

A.1 MD-CC305-001 USB to SPI communications

The MD-CC305-001 is an interface cable which combines Power, Logic and communications with an inline USB to SPI converter.

It is recommended with the first purchase.

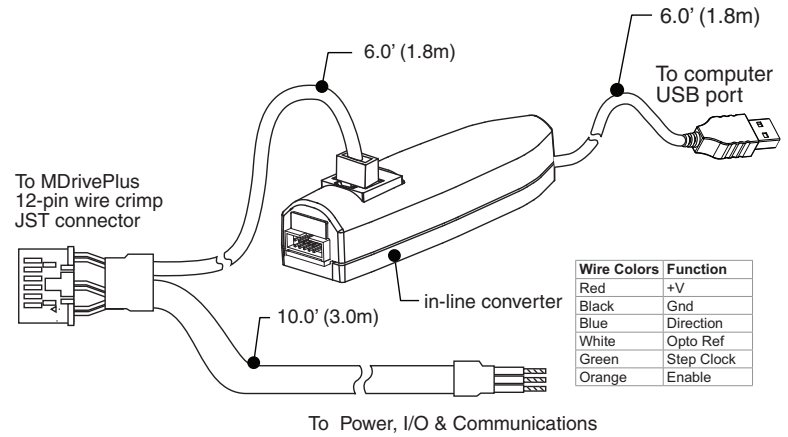


Figure A.1 MD-CC305-001 USB to SPI converter cable

A.1.1 Driver Installation

These Installation procedures are written for Microsoft Windows XP Service Pack 2 or greater. 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-CC305-001 requires the installation of two sets of drivers:

1. Drivers for the IMS USB to SPI Converter Hardware.
2. 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. Download drivers from http://www.imshome.com/cable_drivers.html.
2. Extract the driver files from the *.zip archive, remember the extractdrivers from http://www.imshome.com/cable_drivers.html.
3. Plug the USB Converter Cable into the USB port of the MD-CC300-000.
4. Plug the other end of the USB cable into an open USB port on your PC.

Appendix A Connectivity

5. Your PC will recognize the new hardware and open the Hardware Update dialog.
6. 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 A.2)

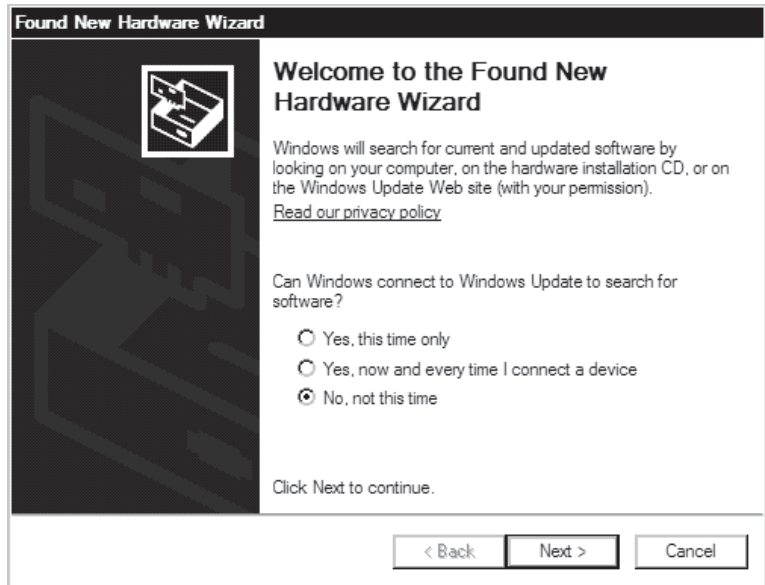


Figure A.2 New Hardware Wizard

7. 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 A.3).

