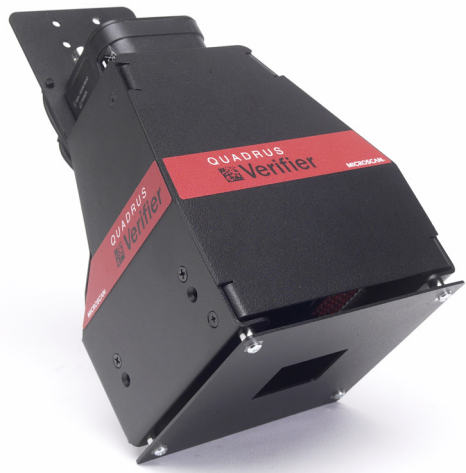


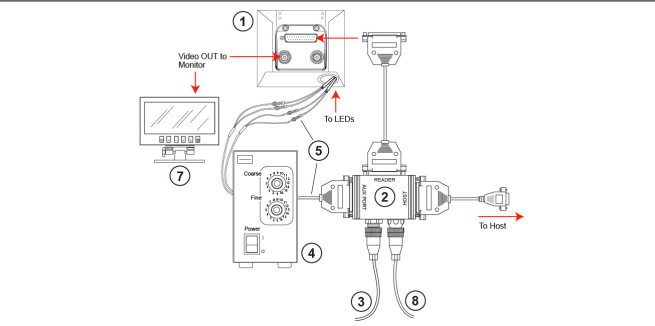
Quick Start Guide Quadrus Verifier



MICROSCAN.

P/N 83-006701 Rev E

Step 1 — Check Hardware

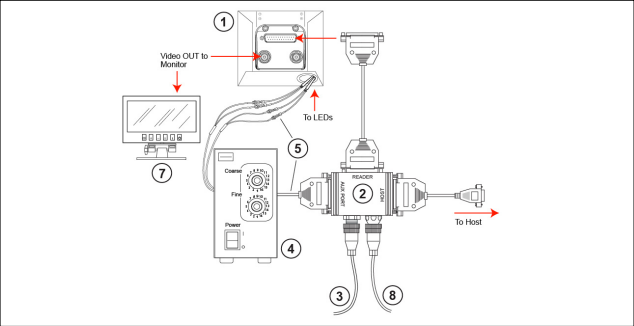


Hardware Required

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

Item	Description	Part Number
1	Quadrus Verifier	FIS-6700-100XG
2	IB-150 Kit	Included with Verifier
3	Power Supply	Included with Verifier
4	Illumination Power Supply	Included with Verifier
5	Light Control Cable	Included with Verifier
6	Quadrus EZ Stand (not shown)	Included with Verifier
7	Monitor Kit	98-000096-01
8	Object Detector	99-000017-01

Step 2 — Connect the System



Hardware Configuration

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

Connecting to a Host

1. Connect the Quadrus Verifier to the IB-150 Kit.
2. Connect the IB-150 Kit to the host.
3. Connect the Illumination Power Supply to the lighting chamber.
4. Connect the main power supply and cycle power to the Verifier.

Step 3 — Install ESP

(ESP stands for *Easy Setup Program*.)

ESP is Microscan's proprietary setup and testing software. It is *not* meant to be a tool for a real-time production environment; the purpose of ESP is to provide a quick and easy way to set up and configure your Verifier. With your Verifier connected to a host computer (Windows Vista, XP, or 2000), you can use ESP for configuration and testing.

If installing from a Microscan Tools CD:

1. Insert the Microscan Tools CD in your computer's CD drive.
2. Choose **ESP Software** from the main menu.
3. Select the **Current Version** of ESP Software and follow the file download prompts.

If downloading from the web:

1. Go to <http://www.microscan.com/downloadcenter>
2. Create a new "myMicroscan" member account or, if you are already a member, enter your user name and password.
3. Click the **Download Software** link and extract the latest version of ESP to a directory of your choice. *Note where your ESP.exe file is stored on your hard drive.*
4. At the end of the installation process, the following icon will appear on your desktop:



5. 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

Step 4 — Select Model

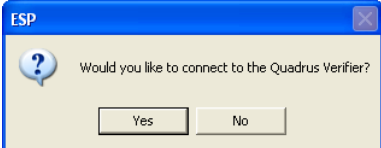
When you start ESP, this menu will appear:



1. Click the button showing the Quadrus Verifier.
2. Click **OK**.

Note: You can also simply double-click the Quadrus Verifier button to make your selection.

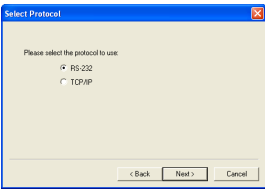
3. Click **Yes** when the following dialog box appears:



Note: If you need to select another model later, you can find it in **Application Mode** under **Model** on the menu toolbar.

Step 5 — Select Communications Protocol

When the following dialog appears, make your selection and click **Next**.



RS-232

1. In the RS-232 dialog, if your communications port is not the default **COM1**, use the dropdown menu to change your communications port.
2. Click **Connect**.
3. If the connection fails, click the **Autoconnect** button, select a different communications port, and try again.

