

Micro Control Systems

APPLICATION NOTE
APP-056

MCS-RO8 to MCS-RO10 Migration

Revision History

Date	Author	Description
09/22/09	JGW	Create initial version

Theory

With the design of the MAGNUM it was clear that OEM's and contractors doing upgrades, required additional relay outputs to accomplish more complex task

Solution

The MCS-RO10 was designed to enhance the MAGNUM relay outputs. The MAGNUM has 10 relay outputs and the MCS-RO10 has 10 relay outputs, providing continued improvement and at a substantial savings, thus allowing the same concepts. By allowing Version 8 of the MAGNUM software to input 7 MCS-RO10 boards, MAGNUM, Version 8 can now handle 80 relay outputs.

For compatibility the MCS-RO10 can also replace the MCS-RO8. While you can only use 8 of the relay outputs it is the same size and at a reduced cost to the MCS-RO8.

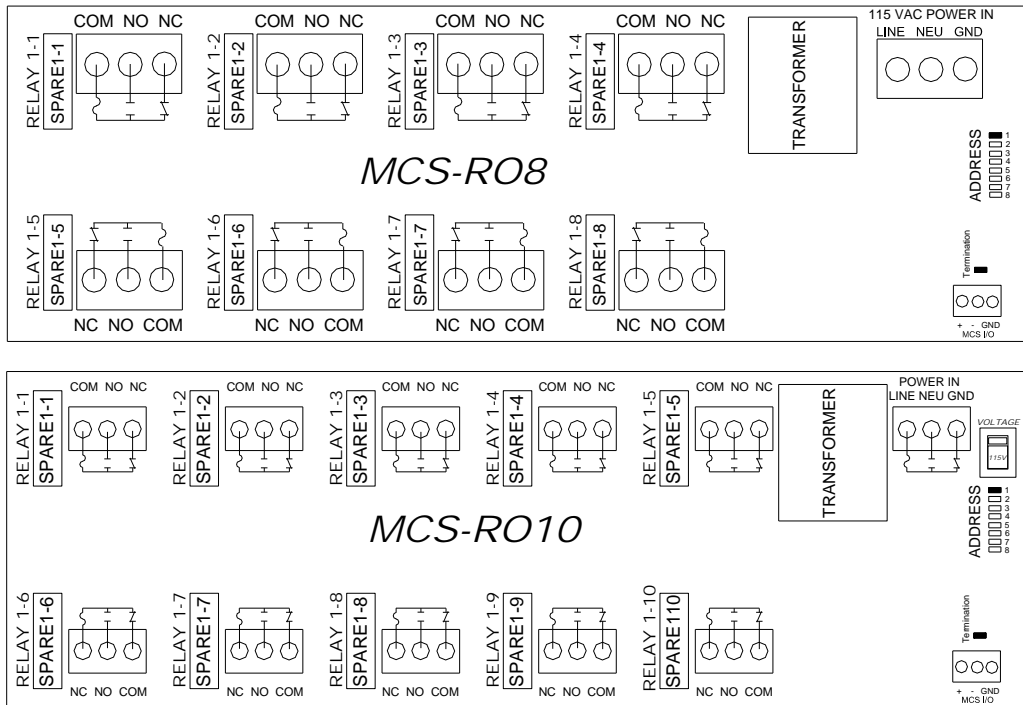
Wiring of MCS-RO10 to replace and installed MCS-RO8.

1. The printed circuit boards are the same physical size and mounting.
2. The MCS-RO8 is either 115 vac or 230 vac.
3. The MCS-RO10 is like the MAGNUM in that it is field selectable for either 115 vac or 230 vac and is equipped with its own power input fuse and a spare.
4. The MCS-RO8 has 4 relay outputs on each side while the MCS-RO10 has 5 per side. Therefore relay output #5 from and MCS-RO8 must be rewired to the last relay (relay #5) on the MCS-RO10.
5. In addition relay outputs 6, 7 and 8 must be moved to the left 1 position.
6. The MCS-RO10 also has the same terminal blocks as the MAGNUM thus requiring rewiring the entire board on retrofits.

Wiring of MCS-RO10 in a new System (as and MCS-RO8).

1. Using the lexan cover, as a template, mark the mounting holes.
2. Mount the nylon standoffs on the RO10 board.
3. Select the control power and set the selector switch for either 115 vac or 230 vac.
4. Mount the MCS-RO10.
5. Wire the input power to the board. (Remember the grounds are not jumpered.)
6. The MCS-RO10 has 5 relay outputs on each side.
7. Wire the 1st 5 outputs to one side on relays 1 through 5..
8. Wire the last 3 outputs to the other side. (Relays 6 thru 8).

MCS-RO8 & MCS-RO10 Layouts



Release of MAGNUM Version 8

With the release of MAGNUM Version 8 software you will be able to use all 10 relay outputs. Version 8 of the MAGNUM software will support 80 Relay outputs, 80 Sensor inputs and 20 Analog outputs.

MAGNUM Version 8 has been installed in a Beta test site for about 2 months.