



INTELLIGENT MOTION SYSTEMS, INC.
Excellence in Motion™

MD-CC300-000

USB to SPI Parameter Setup Cable



370 N. MAIN ST., PO BOX 457, MARLBOROUGH, CT 06447
 PH: (860) 295-6102, FAX: (860) 295-6107
 Internet: www.imshome.com, E-Mail: info@imshome.com

Description

The MD-CC300-000 USB to SPI Parameter Setup Cable provides a communication connection to the SPI Communications Interface on an MDrivePlus Microstepping* and the USB port on a PC.

IMS SPI Interface Software communicates to the Parameter Setup Cable through the PC's USB port.

The Parameter Setup Cable interprets SPI commands and sends these commands to the MDrive* through the SPI interface.

Supplied Components: MD-CC300-000 Parameter Setup Cable, USB Cable, USB Drivers, IMS SPI Interface Software.

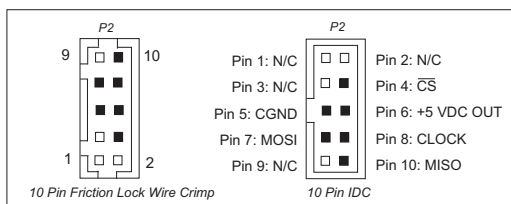
* Will also work with USC-48-2 Universal Speed Control.

WARNING! DO NOT connect or disconnect the MD-CC300-000 Parameter Setup Cable from the MDrive while power is applied!

The MD-CC300-000 USB to SPI Parameter Setup Cable is designed to be used with the following IMS products:

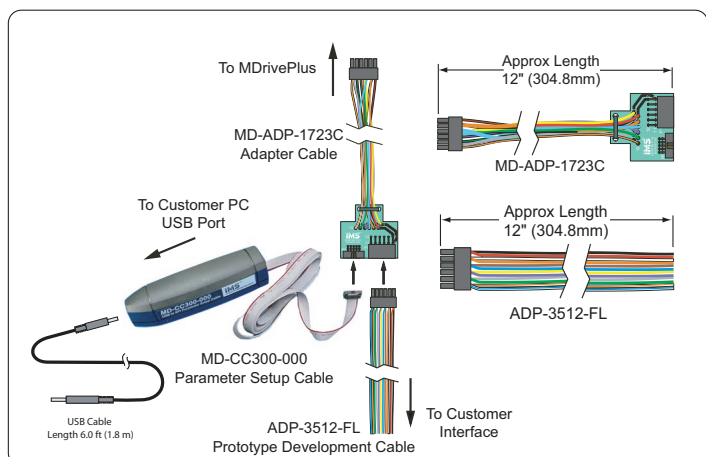
- MDrivePlus Microstepping
- USC-48-2 Universal Speed Control

SPI Interface and Pin Assignments



WARNING! The +5 VDC output is used for the setup cable ONLY! This output is not designed to power external devices!

