

Micro Control Systems

APPLICATION NOTE

APP-064

MAGNUM Rev 7.xx Hardware with MAGNUM Keypad / Display Rev 7.xx

Revision History

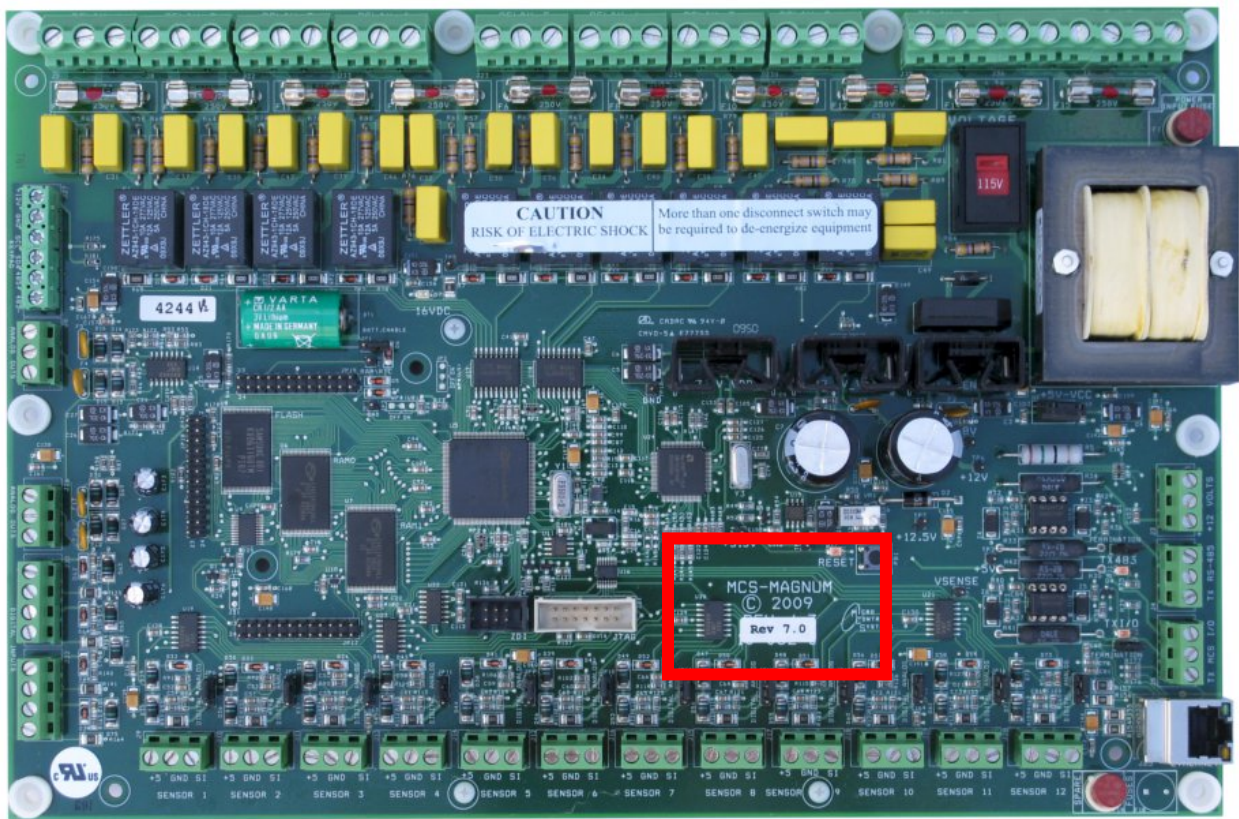
Date	Author	Description
08/31/10	John Walterick	Created Application Note
10/28/10	Weston Klebs	Updated Application Note, added Keypad Wiring Diagram

1. General Concept

Magnum revision 7.xx & higher is coupled with the Keypad / Display revision 7.xx and higher. The I²C high-speed communications bus has been modified to use 12 vdc instead of 5 vdc. This increases the protection the Magnum's I²C bus communications has from external noise.

