

RS

RS03/06-S/Q Quick Setup Guide

Requirements

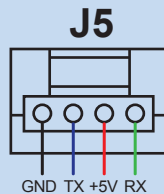
To begin, make sure you have the following equipment:

- A 24-70VDC power supply
- A compatible step-servo motor
- A small flat blade screwdriver for tightening the connectors (included)
- A RS-232 communication cable (included)
- A PC running Microsoft Windows XP / Vista / Windows 7/ Windows 8 (32-bit or 64-bit) operation system
- **Step-Servo Quick Tuner** software (available from MOONS' website)
- For more detailed information, please refer to the RS03/06-S/Q drive's hardware manual

Step 1

- Download and install **Step-Servo Quick Tuner** software
- Launch the software by clicking Start / Programs / MOONS' / Step-Servo Quick Tuner
- Connect the drive to your PC using the RS-232 communication cable. If your PC doesn't have RS-232 port. Please use a USB to RS-232 converter

RS03/06-S/Q RS-232 Comm port



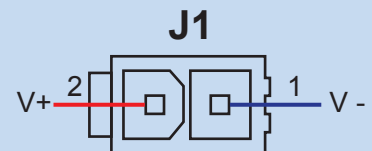
View from the driver side

Driver	Connection
GND	Connects to host GND
TX	Connects to host RX
+5V	Connects to host +5V
RX	Connects to host TX

Step 2

- Connects the driver to DC power supply
(NOTE: DO NOT apply power until all connections to the drive have been made)

RS03/06-S/Q accepts DC voltage range from 24 – 70VDC

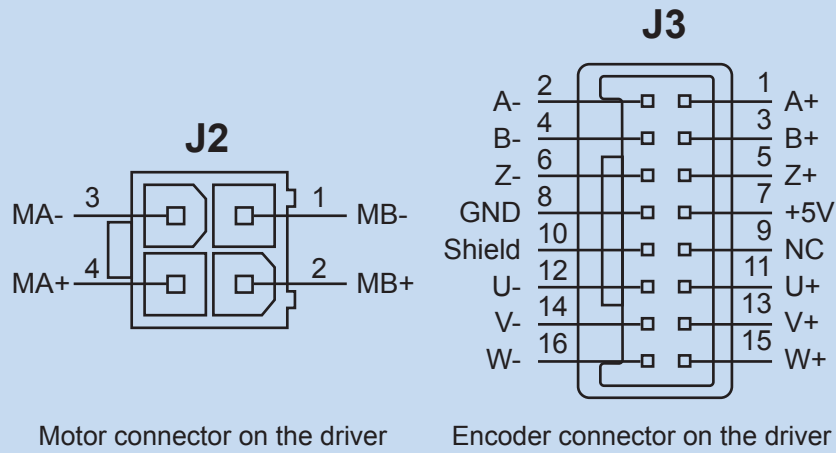


- Ensure a proper earth ground connection by using the screw on the bottom left side of the chassis.



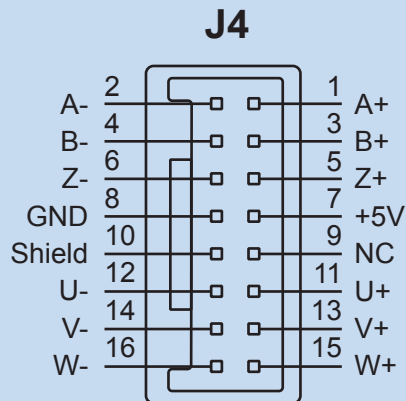
Step 3

Connecting to the motor. RS step-servo motor has two cables. One is motor cable, another is encoder cables. Please connects the motor cable to the motor connector on the driver, and connects the encoder cable to the encoder connector on the driver. If the cable length is not long enough, please use extension cables for motor and encoder.