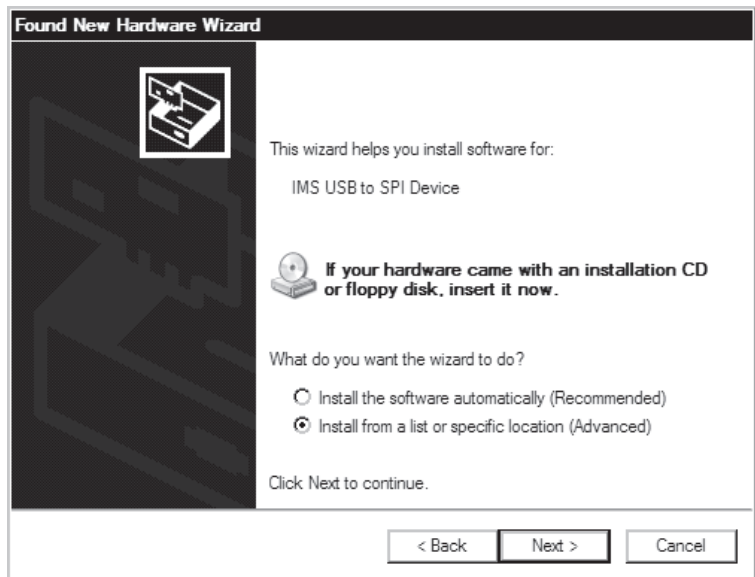


Figure A.3 Hardware Wizard Screen 2

86. 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-CC303-000_DRIVERS.
 - c). Click Next (Figure A.4).

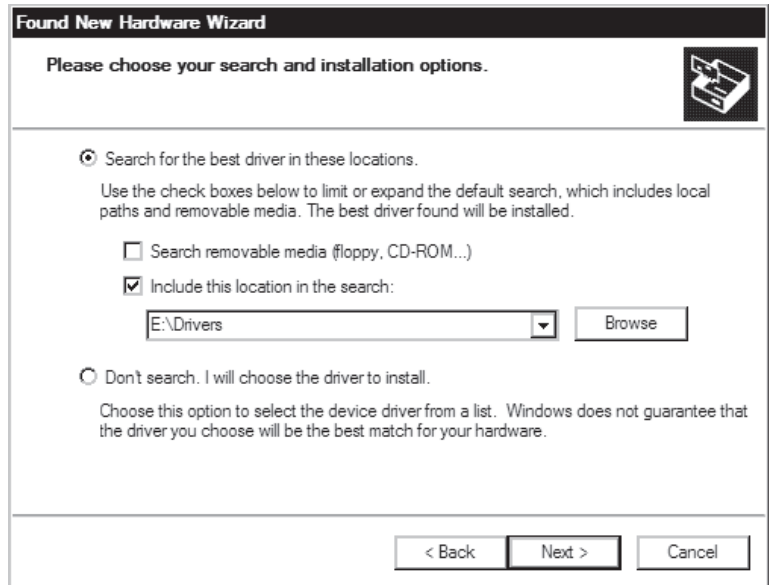


Figure A.4 Hardware Wizard Screen 3

9. The drivers will begin to copy.
10. On the Dialog for Windows Logo Compatibility Testing, click “Continue Anyway” (Figure A.5).

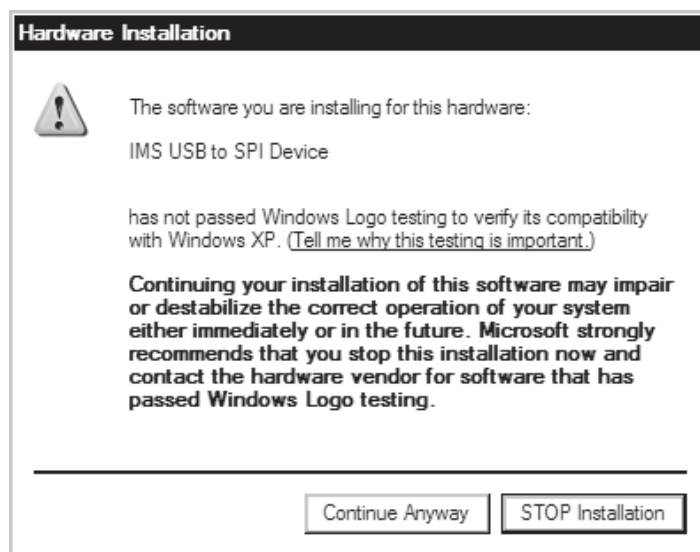


Figure A.5 Windows Logo Testing Screen

Appendix A Connectivity

11. The Driver Installation will proceed. When the Completing the Found New Hardware Wizard dialog appears, Click "Finish"
12. Upon finish, the Welcome to the Hardware Update Wizard will reappear to guide you through the second part of the install process. Repeat steps 6 through 11 above to complete the cable installation.
13. Your IMS MD-CC305-001 is now ready to use.

A.1.2 Determining the virtual COM port (VCP)

The MD-CC305-001 uses a Virtual COM Port to communicate through the USB port to the MForce. A VCP is a software driven serial port which emulates a hardware port in Windows.

