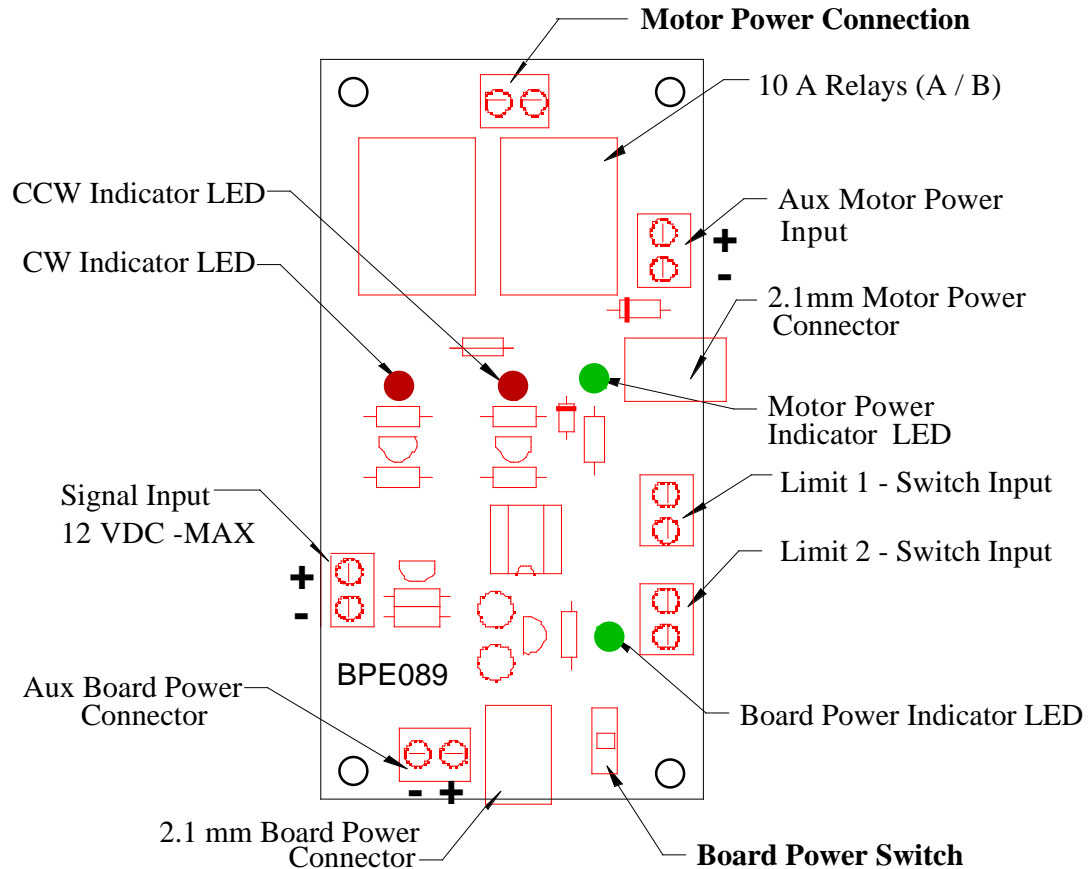


12 VDC- Signal Controlled Linear Motor Controller Board

Operational Notes for Blue Point Engineering Board-089

(12V DC linear Actuator using 12VDC Control Signal)



Description:

This custom board was designed to allow the directional control of a 12V DC linear actuator (In/Out linear motion) or (CW/CCW motor rotation) dc voltage motor using the presence or absence of a **12V control signal** at the Signal Input Terminal. When the signal is present, (12VDC) the motor will run in one direction (motor dependent). When the signal is not present, the motor will run in the opposite direction. There are 2 limit switch inputs, one for each direction that should be hooked to **N.O. dry contact closure-type switches**. When a limit switch is closed, it will stop or prevent movement in the associated direction. Use the limit switches to set the travel limits of the linear motor's travel In and Out and Stop. The controller board can be powered from a DC source of 7.5V – 12V DC, 100 mA minimum. Power to the board can be applied via the 2.1mm barrel-type connector or the adjacent 2-position terminal block and is indicated by a green LED. Power for the motor should be at 12VDC and at a current applicable for the motor attached. (**Max current 10 Amps**) It is applied via the 2.1mm Motor Power connector or the adjacent 2-position terminal block. A green LED next to the Motor Power connector indicates that motor power is present. **Note that the 2 relays on the board are powered by the motor power connection. If no motor power is applied, then the relays will not actuate even if the board is powered up.**

NOTE: The control signal input should never exceed 12VDC.

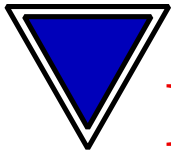
Exceeding above 12 volts will damage the on board PIC microprocessor.

