

Establishing RS232/RS485 Communication between  
the PC3400/PC4400 Particle Counter and the  
TracData software.

# Step 1

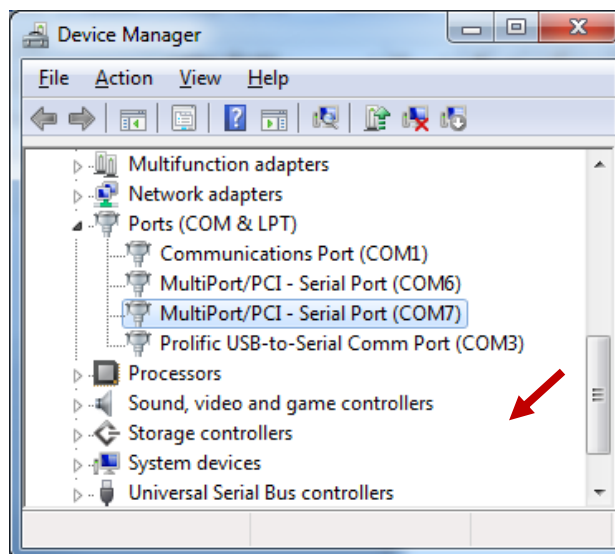
Determine which COM Port will be used.

*Note: A USB to Serial cable may be needed if an on-board serial port is not available.*

Open Device Manager by running the following command (Windows Start..Run).

## **mmc devmgmt.msc**

- 1) In Device Manager, find and expand the **Ports (COM & LPT)** section.
- 2) Find the COM Port for the device that will be used in this configuration.



## Step 2

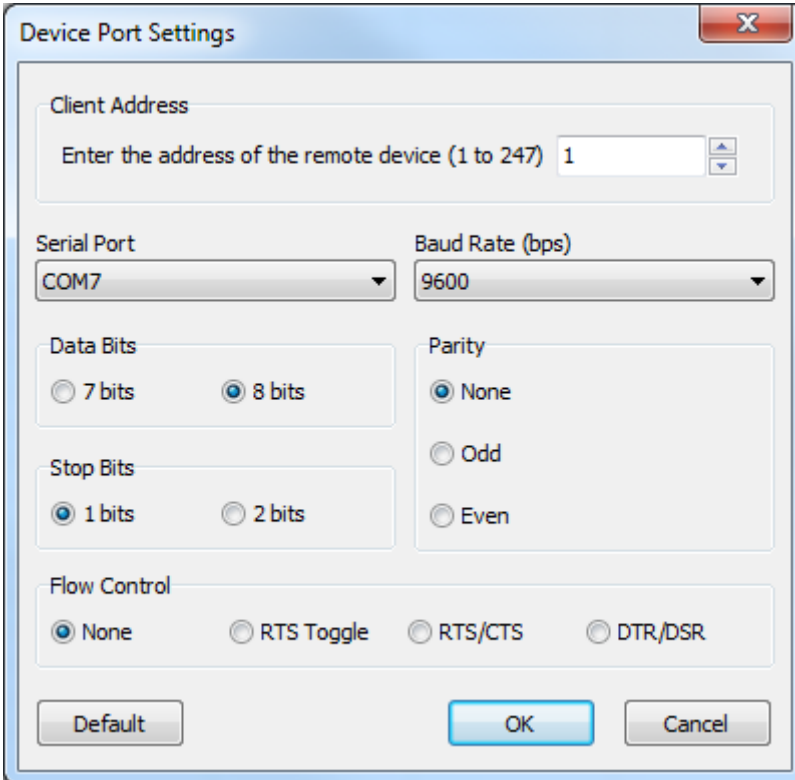
Review the Serial Port Settings in the TracData Software.

Open the TracData software and review the serial port settings (Tools..Modbus Device Port Settings from file menu).

For COM Port, use the port that was discovered in Step 1.

Select the other port settings from the available options.

*Note: The default settings are shown in the image and should be used if any problems are encountered.*



The screenshot shows the 'Device Port Settings' dialog box. It has a title bar with a close button (X). The settings are as follows:

