

Setup guide for YSC10U/YSC30L serial RS232 RF links

Establishing a link
 Verifying communication
 Configuring the parameters

This guide is based on the wireless serial RS232 RF unit YSC10U/YSC30L but also applies to model YSC30L

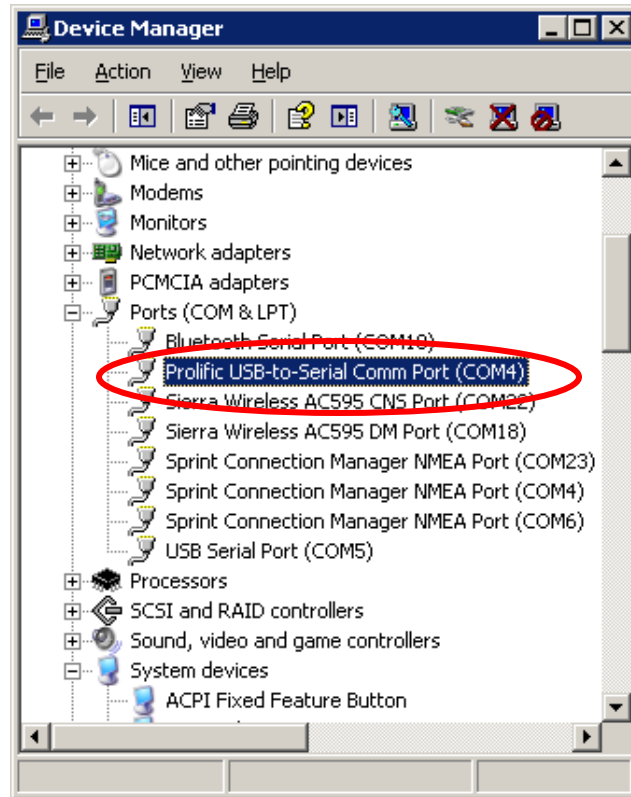
Establishing a link

1. To setup a serial RS232 wireless link you need two YSC10U/YSC30L/YSC30L RF units.



2. First connect one YSC10U/YSC30L/YSC30L to your computer's COM port. If your computer does not have a COM port you can use a USB to Serial RS232 adapter. If this is the case then you must first install the drivers for the USB serial adapter and in Windows Device Manager check which COM port number has been assigned to the USB serial adapter.

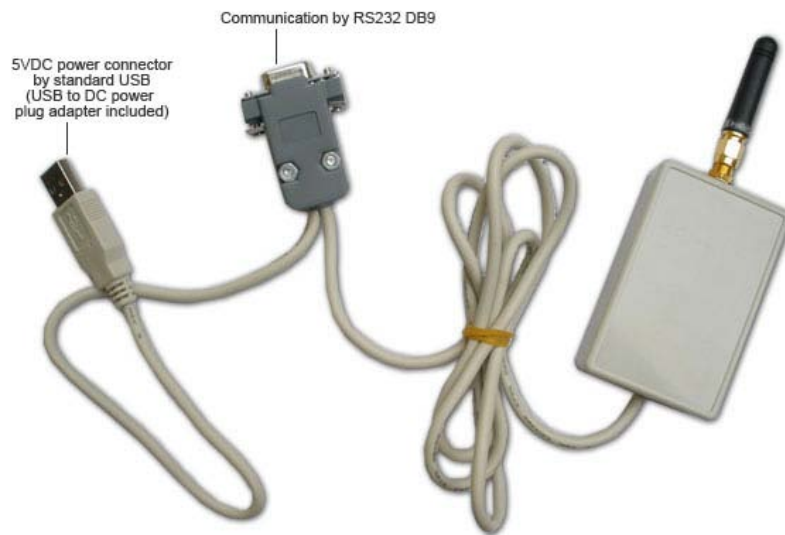
Notice: We highly recommend using a quality USB serial adapter with a FTDI chipset such as our model XS880. Using a low-cost adapter will in many cases cause problems with communicating with the YSC10U/YSC30L/YSC30L.