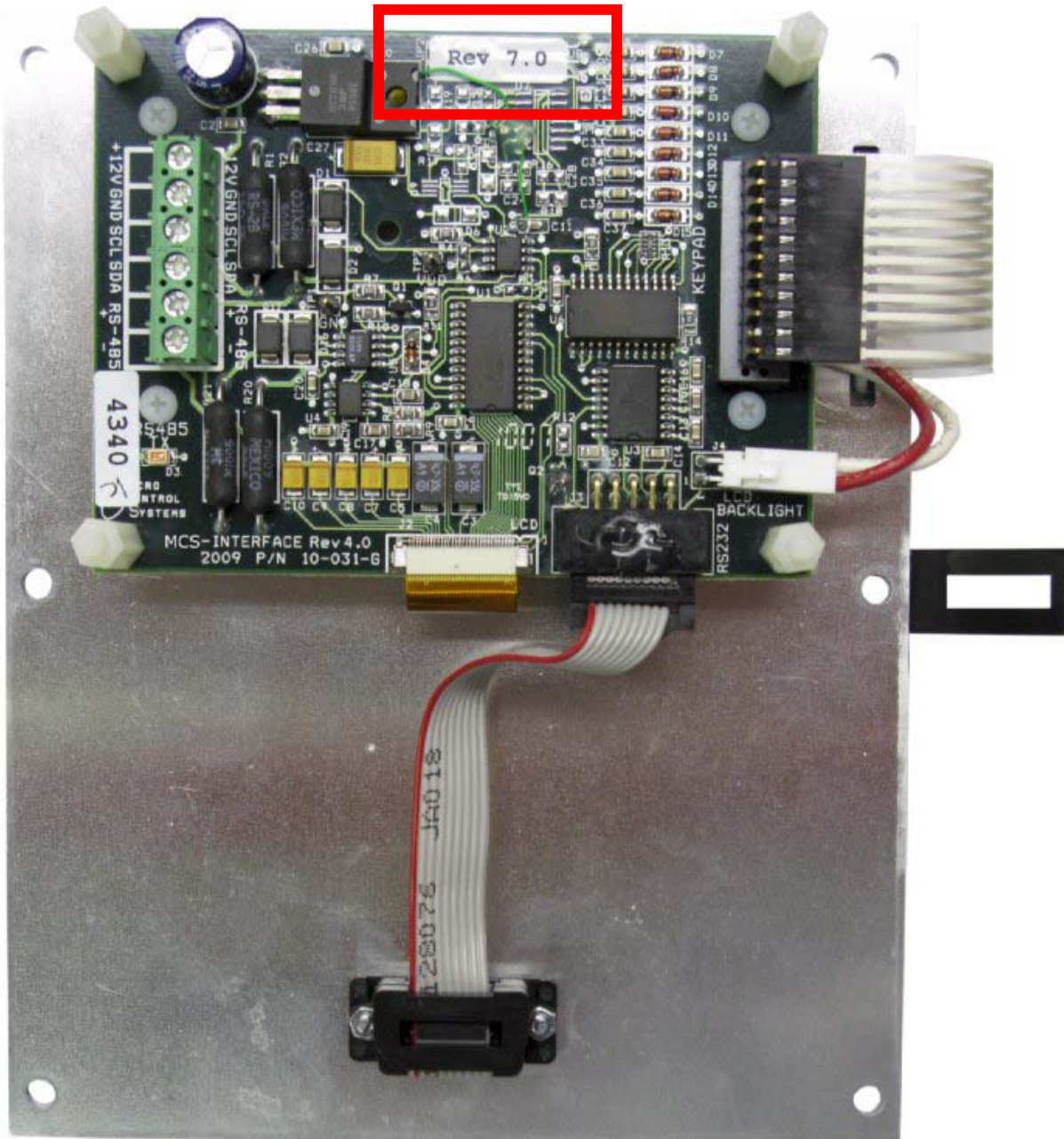
You cannot mix a revision 7.xx Magnum and higher with a Keypad / Display unit that is less than revision 7.xx

2. Magnum Revision Location Indicator



A label between the two large capacitors and sensor input row identifies if the Magnum is Rev 7.0 or higher.

