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| Model: Top Drive Serial #: 1161-1349 | Feb. 14, 2017 |
| Product Bulletin #: TDS-165 | |

Top Drive Plenum Heater

Issue

The top drive heater (condensation) has been found to not operate correctly on several delivered units in the field. Further investigation has found that the heater relay circuit has been wired incorrectly due to inaccurate schematics on some top drives.

Recommendation

Verify proper operation of the motor condensation heater and correct wiring and schematics if required. Report completion of this action per procedure below.

Procedure



Warning!

Failure to remove power to the Top Drive CIP unit may result in personal injury and/or damage to equipment.

1. Remove all power to the Top Drive CIP (Control Interface Panel). Perform Lock-out/Tag-out (LO/TO) procedure before proceeding.
2. Using multimeter, ensure there is no voltage present to the cabinet and Relay 2 located on Rail 4 (See Figure 1 on page 2).
3. Inspect Relay 2 to ensure wiring is correct. For correct wiring see Figure 2 on page 3:
 - a. If wiring is correct, perform Step 8 on page 2 and reverse Step 1.
 - b. If wiring is not correct, proceed to Step 4.
4. Remove wire number 160 from terminal 3 and terminate to terminal 1. Remove wire number 376 from terminal 1 and terminate to terminal 3 (see Figure 2 on page 3).
5. Remove wire number 157 from terminal 7 and terminate to terminal 6.
6. Remove wire number 178 from terminal 9 and terminate to terminal 11.
7. Reverse top drive lock out and Lock-out/Tag-out (LO/TO) procedure and test wiring.

8. Test each circuit using the multimeter:
 - When top drive switch is in the enable position, terminal 3 on Relay 2 should read approximately 120 VAC to TB12 terminal 10. The hour meter should be running.
 - When top drive switch is in the disable position, terminals 5 to 8 should read approximately 120 VAC and the top drive motor heater should be on.
 - When top drive switch is in the enable position, the motor heater should be off and the heater should read approximately 65-ohms between terminals 5 to 8.
9. Update schematics in local manual by redlines (see Figure 2 on page 3).
10. Report completion of this bulletin to RIGLINE 24/7™ Support.

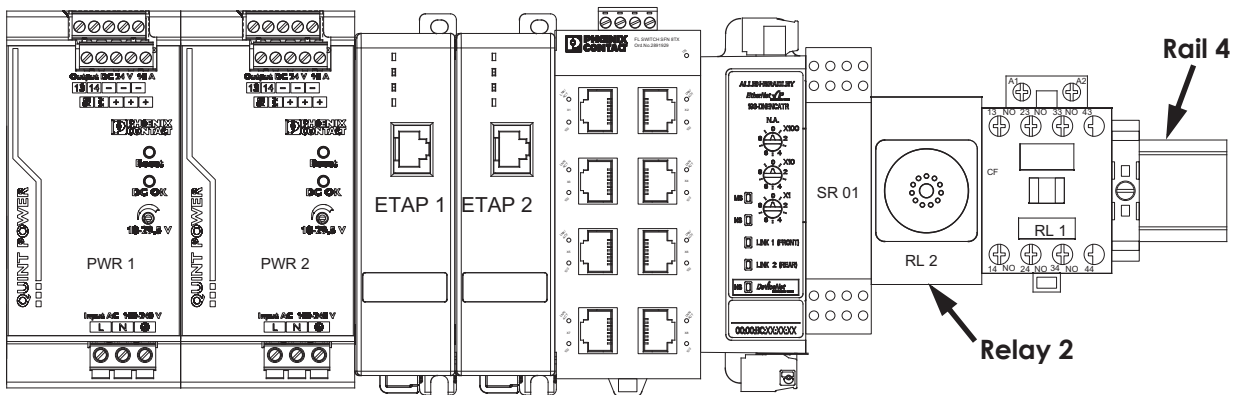


Figure 1: Relay 2 is located on Rail 4 in the CIP

CONTROL & INTERFACE PANEL AIR TEMPERATURE/HEATERS Schematic
Page 21 - Relay 2 Detail

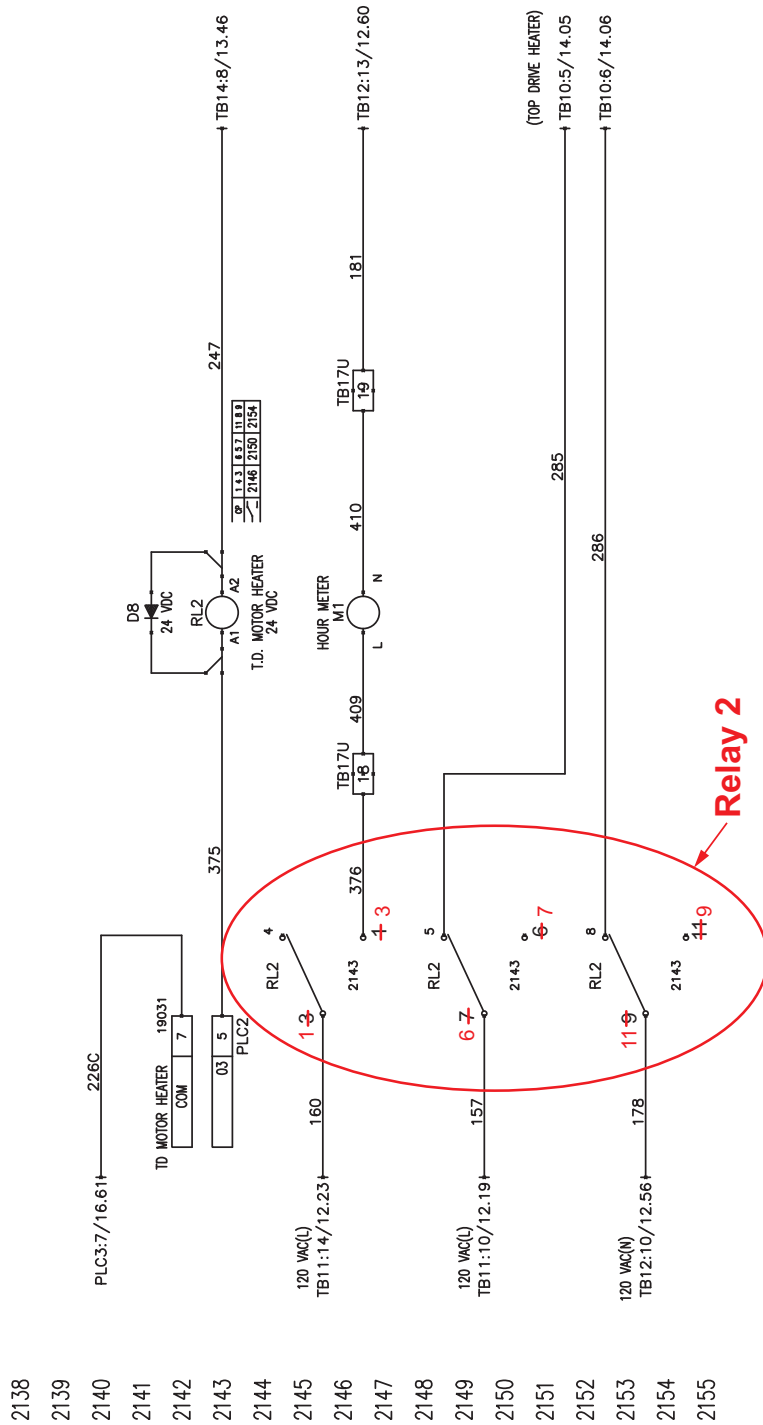


Figure 2: Detail of Relay 2 Connections