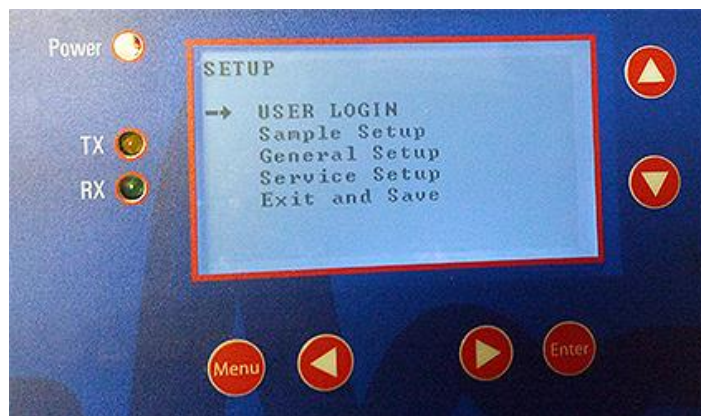
- Client Address:** A text box with the label 'Enter the address of the remote device (1 to 247)' and a value of '1'.
- Serial Port:** A dropdown menu showing 'COM7'.
- Baud Rate (bps):** A dropdown menu showing '9600'.
- Data Bits:** Radio buttons for '7 bits' and '8 bits', with '8 bits' selected.
- Parity:** Radio buttons for 'None', 'Odd', and 'Even', with 'None' selected.
- Stop Bits:** Radio buttons for '1 bits' and '2 bits', with '1 bits' selected.
- Flow Control:** Radio buttons for 'None', 'RTS Toggle', 'RTS/CTS', and 'DTR/DSR', with 'None' selected.

At the bottom, there are three buttons: 'Default', 'OK', and 'Cancel'.

## Step 3

Set the Unit Address.

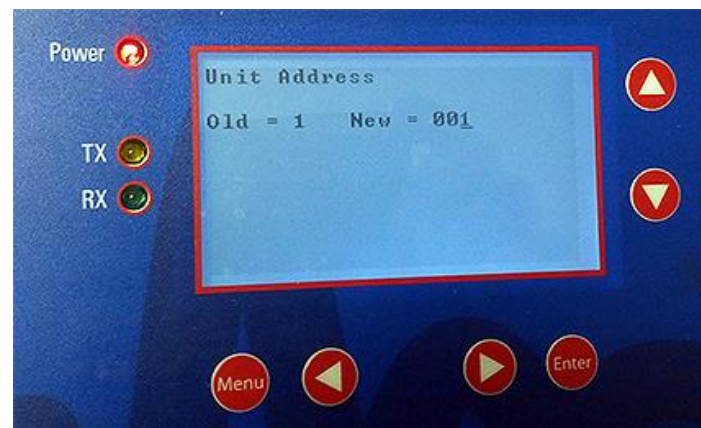
- 1) Press the **Menu** button on the keypad of the Particle Counter to enter the SETUP menu (see Image 1).
- 2) Use the arrow keys to select **General Setup** and press **Enter** to open the menu.
- 3) Select **Communications Setup** from the General Setup menu (Image 2).
- 4) Select **Set Unit Address** to learn or configure the Unit ID for this device (image 3).
- 5) Press **Menu** to return to the Communications Setup menu.



(Image 1)



(Image 2)



(Image 3)

## Step 4

Set the Baud Rate and other port settings.

- 1) Select **Baud Rate** from the menu (Image 4).
- 2) Use the arrow keys to select the Baud Rate that matches the setting from the software and press **Enter** (see image 5).
- 3) Continue by selecting the Character Length (Data Bits), Stop Bits, and Parity. Press **Enter** after each selection.

*Note: The port settings in the device must match the software setup before communication can be established.*



(Image 4)



(Image 5)

## Step 5

Change the Communication Type to Modbus RTU.

- 1) From the Communications Setup menu, scroll down and select **Communication Type** (Image 6).
- 2) Scroll to select the **Modbus RTU** option. Press the **Enter** button (Image 7).
- 3) Continue to press the **Menu** button to return the main **Setup** menu.



(Image 6)

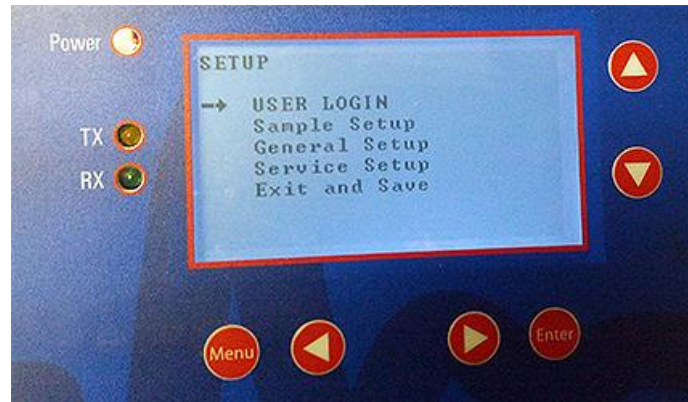


(Image 7)

## Step 6

Save the Settings.

From the main Setup Menu, scroll down and select **Exit and Save** to store the settings (Image 8).



(Image 8)



# Step 7

Configure the TracData Software and verify communication.

- 1) Click Tools..Connect from the menu to open the communications port.
- 2) Follow the instructions under the Log Data tab to download the data from the Particle Counter.
- 3) Contact Chemtrac at 800-442-8722 if you have any problems or questions.