Step 4

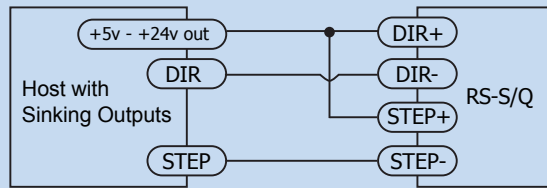
Connecting to the digital inputs & outputs (I/O)



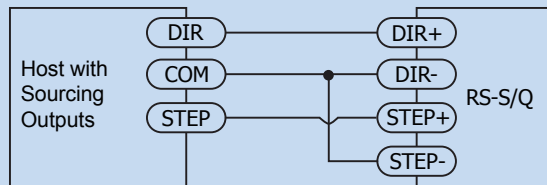
Four digital inputs:

X1/STEP, X2/DIR: optically isolated, differential, 5-24VDC, minimum pulse width 250ns, maximum pulse frequency 2MHz

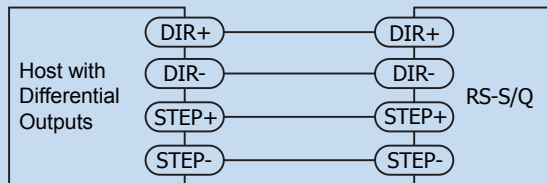
X3, X4: optically isolated, single-ended, sinking or sourcing, 5-24VDC, minimum pulse width 50 μ s, maximum pulse frequency 10KHz



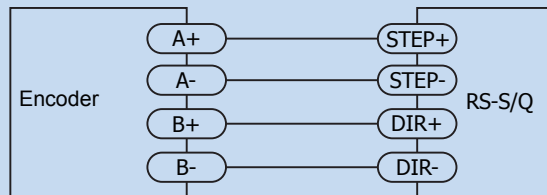
Connecting to Host with Sinking Outputs



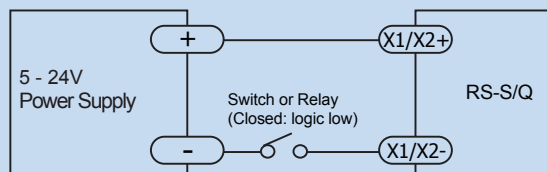
Connecting to Host with Sourcing Outputs



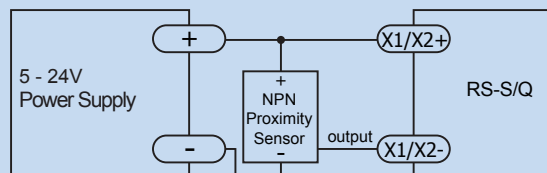
Connecting to Host with Differential outputs



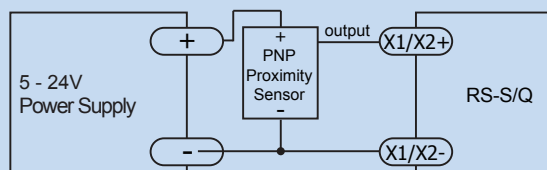
Connecting to An Encoder



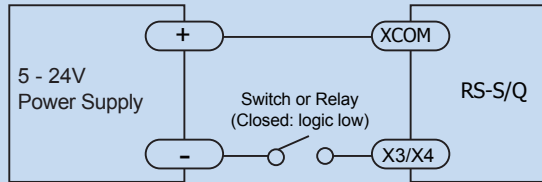
Connecting to a switch or relay



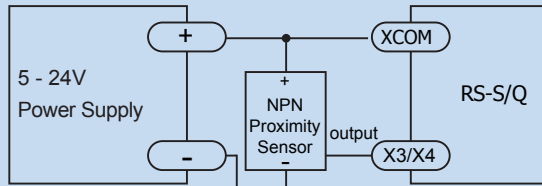
Connecting a NPN type Proximity Sensor to an Input (when proximity sensor activates, output goes low)



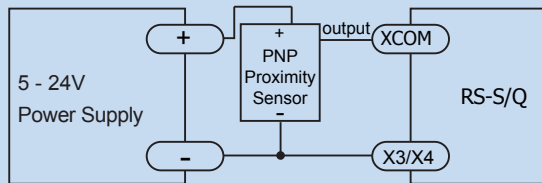
Connecting a PNP type Proximity Sensor to an input (when proximity sensor activates, output goes high)



Connecting to a switch or relay



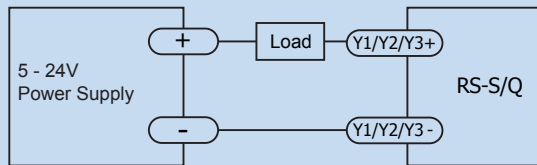
Connecting a NPN type Proximity Sensor to an Input (when proximity sensor activates, output goes low)



