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# **Control TechNotes**

## **Setting 2217 Serial Port Parameters**

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You can adjust the 2217 EtherNetworking Module's serial ports to establish communications with a wide range of RS-232C compatible devices. The default parameters are 9600 baud, NO Parity, 8 data bits, 1 stop bit, and NO handshaking. Special purpose registers let you change the baud rate, parity, and data length. Each parameter is individually selectable on each of the 2217's serial ports.

## Selecting a Serial Port

Change parameters for a given serial port by first selecting the port. Select a port by storing the assigned port number to special purpose register 12000. The controller's base port is assigned a value of 0. The first port has an assigned value of 1 and the second port has a value of 2.

## Changing the Baud Rate

Change the baud rate of the selected port by storing the appropriate value to special purpose register 12301. Table 1 lists the available baud rates and corresponding register setting.

**Table 1. Baud Rate and Register Settings**

Baud Rate	Register 12301 Setting
300	0
600	1
1200	2
2400	3
4800	4
9600	5
19200	6
38400	7

## Changing the Parity

Change a selected port's parity by storing the desired value to the appropriate special purpose register. Register 20012 stores parity for the first port and Register 20016 stores parity for the second port. Table 2 lists the available parity values. Available parity values are limited by the choice of data length.

**Table 2. Data Length and Available Parity Values**

Data Length	Parity	Register Value
9	NONE	20048
8	EVEN	20549
8	NONE	20048
8	ODD	20559
7	EVEN	20549
7	NONE	20048
7	ODD	20559

## Changing the Data Length

Change the data length of a selected port by storing the desired value to the appropriate special purpose register. Use Register 20011 to store the data length for the first port and Register 20015 for the second port. Available data lengths are 7, 8, and 9 bits.