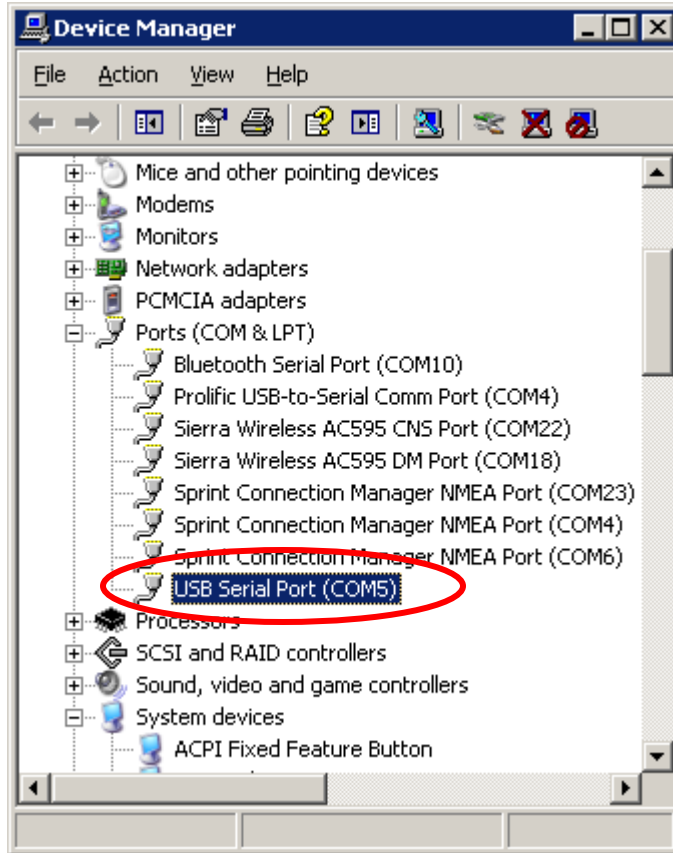
In this case the assigned COM port is COM 4.

3. When you know which COM port number has been assigned to your USB serial adapter you can connect the 9-pin serial COM connector on the YSC10U/YSC30L/YSC30L to your USB serial adapter (or your computer's COM port if you are not using a USB Serial adapter).

The YSC10U/YSC30L/YSC30L needs a 5VDC power supply to work, this is provided through the USB plug. Simply connect the USB plug to your computer's USB port, (the USB connector is for power *only*, not serial communication). Alternatively you can use a USB/DC adapter to connect the USB plug to an external 5VDC power jack.



4. Now connect the second YSC10U/YSC30L/YSC30L to your second USB Serial adapter (or built-in COM port) following the same procedure as described above. Check in Windows Device Manager which COM port the second USB serial port has been assigned:

