Signature Series Magnum PLC Field Replacement Instructions

Description:

This kit is used to replace the Allen Bradley MicroLogix 1000 PLC in the Signature Series Magnum with the Allen Bradley Micro850 PLC. Serial numbers before DJ-3069-95 were shipped from Norfield with the Allen Bradley MicroLogix 1000 PLC which was discontinued in June 2017. The Allen Bradley Micro850 PLC uses the same wiring for the Inputs and Outputs as the MicroLogix 1000 PLC. The Allen Bradley Micro850 PLC should be Pre-programmed from Norfield.

Contents of Kit:

- 1x 11-2097 Allen Bradley Micro850 24 Point PLC
- 1x 11-2095 Allen Bradley 60W 24VDC Power Supply
- 1x 11-2098 Allen Bradley 4 Channel Input Module
- 1x 11-2099 Allen Bradley 4 Channel Relay Output Module
- 1x 6810-021 DIN Rail Spacer
- 1x 6810-405 Wiring Diagram
- 1x 48" Blue 18GA wire
- 1x 48" Red 18GA wire
- 1x 48" White 16GA Wire
- 1x 24" Red 20GA Wire
- 5x Red Wire Butt Connector

Instructions:

1. Label Wires connected to PLC and disconnect them from the screw terminals

2. Remove MicroLogix 1000 PLC from Electrical Cabinet

3. Replace DIN Rail spacer from Electrical Cabinet with the 6810-021 DIN Rail Spacer

4. Move the 120 VAC Power wires and wire them to the new Power supply
   - Connect the Red Wire at 41TB to "L1" on the Power Supply
   - Use a sufficient length of 16GA White Wire and a Red Wire Butt Connector to connect the White Wire at the N terminal to "N" on the Power Supply
   - Connect the Green Wire at the Ground Terminal to "GND" on the Power Supply

5. Connect wires from the Power Supply
   - Connect the wire labeled for 24P1 to "+" on the Power Supply
   - Connect the wire labeled for 24N Terminals to "-" on the Power Supply
   - Connect a length of 18GA Blue wire "+" on the Power Supply to "+DC24" on the PLC
   - Connect a length of 18GA Blue wire "-" on the Power Supply to "-DC24" on the PLC

- Connect a length of 18GA Blue wire from "-" on the Power Supply to Input "COM0", "COM1" and the Commons on the Input Module on the PLC

6. Connect the wire labeled for "VAC/VDC 0" to the Output Common "CM0" on the PLC

7. Connect the wire labeled for "VAC/VDC 1" to a length of 16GA Blue wire from 41TB to Output Commons ("CM1", "CM2" and "CM3") on the Output Module.
    - Use three lengths of 20GA Red wire, a Red Wire Butt Connector and the wire labeled "VAC/VDC 1".
    - Crimp one end of all three lengths of the 20GA Red wire to one side of the Red Wire Butt Connector
    - Crimp the other end with the wire labeled "VAC/VDC 1"

8. Connect the wire labeled "VAC/VDC 3" to "CM 2" Output Common and jump to "CM 3" Output Common on the Base PLC
9. Re-Connect wires that were removed from ML1000 PLC to Micro850 PLC
    - Micro850 PLC has removable Screw Terminals for Inputs and Outputs on the PLC Base. This feature makes it easier to remove them from the PLC while reconnecting all of the inputs and outputs
    - Reconnect the Inputs as described in the revised wiring diagram:

Description	Old Pin (MicroLogix 1000 PLC)	New Pin (Micro 850 PLC)
Lock Drill ON	Input 00 (PLC)	Input 00 (PLC)
Latch Drill ON	Input 01 (PLC)	Input 01 (PLC)
Latch Drill Home Auto Switch	Input 02 (PLC)	Input 02 (PLC)
Latch Drill Return Auto Switch	Input 03 (PLC)	Input 03 (PLC)
Lock Drill Home Auto Switch	Input 04 (PLC)	Input 04 (PLC)
Lock Drill Return Auto Switch	Input 05 (PLC)	Input 05 (PLC)
Clamp Pedal	Input 06 (PLC)	Input 06 (PLC)
Cycle Pedal	Input 07 (PLC)	Input 07 (PLC)
Latch Router Start	Input 08 (PLC)	Input 08 (PLC)
Latch Router Stop	Input 09 (PLC)	Input 09 (PLC)
Door Width UP	Input 10 (PLC)	Input 10 (PLC)
Door Width DOWN	Input 11 (PLC)	Input 11 (PLC)
Door Width SLOW	Input 12 (PLC)	Input 12 (PLC)
Width Up Limit	Input 13 (PLC)	Input 13 (PLC)
Width Down Limit	Input 14 (PLC)	Input 00 (Input Module)
Width Sensor	Input 15 (PLC)	Input 01 (Input Module)

- Reconnect the Outputs as described in the revised wiring diagram:

Description	Old Pin (MicroLogix 1000 PLC)	New Pin (Micro 850 PLC)
Buzzer	Output 00	Output 00 (PLC)
Width UP	Output 01	Output 00 (Output Module)
Width DOWN	Output 02	Output 01 (Output Module)
Width SLOW	Output 03	Output 00 (Output Module)
Door Clamps	Output 04	Output 02 (PLC)
Lock Drill	Output 05	Output 03 (PLC)
Latch Drill	Output 06	Output 04 (PLC)
Face Plate Plunge	Output 07	Output 05 (PLC)
Face Plate Cone	Output 08	Output 06 (PLC)
Face Plate Motor	Output 09	Output 07 (PLC)