

Requirements

To begin, make sure you have the following equipment:

- A 24-70 VDC power supply
- An optional 12-48 VDC power supply (if auxiliary power supply is needed)
- A compatible SS motor
- A small flat blade screwdriver for tightening the connectors (included)
- A PC running Windows XP/ Vista / Windows 7 / Windows 8 / Windows 10 (32-bit or 64-bit) operating system
- A mini USB cable is required for configuration (not included)
- **Step-Servo Quick Tuner** software (available from MOONS' website)
- A CAT5 cable for EtherCAT daisy chain connection (included)
- An STO connector for CN4 connection (included)
- Optional motor extension cable
- Optional encoder extension cable
- Optional I/O cable

Step 1

Installing the Software

- a) Download **Step-Servo Quick Tuner** software from MOONS' website and install it.
- b) Launch the software by clicking Start -- Programs -- MOONS'.
- c) Connect the drive to the PC with the mini USB cable.
- d) Select the right COM port in the software. See section "Choosing the Right COM Port" .

Step 2

Connect the Power Supply

a) Connect the Main Power Supply

Connect the power supply's "+" terminal to the drive's V+ terminal & the power supply's "-" terminal to the drive's V- terminal.

SS-EC main power input voltage range 24-70 VDC

b) Connect the auxiliary power supply (optional)

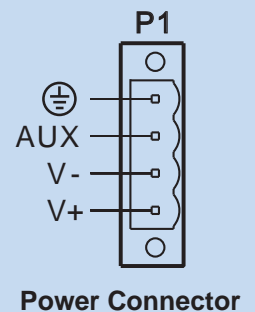
If auxiliary power supply is needed, connect the auxiliary power supply's "+" terminal to the drive's Aux terminal & the auxiliary power supply's "-" terminal to the drive's V- terminal. If auxiliary power supply is not needed, Aux terminal can be left no connection.

SS-EC auxiliary power input voltage range 12-48 VDC

Note:

**Be careful not to reverse the power supply wires. Reversing the connection may open the internal fuse!
DO NOT apply power until all connections to the drive have been made!**

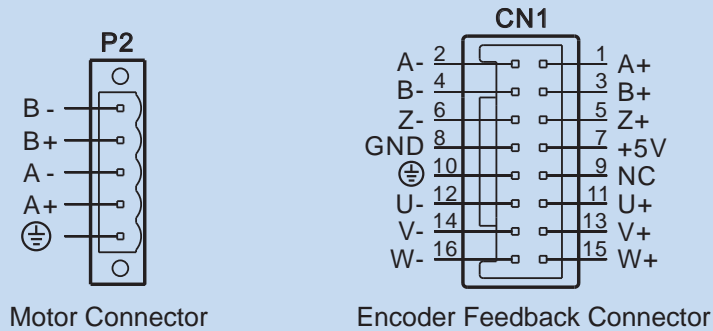
- c) Ensure a proper earth ground connection to the drive's chassis.



Step 3

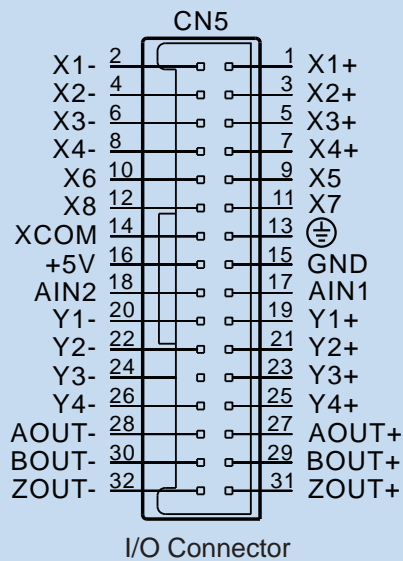
Connecting the Motor

The SS motors have two cables. One is the motor power cable, the other one is the encoder feedback cable. Use the optional motor extension cable and encoder extension cable or make the extension cable using connector housing and crimps included in package. Connect the motor power wires: black, green, red and blue wires to drive's A+, A-, B+ and B- correspondingly. Plug the encoder feedback cable into the encoder feedback connector on the drive.



Step 4

Connecting the I/O



Please refer to the hardware manual for I/O wiring.

Step 5

Connecting the STO

On the SS EtherCAT step-servo drives, the STO (Safe Torque Off) function is connected via port CN4. The STO function shuts off the motor current turning off the motor output torque by forcibly turning off the signal of the drive's power transistor. This is done internally through the STO Input/Output signal circuit.

If you want to bypass the STO function, make sure the STO connector is plugged into CN4 on the drive correctly.

If you want to use the STO function, please refer to the hardware manual.