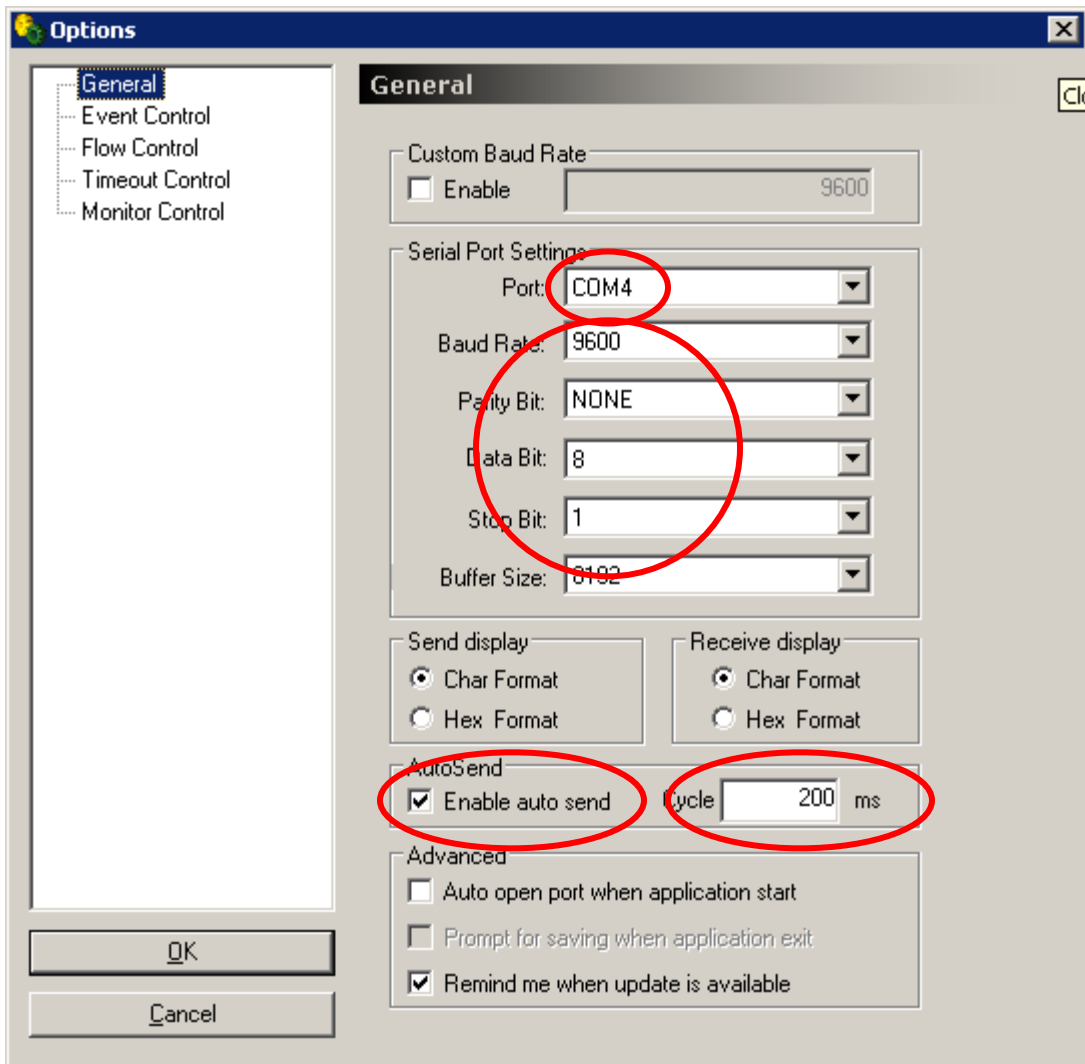


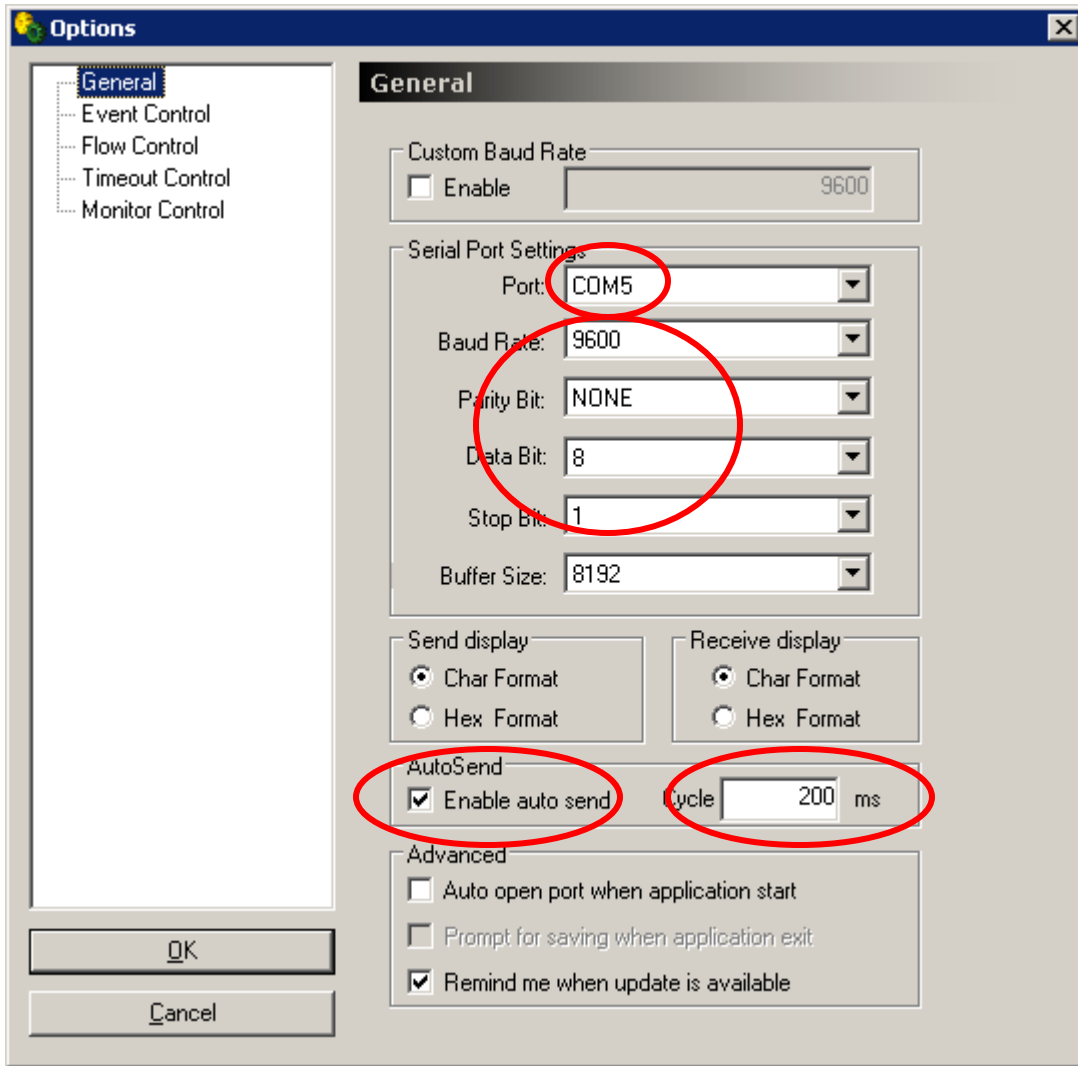
In this case the second COM port has been assigned to COM port 5.

