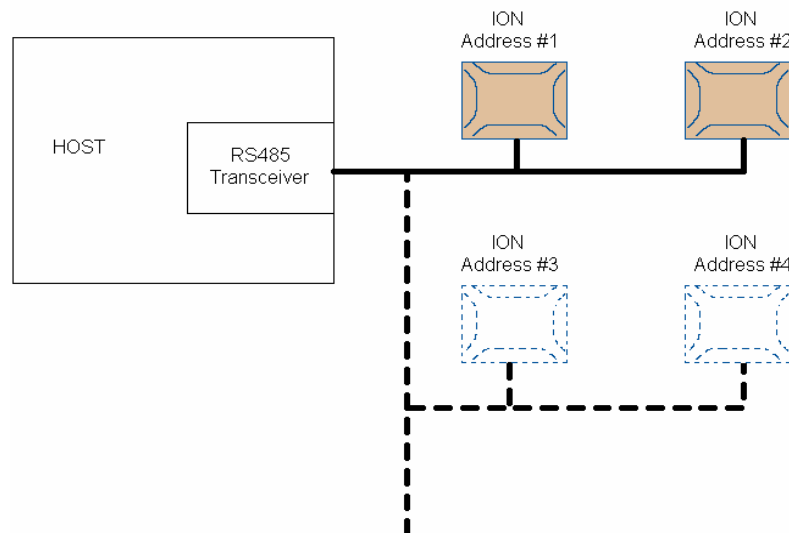


ION Serial Multi-drop Configuration Procedure

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The ION™ can be used in a serial multi-drop Network. Every ION in the network must have a unique address. The default address on the ION is zero and therefore must be configured before used in a network. Using the ION in a serial network means that the RS485 serial protocol is utilized and therefore the host must be using an RS485 transceiver to talk to the ION network.

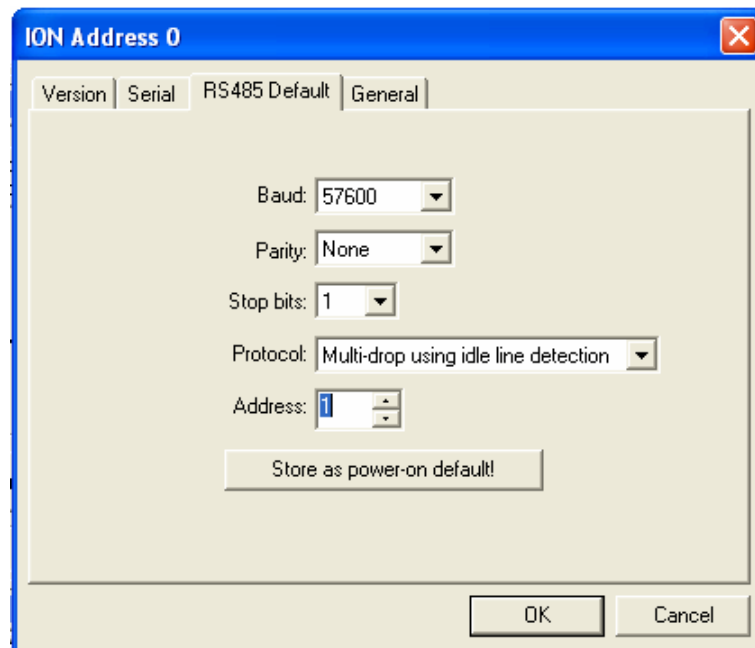
At startup the ION will detect the state of pin 1 of the Serial RS232/485 connector. If the ION sees that pin 1 is pulled low, the ION will read the stored serial configuration and will then begin using the on-board RS485 transceiver for all future communication. (Note this only occurs at power up, therefore the ION must be power cycled for the default configuration to be read again if changed.) Reference Sec. 2.5.8 of the ION User's Guide for wiring details.



The IONs must be configured one at a time. The procedure detailed below assumes that a PC with Pro-Motion™ installed is being used to do the configuration. If a Windows PC is not available the SetDefault command can be used instead, use of which will not be detailed here (Reference the Set/GetDefault command in the Magellan Motion Processor Programmer's Command Reference).

1. Connect only the ION that will be address #1 to the network and power on.
2. Start Pro-Motion and press the "Connect" button. Select the Windows COM port that belongs to the RS485 transceiver. (Check the Window's Device Manager if unsure). Use the default Serial settings:
 - 57600 baud
 - 1 stop bit
 - No parity
 - Point-to-Point
 - Address 0

3. Check that the ION icon exists in the Project window which means the connection was successful.
4. To access the Module Properties dialog window double-click on the ION icon. (For more information refer to “Setting Module Properties” in the Pro-Motion User’s Guide.)
5. Select the “RS485 Default Tab”.
6. Change the value of the Address field to one (or anything but zero). Change the Protocol field to “Multi-drop using Idle Line protocol” and press the “Store as power-on default” button. Any other desirable serial configuration changes can be made prior to pressing the button (ie. baud rate, stop bits) When finished press the “OK” button.



Note: These setting will not take effect until the ION is power cycled.

7. Right click on the ION icon in the project window and select “Disconnect”.
8. Power off the ION and connect the next ION to the network. The ION previously configured in step 6 can remain in the network.
9. Repeat steps 2 – 7 starting with pressing the Connect button. This time select an address other than the one used during step 6.
10. Step 9 can be repeated for a many IONs as needed. Make sure every ION has a unique address. All other serial parameters must be the same for every ION in the network.
11. Cycle power on both IONs. The configuration can be verified by having Pro-Motion connect to all IONs in the network simultaneously.

If a mistake is made or the stored configuration is forgotten, an RS232 interface (different cable) can be used to communicate to the ION. The RS485 default configuration can be checked and stored using an RS232 connection. Refer to the ION User’s Guide for RS232 defaults.