

SV200 Quick Setup Guide



Requirements

To begin, make sure you have the following equipment:

- A compatible J-series servo motor with extension cables
- A Philips screwdriver, size #1 is ideal for ground screws
- A personal computer running Microsoft Windows XP, 7, 8, or 10
- SVX Servo Suite software, available at www.applied-motion.com/product/software
- USB serial cable (included); for Ethernet drives a CAT5 network cable will be needed
- For more detailed information, please download and read the SV200 Hardware Manual, available at www.applied-motion.com/support/manuals.



Step 1

- a) Wire the drive's P1 connector to the AC power source. For single-phase AC, use L1 (Line) and L3 (Neutral) terminals. L1C and L2C must also be wired to power control logic circuit. For a temporary test setup, jumpers connecting L1 to L1C and L3 to L2C are acceptable. For permanent industrial wiring recommendations, see section 4.1 of the SV200 Hardware Manual.

Hint: The small white tools that come in the drive box are spring release levers for the P1 and P2 mating connectors. See pictures below showing use of tool for single-phase wiring.



- b) Connect Motor phase wires to Motor connector P2. Insert ferrules of wires marked U, V, and W on the motor extension cable to the corresponding P2 terminal locations. See Hardware Manual section 4.2 for details.

Note: The jumper wire that is pre-installed in the P2 mating connector should be left in place as it is necessary for operation of the internal regen resistor (see section 4.5 of Hardware Manual).

- c) Connect Motor feedback cable to connector CN3. See section 4.3 of Hardware Manual for details.
- d) Connect AC Earth Ground wire and Motor GND wire to Ground screws next to P2 connector.
- d) Connect pre-wired STO connector to CN5. See section 4.3.6 of Hardware Manual for details.

Step 2

Download and install SVX Servo Suite software.

- a) Launch the software by clicking:
Start / Programs / Applied Motion Products / SVX Servo Suite
- b) Connect communication cable between servo drive and PC.
- For Ethernet drives, connect cable to CN7 port (CN1 connector is non-functional). The default IP address of the drive is 10.10.10.10, so a direct connection to the PC with a static IP address set to 10.10.10.11 is recommended for configuration.
 - For all other drives, connect USB cable (included) to CN1 connector. Plug in other end of cable to an available USB port on PC. The drive has a built-in USB-to-Serial converter, so the PC will identify the connection as a serial COM port.
- c) Select appropriate communication port.
- For Ethernet, select 'Ethernet' from Port pull-down menu. Confirm IP address.
 - For Serial communication, select COM port number. Check Device Manager on PC if necessary.

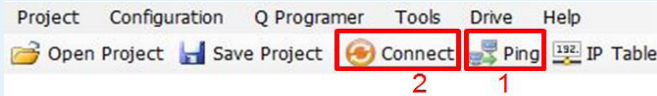
Step 3

a) Apply power to drive.

- SV2Ax models accept AC voltage between 78 – 139 VAC.
- SV2Bx models accept AC voltage between 156 – 264 VAC.

b) Upload from Drive in SVX Servo Suite.

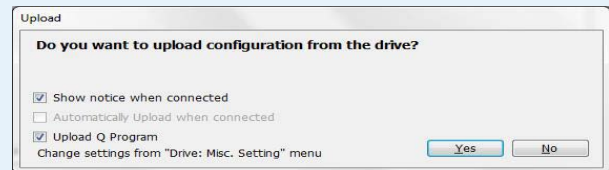
- For Ethernet drives, 1st click Ping and ensure that response is received before clicking Connect.



- For all other non-Ethernet drives, the software should automatically identify the drive model number upon power up and display the 'Upload' panel.

c) Click 'Yes' to upload the drive configuration.

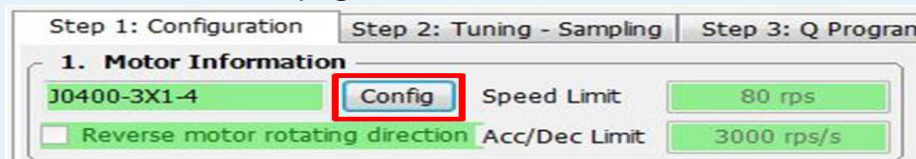
- For all drives, the following 'Upload' panel will be shown by default when communication has been established between the SV200 servo drive and the SVX Servo Suite software.



Step 4

Set motor configuration, enable and test motion.

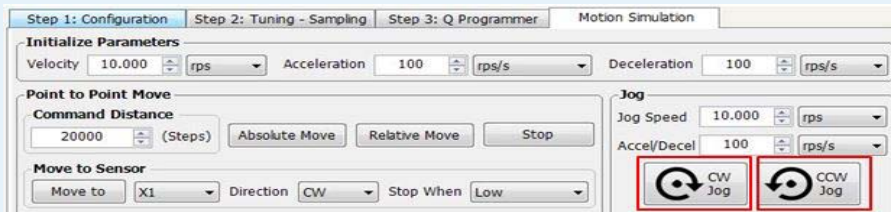
- a) Select motor being used by clicking 'Config' button at top of Configuration tab in SVX Servo Suite and select motor from drop-down list in Motor panel. After confirming motor selection, click 'Download All to Drive' button at top right of main software screen.



b) Enable drive and make test moves in Motion Simulation tab.

First, click 'Servo On' button (top center) Green indicates motor is enabled.

Then, test motor by commanding it to move with Jog buttons:



Step 5

Wire to the I/O signal connector, CN2, and configure drive for use in application.

- a) If required for overall system integration, use the included mating I/O connector for soldering your own wiring. For an easier method of connecting, the BOB-4 break-out board (p/n 8500-004) may be purchased separately from Applied Motion Products.
- b) For a complete listing of pin connections on the CN2 connector, see section 4.8 of the hardware manual.
- c) Finally, return to the 'Step 1: Configuration' tab in the SVX Servo Suite software and configure the drive to set the desired Control Mode. In section 4 of this software tab, configure the inputs and outputs as needed. Input X3 may be changed from its default to "Servo On when closed", thereby requiring the X3 input connections to be wired and in a closed-circuit condition before the drive can be enabled (Servo On).