

38562-MD

12V DC Motor Control with Overload Protection

DC Motor control & protection module with Stall & Overload protection that stops motor operation. Jumper selectable Dual Modes

Jog or Continuous.

CONTROL

Voltage: 12V DC $\pm 2V$

Overload Protection: 0.2A to 10A Adjustable

Current: 10A Max

Recommended Stall current setting: $< 8A$

Starting: $< 6A$

Continuous: $< 3A$



NOTE: During Startup, which lasts for several hundred milliseconds, the motor current is not detected to prevent false protection.

Connections: Terminal Strips

L: 63mm (2-1/2") **W:** 34.5mm (1-3/8") **H:** 20mm (11/16") **WT:** .06

NOTE: "Forward & Reverse" are Relative as to how you connect the Motor!

K1/"FORWARD" Causes motor to rotate in 1 direction

K2/"REVERSE" Causes motor to rotate in the opposite direction

Module has the following two Jumper Selectable working Modes

Selecting Mode

Mode 1: Short-circuit (Jumper) the two solder joints of **M1**.

Mode 2: NO Short-circuit (Jumper) at **M1** **FACTORY DEFAULT**

Mode 1: Jog

K1 and K2 control the motor rotation: "Forward" and "Reverse".

Press and Hold K1 to rotate "Forward"; Release to Stop; Press and Hold K2 to rotate "Reverse"; Release to Stop.

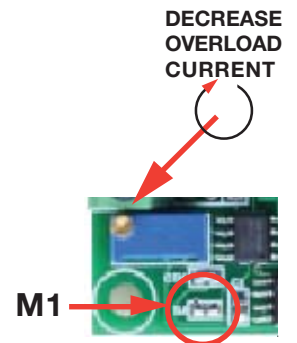
If the motor is Overloaded or Stalls during operation, the motor will stop; at this time, you need to release the K_(1 or 2) switch and press it again to resume operation.

Mode 2: Continuous

K1 and K2 switches control both directions. Run or Stop with the click of a switch

When the motor is running in either direction, Press K1 or K2 once to stop running;

To start running; Press K1 or K2 again, to resume and run in the direction of the corresponding switch. If overload or overcurrent occurs, the motor will stop. To resume operation; Press K_(1 or 2) switch.



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MARLIN P. JONES & ASSOC., INC.

8380 Resource Rd. West Palm Beach, FL 33404

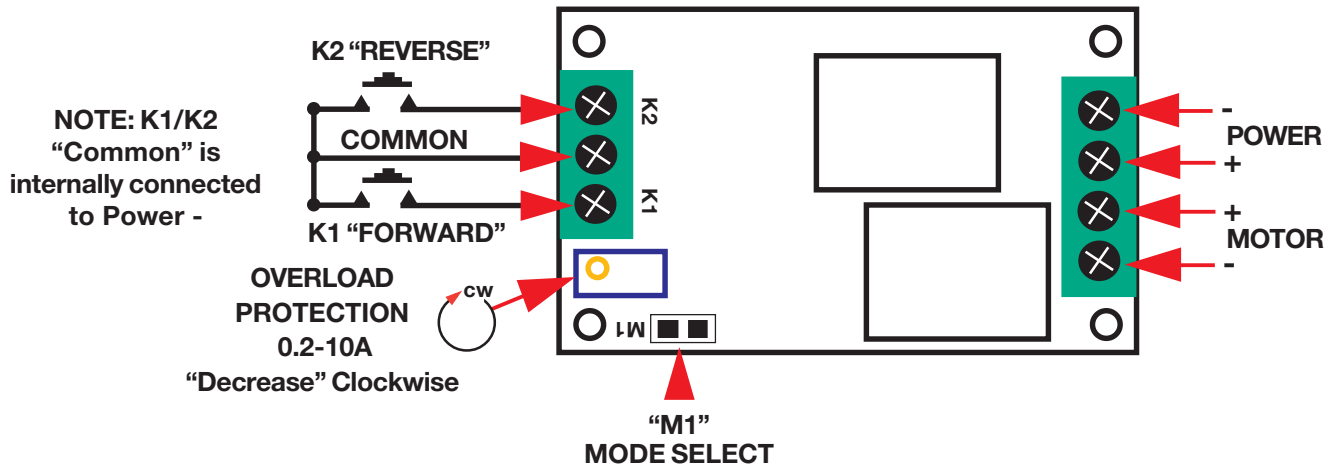
800-652-6733 FAX 561-844-8764

WWW.MPJA.COM

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Do Not Mis-wire, Module May be Damaged!



Adjusting Overload/Stall Protection

To adjust, connect an ammeter between module and motor. While running motor without load, first adjust the protection current value slightly larger, let the motor warm up, then apply the load to motor, let the current rise to the current limit you want. then slowly rotate the potentiometer to reduce the current. until the current protection stops the motor

Operating Life

The life of the module depends on the number of switching cycles of the relays on the module. Counted as one operation every time Motor starts and stops. The Run time the motor is irrelevant. Except for the relays, the lifespan of other components is generally more than 5 years (normal environment). The larger the motor current, the number the relay's switching cycles; the shorter the life! At ~10A, the lifespan is <5,000 operations (depending on various factors, for reference only), The instantaneous current at startup (0 RPM) is equal to the locked-rotor current! The smaller the locked-rotor current, the longer the life of the relay contacts.

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