

RTK3 contactor replacement

Purpose:

This document was written due to the recent issues with RTK3 relays failing for the carousel motors.

Required Materials

Crimpers / Wire strippers / Philips screwdriver / Spade terminals

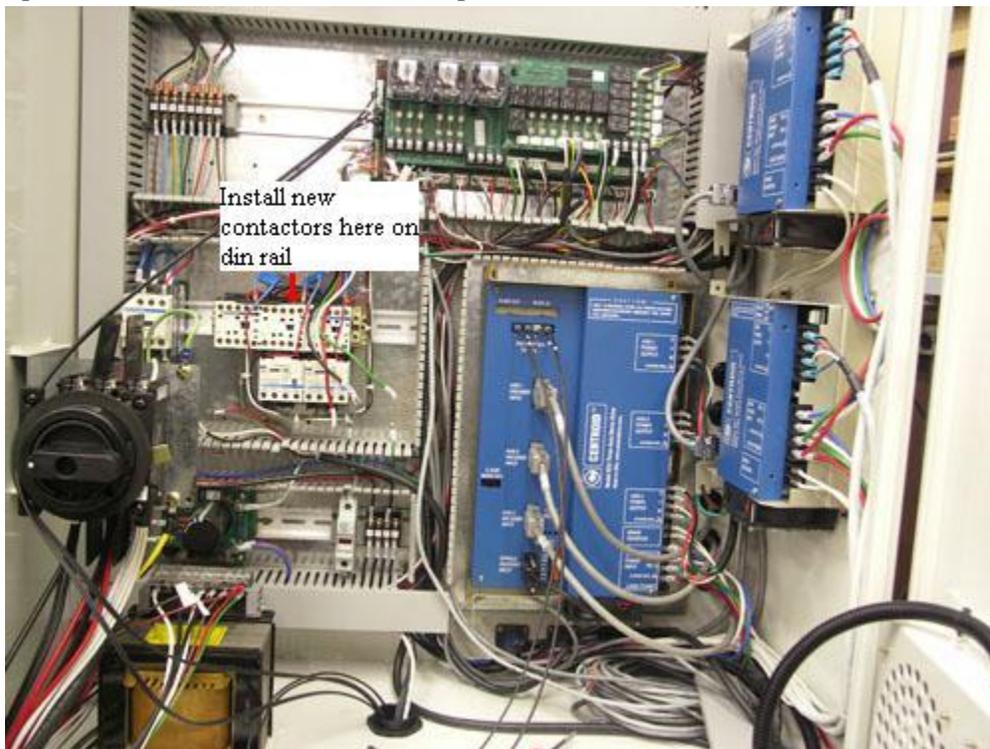
Butt splices / Schematic RTK3CON.S01

Make sure this pin is removed on the overload for the reversing contactor. Failure to do this will cause a short in the 24VAC circuit.

Procedure:

1. Locate Din rail on the sub-panel beside Estop contactor. If there is room, install Flood and carousel reversing contactors on the din rail (see option 1 pic.). If there is insufficient space on the din rail, mount the contactors on the din rail provided onto the bottom of the electrical cabinet.

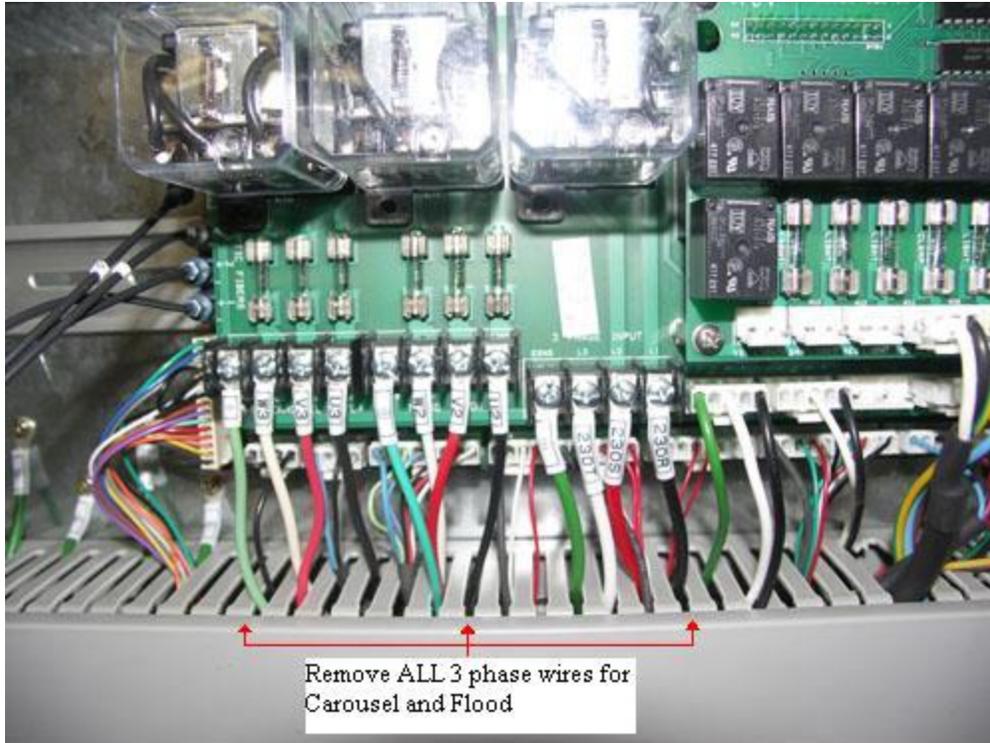
Option 1: Contactor Placement on sub-panel din rail



