

DC4 Power supply

Operator's Manual

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P/N 88-013254-01B

Parker Hannifin Corporation

Compumotor Division

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1.0 DESCRIPTION

The DC4 is an open frame power supply designed to power Compumotor C, CX, CT, CXT, DB, and OEM Series drives. The DC4 has two DC outputs, one an unregulated selectable output of 24, 48, 70, or 90 Volts and two a regulated output adjustable from 5 to 12 Volts, and operates at either 120 VAC or 230 VAC. The DC4 is designed to comply with "VDC" specifications. Please refer to the motor driver operator's manual **before** connecting the drive to the DC4. Power should never be applied to the DC4 when being connected to a drive, or when changing the selectable voltage output (see section 6.0).

2.0 SPECIFICATIONS

2.1 Input Power

100 to 132 VAC, 50/60 Hertz

200 to 264 VAC, 50/60 Hertz

2.2 Outputs

The DC4 has 2 DC outputs, +24 to +90 VDC and +5 to +12 VDC. The +24 to +90 volt output is user selectable and the +5 to +12 volt output is user adjustable (see section 6.0).

2.2.1 Output #1

Maximum load (all output selections) = 2 Amps.

Maximum ripple = 4.5 Volts peak to peak

Maximum voltages at high line and no load conditions

<u>Voltage Selected</u>	<u>Maximum Voltage</u>
24	32.5
48	59.5
70	80.0
90	106.0

Minimum voltages at low line and maximum load conditions

<u>Voltage Selected</u>	<u>Minimum Voltage</u>
24	19.5
48	37.5
70	48.5
90	68.5

Factory setting: Output #1 will be factory set to the nominal +24V setting.

2.2.2 Output #2

Adjustable from 5 to 12 Volts DC.

Maximum load, 1.2 Amp at 12V, .6 Amp at 5V

Load regulation, no load to full load = 100 mV.

Maximum ripple, 500 mV. peak to peak

CAUTION: Check the adjustment of Output #2 before connecting the power supply to your system. Damage may result from a wrong voltage setting.

Factory setting: Output #2 will be factory adjusted to +12V

2.3 Dimensions

10.10 inches long by 4.50 inches wide by 5.30 inches high

3.0 PINOUTS

3.1 Connections

All voltage outputs are taken from the front of the DC4 from the 4 pin Entralec connector. The pinouts are as follows:

<u>PIN</u>	<u>FUNCTION</u>
A	plus output #1
B	minus output #1
C	plus output #2
D	minus output #2

Note: The DC power connections may be in a different order than on the drives. Carefully read the drive operator's manual to insure proper connections.

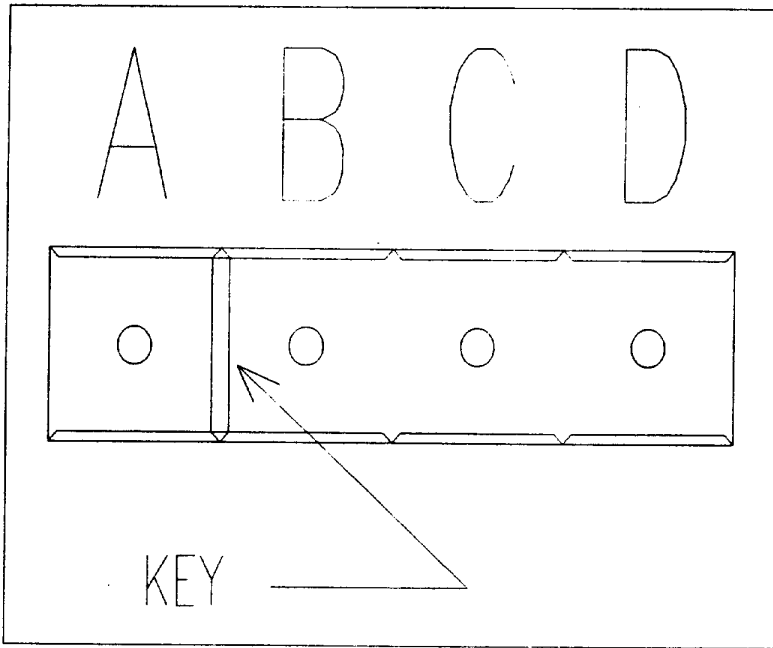


Figure 3-1: DC Output Connector

4.0 INPUT VOLTAGE SELECTION

The DC4 may be configured for either 115 or 230 VAC operation. The voltage selection jumper must be set to match the available input power. Never change the voltage input selection jumper with the power applied.

