



# SERVICE BULLETIN 214

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: 17 Feb 10

Revision: 04

**SUBJECT:** Installation of an Evaporator Fan Relay Kit

**MODELS:** Merlin IV (software 67100-5 and greater), TDV, KO venders

Number of  
People  
Required



**KIT NUMBER**      **KIT DESCRIPTION**

296050      Evaporator Fan Relay Kit (Original)

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

**ESTIMATED INSTALLATION TIME:** 15 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.

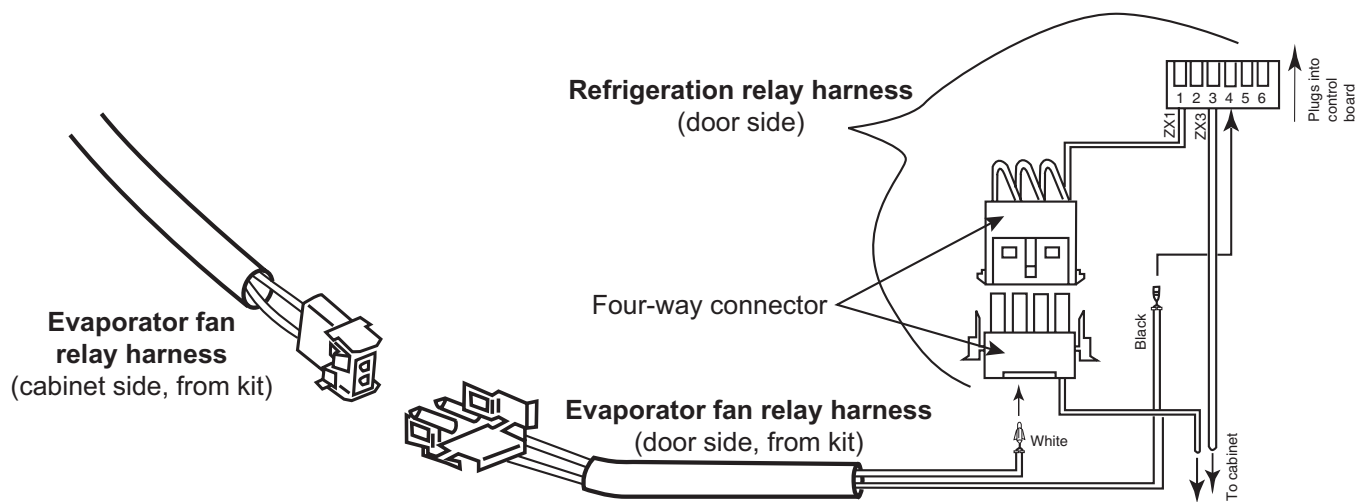
**REASON FOR BULLETIN:** This kit allows the evaporator fan to be turned on and off by the vender's control board.

**Note:** This kit is applicable for venders with serial numbers beginning 200210 and before only. For venders with serial numbers beginning 200211 and after, see Service Bulletin 316.

## 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 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 unplugged evaporator fan terminal.
9. Plug the relay lead (shortest harness) from the relay to the unplugged evaporator fan harness. The evaporator fan harness will need to be separated until it can reach the relay lead.

**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](http://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**



# SERVICE BULLETIN 214

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: 2 of 2

Date: 17 Feb 10

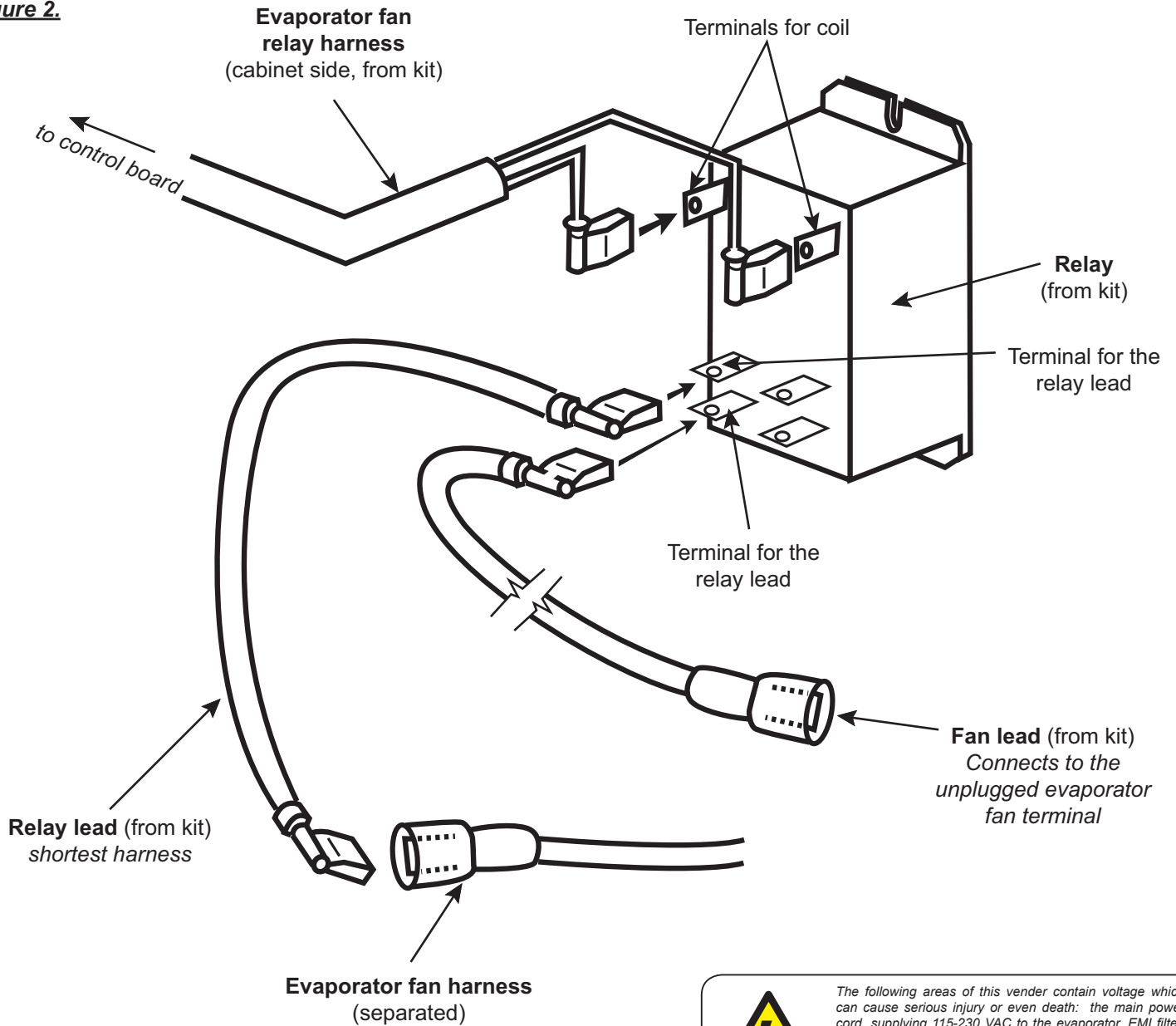
Revision: 04


**SUBJECT:** Installation of an Evaporator Fan Relay Kit

**MODELS:** Merlin IV (software 67100-5 and greater), TDV, KO venders

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 software) 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.

**Figure 2.**



 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.

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