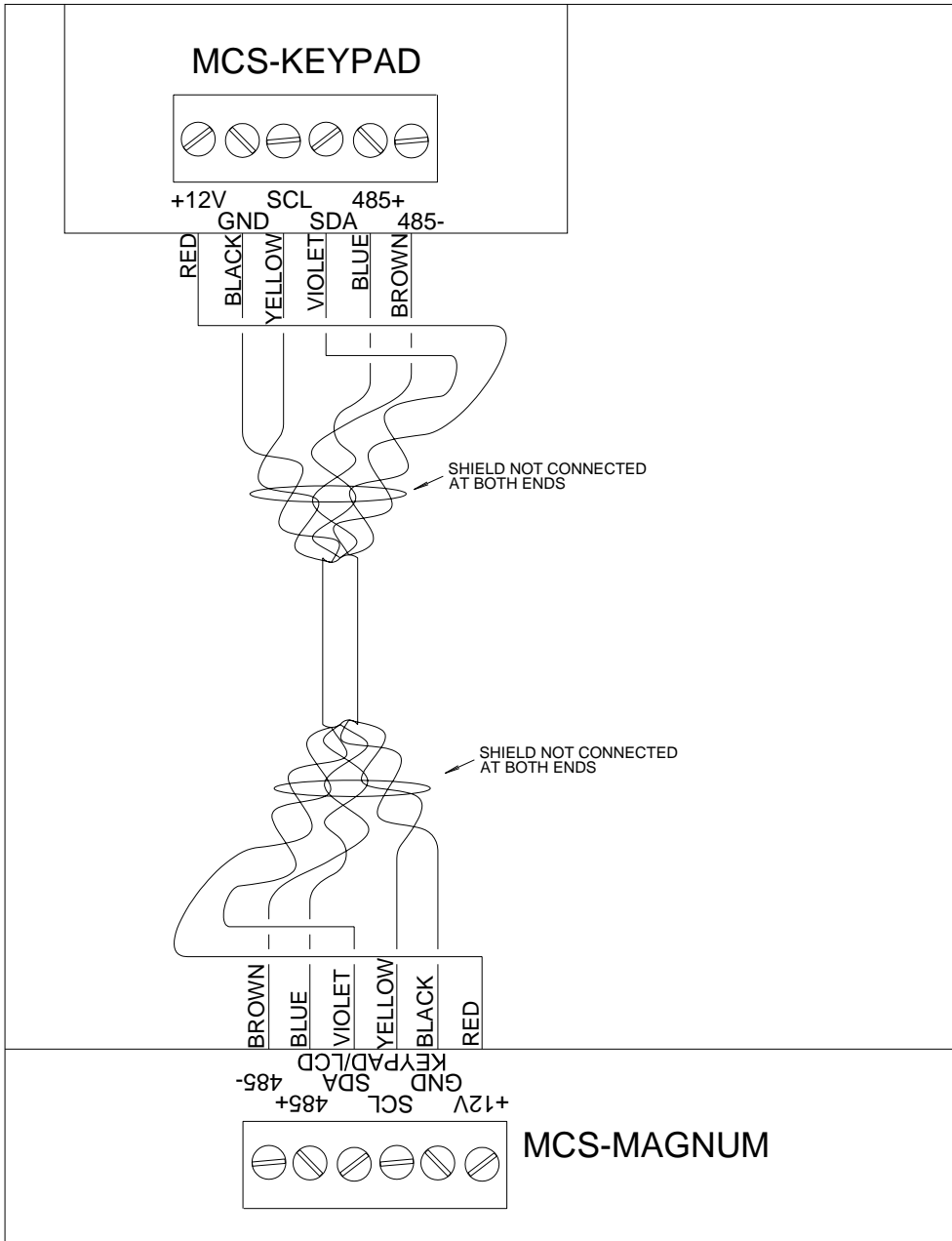
3. Keypad / Display Revision Location Indicator



A label at the top of the circuit board side of the Keypad / Display identifies it as Rev 7.0 or higher.

4. Keypad / Display Wiring Detail

A new keypad to Magnum wiring method has been developed to increase protection against electrical noise causing “Lost Keypad” alarms. This new method uses one shielded cable with 3 pairs of twisted wires instead of the original 6-conductor shielded wire. The wires are grouped together in a specific order and the shield is not connected on either end, both measures are designed to reduce electrical noise. The updated method is shown in the diagram below, and all new Magnums will be shipped with this design prewired.



MAGNUM Board to Keypad Interface Wiring Diagram