Option 2: Contactor placement w/ provided din rail on bottom on cabinet

2. Remove Panduit covers from the wire tracks around the RTK3 and the contactors or down to the contactors.

3. Remove 220VAC 3 phase wires going to the RTK3 input as well as the carousel and flood pump cables (see picture below)



4. If system is in a white electrical cabinet (i.e. Taiwan integrated) check for fuses after the main disconnect for the 220VAC 3 phase power. If none are present install the supplied fuse block and wire the 3 phase to the flood contactor (refer to schematic RTK3CON.S01). Also run the GND wire from the terminal beside the Flood contactor to the GND lug beside the disconnect switch.

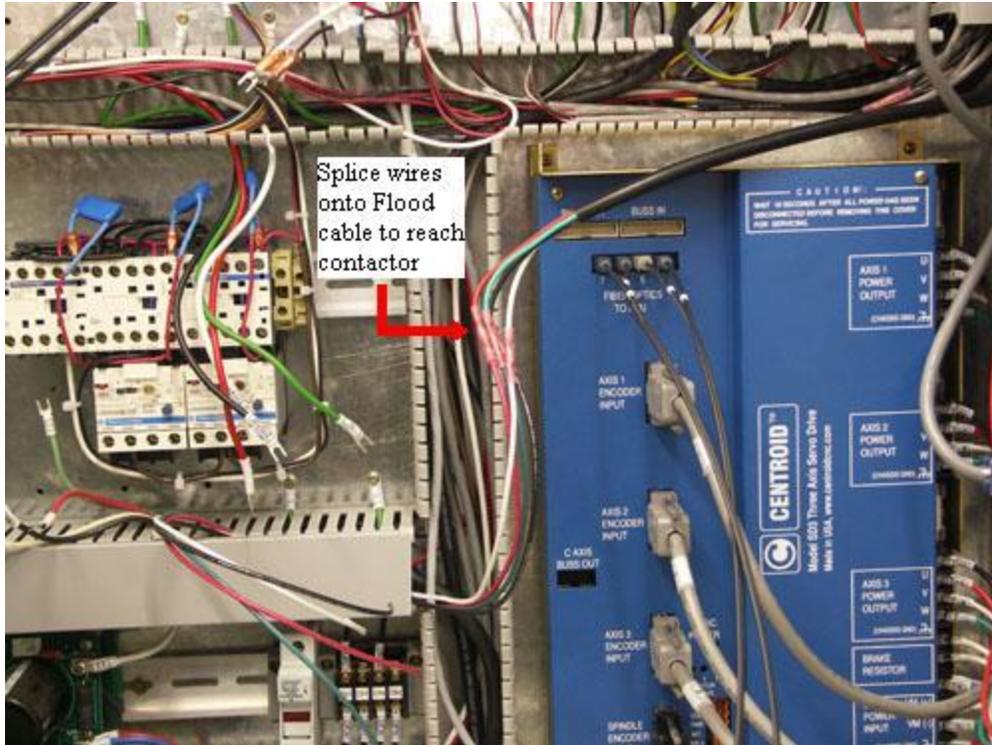
5. Run the Red, White, and Black 24VAC wires from the Flood and carousel contactors to the RTK3 and attach with spade terminals. Then run the Brown wire to the Estop contactor and then to the 24VAC Common on the main transformer (refer to schematic RTK3CON.S01). Depending on the system the Estop contactor may NOT have a normally open contact available, in which case just run the Brown wire from the Flood contactor straight to the transformer. Run a Red wire from the 24VAC on the transformer to the RTK3 L1 3 phase input.

New RTK3 Wiring

24VAC wiring on Transformer

6. Wiring the existing Flood and Carousel motor cables to the outputs of the new Flood and Carousel contactors (refer to schematic RTK3CON.S01).

Note: Flood pump wires may need to be extended, see picture below.



Splice addition wire to Flood cable

7. Once everything is installed and wired, double check all wiring with RTK3CON.S01 schematic. Then power up machine and test Flood and carousel operation.

Completed Flood and Carousel contactor Installation.