

STM23R Quick Setup Guide



Requirements

To begin, make sure you have the following equipment:

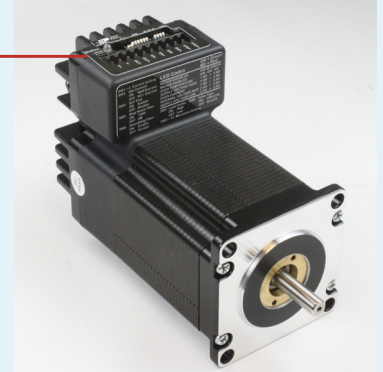
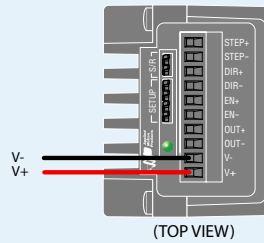
- A small flat blade screwdriver for wiring and configuring the DIP switches (included).
- DC Power Source, 12-70VDC
- For more detailed information, please download and read the *STM23R Hardware Manual*, available at www.applied-motion.com/support/manuals.

Step 1

Connect the drive to the DC power source. The STM23R will accept DC power from 12-70VDC.

Per the diagram at the right, connect the red wire to the positive output terminal on the power supply, typically marked V+, and the black wire to the negative terminal, typically marked V-.

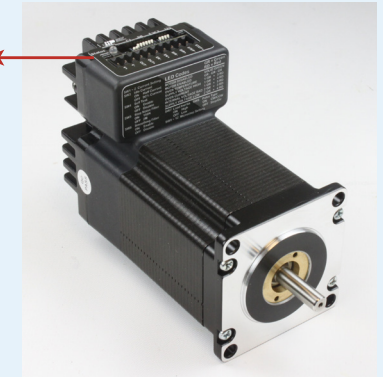
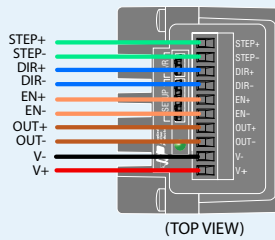
(Do not apply power until all connections to the drive have been made)



Step 2

Connect input signals to the drive. STEP and DIR are required, EN and OUT are optional.

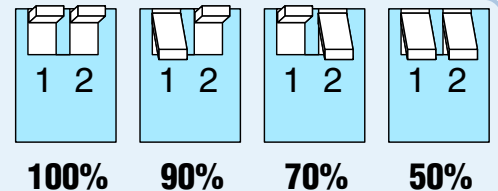
- See the *STM23R Hardware Manual* for circuit connection details and examples.



Step 3

Set the motor's running current using switches 1 and 2.

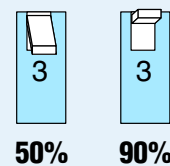
- This is the percentage of full current that the motor will use when the shaft is rotating.



Step 4

Set the motor's idle current using switch 3.

- This is the percentage of running current that the motor will use when the shaft is not rotating. Choose 90% for maximum holding torque or 50% to reduce motor heating.



Step 5

Select the load-to-motor inertia ratio category using switch 7.

- This is the ratio of the effective load inertia to the motor's own rotor inertia. For high inertia loads choose 5-10X, and for low inertia loads choose 0-4X. Setting the proper range for the load will improve motor smoothness.



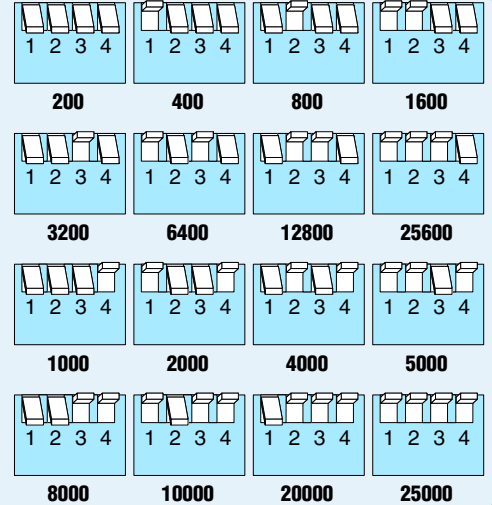
5-10X



0-4X

Step 6

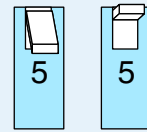
Select the desired step resolution (steps/rev) using switches 1-4, located on a second block of 4 switches.



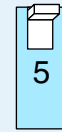
Step 7

Optional settings. The default settings for these switches are typically sufficient. See the *STM23R Hardware Manual* for details on these functions.

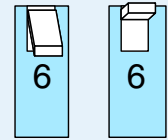
- [Switch 5] Step Pulse Noise Filter
- [Switch 6] Step Smoothing Filter
- [Switch 8] Step Pulse Type (Step/Direction is default)



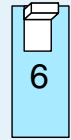
**150
KHZ**



**2.0
MHZ**



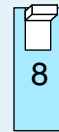
ON



**OFF
SMOOTHING**



**CW PULSE/
CCW PULSE**



**STEP/
DIR**

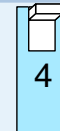
Step 8

Optionally, you can test motor operation by activating switch 4 to initiate a self test move.

- The self test move continually rotates the motor forward and backward 2-1/2 revolutions.



ON



**OFF
SELF TEST**

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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