

SV7-C Quick Setup Guide



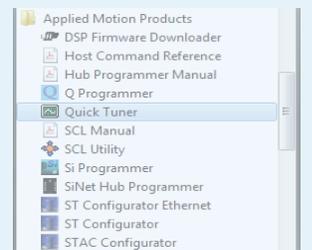
Requirements

To begin, make sure you have the following equipment:

- A compatible servo motor
- A small flat blade screwdriver for tightening the connectors (included).
- A personal computer running Microsoft Windows 98, 2000, ME, NT, XP, Vista or 7.
- Quick Tuner™ software (version 2.2.18 or later) available at www.applied-motion.com/products/software.
- An RS-232 Applied Motion programming cable (included)
- 4 pin spring connector (included) for connecting to the CAN network.
- For more detailed information, please download and read the SV7 Hardware Manual, available at www.applied-motion.com/support/manuals.

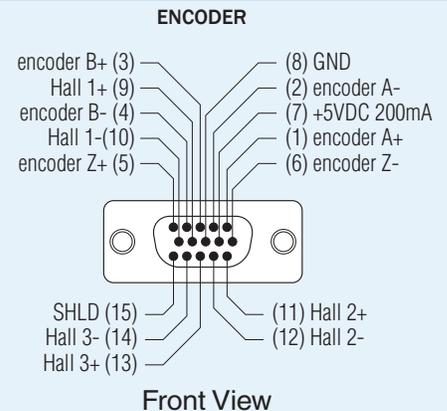
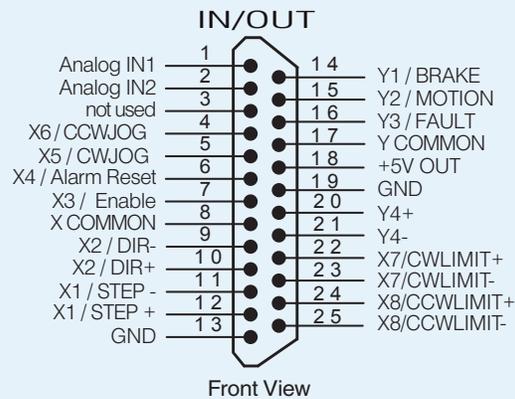
Step 1

- Download and install the *QuickTuner™* software.
- Launch the software by clicking:
Start / Programs / Applied Motion Products / Quick Tuner
- Connect the drive to your PC using the supplied programming cable. If your PC does not have a serial port you will need a USB to serial port (RS-232) adapter.



Step 2

- Connect the I/O
- Connect the Encoder
 - Applied Motion motor cables are available with connectors that mate directly to the encoder connector on the drive.



Step 3

- Wire the drive to the DC power source.

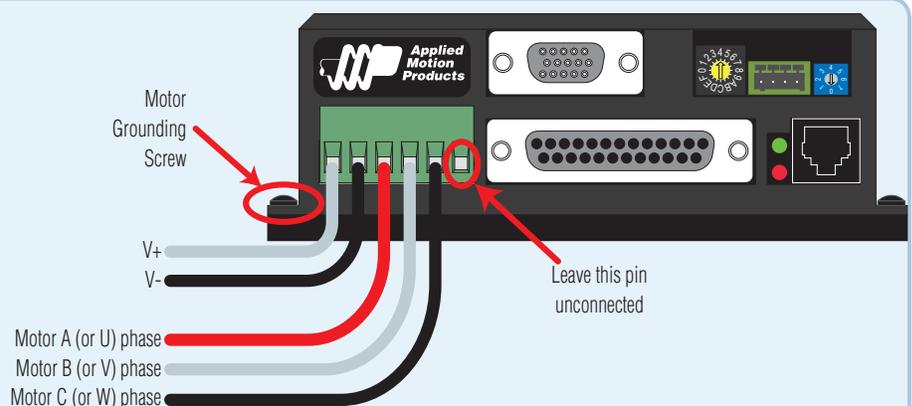
(Do not apply power until all connections to the drive have been made)

Note, the SV7 drives accept DC power from 24-80 VDC.

- Wire the servo motor to the drive.

For a non-Applied Motion Products motor, please refer to your motor specs for wiring information.

