



SERVICE BULLETIN 316

426 Industrial Boulevard • Kearneysville WV 25430-2776 • USA
 Telephone: +1 304 728 7056 • technicalinquiry@royalvenders.com
 Toll-free in North America: 1 800 931 9214 • Fax: +1 304 725 4016
 Canada: +1 905 738 5777 • Mexico: +52 55 5203 6887
 Europe: +49 2158 95 1000 • Australia: +61 2 9890 5433

Page: 1 of 2

Date: 15 Feb 10

Revision: 00

SUBJECT: Evaporator Fan Relay Kit Installation (Tier 2)

Number of
People
Required



MODELS: GIII, Merlin IV, TDV

KIT NUMBER **KIT DESCRIPTION**

357102 Evaporator Fan Relay Kit (Tier 2)

TOOLS REQUIRED: Phillips screwdriver, drill with 1/8" (3 mm) bit

ESTIMATED INSTALLATION TIME: 20 minutes



The following areas of this vender contain voltage which can cause serious injury or even death: the main power cord, supplying 115-230 VAC to the evaporator, EMI filter, and refrigeration system; the power line from the EMI filter to the ballast and transformer; and the ballast, which can produce upwards of 600 volts. Remove all power from the vender before working in any of these areas.

REASON FOR BULLETIN: This kit will allow an ENERGY STAR® Tier 1 evaporator fan (serial numbers beginning 200211 to 200721) to be turned on and off by the vender's controller, so that it will be operated equally to a Tier 2-compliant fan.

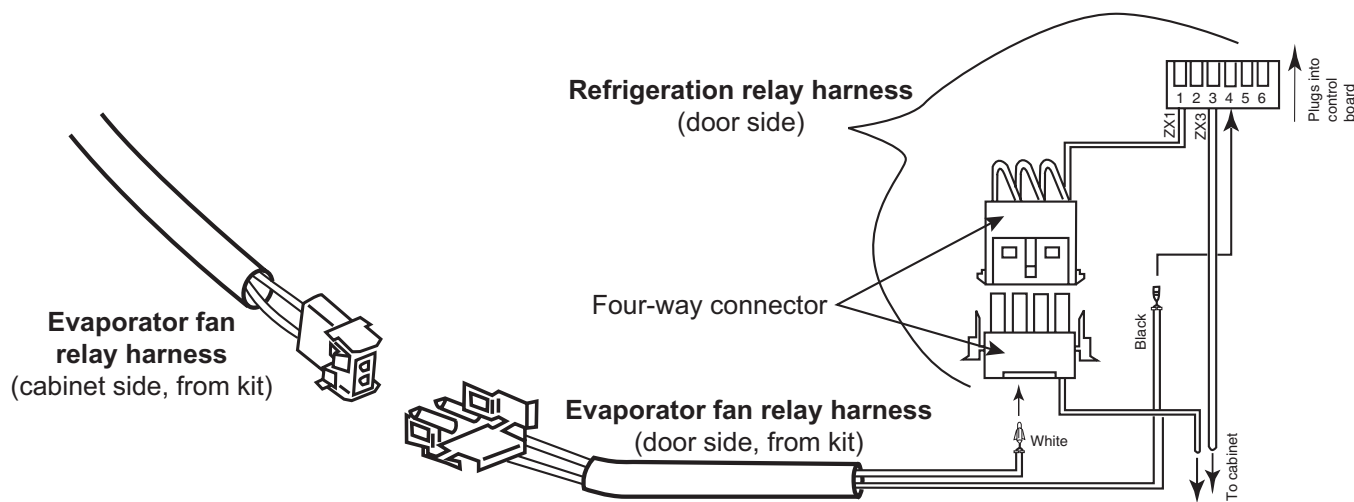
NOTES:

1. Prior to installing this kit, the Tier 2 Temperature Sensor Kit should be installed. See Service Bulletin 315, or order the Tier 2 Temperature Sensor Kit (part number 286020).
2. ENERGY STAR does not recognize an upgrade from Tier 1- to Tier 2-compliance in their certification.
3. There is no difference in the equipment markings between an ENERGY STAR Tier 1- and a Tier 2-compliant vender.
4. This modification **does not** change the ENERGY STAR rating or certification; the equipment will still be rated ENERGY STAR Tier 1-compliant.
5. This information is being provided solely for the purpose of providing our customers with the option of making the necessary changes to their equipment to provide the energy consumption reduction seen on newer equipment. The only benefit to this change is the ability to reduce energy consumption to the same levels as current-production venders.

INSTALLATION INSTRUCTIONS:

1. Remove power by unplugging the vender's power cord from the AC voltage source (wall outlet).
2. Open the vender's main door. Locate the refrigeration relay harness, attached to the control board. (Refer to Figure 1.)
3. Using the kit's door-side relay harness, insert the metal pin of the white wire into the four-way connector of the vender's refrigeration relay harness. Ensure that the pin snaps into position and will not pull out. Plug the black wire of the door-side relay harness into position 4 of the refrigeration relay harness's control board receptacle. (Refer to Figure 1.)
4. Mount the evaporator fan relay in a suitable location near the main wiring harness, adjacent to the refrigeration relay. Mark the two mounting holes for the relay. Then, using a 1/8" (3 mm) bit, drill the two mounting holes. Install the relay

Figure 1.



In an effort to provide our customers with the latest information on our equipment, Royal Vendors sends service bulletins to customers using the original ship-to address or e-mail addresses, if supplied by our customers. We also post all service bulletins on our website at www.royalvenders.com. If for any reason a vender is moved to another location or is sold to another customer other than to whom Royal Vendors originally sent the machine, it is the responsibility of the original purchaser of the vender to notify the appropriate personnel of the service bulletin.

