SRAC4

AC Input Step Motor Drive

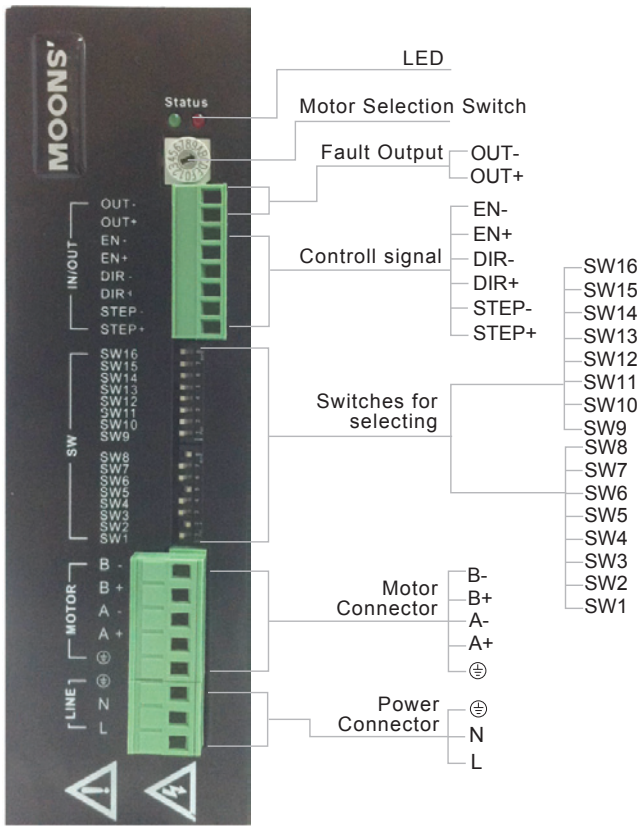
Quick Set-Up Guide

Requirements

1

To use the SRAC4 Step Drive, the following items are needed:

- Universal AC input of 80 to 265 VAC
- Pulse & Direction signal
- A compatible step motor

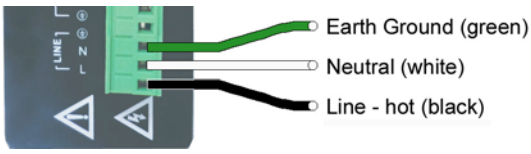


Connect to Power

2

Use the supplied connector to connect to the AC supply according to the diagram below. Use 16 AWG wire for Line (L) and Neutral (N). Use 14 AWG for Earth Ground (G).

The SRAC4 has an internal 10A fast acting fuse.

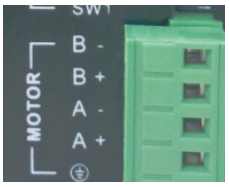


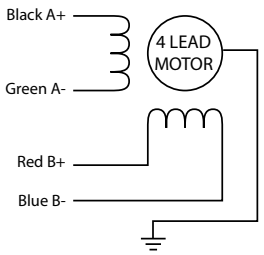
Care should be taken when working with high voltages.

Connecting to a Motor

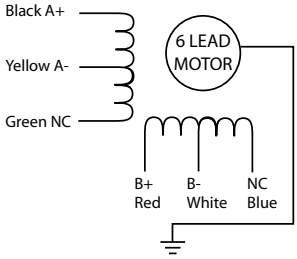
3

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.