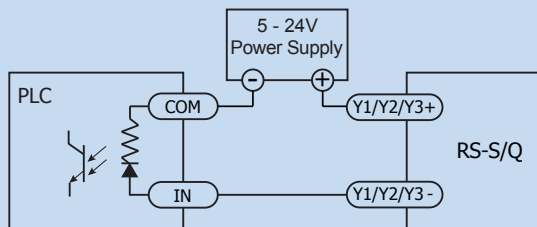
Connecting a PNP type Proximity Sensor to an input (when proximity sensor activates, output goes high)

Three digital outputs:

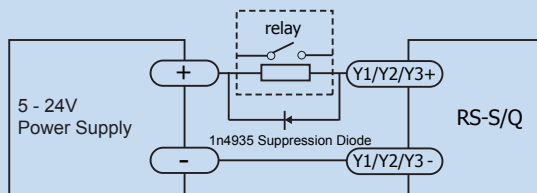
Y1, Y2, Y3: optically isolated, single-ended, sinking or sourcing, max. 30VDC/100mA



Connecting a Sinking Output



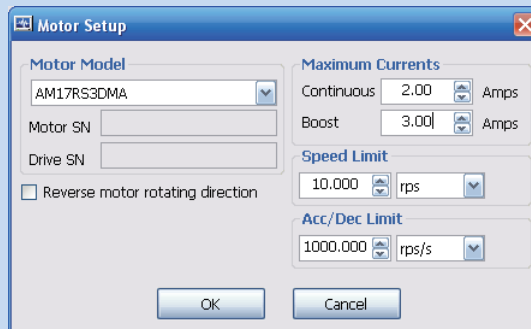
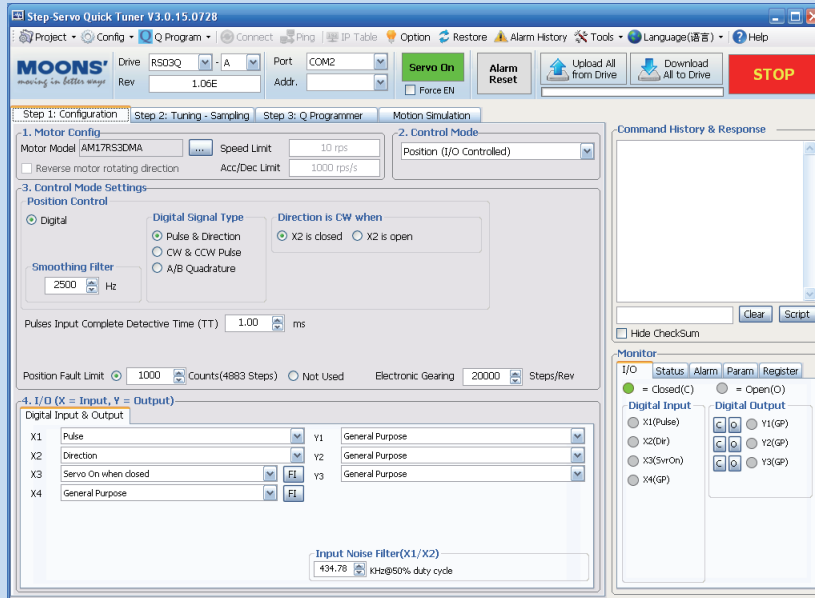
Connecting a Sourcing Output