Parameter Setup Cable Usage

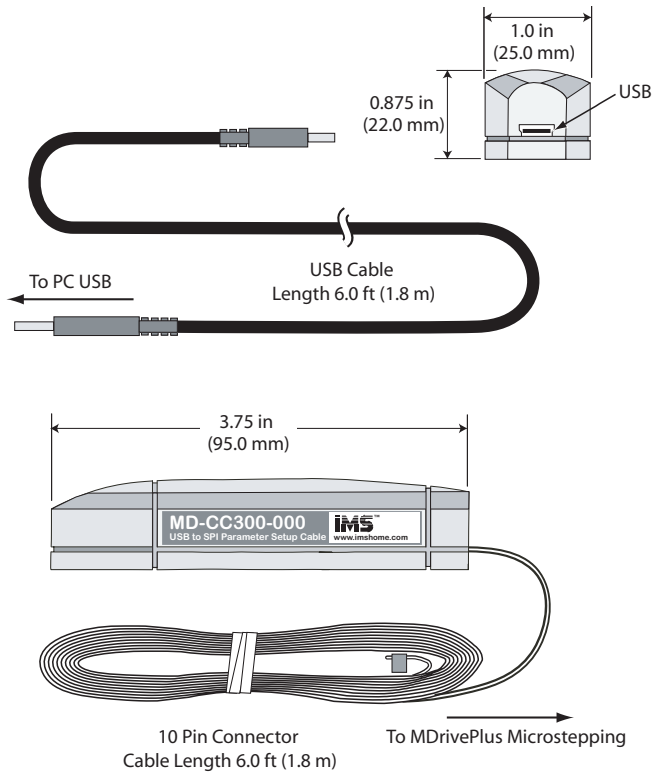


Option- 10 Pin Locking Wire Crimp Adapter

An optional pin adapter is available to convert the 10 pin IDC connector on the Communications Converter Cable to a 10 pin Friction Lock Wire Crimp interface.

10 Pin IDC to Wire Crimp Adapter..... MD-ADP-H

Details



Installation Procedure for the MD-CC300-000

These Installation procedures are written for Microsoft Windows XP Service Pack 2. Users with earlier versions of Windows please see the alternate installation instructions at the IMS web site (<http://www.imshome.com>).

The installation of the MD-CC300-000 requires the installation of two sets of drivers:

- Drivers for the IMS USB to SPI Converter Hardware.
- Drivers for the Virtual Communications Port (VCP) used to communicate to your IMS Product.

Therefore the Hardware Update wizard will run twice during the installation process.

The full installation procedure will be a two-part process: Installing the Cable/VCP drivers and Determining the Virtual COM Port used.

Installing the Cable/VCP Drivers

- 1) Plug the USB Converter Cable into the USB port of the MD-CC300-000.
- 2) Plug the other end of the USB cable into an open USB port on your PC.
- 3) Your PC will recognize the new hardware and open the Hardware Update dialog.
- 4) Select "No, not this time" on the radio buttons in answer to the query "Can Windows Connect to Windows Update to search for software?" Click "Next" (Figure 1).



Figure 1: Hardware Update Wizard

- 5) Select "Install from a list or specific location (Advanced)" on the radio buttons in answer to the query "What do you want the wizard to do?" Click "Next" (Figure 2).

Determining the Virtual COM Port (VCP)

The MD-CC300-000 uses a Virtual COM Port to communicate through the USB port to the MDrive. A VCP is a software driven serial port which emulates a hardware port in Windows.

The drivers for the MD-CC300-000 will automatically assign a VCP to the device during installation. The VCP port number will be needed when IMS Terminal is set up in order that IMS Terminal will know where to find and communicate with your IMS Product.

To locate the Virtual COM Port.

- 1) Right-Click the “My Computer” Icon and select “Properties”.
- 2) Browse to the Hardware Tab (Figure 6), Click the Button labeled “Device Manager”.

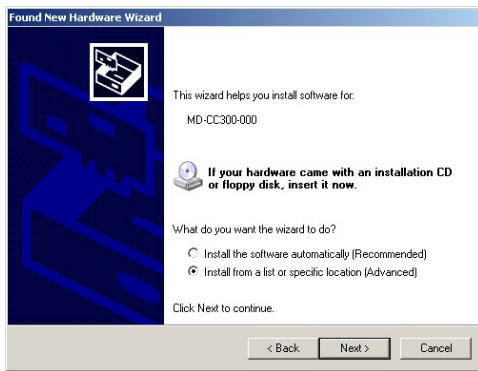


Figure 2: Hardware Update Wizard Screen 2

- 6) Select “Search for the best driver in these locations.”
 - (a) Check “Include this location in the search.”
 - (b) Browse to the MDrive CD [Drive Letter]:\ Cable_Drivers\MD-CC300-000_DRIVERS.
 - (c) Click Next (Figure 3).

