

Writing a program for your Eclipse CMC.

Turn on the air compressor.

Connect air to machine. 80 psi on the left filter/regulator. 40 psi on the right regulator.

Plug in the machine.

Check the main breakers on the machine.

Turn the machine's power switch to the ON position.

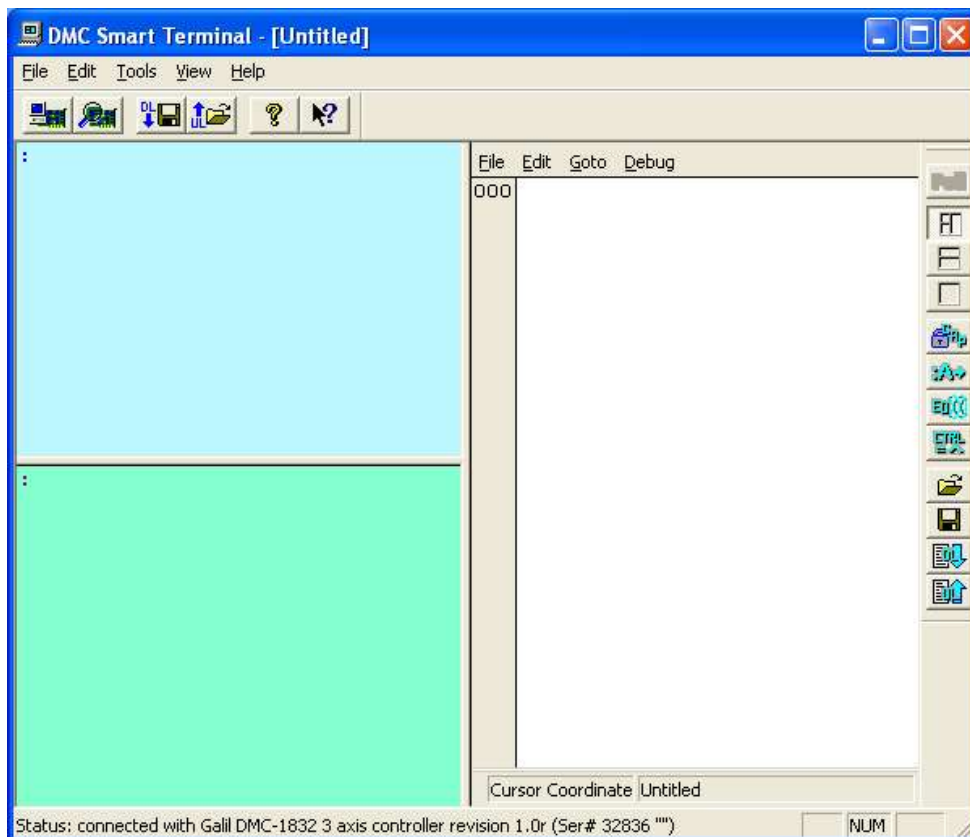
Turn the clamp switch ON. Do the clamps activate? If, YES, turn the clamps switch OFF. Proceed to With the instructions below.

Help is a phone call away. Check <https://thecmcdoctor> for support rates and the phone number.

Turn on the PC connected to the machine.

Find and start either Galil WSDK (Windows Servo Design Kit) or Galil SmartTerm.

In WSDK Open a terminal window. In SmartTerm the terminal window is open by default.



The It blue area is used to send commands to the motion controller. The It green area is used by the motion controller to respond to you and to report any errors. The white area is for creating programs to send to the motion controller. You will use this white area for writing a program.

Tip the cutting head back, aka open, like you are going to change a blade. Leave it open for all testing.

Remove the blade from the cutting head, if one is installed.

CAPS lock on the keyboard must be ON.

To simulate a full reset of the Eclipse, similar to how the Cut software initializes the machine....

Type the following commands in the white area. Each command should be followed by pressing the Enter Key . Do not type the comments.

DMC code for initializing (aka resetting) an Eclipse PRO with servo motors:

Command	Comments
#R	Name of reset program
CB 2	Make sure the blade head is up off of the table (clear bit 2)
SB 3	Turn the servo/stepper drives ON (set bit 3)
SP 3656,3656	Set the speed for X&Y axes
SH XY	Tell the drives to hold the motors to hold position
SB 6	Release the Brake (set bit 6)
WT 500	wait 500ms for the brake to release
PR 4000,4000	Load the move for the X & Y motors to the right and up away from home sensors
BG XY	Execute the move. Head moves Right & Up.
AM XY	Wait for the moves to complete
FE XY	Tell the X & Y motors to prepare to look for their respective home switches
BG XY	Execute the move. Head moves Left & Down until the home switches are detected.
AM XY	Wait for the motion to complete
DP 0,0	Define current position of X & Y as 0,0
SPZ=8000	Set the speed for homing the Z axis
SH Z	Tell the motor to hold position
PRZ=4000	Load a move for the Z motor to move away from the home sensor
BG Z	Execute the move. Cutting foot rotates CCW approx. 45°.
AM Z	Wait for the move to complete
FE Z	Tell the Z motor to prepare to look for its home sensor
BG Z	Execute the move. Cutting head rotates CW until the home switch is detected.
AM Z	Wait for the move to complete
PRZ=-3408	Load a move to the Hook Setting
BG Z	Execute the move
AM Z	Wait the move to complete
DPZ=0	Define the current position of Z as 0
MG "Reset Finished."	This will send a message to the It green area of the terminal.
EN	End Program
	Blank line
#S	Name of shutdown program
CB 2	Clear the blade output (lift blade)
CB 6	Set the brake
MO	Turn the motors off
CB 3	Turn the servo/stepper drives off
EN	End Program

Once you have correctly entered all of the commands above, the program can be downloaded into the memory of the motion controller by clicking this  button on the left edge of the terminal window.

If you pause the mouse arrow on top of this button a tool tip will appear that states “Download to Controller”.



Once the program is downloaded into the motion controller, you can execute (run) the program by typing the following command in the It blue terminal area followed by the enter key.

XQ #R 

Once this program has completed a “:” colon will appear in the It green area. If your program has problems executing error messages will appear in the It green area.

After the “Reset Finished” message appears in the It green area, to shut down the machine before closing the terminal, execute (run) the shutdown program typing the following command in the It blue terminal area followed by the enter key.

XQ #S 

That’s it! You have written and executed two programs to simulate the reset and shutdown processes of your Eclipse PRO with servo motors. To save and recall this program use the File menu above the white program area.