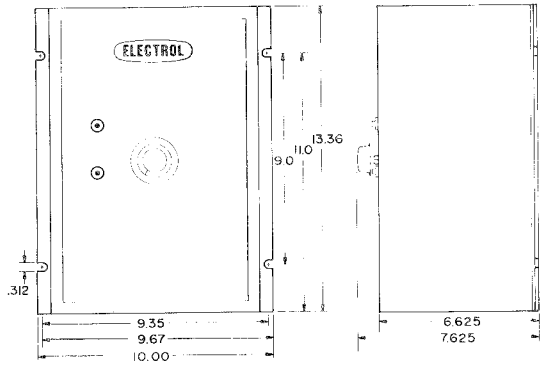
INSTRUCTION MANUAL
Motor Controller - D-Trol II
Model C-3/5-YA-225-E
C-3/5-26-225-CM



Performance Matched with ELECTROL Motors

Standard Features

Multiple Horsepower Range ..... 3 - 5 HP 230 VAC
Speed Regulation ..... 2% of Base Speed
Speed Range ..... 30:1 Constant Torque
Built-in Transient and Surge Protection
Built-in Line Voltage Compensation
Start-Stop ..... Push Buttons
Master Speed Pot ..... 5K ohm 1/2 W
Power "On" ..... Indicator Light
Enclosure ..... NEMA 12
Jog/Run Switch ..... Jog at Run Speed
Maximum Amps ..... 28 amps (DC)

Adjustments

Minimum Speed ..... Sets low end speed limit
Maximum Speed ..... Sets high end speed limit
Adj. Accel and Decel ..... Independently adjustable from .5 seconds to 15 seconds
IR Compensation ..... Adj. no load to full load RPM
Torque (current limit) ..... Adj. maximum current cut-off

Part No.	Style	HP	Wt.:Lbs.	Kg.
C-3/5-YA-225-E	Enclosed	3-5	10	4.97
C-3/5-26-225-CM	Chassis Mount	3-5	8	3.98

AVAILABILITY: STOCK

ELECTROL CO., INC. • 321 DEWEY ST. • YORK, PA 17404 • (717) 848-1722 • FAX (717) 848-4514

WARRANTY

ELECTROL controls are warranted by ELECTROL CO., INC. to the original user against defects in workmanship or materials under normal use (rental excluded) for one (1) year after purchase.

Any part which is determined to be defective in material or workmanship must be returned to ELECTROL headquarters, or an authorized service center, as ELECTROL designates, shipping costs prepaid. Contact factory for an RMA number before returning. The control will be repaired or replaced at ELECTROL's option. Expenses incurred by buyer in repairing or replacing any defective product will not be allowed except where authorized in writing and signed by an officer of the company.

1. Removal of torque seal on the PC board of any control will void warranty. This indicates the control has been disassembled.

2. Use type ABC or rectifier standard blow fuses only. Use of a slow blow or other non-specified fuse will not adequately protect control and will void warranty.

APPLICATION INFORMATION

1. If you replace an AC induction motor with a DC motor and adjustable speed drive, consideration must be given to the full load torque rating of the AC induction motor that is being replaced. The full load torque rating of the DC motor must be equal to or greater than the full load torque rating of the AC motor it is going to replace.

2. When replacing an AC induction motor with a DC motor and adjustable speed control the DC motor's starting torque must be limited to 200% of full load torque (150% of full torque for gearmotors). The reason for these limits is to protect the motor or gearmotor from damaging overloads. Cyclic type loads should be avoided.

3. Soft Start - The DC motor accelerates from 0 to full load RPM smoothly and takes approximately 3 seconds to reach full load RPM. Acceleration rate varies with respect to speed setting and amount of inertia in the system.

4. The motor controller has circuitry to protect it from normal line surges, and transients. If, however, the control will be used in an environment where these are present constantly, such as high frequency welding equipment, an isolation transformer or other line filtering device should be used.

   WARNING: NOT INTENDED FOR USE IN AN EXPLOSIVE ATMOSPHERE!