**ANY QUESTIONS? CONTACT ROYAL VENDORS' CUSTOMER SERVICE DEPARTMENT
 IN NORTH AMERICA, CALL TOLL FREE 1 800 931 9214**



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using the two self-drilling screws included in the kit.

5. Connect the door-side relay harness to the cabinet-side relay harness. Then, route the relay harness to the relay.
6. Plug the cabinet-side relay harness to the relay's coil terminals. (Refer to Figure 2.)
7. Unplug **one side** of the evaporator fan harness from the evaporator fan.
8. Connect the evaporator fan relay jumper harness (from the kit) to the open terminals on the relay. (Refer to Figure 3.)
9. Connect the evaporator fan relay jumper harness to the unplugged evaporator fan harness lead. Then, connect the evaporator fan relay jumper harness to the open evaporator fan lead from the main wiring harness. The main wiring harness leads will need to be separated until one side can reach the relay lead. (Refer to Figure 3.)
10. Re-plug the vender's power cord into the AC voltage source (wall outlet).
11. Test the relay. To access the relay test, scroll to "tESt" (KO models) or "FriG" (all others) in the Service Menu. Then, scroll to "rELy," press <enter>, and scroll to "Fan." Press <enter>, press <up>, and then <enter> again. (For more detailed instructions, refer to the appropriate vender's service manual.) This test mode allows the relay to be tested for reliability and to make sure it is connected correctly.
12. Access the "Con" (Configurations) mode in the Service Menu. Scroll to "C11" (KO models) or "C14" (all others), and press <enter>. If the display shows "0," press <up> to change the display to "1." Press <enter>. The evaporator fan will now operate under ENERGY STAR Tier 2 compliance.

Figure 2.

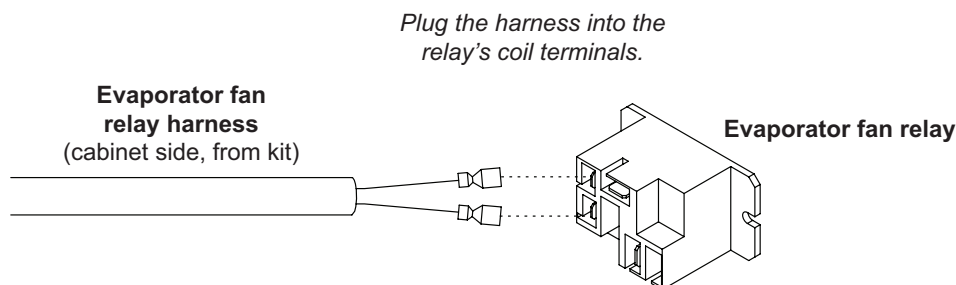
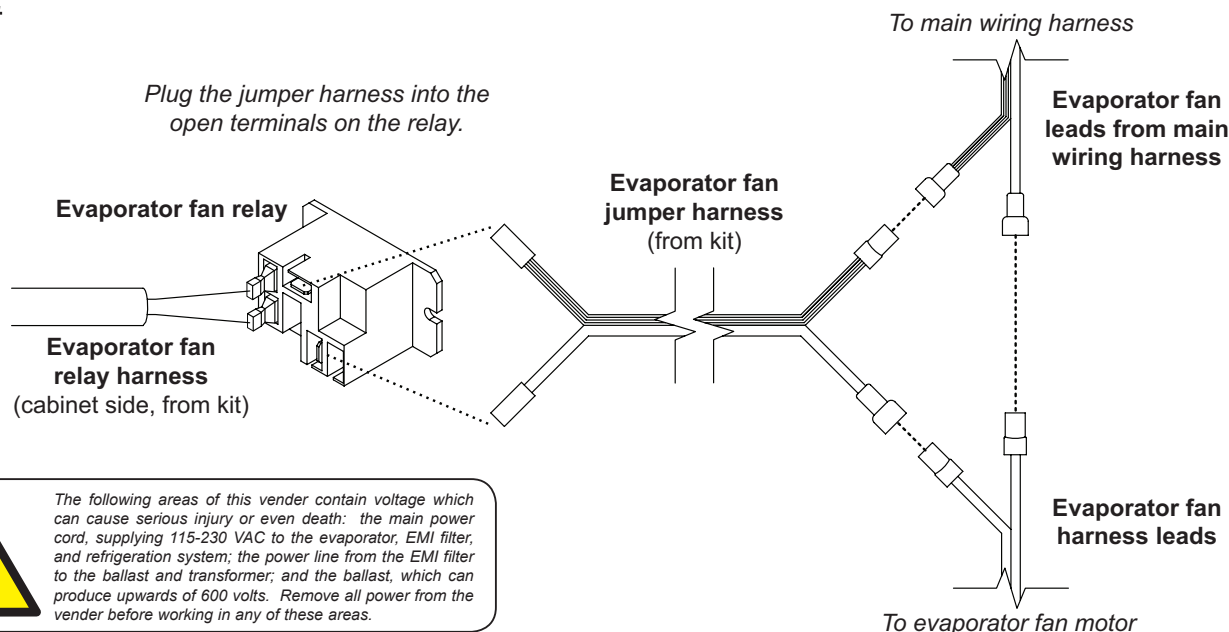


Figure 3.



The following areas of this vender contain voltage which can cause serious injury or even death: the main power cord, supplying 115-230 VAC to the evaporator, EMI filter, and refrigeration system; the power line from the EMI filter to the ballast and transformer; and the ballast, which can produce upwards of 600 volts. Remove all power from the vender before working in any of these areas.

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