

CDC 44-560 Type II Protocol

Connector Configuration Parameters

Control TimeoutX10ms

The Control Timeout is the amount of time the Omnii-Comm will wait for an Execute message after receiving a Select message. If the Execute is not received within the Control Deselect Time multiplied by 10msec the Select will be cancelled. Any subsequent Execute message will be ignored until a new Select is received Pre-Trans MARK ms This field allows the user to define the Pre-Transmission Mark time in milliseconds. The Pre-Transmission Mark time is used to frame CDC messages.

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 modem communication to allow additional time for the modems 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.

Dwell Time X10ms

CDC RTUs support Momentary Discrete Controls. If control data is being collected from a device that does not support momentary commands, for example a PLC, the Omnii-Comm simulates a momentary output by first sending a command to turn a bit on and then, later turning it off. Use this field to select the length of time a Momentary Control will be held active. The time is measured in 10msec increments (0 to 2.55 seconds)

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.

Ext Baud Rate Gen

CDC Messages are asynchronous and can vary in length from 16 to 240 bits. Long messages require a very accurate baud rate clock to insure their recovery at the receiving end. The CDC variable word width UART is implemented in special on board hardware that uses the microprocessors clock for basic timing. The processor clock is an 8MHZ crystal which is not a multiple of the baud rates that CDC systems typical use. If this box is checked, the clock from UART 1 Channel A is used for the special UART hardware. This is typically an exact multiple of the standard baud rates used for CDC (typically 1200 baud). Note if you use UART 1 Channel A for on any other communications port you can only use at the same baud rate as specified on the CDC connector screen.

Use DCD

If this box is checked, the Omnii-Comm will only receive data if the DCD line is high. If this box is unchecked the state of the DCD line is not used.

Direct SETPOINT

If this box is checked, the Omnii-Comm will allow a Setpoint write without a preceding Select Command.

Direct TRIP/CLOSE

If this box is checked, the Omnii-Comm will allow a Trip or Close command without a preceding Select Command

Protocol Extension Table Parameters

The Extension Table is not used with CDC Type II protocol.

Poll Table Read Parameters

Poll Table Write and Error Parameters

INVALID SELECTION Can not Write to CDC Slave port.

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	Status Bits	2:256
1	Analogs	2:256
2	Accumu-lators	2:256
3	TRIP/CLOSE	2:256
4	SETPOINT	2:256
7	2-Bit MCD	2:32
10	Frozen Accum	2:64
11	1-Bit MCD	4:16
19	Acc Freeze Ctl	2:32