

# Quick Start Guide MS-2 CCD Reader



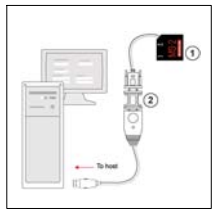
P/N 83-200002 Rev A

## Step 1 — Check Hardware

**Caution:** Be sure that all cables are connected **BEFORE** applying power to the system. Always power down **BEFORE** disconnecting any cables.

### USB Hardware

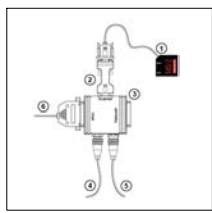
Item	Description	Part Number
1	MS-2 CCD Reader	FIS-0002-000XG
2	IC-3USB Interface Kit	98-000051-01



USB Hardware Required

### RS-232 Hardware

Item	Description	Part Number
1	MS-2 CCD Reader	FIS-0002-000XG
2	IC-332 Adapter	FIS-0001-0035G
3	IB-131 Interface Box	99-000018-01
4	Power Supply	97-100004-15 (90-264 VAC, 24VDC, USA/Euro plug)
5	Object Detector	99-000017-01
6	Communication Cable	61-300026-03

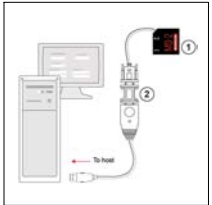


RS-232 Hardware Required

## Step 2 — Connect the System

### Connecting by USB

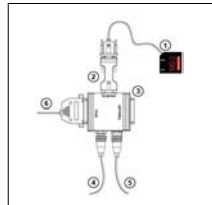
- Connect the reader (1) to the IC-3USB Interface Kit (2).
- Connect the IC-3USB Interface Kit (2) to the host computer. The reader is powered by the USB connection.



USB Hardware Configuration

### Connecting by RS-232

- Connect the reader (1) to the IB-131/IC-332 interface (2) and (3).
- Connect the communication cable (6) to the host, and to the host port on the IB-131 (3).
- Connect the object detector (5) to the IB-131 (3).
- Connect the power supply (4) to the IB-131 (3).
- Apply power to the reader.



RS-232 Hardware Configuration

## Step 3 — Install ESP

**ESP (Easy Setup Program)** is Microscan's proprietary setup and testing software. The purpose of **ESP** is to provide a quick and easy way to set up and configure Microscan readers.

When the MS-2 is connected to a host computer (Windows Vista, XP, or 2000), **ESP** can be used to configure reader settings and to set up communications between the reader and host.

### If installing from the Microscan Tools CD:

1. Insert the Microscan Tools CD in your computer's CD drive.
2. Select **ESP Software** from the navigation bar at the left of the screen.
3. Click on **ESP Software** under the **Current Version** heading.
4. Click the **Run** button and follow the prompts in the **ESP Setup Wizard**.

### If downloading from the web:

1. Go to the Download Center at [www.microscan.com](http://www.microscan.com).
2. Create a new member account or, if you are already a member, enter your user name and password.
3. Navigate to the "Microscan Software" section of the Download Center (near the top of the page).
4. Click on the link showing the latest version of **ESP**. Extract the **ESP** installation files to a location of your choice on the host computer. *Note where your **ESP.exe** file is stored on your hard drive.*
5. At the end of the installation process, the following icon will appear on your desktop:



6. Click the **ESP** icon to start the program.

### ESP System Requirements

- 166 MHz Pentium processor (recommended)
- Windows Vista, XP, or 2000 operating system
- Internet Explorer 5.0 or higher
- 64 MB minimum RAM
- 40 MB minimum disk space
- 800 x 600 pixel minimum 256 color display

## Step 4 — Select Model

When you start **ESP**, this menu will appear:



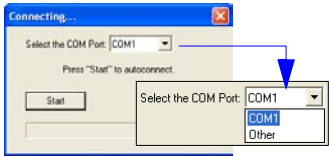
1. Click the button showing the reader used in your application.
2. Click **OK**.  
**Note:** You can also simply double-click the button showing your reader to make your selection.
3. Click **Yes** when this dialog appears:



**Note:** If you need to select another model later, click the **Switch Model** button near the top of the screen or use **Model > New Model** in the menu toolbar.