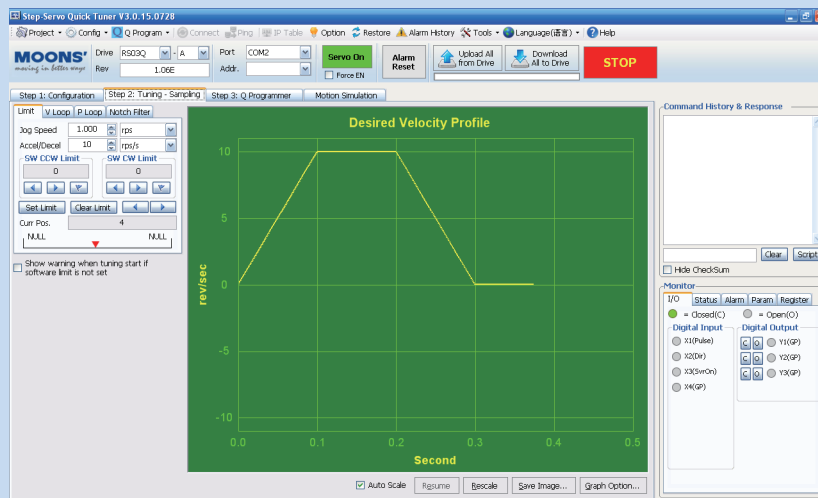
Driving a Relay

Step 5

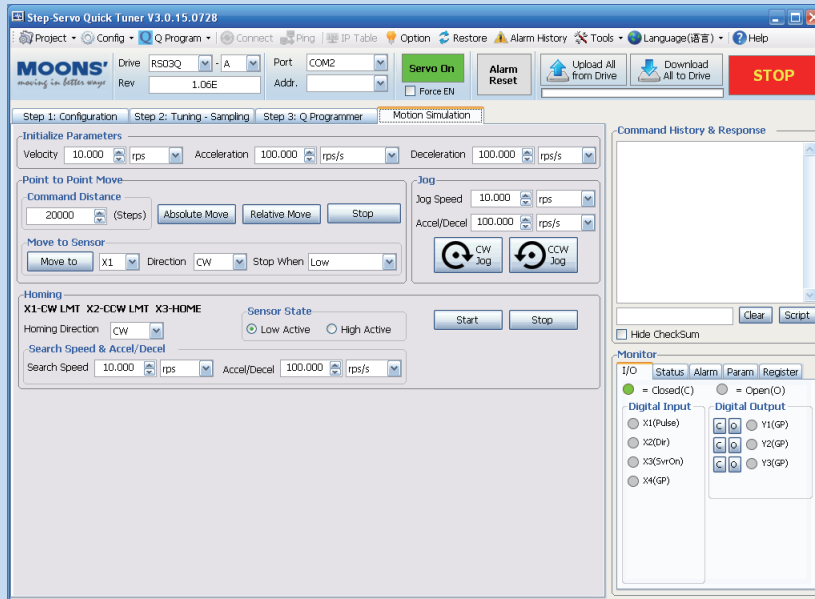
- Apply power to the driver
- The software will recognize and display driver's model number & firmware version automatically
- Use **Step-Servo Quick Tuner** software to configure drive and motor parameters, set control mode and I/O function etc. For Q type driver, this software can also be used to edit and download Q program to your drive. Motion simulation and status monitor are also included.



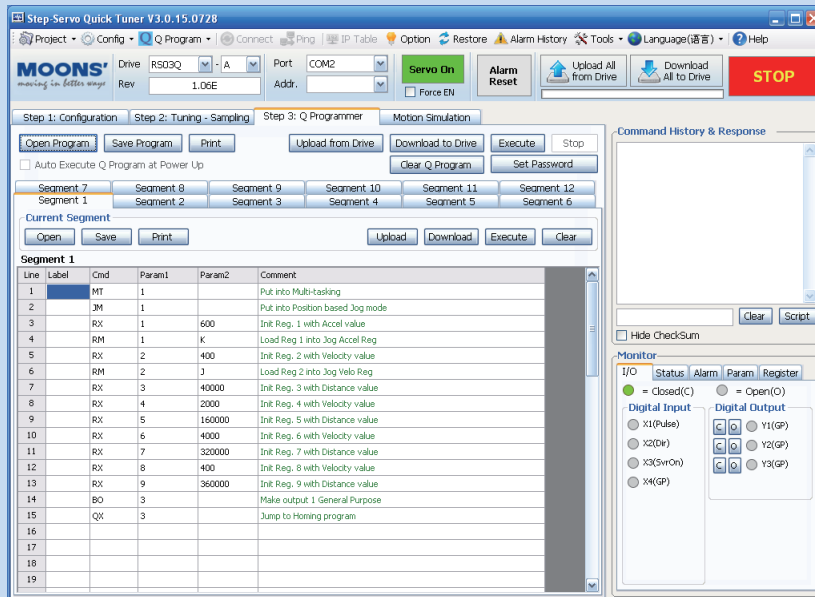
- Use **Step-Servo Quick Tuner** software for velocity loop, position loop parameters tuning



e) Use **Step-Servo Quick Tuner** software to perform motion simulation



f) For RS03/06-Q type driver, use **Step-Servo Quick Tuner** software to edit and download Q program to your drive.



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