Verifying Communication

You are now ready to verify that the two YSC10U/YSC30L/YSC30L units can communicate. Download AccessPort from www.Nordfield.com. Open two instances of AccessPort, one for each COM port, in this case COM 4 and COM 5. In the menu line click Tools > Configuration and set the correct COM port numbers and settings for both instances. The default settings of the YSC10U/YSC30L/YSC30L are:

Baud: 9600
 Parity: N
 Data bits: 8
 Stop bits: 1





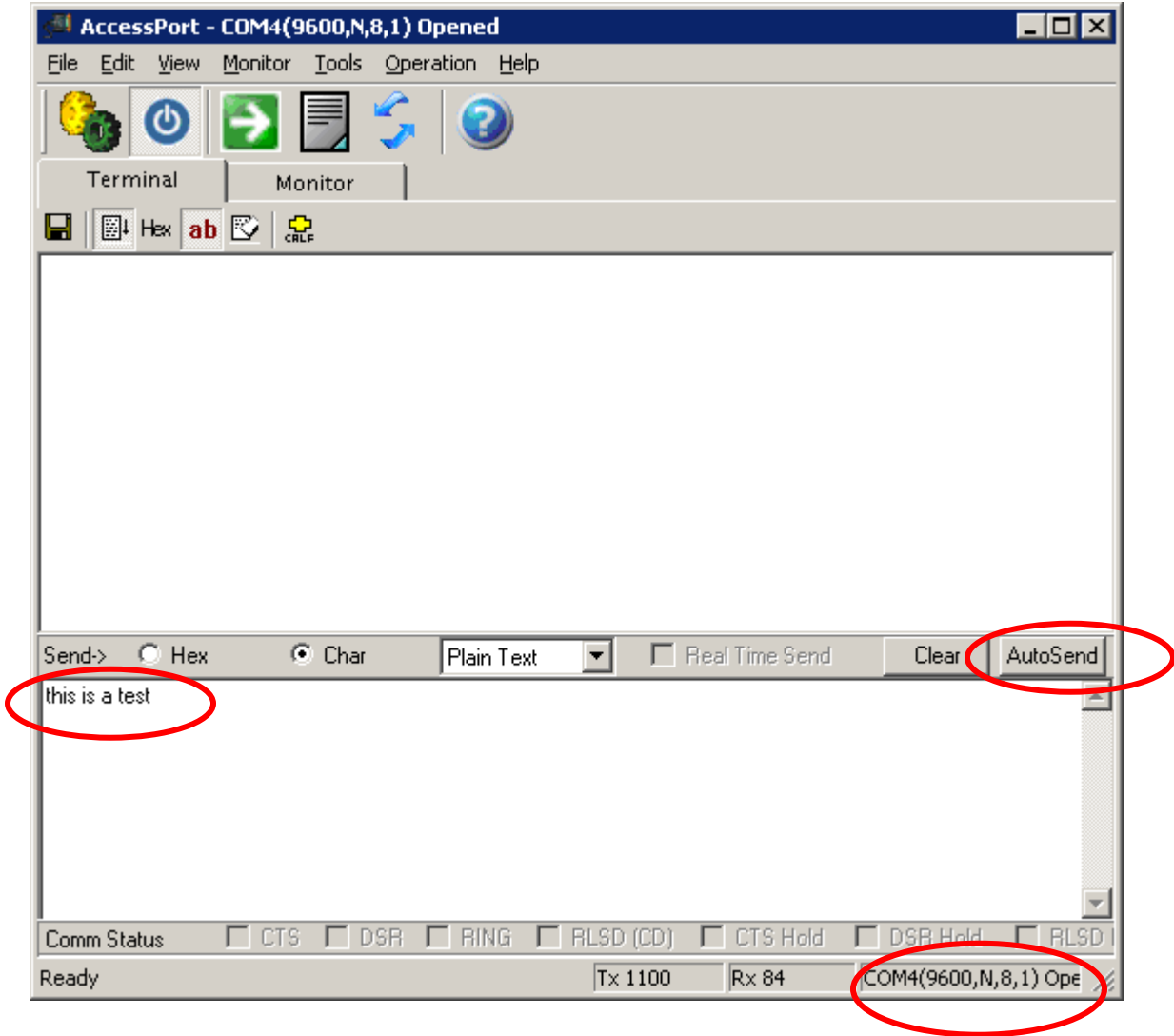
In both instances of AccessPort click Tools > Port Switch which will turn on the ports for the units.