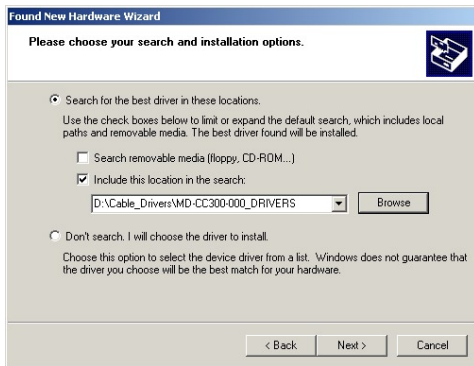


Figure 3: Hardware Update Wizard Screen 3

- 7) The drivers will begin to copy.
- 8) On the Dialog for Windows Logo Compatibility Testing, click “Continue Anyway” (Figure 4).



Figure 4: Windows Logo Compatibility Testing

- 9) The Driver Installation will proceed. When the Completing the Found New Hardware Wizard dialog appears, Click “Finish” (Figure 5).



Figure 5: Hardware Update Wizard Finish Installation

- 10) Upon finish, the Welcome to the Hardware Update Wizard will reappear to guide you through the second part of the install process. Repeat steps 1 through 9 above to complete the cable installation.
- 11) Your IMS MD-CC300-000 is now ready to use.

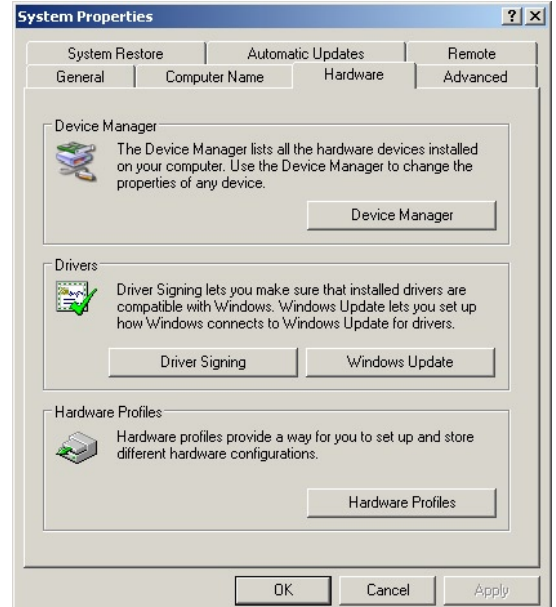


Figure 6: Hardware Properties

- 3) Look in the heading “Ports (COM & LPT)” IMS USB to SPI Converter Cable (COMx) will be listed. The COM # will be the Virtual COM Port connected. You will enter this number into your IMS SPI Motor Interface Configuration.

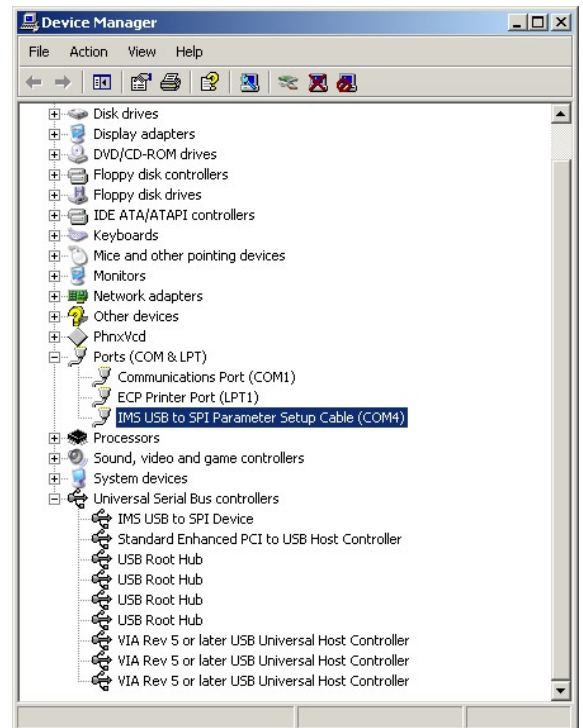


Figure 7: Windows Device Manager