Micro Control Systems APPLICATION NOTE

APPLICATION NOTE APP-074

How to Transmit Firmware Using MCS-Connect

Revision History

| Date | Author | Description |
|----------|----------------|--------------------------|
| 09/27/11 | Weston Klebs | Created application note |
| 06/04/15 | Daniel Bonessi | Updated |

1. Standard Method

- 1. Open MCS-Connect
- 2. Select Local Serial as method of connection (you must already be connected to the Magnum through a Null Modem Serial cable to the Keypad). This will bring up the Magnum scanning screen. SCREENSHOT
- 3. Select the Magnum you would like to connect to and click the respective tab. Wait for the tables to load.
- 4. Click the <u>View Only</u> button and enter the correct authorization code (must be Service level or higher). This will enable the <u>Load Firmware</u> button.
- 5. Click the **Load Firmware** button and navigate to the firmware you wish to insert in the menu that pops up. (will be a .hex file) SCREENSHOT
- 6. Open firmware and wait until firmware has finished transmitting.

2. Backdoor Method

There may be certain situations where the standard method for transmitting firmware will not work (for example, firmware corruption through incomplete transfer, power failure, etc.). The magnum may be in constant reset and might not show up on the scanning screen of MCS-Connect. In such instances the following backdoor method must be used to transmit firmware.

- 1. Open MCS-Connect
- 2. Select Local Serial as method of connection (make sure you are NOT connected to the Magnum through

| the Keypad yet, keep the serial cable unplugged for this step so that the | Load Firmware | does not |
|---------------------------------------------------------------------------|-------------------|----------|
| become disabled). This will bring up the Magnum scanning screen. Click | the Load Firmware | button |
| become disabled). This will bring up the magnam searching select. Cher | | button |

| and navigate to the firmware you wish to insert in the menu that pops up (will | be a . | hex file) |
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| 🛓 Load Firmv | ware | X | | | | |
|--------------------------------------------------|--------------------------|-------------|--|--|--|--|
| Look <u>I</u> n: | MAGNUM HEX | | | | | |
| Magsoft_CENT_V16.10Q.hex Magsoft_RTU_V17.14M.hex | | | | | | |
| Magsoft_CENT_V17.14M.hex | | | | | | |
| Magsoft_HVAC_V16.10Q.hex | | | | | | |
| Magsoft_HVAC_V17.14M.hex | | | | | | |
| Magsoft_REFR_V16.10Q.hex | | | | | | |
| Magsoft_R | Magsoft_REFR_V17.14M.hex | | | | | |
| Magsoft_RTU_V16.10Q.hex | | | | | | |
| File <u>N</u> ame: | | | | | | |
| Files of <u>T</u> ype: | *.hex Files | • | | | | |
| | | Load Cancel | | | | |

- 3. Reconnect the Null Modem Serial cable to the Keypad.
- 4. Before actually transmitting firmware however, locate the RESET button on the MCS-Magnum board. You will need to start transmitting the firmware within seconds of pressing the RESET button.



5. Press the RESET button and then immediately begin transmitting the firmware.