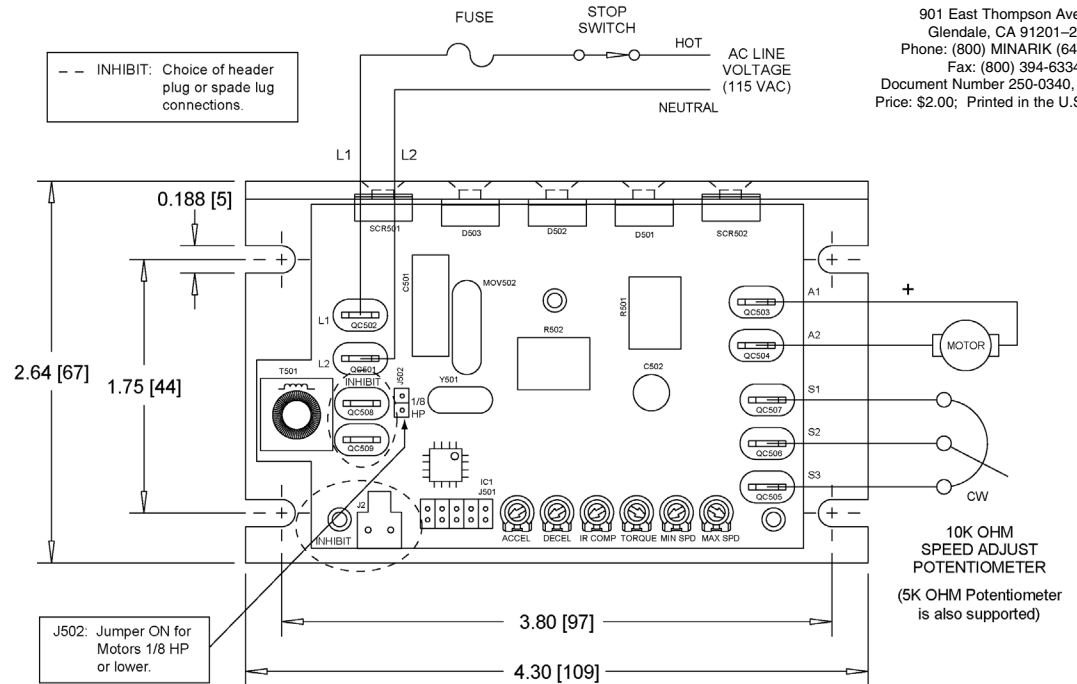


FEATURES & BENEFITS

- Speed Range and Regulation: 1% over 60:1 Speed Range.
- Six (6) User Adjustable Calibration Pots: ACCEL, DECEL, TORQUE, IR COMP, MIN SPEED, & MAX SPEED
- Stopping Modes: Coast to stop with inhibit terminals (N.O.). Choice of header plug or spade lug connections.
- Spade Terminals: Easy to use, low cost, and able to fit in a smaller package.

SPECIFICATIONS

	Max. Armature Current (Amps DC)	HP Range w/ 115 VAC Applied	Style
M1	5.0	1/15 - 1/2	Chassis
AC Line Voltage 115 VAC ± 10%, 50/60 Hz, Single Phase			
Armature Voltage (115 VAC Input)		0 - 90 VDC	
Form Factor		1.37 at Base Speed	
Accel. Time Range (for 0 - 90 Armature Voltage)		0.5 - 26 Seconds	
Decel. Time Range (for 0 - 90 Armature Voltage)		0.5 - 26 Seconds	
Analog Input Voltage Range (isolated; S1 to S2) for 0 - 90 Armature Voltage		0 - 4.5 VDC	
Input Impedance (S1 to S2)		100K Ohms	
Load Regulation		1% base speed or better	
Vibration		1G max (0 - 50 Hz)	
Ambient Temp. Range		10°C - 40°C	



ALL DIMENSIONS IN INCHES [MILLIMETERS]

WEIGHT: 0.32 lbs.

CALIBRATION

HORSEPOWER

For 1/8 HP motors and lower put the jumper J502 ON. Otherwise, leave it on only one of the two header pins.

ACCELERATION (ACCEL)

The ACCEL setting determines the time the motor takes to ramp to a higher speed. ACCEL is factory set for the fastest acceleration time (full CCW).

Use the following procedure to set the acceleration time:

1. Set the speed adjust potentiometer full CCW. The motor should run at minimum speed.
2. Turn the speed adjust potentiometer full CW and measure the time it takes the motor to go from minimum to maximum speed.
3. If the time measured in step 2 is not the desired acceleration time, turn the ACCEL trimpot CW for a slower acceleration time, or CCW for a faster acceleration time. Repeat steps 1 through 3 until the acceleration time is correct.

DECELERATION (DECEL)

The DECEL setting determines the time the motor takes to ramp to a lower speed. DECEL is factory set for the fastest deceleration time (full CCW).

Use the following procedure to set the deceleration time:

1. Set the speed adjust potentiometer full CW. The motor should run at maximum speed.
2. Turn the speed adjust potentiometer full CCW and measure the time it takes the motor to go from maximum to minimum speed.

3. If the time measured in step 2 is not the desired deceleration time, turn the DECEL trimpot CW for a slower deceleration time, or CCW for a faster deceleration time. Repeat steps 1 through 3 until the deceleration time is correct.

IR COMPENSATION (IR COMP)

The IR COMP trimpot setting determines the degree to which motor speed is held constant as the motor load changes. It is factory set for optimum motor regulation.

Use the following procedure to recalibrate the IR COMP setting:

1. Set the IR COMP trimpot to minimum (full CCW).
2. Rotate the speed adjust potentiometer until the motor runs at midspeed without load (for example, 900 RPM for an 1800 RPM motor). A hand held tachometer may be used to measure motor speed.
3. Load the motor armature to its full load armature current rating. The motor should slow down.
4. While keeping the load on the motor, rotate the IR COMP trimpot until the motor runs at the speed measured in step 2. If the motor oscillates (overcompensation), the IR COMP trimpot may be set too high (CW). Turn the IR COMP trimpot CCW to stabilize the motor.
5. Unload the motor.

TORQUE

The TORQUE setting determines the maximum torque for accelerating and driving the motor. To calibrate TORQUE use the following procedure:

1. With the power disconnected from the drive, connect a DC ammeter in series with the armature.

2. Set the TORQUE trimpot to minimum (full CCW).
3. Set the speed adjust potentiometer to maximum speed (full CW).
4. Carefully lock the motor armature. Be sure that the motor is firmly mounted.
5. Apply line power. The motor should be stopped.
6. Slowly adjust the TORQUE trimpot CW until the armature current is 150% of motor rated armature current.
7. Turn the speed adjust potentiometer CCW until the motor stops.
8. Remove line power.
9. Remove the stall from the motor.
10. Remove the ammeter in series with the motor armature if it is no longer needed.

MINIMUM SPEED (MIN SPD)

The MIN SPD setting determines the motor speed when the speed adjust potentiometer is turned full CCW. It is factory set for zero speed.

To calibrate, set the MIN SPD trimpot full CCW. Turn the speed adjust potentiometer full CW. Adjust the MIN SPD trimpot until the desired minimum motor speed is reached.

MAXIMUM SPEED (MAX SPD)

The MAX SPD setting determines the motor speed when the speed adjust potentiometer is turned full CCW. It is factory set for maximum rated speed.

To calibrate, set the MAX SPD trimpot full CCW. Turn the speed adjust potentiometer full CW. Adjust the MAX SPD trimpot until the desired maximum motor speed is reached.