The COM ports to the YSC10U/YSC30L units are now open. If you are getting an error message saying “Cannot open port” it usually means that either:

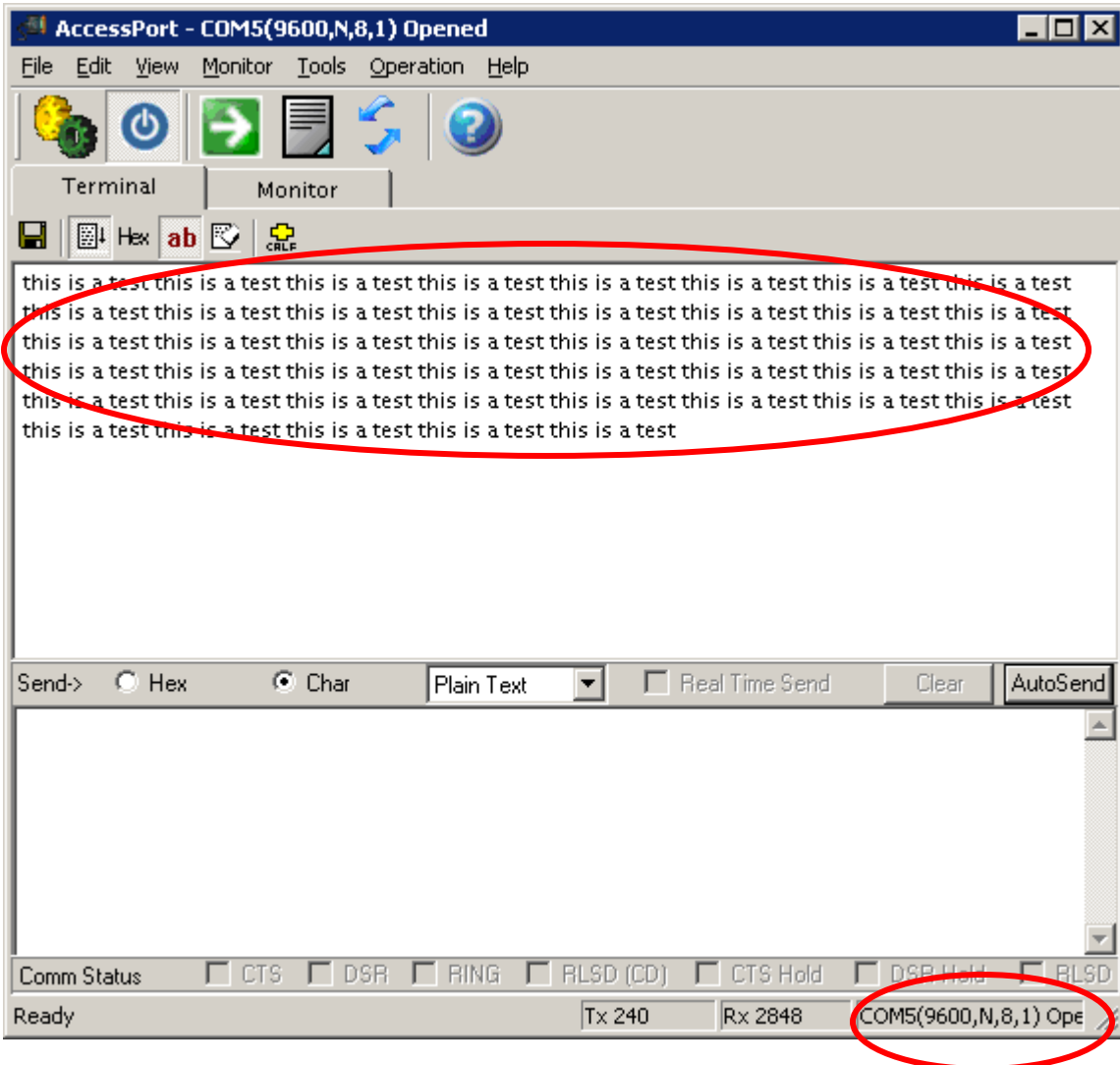
- A. The virtual COM port created by the USB serial adapter’s driver has not been created properly.
- B. You choose an incorrect COM port, (check in Windows Device Manager).
- C. 5VDC not connected to the YSC10U/YSC30L unit
- D. Cables not properly connected

