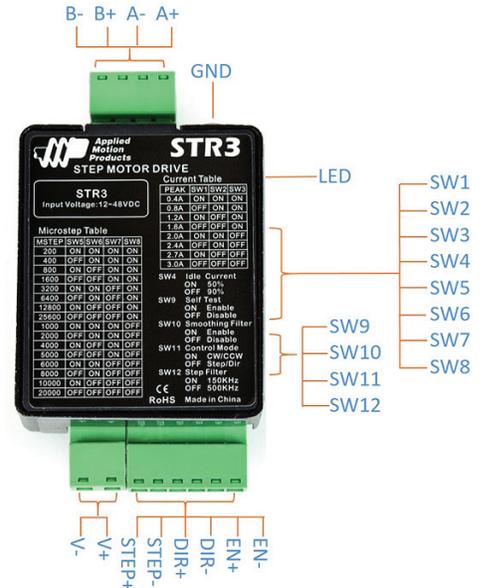


STR3 Quick Setup Guide



To begin, make sure you have the following equipment:

- STR3 Drive.
- A compatible stepper motor.
- A small flat blade screwdriver for tightening the connectors (included).
- A suitable DC power supply. Applied Motion Products recommends the PS150A24 and PS320A48 power supplies available from www.applied-motion.com.



Wiring the Drive

Step 1 - Wiring the DC supply

Do not apply power until all connections and settings to the drive have been made

a. Wire the drive to the DC power source.

Note, the STR3 accepts DC voltages from 12-48V.

b. Ensure a proper earth ground connection by using the screw on the left side of the chassis.

*See the STR3 Hardware Manual for more information about power supply and fuse selection.

Step 2 - Wiring the motor

Connect the drive to the motor. Four lead motors can be connected in only one way, as shown in Figure 1.

Eight lead motors can be connected in Series or Parallel, as shown in Figures 2 and 3.

If using a non-Applied Motion Products motor, please refer to your motor specs for wiring information.

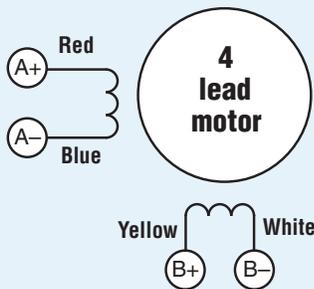


Figure 1 - 4-lead Connection

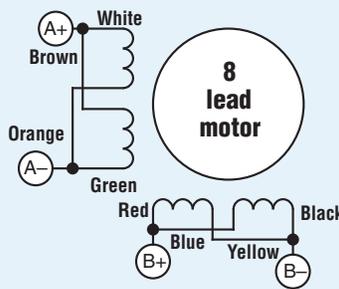


Figure 2 - 8-lead Parallel Connection

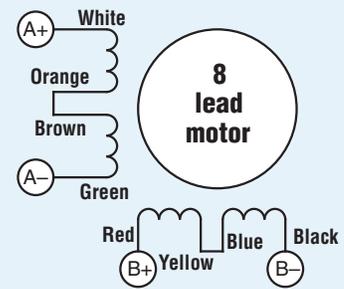
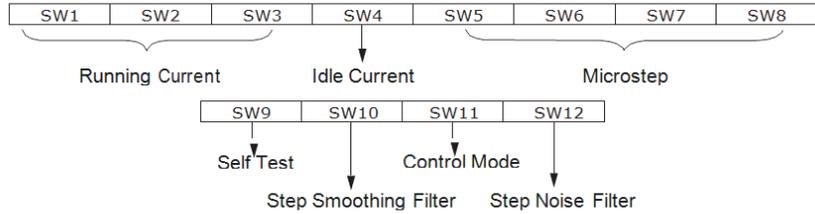
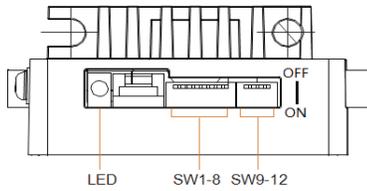


Figure 3 - 8-lead Series Connection

Step 3 - Setting up the Drive



NOTE: DIP switch setting changes will only take effect at power up. If the DIP switches are changed while power is applied, the new settings will only take effect after a power cycle.

Selecting the motor current

The output current of the STR3 step motor drive is set by SW1, SW2 and SW3

Current (Amps) (peak of sine)	SW1	SW2	SW3
0.4	ON	ON	ON
0.8	OFF	ON	ON
1.2	ON	OFF	ON
1.6	OFF	OFF	ON
2.0	ON	ON	OFF
2.4	OFF	ON	OFF
2.7	ON	OFF	OFF
3.0	OFF	OFF	OFF

Selecting Idle current

Switch SW4 sets the idle current to either 50% or 90% of the selected running current. ON for 50% and OFF for 90%.

Control Mode

Switch SW11 sets control mode. Switch OFF sets the Step & Dir mode. Switch ON sets the CW/CCW mode

Step Noise Filter

Switch SW12 sets the Step noise filter. The STEP and DIR inputs have built-in digital filters and this setting will reduce external noise. If the drive is set for a low microstep resolution, select the 150 KHz (ON) setting. If the drive is set for a high microstep resolution, select the 500KHz (OFF) setting.

Step Smoothing Filter

SW10 sets the step smoothing filter. Step smoothing can soften the effect of immediate changes in velocity and direction, making the motion of the motor less jerky. An added advantage is that it can reduce the wear on mechanical components. ON enables it, OFF disables it. This function can cause a small delay in following the control signal.

Self Test

SW9 sets Self Test function. If switch SW9 is moved to the ON position the drive will automatically rotate the motor back and forth, two turns in each direction. This feature can be used to confirm that the motor is correctly wired, selected and otherwise operational.

Step resolution

Switches SW5, SW6, SW7, SW8 set the step resolution. There are 16 settings.

Steps/Rev	SW5	SW6	SW7	SW8
200	ON	ON	ON	ON
400	OFF	ON	ON	ON
800	ON	OFF	ON	ON
1600	OFF	OFF	ON	ON
3200	ON	ON	OFF	ON
6400	OFF	ON	OFF	ON
12800	ON	OFF	OFF	ON
25600	OFF	OFF	OFF	ON
1000	ON	ON	ON	OFF
2000	OFF	ON	ON	OFF
4000	ON	OFF	ON	OFF
5000	OFF	OFF	ON	OFF
6000	ON	ON	OFF	OFF
8000	OFF	ON	OFF	OFF
10000	ON	OFF	OFF	OFF
20000	OFF	OFF	OFF	OFF

If you have any questions or comments, please call Applied Motion Products Customer Support: (800) 525-1609, or visit us online: www.applied-motion.com.



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