



ES Service Information

File In/With: 160.00-M4

SI0120

New

4-05

Equipment Affected: Chillers with 292/351 & 419/503 VSD Drives

Trap Filter Resistor Wire Routing

Background

On VSD equipped chillers built between 5/01 and 6/04, the wire routing around the trap power resistors may cause a short if the wire insulation makes contact with the trap resistors.

Units Affected

All styles of drive with the model number starting with VSD built between 5/01 and 6/04.

Solution

This work should be viewed as a preventive maintenance item when other work on the chiller or drive is being completed.

Fig. 1 shows the general location of the trap filter power resistors.

In Fig. 2, notice that the wiring for the trap resistors loops back up over the resistor. Over time and with heating in the drive, the wire may eventually "droop" and make contact with the metal resistor body. This will cause the wire insulation to fail and the input phase will short to ground.

To reroute the wiring, remove power from the unit and gently remove the lead from the bottom of each trap filter power resistor. Rotate the wiring connector 180° and reinstall the wiring connector. Route the wiring down away from the trap power resistors, and tie wrap these wires to the wiring at the top of the red plate. In Fig. 3 notice how the trap power resistor wiring is now routed away from the metal body of the resistor, and is not able to short the wire to ground.

TRAP FILTER POWER RESISTORS



FIG.1 - LOCATION OF TRAP FILTER POWER RESISTORS

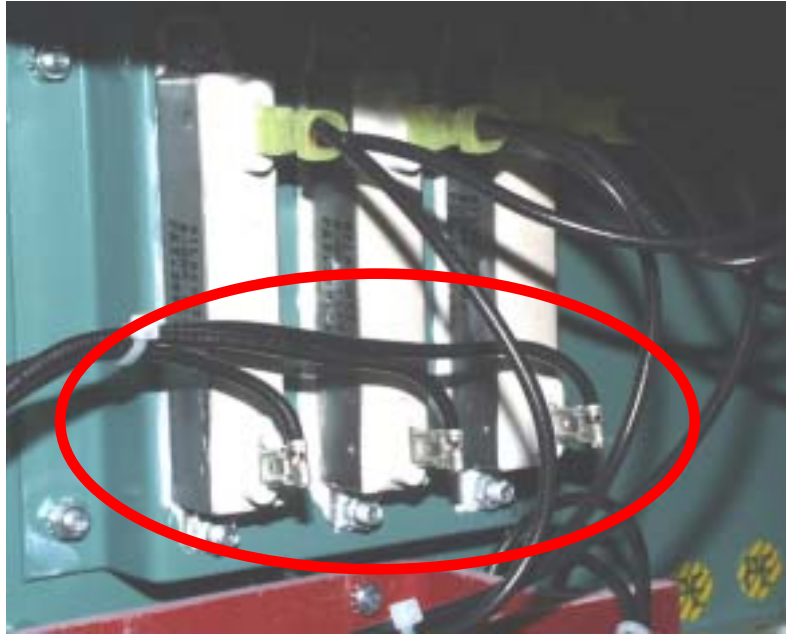


FIG. 2 - WIRE ROUTING IS INCORRECT ON THE BOTTOM OF THE TRAP FILTER POWER RESISTORS



FIG. 3 - WIRE ROUTING IS CORRECT ON THE BOTTOM OF THE TRAP FILTER POWER RESISTORS