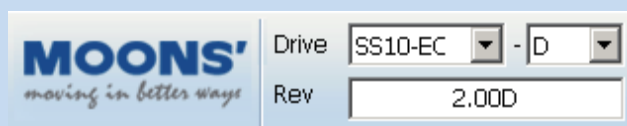
Step 6

Configuring the Drive

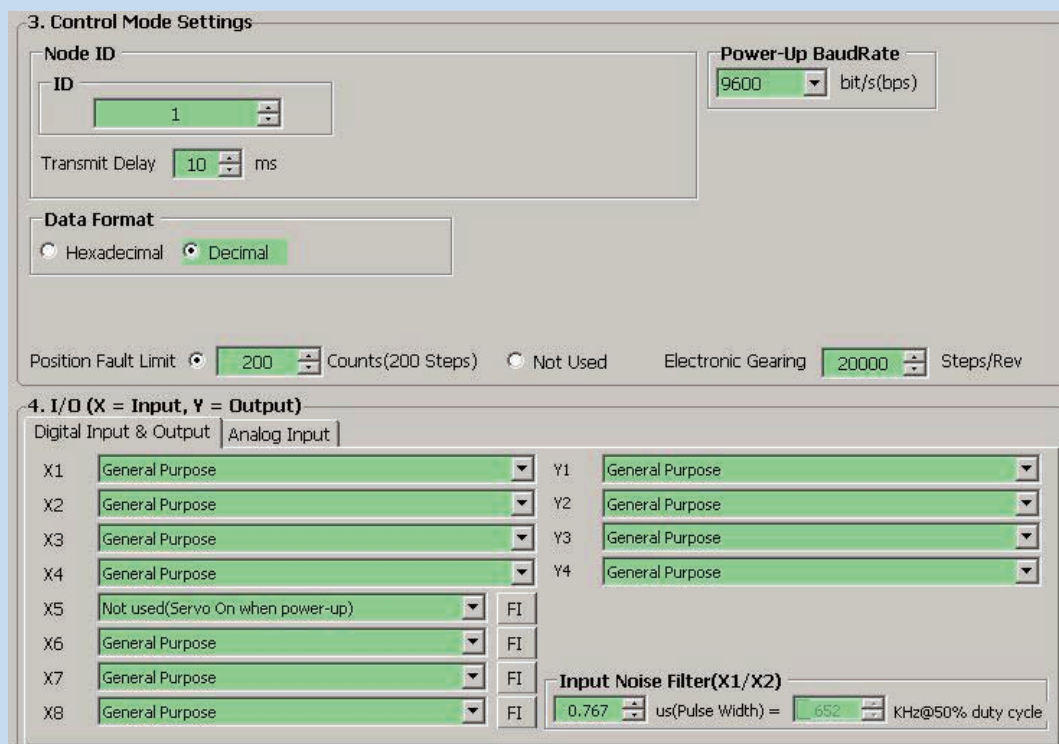
- Run the **Step-Servo Quick Tuner** software and select the right COM port in the software. Apply power to the drive.
- The software will recognize the drive & display the model & firmware version
- Configure the control mode setting, I/O function and tuning parameters, etc.



(a)



(b)



(c)