4.1 115 VAC Operation

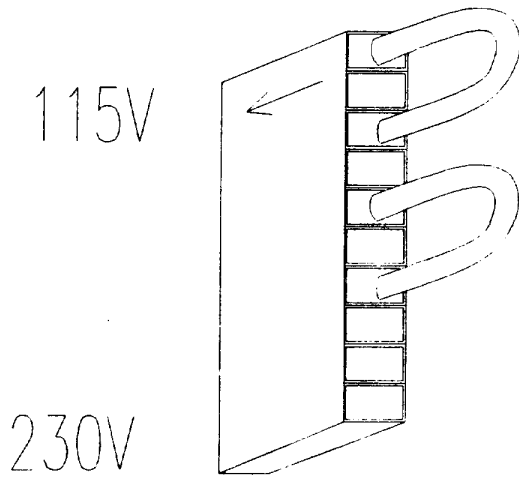


Figure 4-1: 115 VAC Operation

4.2 230 VAC Operation

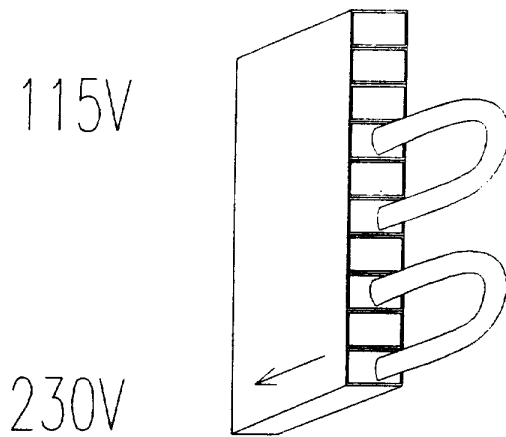


Figure 4-2: 230 VAC Operation

5.0 FUSING

5.1 115 VAC Operation

3AG, 4 Amp, 250 V. Slow Blow, Littlefuse P/N 313004

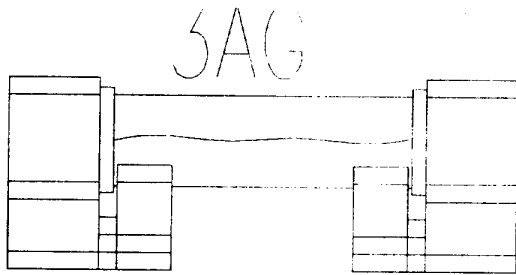


Figure 5-1: 115 VAC Operation

5.2 230 VAC Operation

5 x 20 mm, 4 Amp, 250 V, Slow Blow, Schurter P/N 034.3120

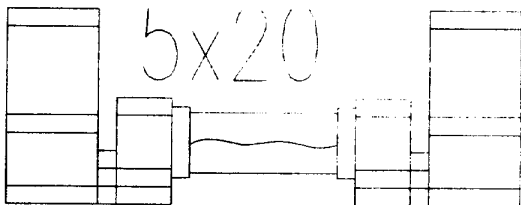


Figure 5-2: 230 VAC Operation

6.0 SELECTING OUTPUT VOLTAGES

6.1 Selecting The +24 To +90 VDC Output

There are four faston tabs on the upper right hand side of the transformer (see figure 6-1). They are used for selecting +24, +48, +70, and +90 VDC accordingly. The center-tap of the transformer is externalized via a gray wire with a faston connector attached to its' end. When received from the factory the gray center-tap wire will be connected to the +24 VDC tab. To select either the +48, +70, or +90 VDC, simply remove the gray wire from tab #1 and place it on tab #2 for +48 VDC operation, on tab #3 for +70 VDC operation, or on tab #4 for +90VDC operation. Never change the center-tap wire with the power applied.

