

























































## MODBUS RTU PROTOCOL *continued...*

### Modbus RTU Command Format *continued...*

#### Write Single Register *continued..*

#### Exception Codes

Exception Codes 0x01 to 0x0B are Modbus exception codes and are listed below:

0x01	ILLEGAL FUNCTION
0x02	ILLEGAL DATA ADDRESS
0x03	ILLEGAL DATA VALUE
0x04	SLAVE DEVICE FAILURE
0x05	ACKNOWLEDGE
0x06	SLAVE DEVICE BUSY
0x08	MEMORY PARITY ERROR
0x0A	GATEWAY PATH UNAVAILABLE
0x0B	GATEWAY TARGET DEVICE FAILED TO RESPOND

The following Exception codes are unique to the SteadyWeb™6:

60	EEPROM COMM ERROR
61	CORRUPTED DATA ERROR
62	BOUNDS ERROR
63	WRITE RULES ERROR.
80	EEPROM TIMEOUT
81	FRONT BOARD TIMEOUT
82	COMM TIMEOUT

#### CRC Error

As documented in the Modbus Application Protocol Specification, no response is returned if a CRC error is detected.

#### (00) Broadcast Message

In Modbus RTU broadcast is achieved using 0 as the slave address. A broadcast message cannot expect a reply message. It is used to broadcast a command to all devices on the network by using slave address (0). Function codes (05 and 06) can be broadcast. For instance, function code (05) can be used to turn off tension to every SW6 on the RS485 network.

Because there is no reply to a broadcast message, there is no error response, and no guarantee that the message was successfully received and implemented.

Reference:

Modbus software wastested using Modbus Test Pro from Rogue Engineering Inc

# NOTES

---



307 PICKERING ROAD  
ROCHESTER, NEW HAMPSHIRE 03867-4630 U.S.A  
TEL: 603-332-6150  
FAX: 603-332-3758  
E-mail: [info@dfc.com](mailto:info@dfc.com) Internet: [www.dfc.com](http://www.dfc.com)

CANADA

MEXICO

UNITED KINGDOM

TAIWAN

KOREA

AUSTRALIA

SOUTH AFRICA

CHINA