Controller Start-up & Communications

The following steps are provided to ensure easy first time start-up.

1 - Run the BACCOM.EXE file for DOS or SclCOM.EXE for Windows and set the data rate for 9600 baud. The COM prompts you at the start for the data rate and comm port. For WIN you must click on 'settings' and make the changes.

2 - Connect the PC's serial port to the controller's serial port.
For ES, ES-P and EX controllers the console serial port is the 9 pin socket (female). A standard extension cable 9 pin socket and 9 pin plug is required. The extension cable goes straight through, pin 2 to 2 , pin 3 to 3 and pin 5 to pin 5. If the PC has a 25 pin plug then a standard modem cable with a 25 to 9 pin adapter will work. A custom 25 to 9 pin cable can be made using a 25 pin socket and a 9 pin plug.
The wiring is: Pin 2(25) - Pin 3(9), Pin 3(25) - Pin 2(9), Pin 7(25) to Pin 5(9)

For 552S and 552S16 controllers the only port is the 9 pin plug (male). A 9 pin serial data transfer cable can be used since the controller's port is a DTE just like the PC's serial port. The transfer cable crosses the Tx and the Rx data lines, pin 2 to 3, pin 3 to 2 and pin 5 to pin 5. A custom 25 pin to 9 pin cable can be made with a 25 pin socket and a 9 pin socket.
The wiring is: Pin 2(25) - Pin 2(9), Pin 3(25) - Pin 3(9), Pin 7(25) to Pin 5(9)

3 - Remove the 'RUN MODE' jumper (open)
4 - Install the 'MEM' jumper (shorted)
5 - On ES, ES-P and EX controllers, remove the 'CONSOLE BAUD' jumper (open)
6 - Apply power to the controller **(12Vdc)**. The sign-on message and the READY> prompt will appear. If no message appears, first verify the cable connections as described in the text following step #2. Then verify the baud rate, baud rate jumper if applicable and the RUN MODE jumper. Re-apply power or press the RESET button.

7 - Since the controller was just powered up with the MEM jumper ON the memory contents where erased. Type LIST<enter> at the prompt, the READY> prompt will come back.

8 - The controller is now ready to load a sample program. Hit 'Alt U' for COM (Dos) or click on the up arrow (send) for Windows. Load the '1ST_TIME.BAS' program from the demo disk. It is advised that you first copy the diskette to a new directory on your hard drive. The 1ST_TIME program will work with all controllers. It prints a message and toggles a relay output.

9 - After the program has loaded you will get the READY prompt. Type 'SAVE<enter>', the program will be saved to FLASH memory. Now type 'RUN<enter>', the program will now execute. If you install the RUN MODE jumper the program will AUTO execute every time the power is applied to the controller. Since the program has been saved to FLASH the status of the MEM jumper is not important. The MEM jumper when installed will allow you to erase the program by typing 'NEW<enter>' and erase the SRAM memory on power up. Since the program has been copied or saved to FLASH the controller (at power up) would just erase the SRAM and then transfer the program from the FLASH to the SRAM and the run it. **If there is no copy of the program in FLASH and the controller is RESET the program in the SRAM will be lost!**

10 - Anytime a new program is to be uploaded to the controller the SRAM must be cleared either by typing 'NEW<enter>' or resetting the controller with the MEM jumper ON. The controller actually appends lines to the SRAM as they are entered, lines with the same number get over-written and lines with different numbers get inserted. This allows the user to type in lines at the command prompt during program development and de-bugging.

1ST_TIME.BAS

```
10    CLEAR R
20    FOR T=1 TO 400: NEXT T
30    PRINT"SIMPLE MESSAGE TO THE PC, THE TIME IS ": TIME
40    FLFP 000
50    LIO: GOTO 20
```