Make sure that you observe all polarity and voltage! (+ / - Polarity 12VDC connections)

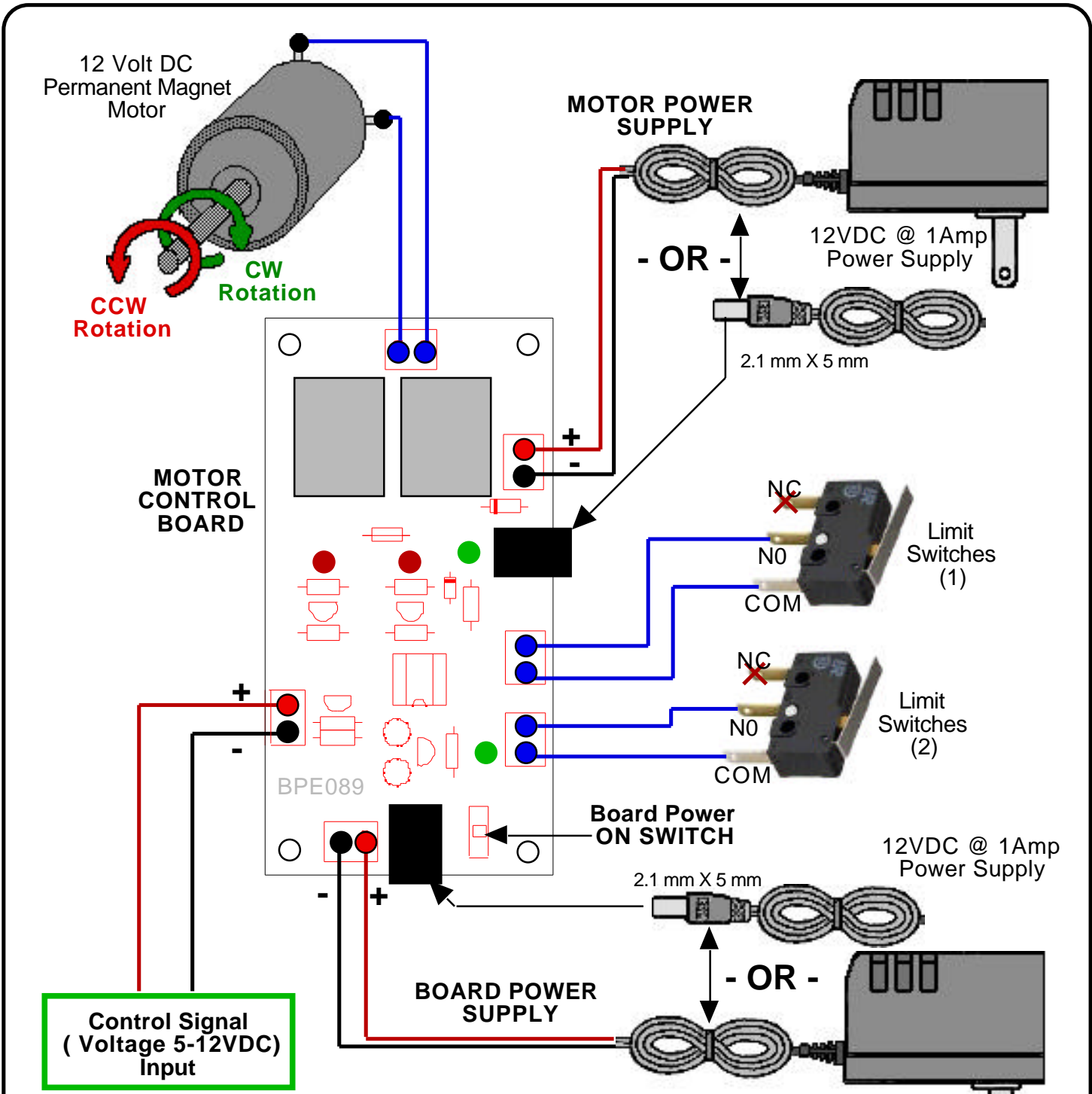
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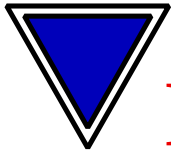
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NOTE: The control signal input should never exceed 12VDC. Exceeding above 12 volts will damage the on board PIC microprocessor. Make sure that you observe all polarity and voltage! (+ / - Polarity 12VDC connections)



12 VDC- Signal Controlled Linear Motor Controller Board

Operation:

Main Board Power Switch is turned ON:

Relay -1 is immediately turned ON. (RED LED-1 ON)
Linear motor is powered ON in direction A, until Limit Switch-1 is triggered.
Limit Switch-1 activated - Relay -1 is turned OFF, Motor Stops.

12V control signal is applied to the Signal Input Terminal.

Relay -2 is immediately turned ON. (RED LED-2 ON)
Linear motor is powered ON in direction B, until Limit Switch-2 is triggered.
Limit Switch-2 activated - Relay -2 is turned OFF, Motor Stops

12V Control Signal is removed from the Signal Input Terminal.

Cycle Repeats

