Magnum Loader PLC Field Replacement Instructions

Description:

This kit is used to replace the Allen Bradley MicroLogix 1000 PLC in the 450 with the Allen Bradley Micro850 PLC. Serial numbers before LM-6929 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 PROG-0052 Magnum Loader Programmed Micro 850 PLC
- 1x 11-2095 Allen Bradley 60W 24VDC Power Supply
- 1x 6850-059 Overlay
- 1x 6810-021 DIN Rail Spacer
- 1x 6850-400 Wiring Diagram
- 1x 48” Blue 18GA wire
- 1x 24” Black 18GA wire
- 1x 36” White 18GA wire
- 5x Crimp Butt Connectors (Red)

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. Extend (as needed) the old 120 VAC Power wires and wire them to the new Power supply
    - Connect the Black Wire at 23TB to “L1” on the Power Supply
    - 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 length of wire from 37TB and 38TB (+ Terminals) to “+” on the Power Supply
    - Connect a length of 18GA Blue wire from the “-“ 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 “-” on the Power Supply to Input “COM0” and “COM1” on the PLC

6. Reconnect the Inputs as they are labeled
7. Re-Connect wires that were removed from ML1000 PLC to Micro850 PLC
    - Micro850 PLC has removable Screw Terminals for Inputs and Outputs. This feature makes it easier to remove them from the PLC while reconnecting all of the inputs and outputs
    - Reconnect the Inputs as they are labeled
    - Reconnect the Outputs and Output Commons as described in the revised wiring diagram:

Description	**Old Pin (MicroLogix 1000 PLC)**	**New Pin (Micro 850 PLC)**
Output Common 0 (120 VAC)	VAC/VDC 00	CM2
Tilt Up	Output 00	Output 02
Output Common 1 (Jumped from Common 0)	VAC/VDC 01	Not Connected
Tilt Down	Output 01	Output 03
Output Common 2 (Jumped from Common 1)	VAC/VDC 02	Not Connected
Pump Start	Output 02	Output 04
Output Common 3 (-24 VDC)	VAC/VDC 03	CM1
Auto Indicator Light	Output 03	Output 01
Output Common 4 (Speed Controller)	VAC/VDC 04	CM3
Index Up	Output 04	Output 06
Index Down	Output 05	Output 07

8. Replace old faceplate 6850-029 Overlay with the new revision of the 6850-059 Overlay