## Step 5 — Autoconnect

- Click **Start** when the **Autoconnect** dialog appears.

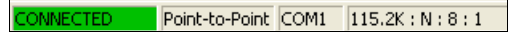


- If your communications port is not the default **COM1**, use the dropdown menu to change your port.



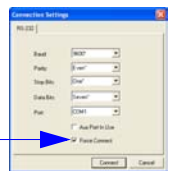
- Once you have chosen the correct port, click **Start** to connect.

When you are connected, you will see the green connection indicator in the status bar at the bottom right of your screen:



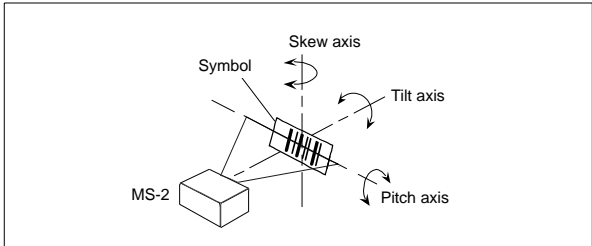
- If the connection attempt fails, click the **Autoconnect** button, select a different communications port, and try again.

**Note:** If your host settings cannot be changed to match the reader's settings, select **Connect** from the **Connect** dropdown menu on **ESP**'s menu toolbar. When the **Connection Settings** dialog appears, check the **Force Connect** box and click the **Connect** button.



# Step 6 — Position Reader

- Set up a symbol at the distance you will be using in your application. Refer to the read range data for your MS-2 model (High or Low Density) in the *MS-2 CCD Reader User's Manual*.
- Note:** If you are using an Interleaved 2 of 5 symbol, verify that the number of characters being scanned matches the symbol length enabled for I 2/5 (default is 10 and 6).
- Avoid bright light or infrared light from other sources, including other readers.
- Pitch the reader or symbol at a minimum of  $\pm 15^\circ$  to avoid specular reflection (the return of direct, non-diffused light).
- Avoid excessive skew or pitch. Maximum skew is  $\pm 30^\circ$ ; maximum pitch is  $\pm 30^\circ$ .



Reader / Symbol Positioning

**Note:** Code 39 is the default symbology enabled. If you are uncertain of your symbology, perform the following steps:

- Enable all symbologies using **ESP**.
- Enable **Symbology Identifier** at the bottom of **ESP's Symbologies** tree control.
- Decode the symbol and compare the symbology identifier character to the list on page 5-20 of the *MS-2 CCD Reader User's Manual* to determine your symbology.
- Disable all other symbologies.

# Step 7 — Configure the Reader

To make setup changes to the reader, click the **App Mode** button.



The following modes are accessible by clicking the buttons in the first row of **App Mode** icons:



- Click the **Autoconnect** button to establish communications between **ESP** and the reader.
- Click the **Send/Recv** button to send or receive commands.
- Click the **Terminal** button to display decoded symbol data and to send serial commands to the reader using text or macros.
- Click the **Utilities** button to test Read Rate, request or clear Counters, enable or disable the reader or send output pulses in Device Control, determine the Differences from Default in the current settings, add or remove master symbol data in Master Database, and verify or update the reader's Firmware.

Click the **Configuration** button to display the second row of **ESP** icons. From here you can make changes in the tree controls that can be accessed by clicking the buttons on the second row of icons in the **ESP** window.

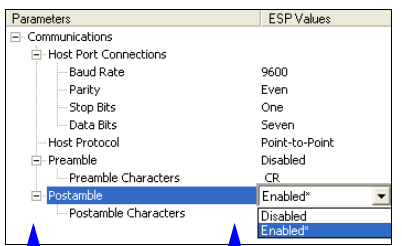


For further details, see **Microscan ESP Help** in the dropdown Help menu.

# Step 8 — Save Changes in ESP

To make changes to a configuration setting:

- Left click on the **+** to expand the desired tree.
- Double click on the desired parameter and click once in the selection box to view options.
- Place your cursor in the selection box, scroll down to the setting you want to change, and click once on the setting.



- Left click on the open screen to complete your selection.
- Right click on the open screen and select **Save to Reader** to implement the command in the imager.

- Send, No Save.** Changes will be lost when power is re-applied to the imager.
- Send and Save.** This activates all changes in current memory and saves to the imager for power-on.