

MC-101-01

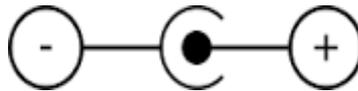
Quick start guide

If you have purchased the controller separate from your mechanics you may need to make some configuration changes before you can operate the controller.

See the **System Integration** section chapter in the **User Manual**.

Use this procedure if you purchased the controller and mechanics together from the same vendor. Usually you can operate the controller with little or no configuration work.

The AC/DC Power Supply should be capable to can deliver up to 20V @1A output.



The PC interface cable is RS232 and will connect to any COM port of the PC, Apple McIntosh or PLC (Programmable Logic Controller). See chapter **2.3 PC Communication** from the **User Manual** for instructions.

If a simple USB-RS232 adapter is used than it can be controlled from any USB port.

Wireless communication up to 100 ft is also available if ordered as an option.

The Push Button on the front panel is active only if pre-programmed from the factory.

First time operation

- Print the **Command List** and use it to issue commands to the controller.
- Connect the motor/stage and the controller.
- Connect the PC with the Controller and start the **HyperTerminal** software.
- Connect the **Power**. Observe front panel **LED** light **ON**.

- The **HyperTerminal** screen should look like in Fig. 1.
- See the **Troubleshooting** section in the manual if not displayed.
- Push the front panel button one time. The motor should start moving.
- Wait for the stage to stop.
- Push again. Wait for stop.
- Repeat as many times as needed.
- If the stage moves nicely between the 2 limits the system is ready to operate.
- Use the **Command List** to change parameters of motion.

If the motor slips, makes excessive noise and stops type AB. The load on the motor is too high or the velocity, acceleration or the step size must be changed as described below.

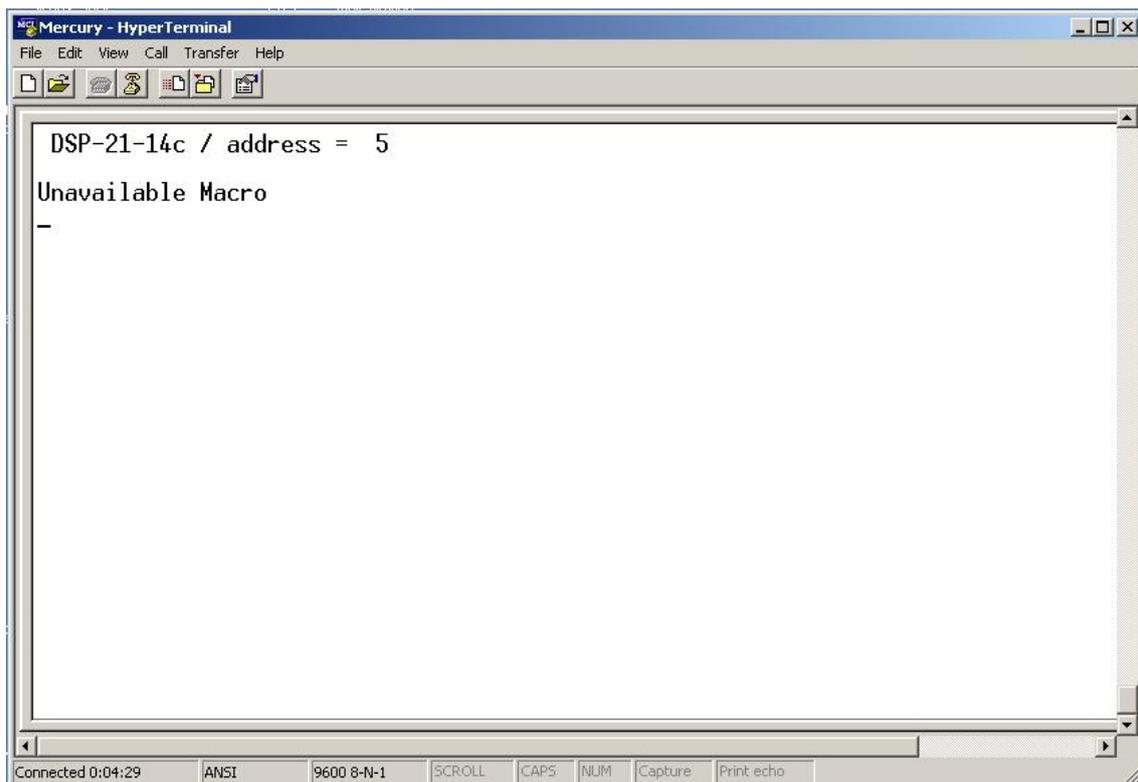


Figure 1: HyperTerminal screen.

This **HyperTerminal** screen indicates that:

- the communication with the controller is working correctly
- the controller address is 5
- no programs have been saved in its memory.

If this screen doesn't appear at power-up you must check the connection with the PC and the power then try again.

Type the command **RN (Reporting on)** to enable the reporting to the display.

Type the following string of commands and press Enter.

MR1000,WA500,TP

This should move the motor in the (+) direction 1000 encoder counts then will wait 1000ms and will display on the PC screen the position.

Press the **ENTER** key again and the motor will repeat the action.

Change the distance or the direction of motion by changing the number after **MR**.

Try different commands using the **Commands List**.

If the motor slips, makes excessive noise and stops type **AB**.

Use the **GV, GA** and **GM** commands to read the stored Velocity, Acceleration and Step size.

Then try new values using the **SV, SA** and **SM** commands.

command	function description	notes
MN	motor on	
MF	motor off	
MA	move absolute	MA123456 move an absolute number of steps from home
MR	move relative	MR123456 move relative from current position
RA	move absolute instant	RA123456 move to the position instantly
AB	abort motion	abort the movement or macro in execution
ST	stop movement	
DH	define home	
GH	go home	
WA	wait [ms]	WA1000 stop execution for 1s
SA	set acceleration	SA100 higher acceleration can make to motor slip
SV	set velocity	very high velocity can make the motor slip
SM	set micro stepping	
UD	saves new settings	saves specific settings like SA,SV etc. settings are available after on/off
FD	factory defaults	revert settings to factory default
RPx	repeat	repeat the command or macro x times, parenthesis for command or macro are necessary
SB	set baud rate	
RR1234	reboot controller	
reporting commands		
RN	reporting on	
RF	reporting off	
TP	tell current position	
GA	get acceleration	get stored acceleration
GV	get velocity	get stored velocity
GM	get micro stepping	get stored micro stepping
macro programming		
DMx	define macro	DM1=(MA123456,WA2000,GH,WA3000)
TMx	tell macro	TM1
EMx	erase macro	EM1
CMx	command macro	CM1 executes the macro x