
**Guide to Communicating with an
Extended Rack (EXR-8) Autosampler
Using HyperTerminal**

All CETAC Extended Rack (EXR-8) autosamplers can be controlled using a serial communications protocol. This guide explains how to control an EXR-8 autosampler using the Windows HyperTerminal program.

Steps for configuring HyperTerminal

1. Using a serial cable, connect the EXR-8 base plate with the computer. Plug each end of the serial cable into the serial port of the EXR-8 base plate and the COM 1 port on the computer. Note: A serial cable connecting the EXR-8 base plate to the autosampler may have to be removed.
2. Turn on the computer (must have Windows operating system) and select the Accessories folder. Select the HyperTerminal folder and then the HyperTerminal program.
3. A window will appear (Figure 1). Enter **COM 1** in the name box. Press the OK button.
4. In the Connect To window (Figure 2), in the field Connect using, select COM1. Press the OK button.



Figure 1. Filename window



Figure 2. Connection window

5. The COM1 Properties window will appear (Figure 3). Set the fields as follows: Bits per second to 9600 and Flow control to None. Then press the OK button.

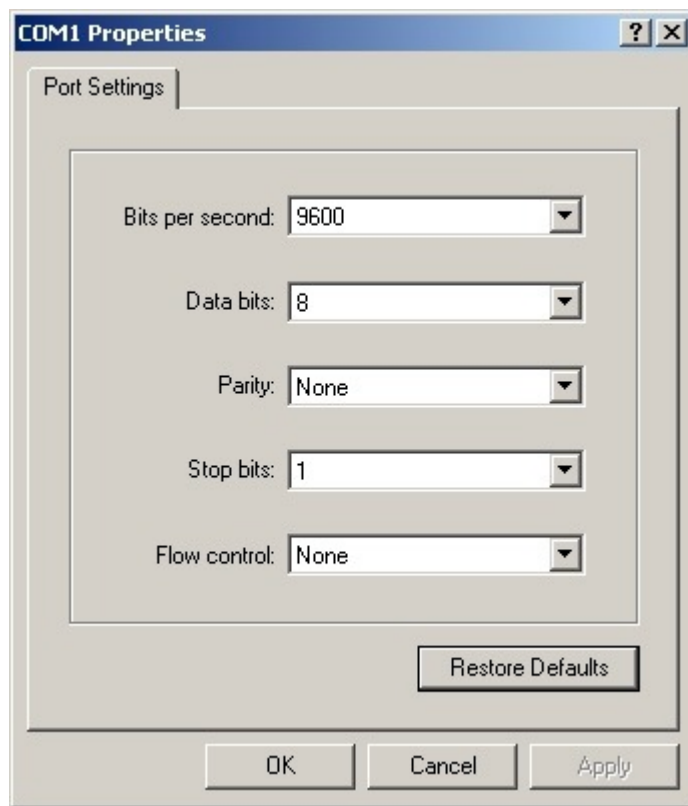


Figure 3. Com Port Properties Window

6. The HyperTerminal window will then open (Figure 4).

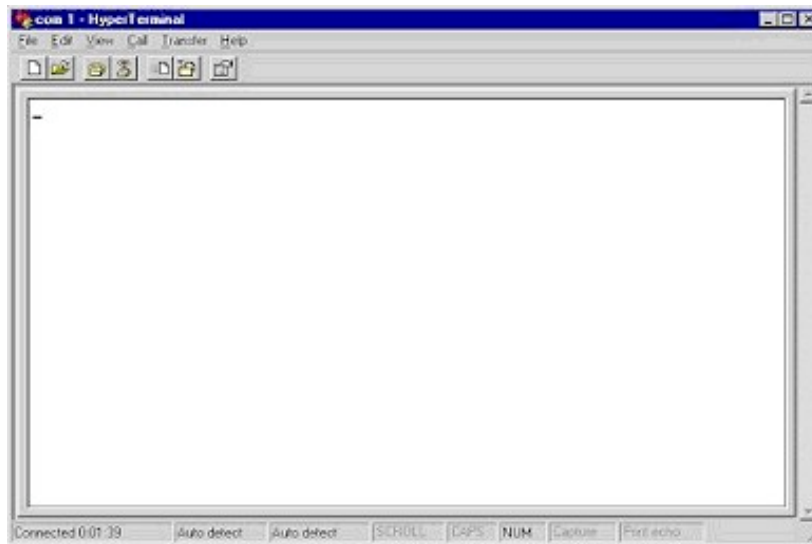


Figure 4. HyperTerminal Main Window

7. Select File. Then select Properties.
8. When Properties window appears (Figure 5), select the Settings tab.
9. Press the ASCII Setup... button. A window for ASCII Setup will appear (Figure 6). You will need to check Echo typed characters locally and Append line feeds to incoming line ends (Figure 6). Press the OK button.



Figure 5. Com Port Settings

10. Make sure that power is applied to the EXR-8 base plate.

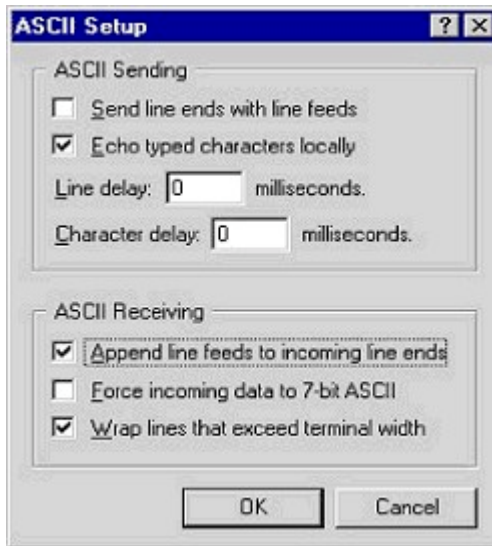


Figure 6. ASCII Setup Window

11. The following commands will produce various responses of the EXR-8.

Command	Action
VER	Returns "CETAC Technologies RACK PIC V1.0 5-30-2003"
Q	Checks to see if the autosampler head is moving. Returns a "1" if it is, and a "0" if it is stationary.
LEFT	Moves the autosampler head to the left half of the tray. Immediately returns an "OK:", it does not wait until the move is complete. Use the Q command to determine when the move is completed.
RT	Moves the autosampler head to the right half of the tray. Immediately returns an "OK:", it does not wait until the move is complete. Use the Q command to determine when the move is completed.
STOP	Stop any movement in progress.
LSEN	Checks the left sensor. If the autosampler head is all the way to the left, a "1" is returned. If it is not, a "0" is returned.
RSEN	Checks the right sensor. If the autosampler head is all the way to the right, a "1" is returned. If it is not, a "0" is returned.

With the commands listed in Step 11 it can be determined if the EXR-8 is communicating and functioning properly.