## **Controlotron protocol**

## **Connector Configuration Parameters**

#### Delimiter (hex)

The standard delimiter used in a Controlotron message is a comma (\$2E). Entering a non zero value in this field will change the delimiter to the hex value entered.

#### RTS ON DelayX10ms

Enter a number from 0 to 255 (0 to 2.55 seconds) to delay sending a message after turning on Request To Send (RTS). Commonly used with modern communication to allow additional time for the moderns to synchronize.

#### RTS OFF DelayX10ms

Enter a number from 0 to 255 (0 to 2.55 seconds) to keep RTS on after a message has been sent. Commonly used to keep a radio on for a short period of time at the end of a message.

#### Handshake Option

If Full Handshake is selected the Omnii-Comm will assert RTS and wait for CTS before sending a message. RTS will be turned off after the message has been sent. If Constant Carrier is selected the Omnii-Comm will assert RTS when it sends its first message and leave it asserted. It will wait for CTS before sending. If Ignore CTS is selected, RTS will be asserted before sending a message and removed at the end of the message. The CTS input will be ignored. If No Handshake is selected, RTS will be asserted when the Omnii-Comm sends its first message. RTS will not be turned off at the end of the message. The CTS input will be ignored. If Activity Monitor is selected, the Omnii-Comm will check the DCD input before sending a message. If DCD is ON, the Omnii-Comm will delay sending the message.

#### **Retry Count**

The number of times a message will be retried before an error is reported

## **Option Bit Parameters**

#### Use Radio Key

If checked, Bit 0 in a register specified by the "Radio Key Address" on the Header configuration screen will be turned ON before a message is sent and turned OFF after the message has been completed.

#### Blank Fill

If checked, message strings will be filled with blanks (\$20). If unchecked, message strings will be filled with Null (\$00)

#### **Enable Commands**

If checked, commands will be enabled. There are five commands that can be sent: Send Date String
Send Time String
Queue SRPT Poll
Stop Polling (Prepare to Sync)
Restart Polling (after Sync is finished)

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#### **Protocol Extension Table Parameters**

The Protocol extension table is used to define additional parameters required for Controlotron operation. Click on the box to enable the Protocol Extension Table. Click on the button to bring up the specific options as detailed below.

#### Command Flag Data Type and Offset

These two entries are used to specify the Data Type and starting offset for the Command Flags. Commands are sent when the Command Flag bit transitions from OFF to ON. There are 5 command flags in this protocol.

Bit Function

- 0 Send Date String
- 1 Send Time String
- 2 Queue SRPT poll
- 3 Stop Polling
- 4 Restart Polling

#### Command Data Data Type and Offset

These two entries are used to specify the Data Type and Starting Offset for Command Data. This protocol requires 7 words of Command Data.

Word Function

- 0 Month for Date Command
- 1 Day for Date Command
- Year (last two digits only) for Date Command
- 3 Hour for Time Command
- 4 Minute for Time Command
- 5 Poll number to queue on SRPT command
- 6 Meter Address for command

#### Parser Data Type and Offset

These two words are used to specify the Data Type and starting offset for the Parsing List.

#### **Poll Table Read Parameters**

#### Meter Address

The address of the meter that data will be read from.

#### **Function**

The type of read to send. Valid selections are: SRPT-Synchronize and Read, Dump-Sync Read or Report-Async Read.

#### Chan #: Dump

The Channel Number for Dump reads.

#### # Chan: SRPT/Report

The number of channels in the meter.

#### Parser string #

The parsing string that will be used to decode the message.

#### **SRPT Options**

Enter an 8 character string to specify SRPT options.

#### **Poll Table Write and Error Parameters**

Controlotron meter write functions are not supported from the poll table. Use Commands to write to Controlotron.

Note: System Error Protocol Definitions are the same as Poll Table Write and Error Parameters

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# **Database Extension Table Parameters**

Index	Name	Size:Max Length
0	Type 00	2:256
1	Type 01	2:256
2	Type 02	2:256
3	Type 03	2:256
4	Type 04	2:256
5	Type 05	2:256
6	Type 06	2:256
7	Type 07	2:32
8	Type 08	2:32
9	Type 09	2:32
10	Type 10	2:64
11	Type 11	2:32
12	Type 12	2:32
13	Type 13	2:32
14	Type 14	2:32
15	Type 15	2:32
16	Type 16	2:32
17	Type 17	2:32
18	Type 18	2:32
19	Type 19	2:32
20	Type 20	2:256
21	Type 21	2:256
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