CONNECTION

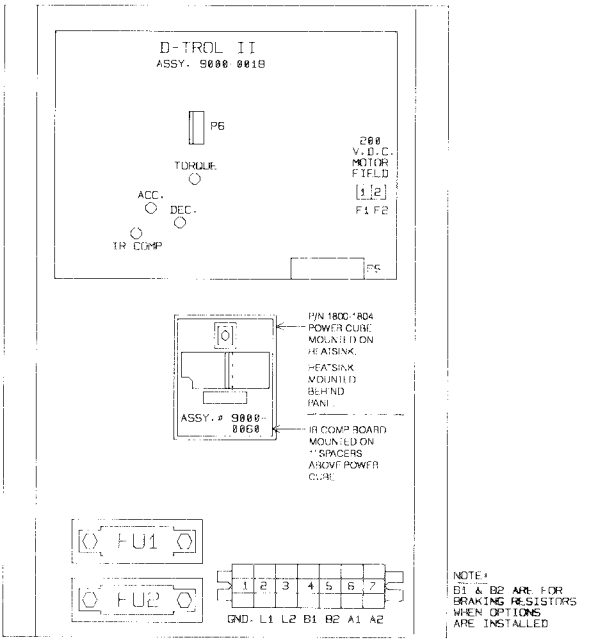
CAUTION: Disconnect power source before connecting controller or motor. Use No. 10 AWG (minimum size) wire for controller input lines, and for interconnection lines between controller and motor.

Make connections to the controller and the motor in accordance with the Connection Chart. The controller terminal strip is located inside the controller enclosure. To reach the terminal strip, loosen the captive screw in the top of the controller front panel, then swing the panel open. To feed wiring to the controller, remove the two button plugs from the bottom of the enclosure.

CUSTOMER CONNECTION AND ADJUSTMENTS

CAUTION: Follow local electrical codes and proper electrical practices during hook-up of controller. The customer is responsible for supplying and connecting an external power disconnect, such as a 50 Amp circuit breaker or DPDT toggle switch. Disconnect power source before connecting control and motor. Use #8 gauge wire for input lines to the control and lines to motor armature. Turn power off at external disconnect when control is not in use.

Refer to DWG attached.



ADJUSTMENTS

Controls are shipped set up and adjusted for 5 HP, 230VAC. If any other horsepower and/or voltage is desired, follow the instructions below:

A. Horsepower Selection:

For 5 HP close switch No. 5: 1, 4 are open

For 3 HP close switch No. 3: 1, 2, 4, & 5 are open

ALL SWITCH POSITIONS OPEN
EXCEPT FOR HORSEPOWER DESIRED.

B. Start-up procedures:

1. Set master speed pot to 0%.
2. Apply power to unit and select "Start" Switch position.
3. Turn speed pot up and check for proper rotation of motor shaft. Reverse motor leads to change rotation, if necessary.
4. Trim pot adjustments, if necessary.

   a) MIN RPM Trim: To adjust master pot low end speed range, turn CCW to decrease speed range. Turn CW to increase speed range.

   b) MAX RPM Trim: To adjust master pot high end speed range, turn CCW to decrease speed range. Turn CW to increase speed range.

   c) TORQUE Trim: To adjust maximum current available to motor armature, do not exceed full load current of motor.

   d) IR COMP: To maintain no load motor RPM with load applied, turn CW to increase compensation. Turn CCW to decrease compensation. CAUTION: Overadjustment will cause motor RPM at low speed settings to rise excessively under full load conditions.

   e) Accel Trim: To adjust Acceleration time from 2.5 - 15 sec., turn CW to decrease time & CCW to increase time.

   f) Decel Trim: To adjust Deceleration time from .5 - 15 sec., turn CW to decrease time and CCW to increase time.

C. Available Options:

Contactor Breaking
Contractor Reversing
Tach Feedback
External Torque Pot
External Speed Indicator
Jog at Jog Speed
Isolated external signal follower
Power on and Motor Direction Indicators

To Request Schematic
Please call or write:

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