With both ports successfully opened, in the lower window of AccessPort for unit 1 enter a text string and click the button "Send".

Notice: the two wireless units must be spaced at least 5 feet apart to have reliable communication; otherwise interference is likely to cause communication errors.



In the receive window for the second unit you should now be able to receive what you send out from the first unit, and vice versa.



Notice: If the transmission does not automatically start you might need to move the two YSC10U/YSC30L units at least 5 feet apart from each other, or in some cases you can simply touch the antenna and the transmission will start. This is due to interference if the units are too close together.

Inside the enclosure are two SMD LED lights for TX and RX indicating when communication is present. To monitor these lights simply open the enclosure by carefully taking off the top cover of the box.

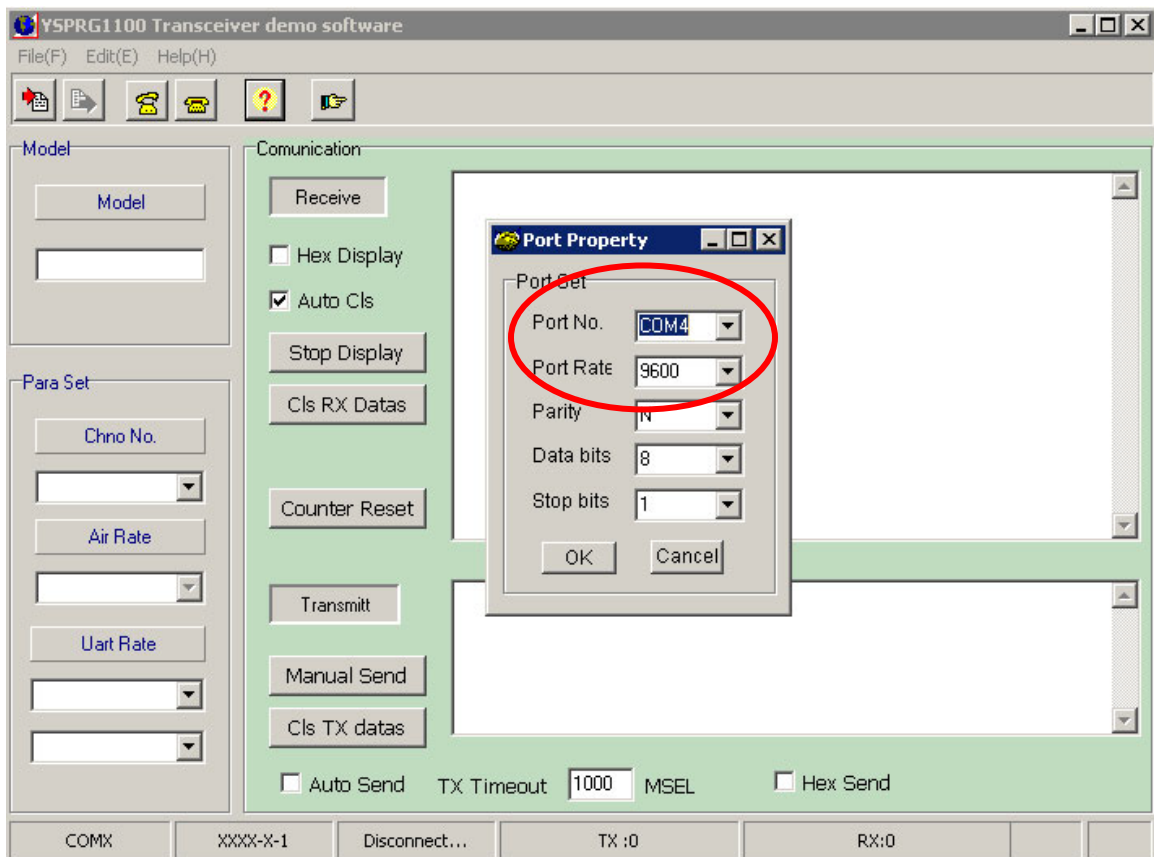
Configuring the parameters

The default parameters of the YSC10U/YSC30L are:

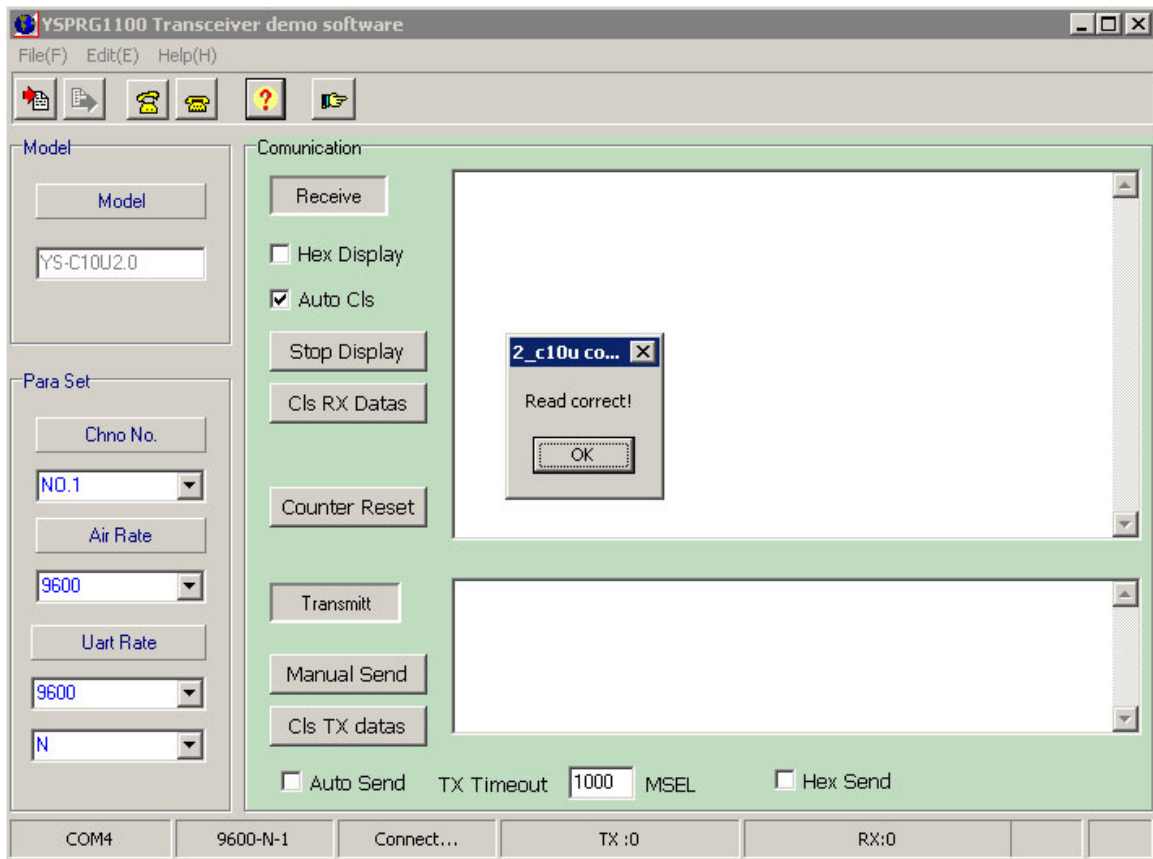
Baud: 9600
 Parity: N
 Data bits: 8
 Stop bits: 1
 Channel: 1

In case you need to modify these parameters you need to use the Configuration Utility which you can download from www.Nordfield.com. Notice that the parameters of two units you wish to link *must* be exactly the same.

