

## **Troubleshooting Communications problems with Si and X series drives.**

Sometime when trying to upload or Download generated program to your Si or X series drives, you can have problems communicating. This document aims to help you through the steps to go through to overcome this problem. The Si and X products do not have complicated setup functions for configuring the communications, so don't look for them, most problems are simple and easily solved.

1. With the Si system it is important to note that the software ( Si or eXposition) should be launched first, only when this software is running should you apply power to the drive, if you apply power first the software will not recognize the drive. Once you apply power the software will interrogate the drive and if there is communication between software and drive it will display the Model of the drive and the firmware level in the top left hand corner of the screen ( Si software).
2. It is possible to operate the drives in two modes , Si host mode and SCL command language mode. The Si host mode uses the Si Simple Indexer software whereby you create a program which you download into the drive. In the SCL command mode the user sends a set of instructions in ASCII format to the drive one by one. If the drive is set for the latter mode, it will not be recognized by the Si or eXposition software. So to change this use the following steps.
  - a. Load the SCL setup utility , this is on the CD that came with your drive and is also available on our web site [www.appliedmotionproducts.com](http://www.appliedmotionproducts.com)
  - b. Apply power to the drive. Again the software should recognize the drive and display the drive model and the Firmware level.
  - c. Type PM into the lower box and press enter, you should get a response in the upper box of PM=1 or PM=2. If the response is PM=2 then the drive is set for SCL mode. To change this type PM1 in the lower box and press enter.
  - d. Close the SCL setup utility and return to step 1.
3. If these two tests do not allow you to communicate to the drive, there are another few things to check.
  - a. Check that there are not other programs or utilities that are running on your computer that may be using the COM port. These could be other PLC or motion control programming utilities, PDA synchronizing programs such as Hotsynch for Palm Pilots. Note that Hotsynch for the palm pilot continues to lock the serial port after is closed, you will need to shut down the program and prevent it from launching on start up, then re-start your PC.



- b. Check that the Serial cable is well plugged in to the serial port on your PC and check that the software is set-up for the correct serial port you are using.
  - c. Try running the software on another PC or laptop.
  - d. If you have another cable, try using that. A standard phone cable can be used, but remember to give it back to the person you stole it from.
4. Some other areas of note are:-
- a. PCs running windows setup for languages other than US English can have problems with communications to drives.
  - b. Some new "Legacy Free" laptops do not even have serial ports, if you have one of these you will need to purchase a USB to serial adaptor, (assuming you have a USB port).

If all the above fail, please contact us, some things we like to know to help are:-

- 1) The type of PC and the operating system
- 2) The type of drive
- 3) The revision of Si or Exposition you are using.
- 4) The firmware level of the drive, this can be found on a label on the processor and should look something like V1.87.