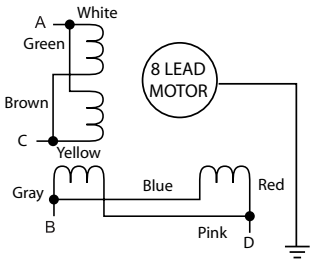




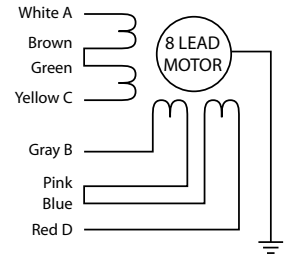
4-Lead Biploar Motor



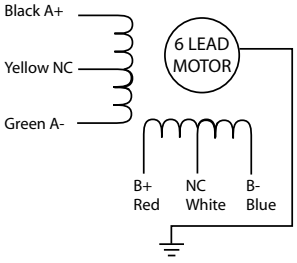
6-Lead Center Tap Connected



8-Lead Parallel Connected



8-Lead Series Connected



6-Lead Series Connected

Selecting the Motor

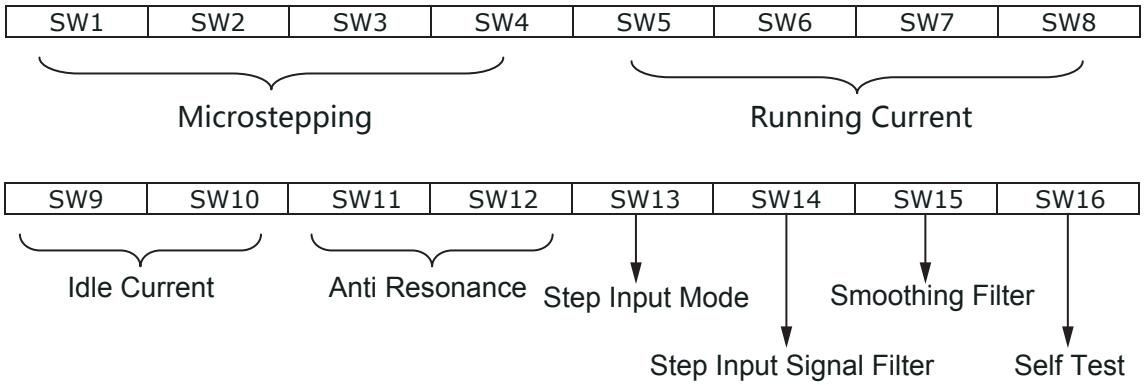
4

Each position of the 16-bit rotary selects a different motor, automatically setting the configuration parameters in the drive. The SRAC4 drive comes programmed with up to 16 typical motors as factory defaults. Drives can be customized with specially selected motors when required. Available options are listed on the drive label. 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

Many operational parameters of the SRAC4 can be set or changed by position switches - either by a single switch or a combination of ON/ OFF settings of 2 or more switches.



Microstepping - 4 switches for a total of 16 settings:

Microstep(step/rev)	**SW1**	**SW2**	**SW3**	**SW4**
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
8000	ON	ON	OFF	OFF
10000	OFF	ON	OFF	OFF
20000	ON	OFF	OFF	OFF
25000	OFF	OFF	OFF	OFF

Idle Current - 2 switches for a total of 4 settings:

Idle	**SW9**	**SW10**
25%	ON	ON
50%	OFF	ON
70%	ON	OFF
90%	OFF	OFF

Step Input Mode (**SW13**) - OFF for Step and Direction input, ON for CW/CCW input

Step Smoothing Filter (**SW15**) - ON to enable, OFF to disable

Running current - 4 switches for a total of 16 settings:

Current(Peak)	**SW5**	**SW6**	**SW7**	**SW8**
0.4A	ON	ON	ON	ON
0.8A	OFF	ON	ON	ON
1.2A	ON	OFF	ON	ON
1.6A	OFF	OFF	ON	ON
1.8A	ON	ON	OFF	ON
2.0A	OFF	ON	OFF	ON
2.2A	ON	OFF	OFF	ON
2.4A	OFF	OFF	OFF	ON
2.6A	ON	ON	ON	OFF
2.8A	OFF	ON	ON	OFF
3.0A	ON	OFF	ON	OFF
3.2A	OFF	OFF	ON	OFF
3.4A	ON	ON	OFF	OFF
3.6A	OFF	ON	OFF	OFF
3.8A	ON	OFF	OFF	OFF
4.0A	OFF	OFF	OFF	OFF

Anti-Resonance - 2 switches for a total of 4 settings:

Option	**SW11**	**SW12**	Inertia
0	ON	ON	Low ↓ High
1	OFF	ON	
2	ON	OFF	
3	OFF	OFF	

Step Input Signal Filter (**SW14**) - ON for 150 kHz, OFF for 2 MHz

Self test (**SW16**) - ON for 2 rev CW/CCW .5 rps self test, OFF for none

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.

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