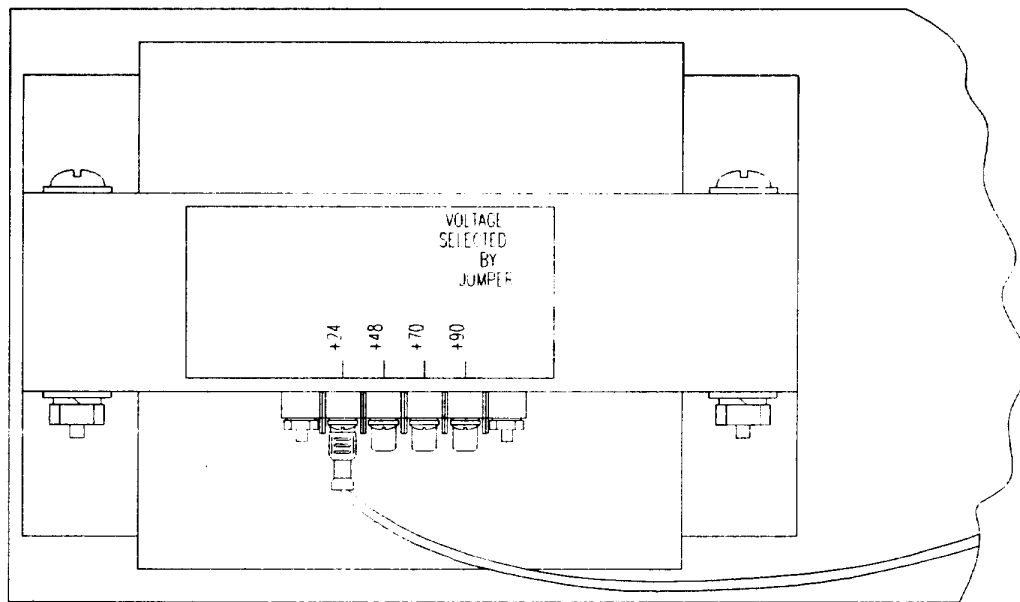


Figure 6-1: +24 To +90 VDC Configuration

6.2 Adjusting The +5 To +12 VDC Output

Located on the printed circuit assembly is a small potentiometer to change the adjustable output. The output may be adjusted from +5 to +12 VDC. The potentiometer is configured such that a clockwise rotation will result in the output voltage being increased. The potentiometer must be adjusted with the power removed from the unit. Small adjustments should be made and alternately apply power and measure the output voltage with a volt meter until the output voltage is at the desired level. Never adjust the output voltage with the power applied.

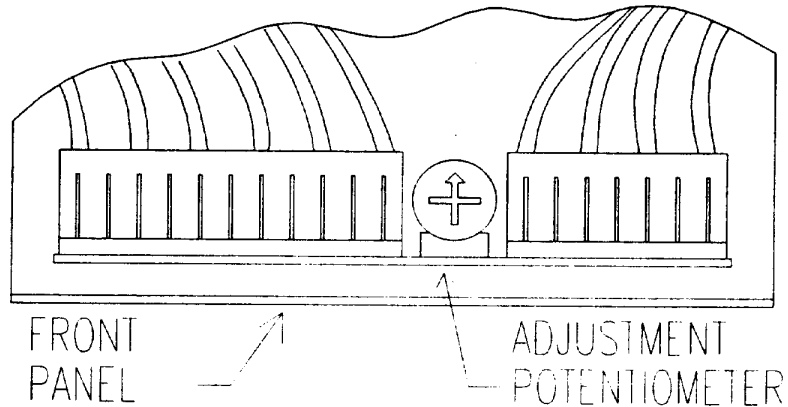


Figure 6-2: +5 To +12 VDC Adjustment Potentiometer

7.0 MOUNTING

The power supply will rest on removable rubber feet. Upon removal of the feet, mounting holes will be available to permanently attach the power supply to a mounting surface.

7.1 Mounting Holes

Mounting to the bottom plate is provided by 8-32 fasteners or 3/16 holes.

