

NAME

cm4000 – Compumotor 4000 motor controller

DESCRIPTION

The Compumotor Model 4000 is currently supported as a GPIB or RS-232C device. The controller is selected in the *config* file with the line

```
GP_CM4000 = gplib_address number_of_motors
```

for the GPIB device and with

```
RS1_CM4000 device_name baud_rate number_of_motors  
RS2_CM4000 device_name baud_rate number_of_motors
```

for the RS-232C device on port 1 or port 2, respectively. When running the configuration editor, switch to the device configuration screen to select either the GPIB or RS-232C version of the CM4000 motor controller. On the motor screen, select the CM4000 controller type for each motor to be controlled. Motors are assigned to the CM4000 channels in the same order they appear on the motor screen.

CONTROLLER SETUP

You must program the RS-232 baud rate or the GPIB address using the Compumotor front panel controls before trying to access it with *spec*. You should consult the Compumotor manual for details, but in brief, the procedure is as follows. First enter the ACCESS code (the factory default is 4000). Then choose the IMMEDIATE function, and then the DEFINE GPIB ADDR statement to select the the GPIB address. Alternatively, choose the IMMEDIATE function, and the the RS232 PORT1 statement to configure the baud rate for the RS-232 interface.

There are many other configuration options with this controller. Other than the GPIB address and the baud rate, you should probably not change any of these others. You can reestablish the factory defaults using the RESET function from the main menu.

Output pins 46 or 47 on the programmable output connector can be used to gate a counter during powder-mode scans. While the powder-mode motor is moving during these scans, *spec* sets pin 46 high and pin 47 low. Use the one appropriate for your particular counter. To gate the Ortec 994 counter/timer, for example, pin 46 and an even-numbered pin (all are logic ground) are connected to the front panel *enable* BNC connector on the Ortec module.