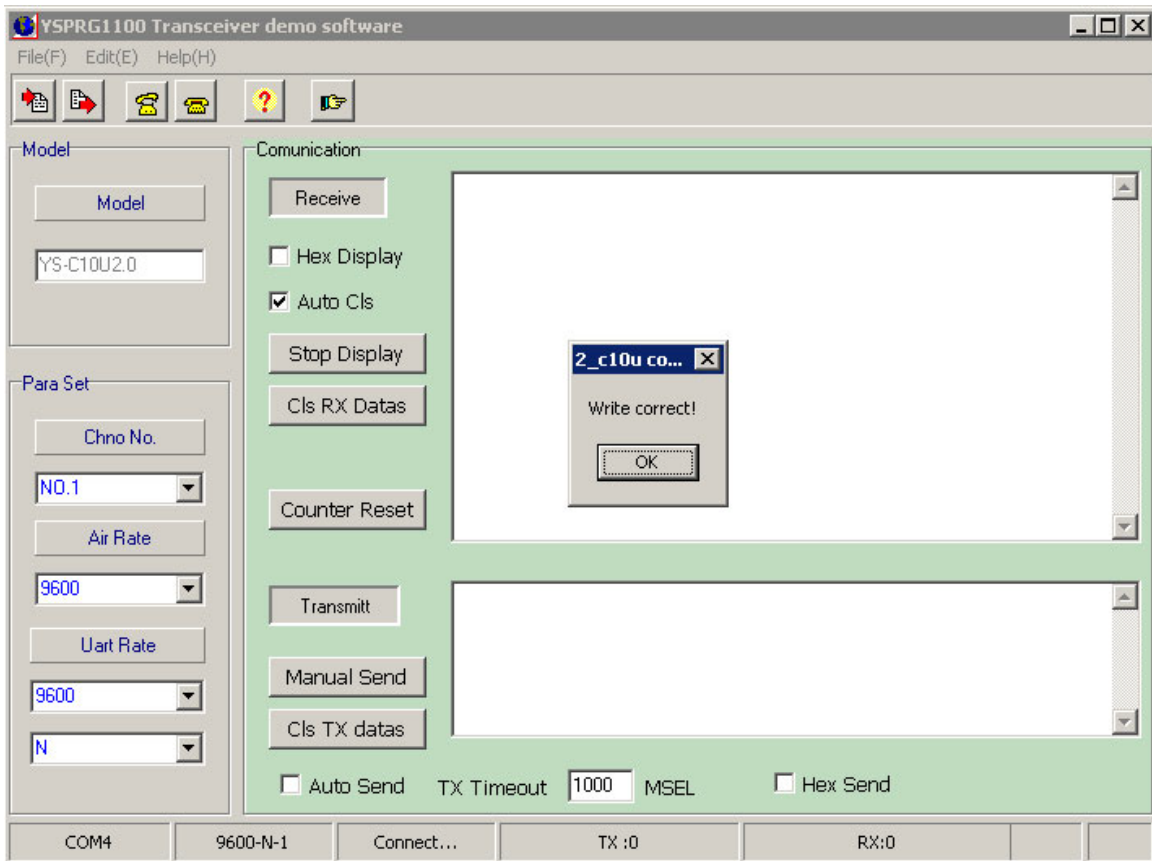
1. With the YSC10U/YSC30L unit connected to your computer's COM port (read above how to connect the unit using a USB serial adapter), open the Configuration Utility, in the menu line click Edit(E) > Open Port(O) and chose the COM port which the YSC10U/YSC30L is connected to:



2. Click File(F) > Read Paras(R), you should now be getting a "Read correct" message:



3. You can now change the parameters and click File(F) > Write Paras(W) to send and save the parameters to the YSC10U/YSC30L. If the communication is successful you should be getting a “Write correct” message:



If at any time you are getting an error message saying “Cannot open port” or “Error” it usually means that either:

- E. The virtual COM port created by the USB serial adapter's driver has not been created properly.
- F. You choose an incorrect COM port, (check in Windows Device Manager).
- G. 5VDC not connected to the YSC10U/YSC30L unit
- H. Cables not properly connected