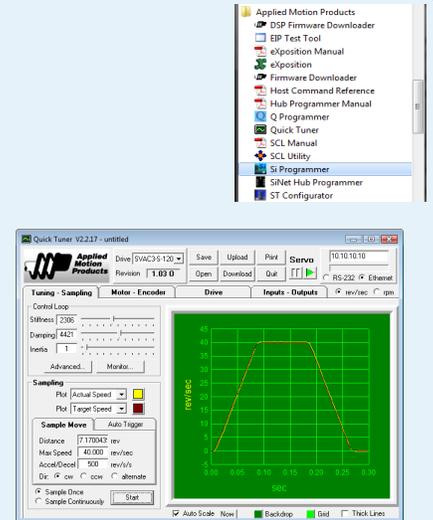
Be sure to connect the motor case ground to the grounding screw as indicated, leaving the last pin on the motor/power connector unconnected.



Step 4 - Configuration

- Within the *Quick Tuner™* software, select the correct COM port and apply power to the drive.
- If using an Applied Motion servomotor, press the “Open” button and select a factory tuning file, paying close attention to the voltage and inertia ratio.
- Apply power to the drive.
- Select the “Motor - Encoder” tab and confirm settings for motor current, pole count, and encoder resolution. For non-AMP motors, these data must be obtained from your motor’s datasheet. Execute the Timing Wizard, following the on-screen prompts. This will ensure the drive can properly commutate the motor.
- Use the “Tuning - Sampling” tab to tune the motor. Consult the *Quick Tuner™* Software Manual for step-by-step tuning instructions.
- Go to the “Inputs - Outputs” tab to specify any dedicated I/O functions required by the application.
- Press the “Download” button to save all settings to the drive’s non-volatile memory. Your drive is now configured for use.

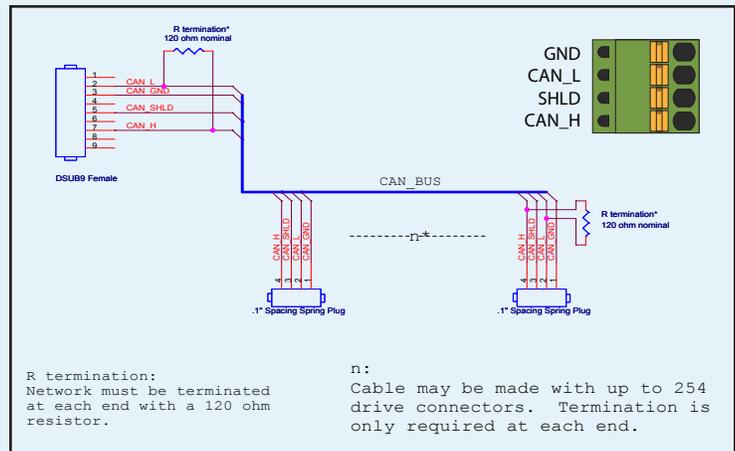
The *Quick Tuner™* manual should be considered required reading for anyone tuning a servo system.



Step 5 - CANOpen Setup

- Connect to CAN network.

Applied Motion Products SV7-C drives use a four-pin spring connector, that conforms to the DR303 specification. The connector should be wired in a daisy-chain configuration with a 120 Ohm resistor used to terminate each end.



- Set BitRate, Node ID

The SV7-C has three CAN network-related settings, one for Bit Rate and two for Node ID. The Bit Rate is configured using an eight-position switch. See Bit Rate table for the Bit Rate settings. The Node ID is configured using a sixteen position switch to set up the lower four bits of the Node ID. The upper three bits of the Node ID are set using an additional 8 position switch located under the cover on the CANOpen motherboard. Valid ranges for the Node ID are 0x01 through 0x7F. Node ID 0x00 is reserved in accordance with the DS301 specification.

Note: The Node ID and Bit Rate are captured only after a power cycle, or after a network reset command has been sent. Changing the switches while the drive is powered on will NOT change the Node ID or Bit Rate until one of these conditions has been met.

Switch Setting	Resultant Bit Rate
0	1 Mbps
1	800kbps
2	500 kbps
3	250 kbps
4	125 kbps
5	50 kbps
6	20 kbps
7	12.5 kbps
8	n/a

Bit Rate Table



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If you have any questions or comments, please call Applied Motion Products Customer Support: (800) 525-1609, or visit us online at www.applied-motion.com.

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