The drivers for the MD-CC305-001 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 A.6), Click the Button labeled "Device Manager".
3. Look in the heading "Ports (COM & LPT)" IMS USB to SPI Converter Cable (COMx) will be listed (Figure A.7). The COM # will be the Virtual COM Port connected. You will enter this number into your IMS SPI Motor Interface Configuration.

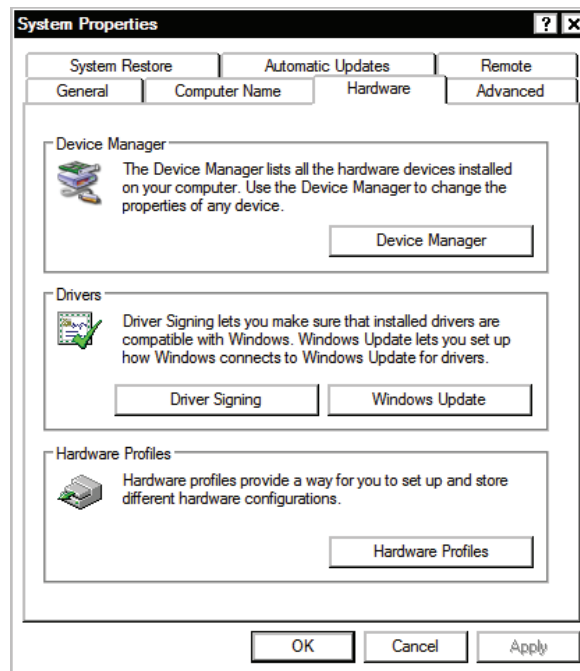


Figure A.6 Windows Lhardware properties dialog

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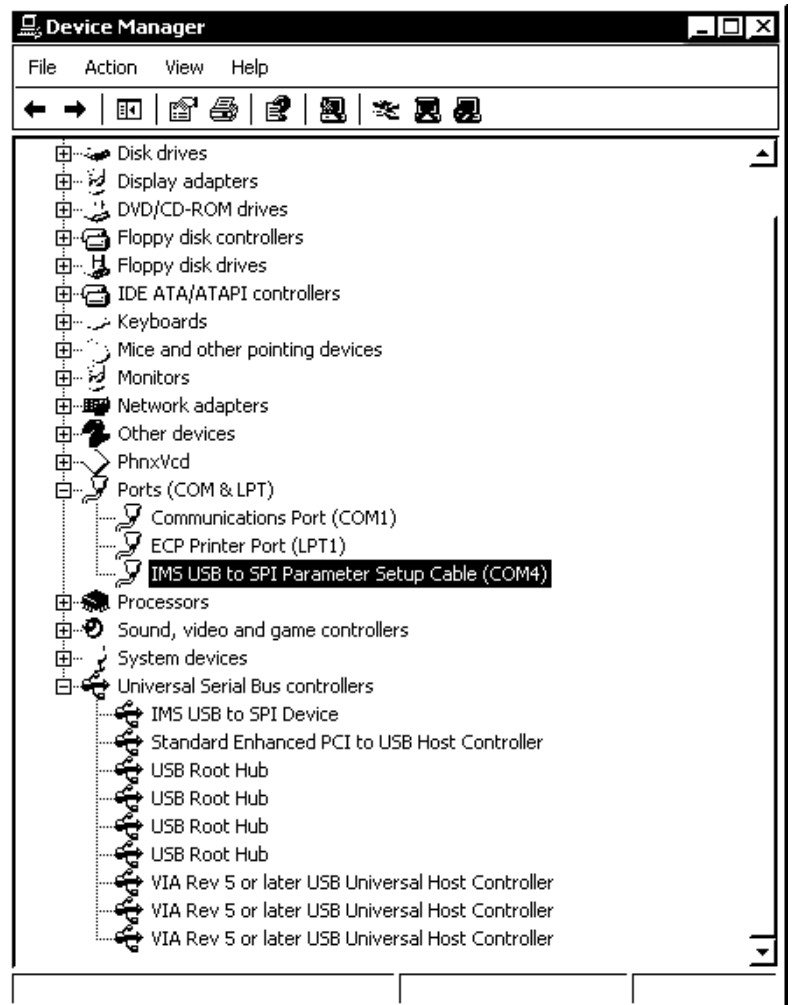


Figure A.7 Device manager showing available COM ports