

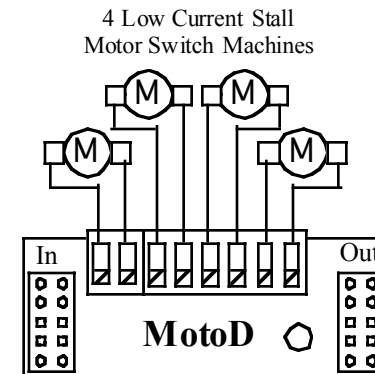


**TEAM DIGITAL**

Improving the  
world of DCC

## **MotoD Satellite Stall Motor Driver**

- > Drives 4 stall motor switch machines
- > Connects to the SRC16
- > Adjustable speed via SRC16



**WARNING:** This product contains a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

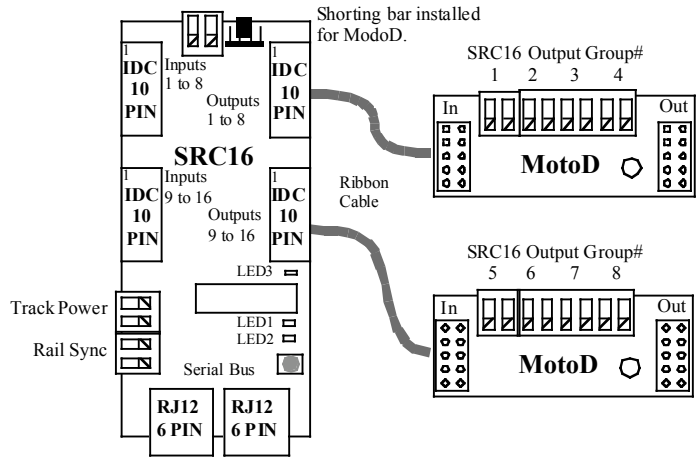
03.25.10

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**Operation:**

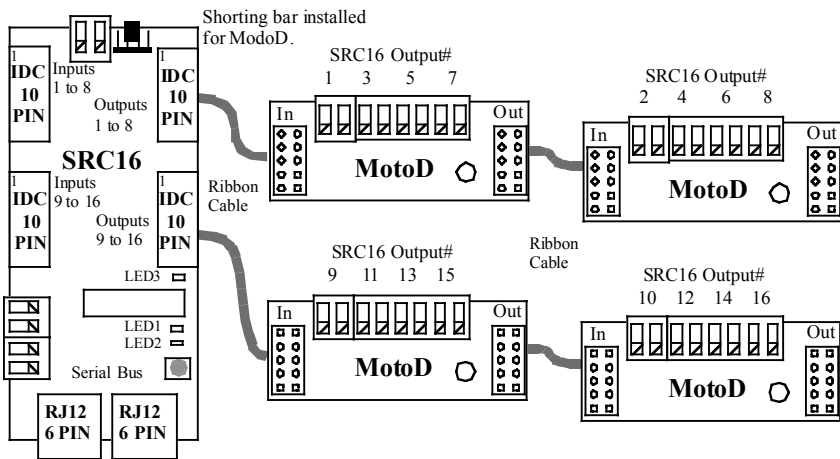
The MotoD is capable of driving four low current stall motors for switch machine applications. A Team Digital SRC16 is required to control and provide voltage to the MotoD. Up to four MotoDs can be connected to a single SRC16.

Each output of the MotoD requires a SRC16 output for control. If the SRC16 outputs are configured as pairs or groups (one output for throw and the other for close with the same address) then there is an equivalent of eight (8) SRC16 output addresses. See figure 1.



MotoD connections assigned by GROUP#  
Figure 1

If more than two MotoDs are used with a SRC16, then each of the 16 SRC16 outputs must be assigned an address. See figure 2.



MotoD connections assigned by OUTPUT#  
Figure 2

**Using the MotoD:**

The MotoD is connected to the SRC16 by ribbon cable. You can assemble your own connectors and cable using the Team Digital Cable Connector Kit or by purchasing the individual pieces. The MotoD is designed such that two of them can be daisy chained together to utilize the maximum number of SRC16 outputs. See figure 2.

The MotoD input and output connections must be observed as shown in figure 2. The ribbon cable connector must be plugged in to the SRC16 and MotoD so that pin 1 is lined up correctly as shown in figure 3. Otherwise damage to the MotoD and or SRC16 may occur.

The MotoD requires a higher voltage to operate stall motors than the normal output of the SRC16. For this reason the shorting bar on the SRC16 must be moved to the position shown in figure 3 or 4. When the shorting bar is in the position shown in figure 3, the MotoD outputs are about 11 to 13 volts depending on the voltage supplying the SRC16.

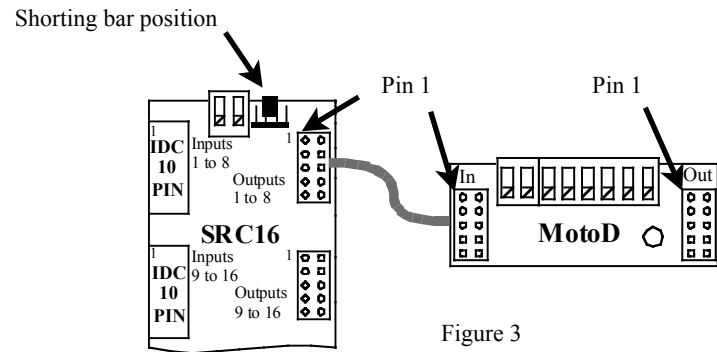


Figure 3

**Adjusting motor speed:**

The speed of the motors can be changed by connecting a resistor to the terminals and moving the shorting bar to the position shown in figure 4. The value of the resistor will determine the speed of the motors connected to the MotoDs. The number of motors connected to the MotoDs will also determine the speed of the motors for any given resistor value. To get the desired speed, experimenting with the resistor value will most likely be required. This should be done after the all the motors have been connected. A typical resistor value to start with might be 15 ohms 1/2 watt.

**Warning: Any time the shorting bar is moved or the resistor is connected or removed from the terminal connector power to the SRC16 should be off.**

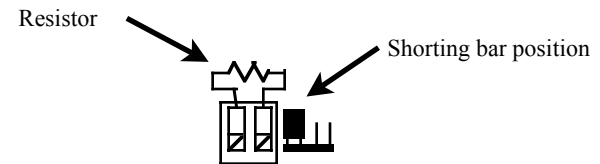


Figure 4