

SR4

Step Motor Drive

Requirements

To use the SR4 Step Drive, the following items are needed:

- A power supply (24 - 48 VDC)
- Pulse & Direction signal
- A compatible step motor

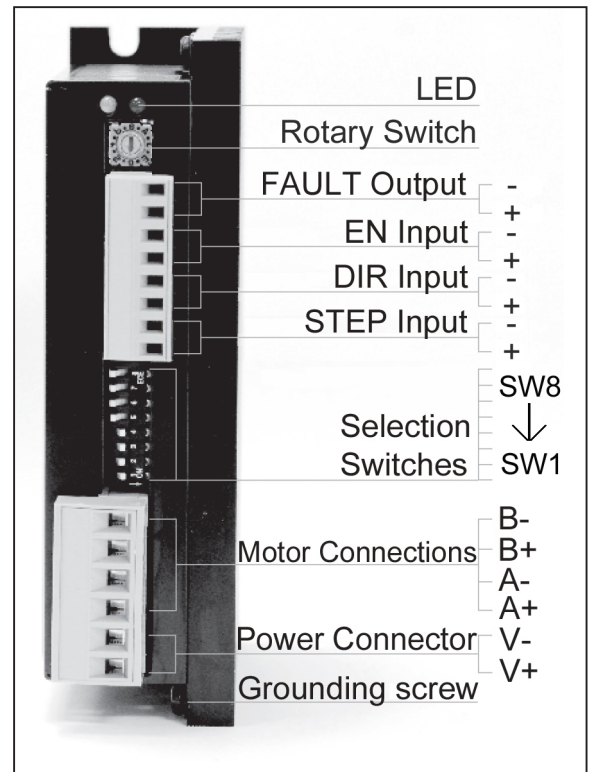
Connect to the Power Supply

If the power supply does not have a fuse on the output or some kind of short circuit current limiting device, a 4 amp fast acting fuse should be installed in line with the "+" power supply lead.

Connect the motor power supply "+" terminal to the drive terminal labeled "V+". Connect the power supply "-" to the drive terminal labeled "V-".

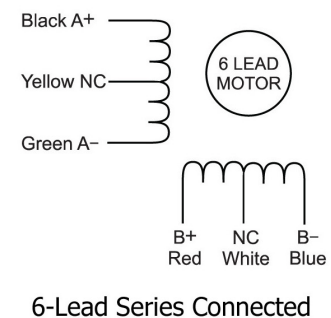
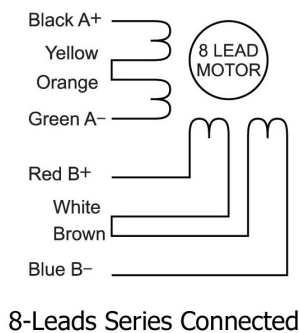
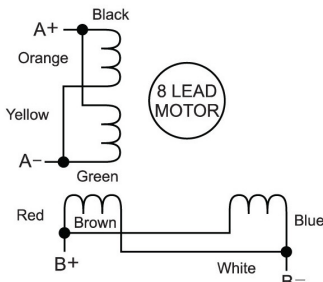
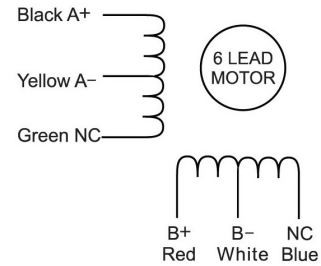
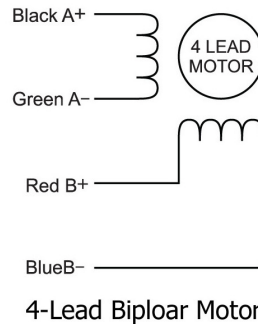
Be careful not to reverse the wires.

Quick Set-Up Guide



Connecting to a Motor

Connect the drive to the motor. Four lead motors can be connected in only one way. If using a non MOONS' motor, consult the motor specs for wiring information.

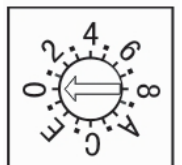


Selecting the Motor

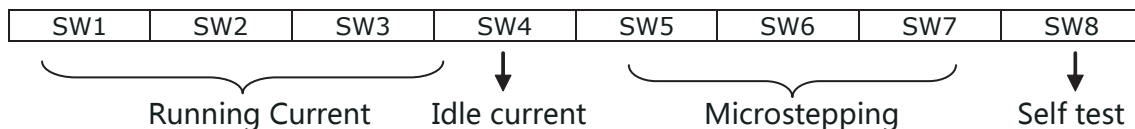
Each position of the 16-bit rotary switch selects a different motor, and automatically sets the configuration parameters in the drive. The SR4 drive comes programmed with up to 8 typical motors as factory defaults. Drives can be customized with specially selected motors when required. Available options are on the drive label.

The switch also selects a low or high inertia for each motor to allow for various load conditions. The low setting is 1:1, and the high setting is 10:1. Each motor in the loaded database has unique settings to optimize the anti-resonance.

If the motor selection is changed, the drive power supply will need to be cycled.

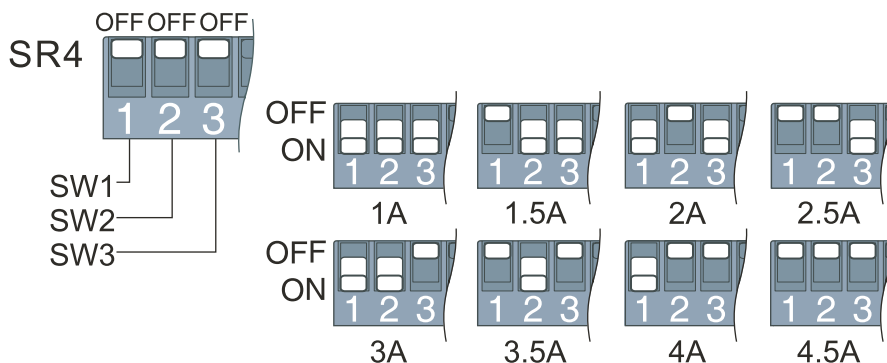


Selection Switches



Running Current

The output current of the SR4 Step Drive is set by the SW1, SW2, and SW3 switches and can be changed as necessary. There are 8 settings available according to the ON/OFF combination of the switches.



Idle Current

The running current of the SR4 drive is automatically reduced anytime the motor isn't moving. Setting the SW4 switch to ON reduces the current to 50% of its running value. Setting this switch to OFF maintains 90% of the running current. This 90% setting is useful when a high holding torque is required. To minimize motor and drive heating it is highly recommended that the idle current reduction feature be set to 50% unless the application requires the higher setting.

Microstepping

The microstep resolution is set by the SW5, SW6, and SW7 switches. There are 8 settings.



Self Test

Setting switch SW8 to ON after the drive is powered up will cause the drive to perform a self test move of 2 revolutions both CW and CCW at 1 rps. Setting switch SW8 to OFF disables this feature.

Safety Instructions



- Only qualified personnel should assemble, install, operate, or maintain this equipment.
- Read all available documentation before assembly and operation.
- It is vital to ensure that all system components are connected to earth ground.
- This product contains electrostatically sensitive components that can be damaged by incorrect handling.