered under any warranties offered by the original manufacturers of the appliance.

For warranty claims or technical support, please contact UpStart Components customer support directly. Refer to the product packaging or the retailer's website for specific contact information.

For general inquiries, you may visit the UpStart Components brand page on Amazon:[UpStart Components Brand Page](#)

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