

# Mighty Drive™

## Multi-Axis Power Driver



MAIN  
POWER  
SWITCH

### **FEATURES:**

- Cost effective modular design
- Uses compact UnoDrives to allow expansion from 1 to 4 axes
- Individually selectable full-step or half-step operation on each axis
- Automatic overtemperature protection
- Solid State Relay (12 AMP) for spindle motor or general purpose AC control

The Mighty Drive is designed for ease of installation & immediate functionality. This rugged, enclosed unit provides a complete Multi-driver system consisting of drive electronics & power supply that are prewired, pretested and ready for immediate use. Featuring on/off switch, solid state relay, controlled AC outlet(s), & a DB25 computer interface connection that interfaces directly with the Optistep motion controller. The new MightyDrive is a compact, modular stepper motor driver subsystem. Available in 1, 2, 3, or 4 axis models, the MightyDrive attaches directly to OptiStep controller via a standard 25 pin D type cable. The current per phase is factory set at 1.2 amps but can be adjusted via a resistor. The built-in 40 volt high efficiency switching power supply delivers 1.2 amps per phase to up to 4 stepper motors.

### **SPECIFICATIONS:**

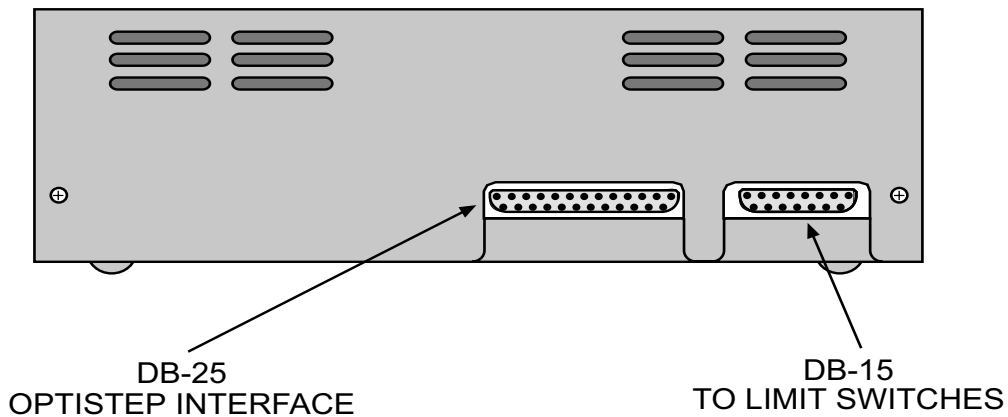
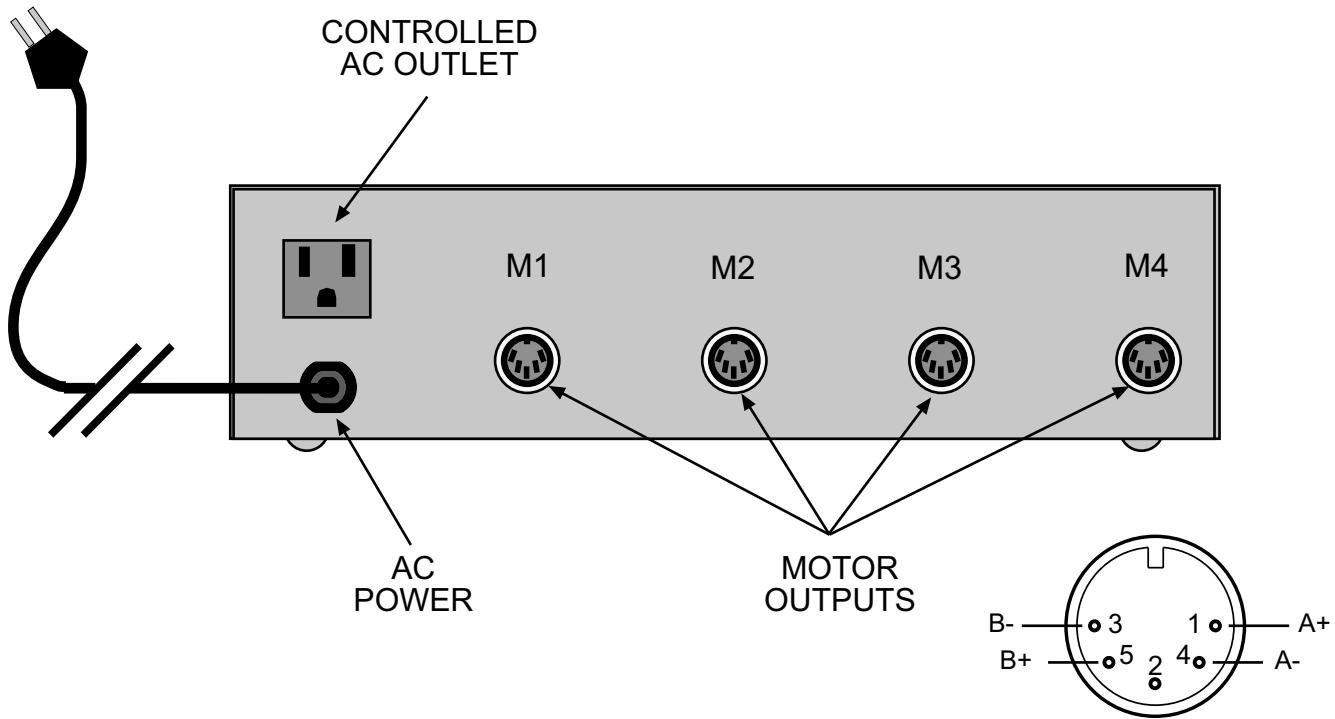
Drive circuit	Bipolar constant current
Chopping rate	20 KHz nominal
Motor voltage	40 VDC
Output Current	1.2 amps per phase continuous
Stepping Mode	Half / Full step selectable
Current cutback	Half current. after 1/2 second of idle
Step inputs	4 TTL compat. pos. edge trig.
Direction inputs	4 TTL compatible
Limit switch inputs	8 TTL compatible
Shield switch input	1 TTL compatible
Control output	1 AC 12 Amp non inductive 5 Amp inductive max.
Motor control outputs	4 lines per axis
Working temp. range	32°F ~ 158°F (0° C ~ 70° C)

MicroKinetics Corporation

Sales (770) 422-7845 Fax (770) 422-7854

Rev A1  
SS010

2117-A Barrett Park Drive, Kennesaw, Georgia 30144



PIN	DESCRIPTION	PIN	DESCRIPTION
1	M1 DIRECTION	14	LIMIT M1-
2	M1 CLOCK	15	LIMIT M1+
3	M2 DIRECTION	16	LIMIT M2-
4	M2 CLOCK	17	LIMIT M2+
5	M3 DIRECTION	18	LIMIT M3-
6	M3 CLOCK	19	LIMIT M3+
7	M4 DIRECTION	20	SHIELD
8	M4 CLOCK	21	LIMIT M4-
9	NOT USED	22	LIMIT M4+
10	NOT USED	23	GROUND
11	OUTPUT 1	24	OUTPUT 4
12	OUTPUT 2	25	+5VDC
13	OUTPUT 3		

PIN	DESCRIPTION	PIN	DESCRIPTION
1	LIMIT M1-	9	OUTPUT 3
2	LIMIT M1+	10	OUTPUT 4
3	LIMIT M2-	11	SHIELD
4	LIMIT M2+	12	LIMIT M4-
5	LIMIT M3-	13	LIMIT M4+
6	LIMIT M3+	14	+5VDC
7	OUTPUT 1	15	GROUND
8	OUTPUT 2		