7.2 Mounting Dimensions

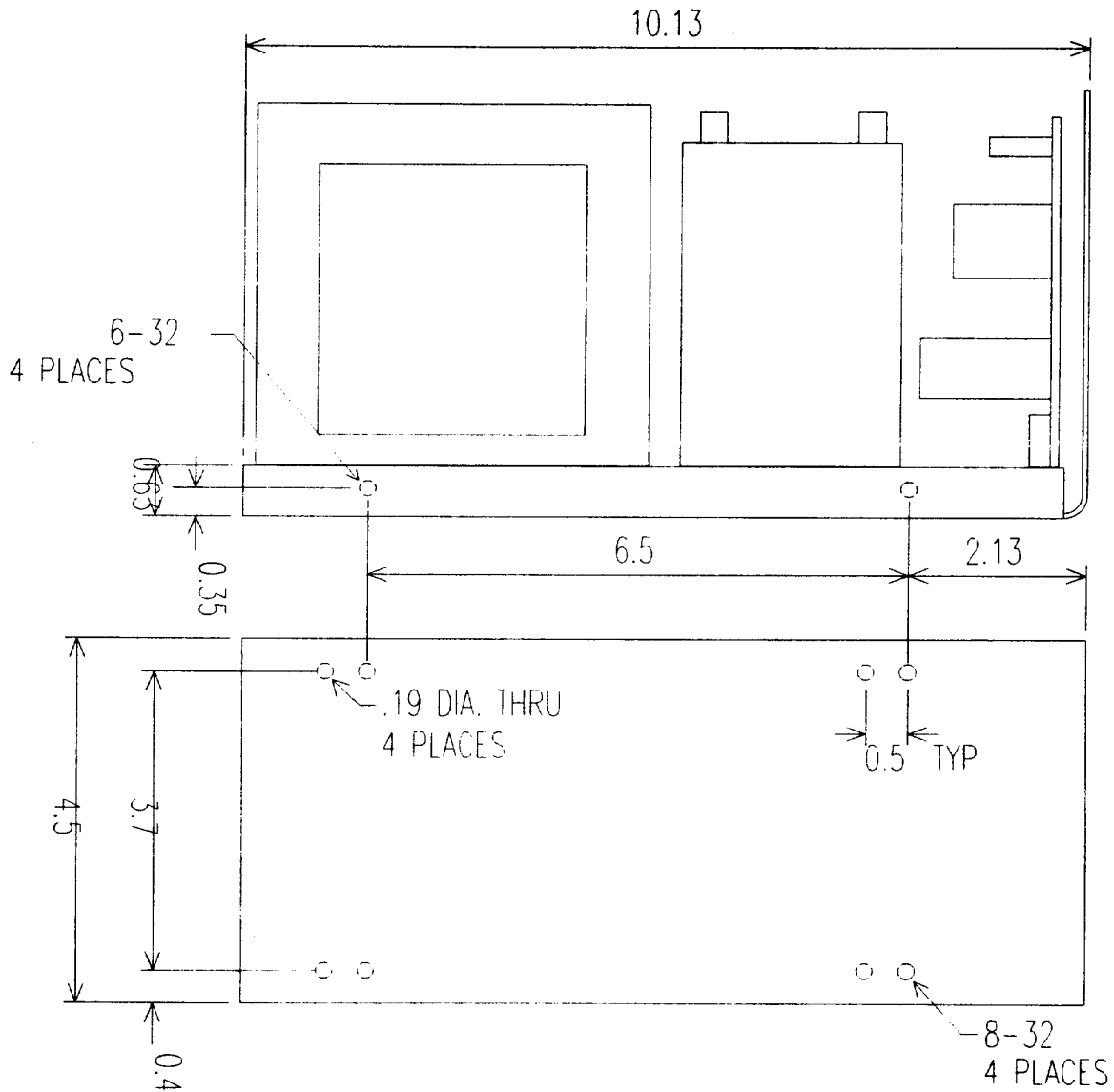


Figure 7-1: Mounting Dimensions

8.0 KIT

Each DC4 power supply comes with a "ship kit" which includes the following:

1. 44-000054-01 AC power cord
2. 71-004210-01 Output cable, 6 feet, terminated with Entralec connector 112 172.14
3. 45-006690-01 Alternate fuse for European operation
4. 88-013254-01 DC4 operator's manual