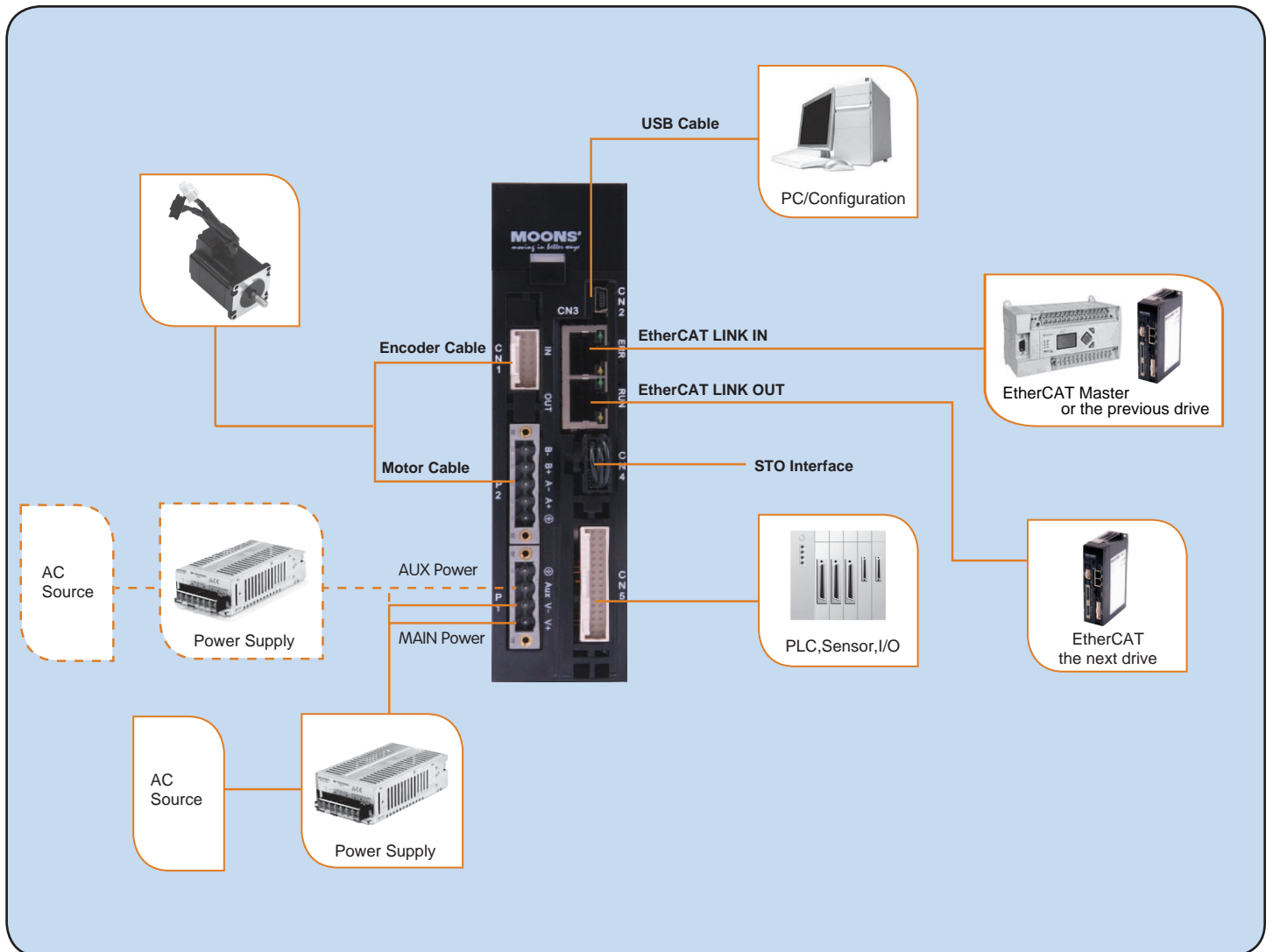
Step 7

Connecting the EtherCAT

Dual RJ-45 connectors (connection CN3) accept standard Ethernet cables and are categorized as 100BASE-TX (100 Mb/sec) ports. CAT5 or CAT5e (or higher) cables should be used. The IN port connects to a master, or to the OUT port of an upstream node. The OUT port connects to a downstream node. If the drive is the last node on a network, only the IN port is used. No terminator is required on the OUT port.

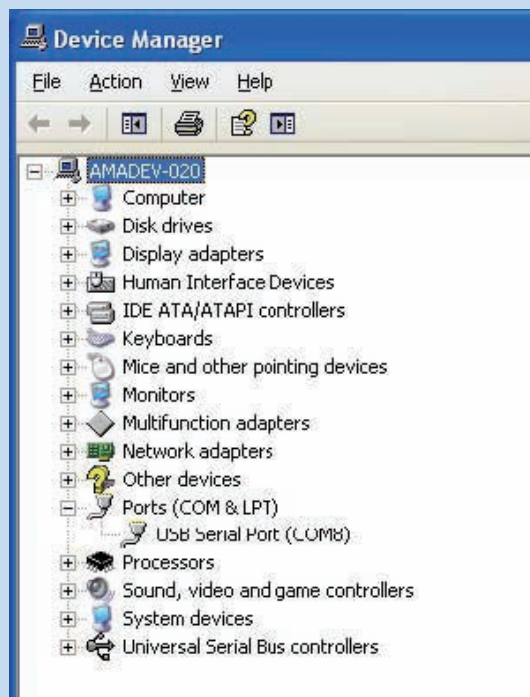
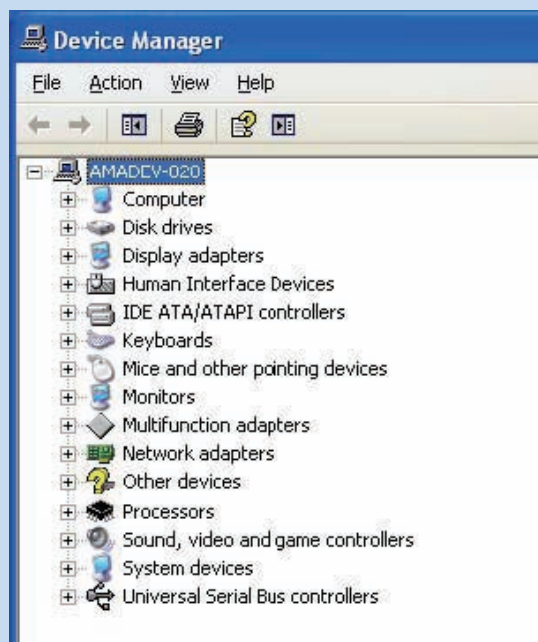
For connection with master controller, please refer to connection guide on MOONS' website.

System Configuration



Choosing the Right COM Port

Open the “Device Manager” on the PC. There may or may not be a “Ports” selection. Connect the mini USB cable to the PC. The connected COM port should then be displayed. Choose this new COM(n) port in the Step-Servo Quick Tuner software.



If you have any questions or comments, please call MOONS' Customer Support:
+86-4008209661, or visit us online at www.moonsindustries.com.