

# **IMPORTANT**

## **Engineering Bulletin #111 Siemen's Auxiliary Contact Failures**

### **O. Thompson Co.**

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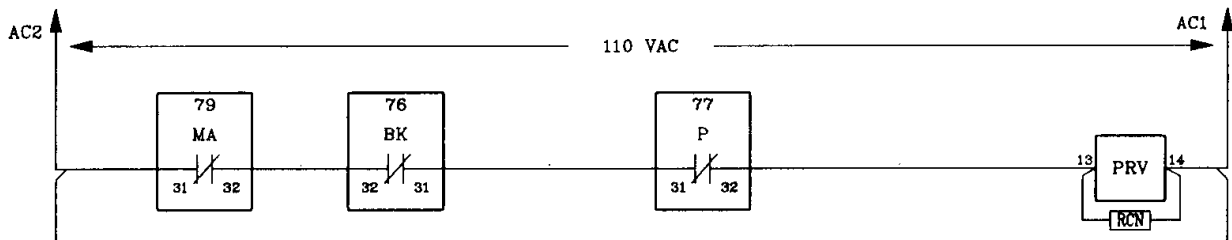
## Contactor Failures on Normally Closed Contacts

We have seen a number of intermittent failures on the normally closed auxiliary contacts of the 'BK' and 'P' contactors that are installed on Microflite Ultra 2000 controllers. The contact failures are in the direction circuit, and 'M' relay circuit. The failure of the contacts is due in part to dirt and dust contaminating the auxiliary contact blocks on the Siemen's contactors.

When the contacts fail, the car will not start in either direction. This condition generates a fault, either "Brake / Direction Did Not Pick" or "PWA Missing at Start / Start Control Failure." To correct this condition, we have changed the circuitry for these contacts. All controllers manufactured from 4/1/01 on will have a wiring change to correct this condition. To install this change on existing controllers, follow the steps below.

1. Remove power from the controller.
2. On jobs using AC or DC drives, the 'MA,' 'BK,' and 'P' normally closed contacts shown at line 51 on sheet 5 of the wiring diagrams need to be removed from the direction circuit. If the controller is for an installation with an MG set, there is no MA contact in the circuit, so only the BK and P contacts are affected.

***NOTE: Contact numbering may vary from job to job. Refer to the wiring diagrams supplied with each job for specific contact numbering.***

