# STM23C/24C Quick Setup Guide

**Applied Motion Products**

## Requirements

To begin, make sure you have the following equipment:

▪ A small flat blade screwdriver for tightening the connectors (included).

▪ A personal computer running Microsoft Windows 98, 2000, ME, NT, XP, Vista or 7.

▪ *ST Configurator™* software (available at www.applied-motion.com).

▪ 3 pin spring connector (included) for connecting to the CAN network.

▪ For more detailed information, please download and read the *STM23 Hardware Manual or STM24 Hardware Manual*, available at www.applied-motion.com/support/manuals.

## Step 1 - Wiring

▪ Wire the drive to the DC power source.

Do not apply power until Step 3.

Note - the STM23C and STM24C accepts DC voltages from 12-70V. If using an external fuse, we recommend: STM23: 4 amp fast acting, STM24C: 5 amp fast acting.

See the *STM23 or STM24 Hardware Manuals* for more information about power supply and fuse selection.

▪ Connect I/O, if required by your application.

▪ Connect to CAN network.

Applied Motion Products STM23C and STM24C drives use a three-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

CANOpen Bitrate - AMP CANOpen drives have three settings, one for Bit Rate and two for Node ID. The Bit Rate is configured using a ten-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 the *ST Configurator™*. Valid ranges for the Node ID are 0x01 through 0x7F. Node ID 0x00 is reserved in accordance to DS301 specification.

Note: The Node ID and Bit Rate is 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 until one of these conditions has also been met.

▪ Connect the RS-232 programming cable.



POWER CONNECTIONS — BIT RATE — I/O CONNECTIONS

CANOpen — RS232 — NODE ID
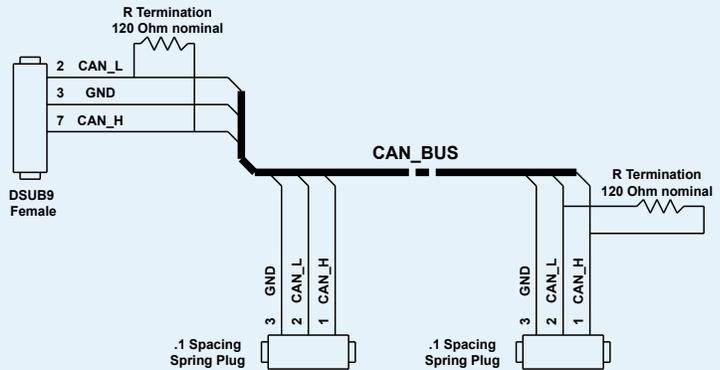


| Switch Setting | Resultant Bit Rate |
|---|---|
| 0 | 1 Mbps |
| 1 | 800kbps |
| 2 | 500 kbps |
| 3 | 250 kbps |
| 4 | 125 kbps |
| 5 | 50 kbps |
| 6 | 20 kbps |
| 7 | 12.5 kbps |
| 8 | n/a |
| 9 | n/a |

Bit Rate Table

CAN_H
CAN_L
GND

3 Pin Connector

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## Step 2 - ST Configurator

- Download and install *ST Configurator™* software, available at www.applied-motion.com.

- Launch the software by clicking Start/Programs/Applied Motion Products/ST Configurator

- 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.

## Step 3 Configuration

a) Apply power to the drive.

b) Use the *ST Configurator™* to set up the motor current, limit switches, encoder functionality (if applicable) and Node ID.

c) The *ST Configurator™* includes a self test option (under the Drive menu) to verify that the STM23C or STM24C and power supply are correctly wired and configured.

d) When configuration is complete, exit the *ST Configurator™*. The drive will automatically switch to CANOpen Mode.

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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