



# Helpful Hints **0028**

*clear & easy*

201 INDUSTRIAL BOULEVARD • KEARNEYSVILLE, WV 25430  
Phone: (304) 728-7056 • Fax: (304) 725-6579 • Toll Free: (800) 931-9214

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DATE: 4-6-04

REVISION: 02

**SUBJECT:** Installation of the Multi-Layer Control Board

# of People  
Required



**MODELS:** Merlin IV, Merlin 20+, Milk Merchandiser, EZ Vender

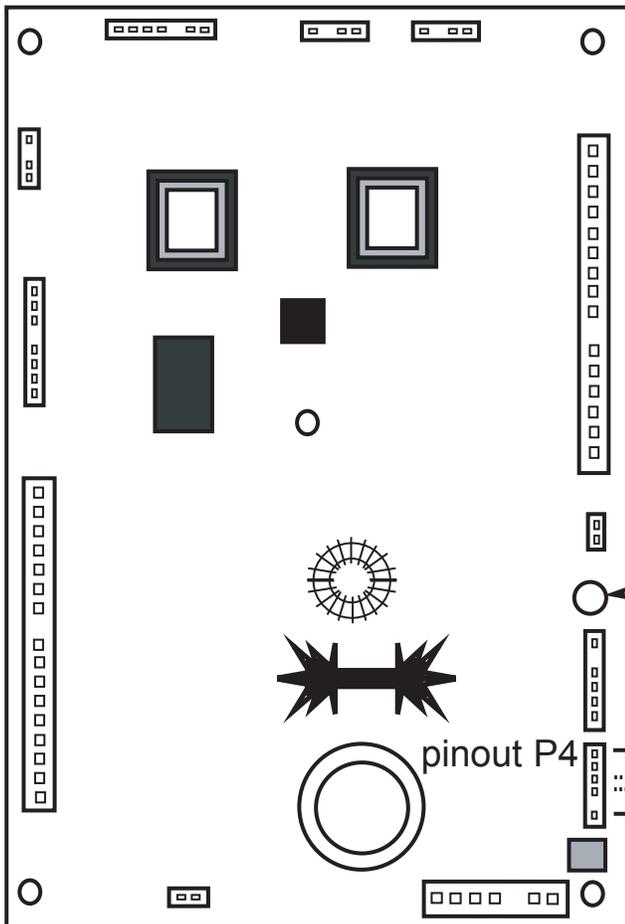
**TOOLS REQUIRED:** None required

**ESTIMATED TIME:** 10 minutes

**REASON FOR HINT:** Beginning in mid-December 2001, all new Merlin venders have a Multi-Layer Control Board, instead of the older single-layer board. The design of this new board provides better protection against electromagnetic noise, which could corrupt the control board.

### INSTRUCTIONS:

1. Remove power from vender by unplugging the vender's main power cord from the AC voltage power source.
2. Disconnect all harnessing to the existing control board, and remove the board from the vender.
3. Mount the new Multi-Layer Control Board in the vender.
4. Reconnect all harnesses to the board. **Note:** In the Merlin 20+ vender, it will be necessary to replace the older optic interface-to-board harness with a newer harness (p/n 842266). This new harness will connect at pinout P4 on the control board.
5. Restore power to the vender by plugging the vender's main power cord into the AC voltage power source.

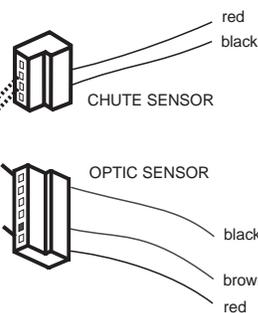


**How to distinguish the Multi-Layer board from the older Merlin board:** Look on the control board for a six-digit part number, beginning with "4." On the older Merlin board, this number will be 407862, and it will be located on the back of the board. On the Multi-Layer board, this number will be 408266, and it will be located on the front of the board, near the Service Mode Button.

**To distinguish whether the board is for Merlin IV, Merlin 20+, EZ Vender, or Milk Merchandiser, check the number on the EEPROM chip. Look for the following numbers:**

- |         |                   |
|---------|-------------------|
| 67100-x | Merlin IV         |
| 67160-x | Merlin 20+        |
| 67191-x | EZ Vender         |
| 67199-x | Milk Merchandiser |

Service Mode Button



The following areas of this vender contain voltage which can cause serious injury or even death: the main power cord, supplying 110 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 power from vender before working in any of these areas.

**ANY QUESTIONS???** CONTACT ROYAL VENDORS' CUSTOMER SERVICE DEPARTMENT  
**CALL TOLL FREE (800) 931-9214**