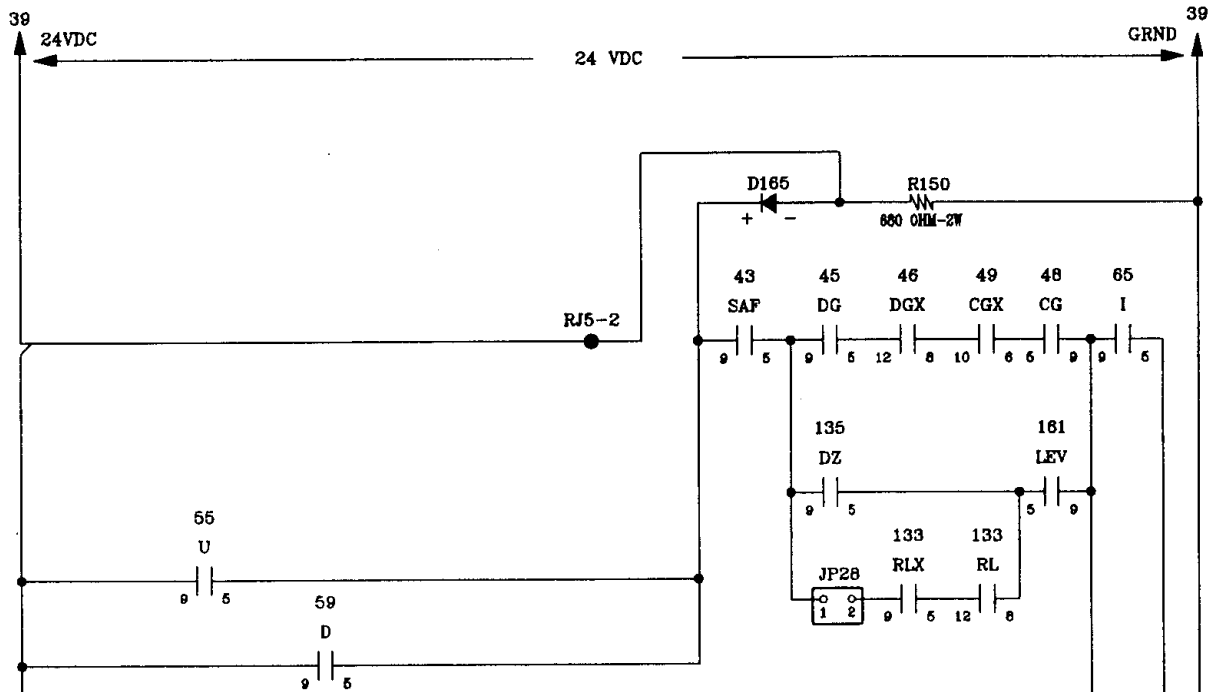


3. A 110 VAC, four pole relay with gold bifurcated contacts needs to be added to the controller. Using the contacts that were removed in the previous step, wire the relay as shown below:

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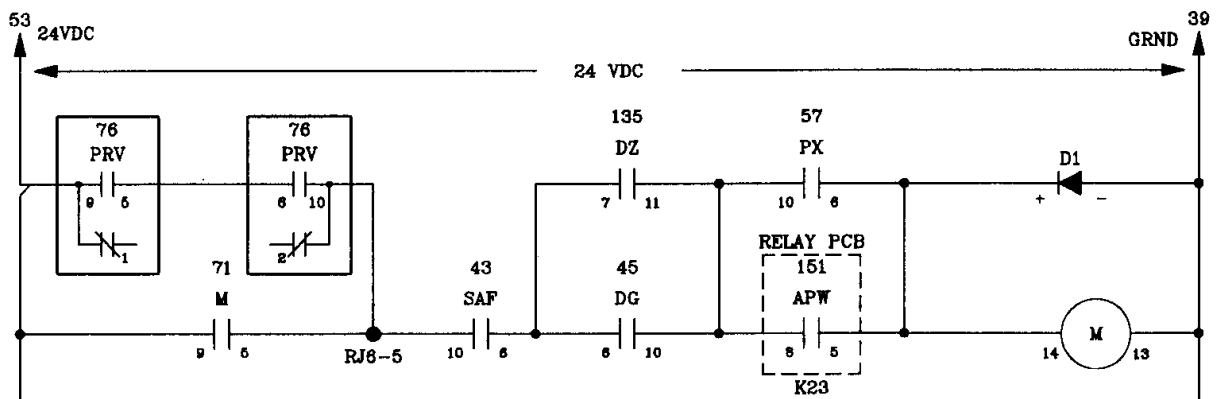
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- The first contact in the string that was removed from the direction circuit will be wired to the 'AC2' feed on the controller. The common side of the relay coil will be wired to the 'AC1' feed. The relay should be labeled 'PRV' for "Contactor Proving Relay."
- Next, a jumper needs to be installed in the direction circuit. Referring to the diagram below, wire 24VDC to relay board terminal RJ5-2.



- On sheet 7, line 71 of the wiring diagrams, remove the existing 'BK' contact. Referring to the diagram below, wire 'PRV' #9/5 and 'PRV' #6/10 in the 'M' relay circuit.

### START / STOP CIRCUIT



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7. After these changes have been completed, place the car on inspection and restore power to the controller. The 'PRV' relay should be energized. If not, check the wiring and contacts in the 'PRV' circuit from the drawing in step 3.
8. Using the toggle switch on the relay board, run the car on inspection. If the car does not move, check the wiring in the direction and 'M' circuits. If it does move, remove the 'PRV' relay and confirm that it does not move.
9. Take the car off inspection, and place it on door disconnect service. Place car calls, and confirm that car runs on automatic. Assuming the car operates properly, it can be returned to service.

We apologize for any inconvenience this may have caused. If you have any questions, please contact our Technical Support Department at (718) 417-3131.