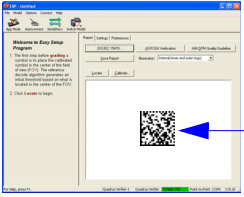
Note: If your host settings cannot be changed to match the Verifier's settings, check the **Force Connect** box.

TCP/IP

See **ESP Help** or the *Quadrus Verifier User's Manual*.

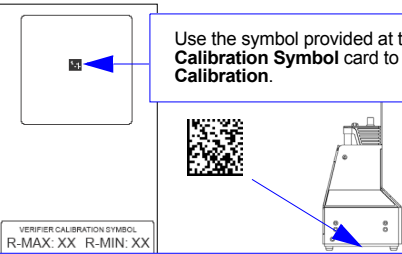
Step 6 — Position Verifier and Symbol

When you connect to ESP, the first thing you will see is the **Report** tab of the **Verification** view.



This view allows the user to center the symbol before calibrating.

The Quadrus Verifier comes with a reference card that features a **Verifier Calibration Symbol** and two numbers—the minimum and maximum reflectance values for **ISO/IEC 15415** and **AIM DPM** Reflectance Calibration. Keep this card in a safe place! It is the Verifier's most critical setup tool.

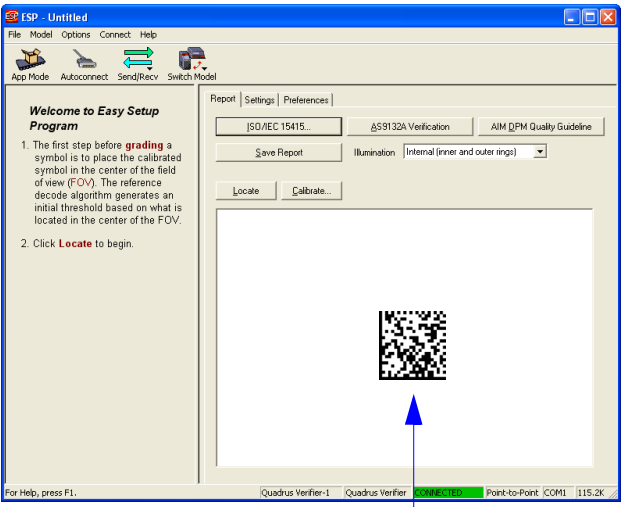


Use the symbol provided at the top of the **Verifier Calibration Symbol** card to perform **Reflectance Calibration**.

Place the symbol at the center of the field of view. Be sure the plane of the symbol is as close to perpendicular as possible relative to the Verifier's orientation.

Step 7 — Locate Symbol

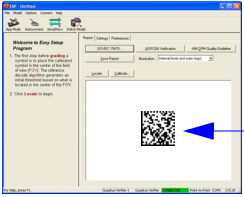
After you place the **Verifier Calibration Symbol** beneath the Verifier's lighting chamber, click the **Locate** button. You will see a video representation of the Verifier's field of view.



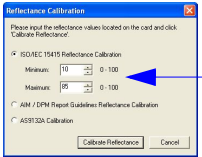
This view allows the user to center the symbol before calibrating.

Step 8 — Calibrate Reflectance

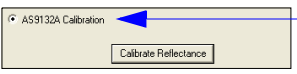
Move the symbol to the approximate center of the video view, and then click **Calibrate**. This will bring up the **Reflectance Calibration** dialog.



This view allows the user to center the symbol before calibrating.



For **ISO/IEC 15415 Reflectance Calibration**, use the spin boxes in the **Reflectance Calibration** dialog to set a min and max value that match those on the reference card and then click **Calibrate Reflectance**.



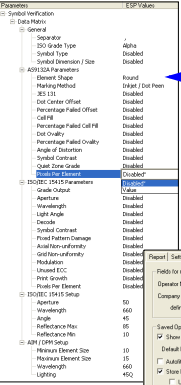
For **AS9132A calibration**, select the corresponding radio button and click **Calibrate Reflectance**. A green border will appear around the symbol after calibration.

For **AIM DPM Reflectance Calibration**, use the spin boxes in the **Reflectance Calibration** dialog (as you would for ISO/IEC 15415) to set a min and max value that match those on the reference card and then click **Calibrate Reflectance**.

Step 9 — Set Verification Parameters

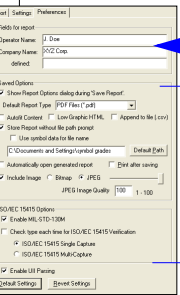
Once the Verifier is calibrated, you will need to set the parameters for your chosen verification process. To set these parameters, click the **Settings** tab in the Verification view.

Configure each setting as appropriate for your application before you begin verification.



Data Matrix symbol verification settings.

Choose report output characteristics using the **Preferences** dialog (shown below).



Operator name; company name.

Default report type; report storage; image quality; ISO/IEC 15415 capture settings.

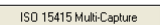
Step 10 — Verify Symbol

When you have finished setting and saving verification parameters and output preferences, move to the **Report** tab and click the button that corresponds to the type of verification routine you need to perform.

For Single Capture Verification, click the **ISO 15415 Single Capture** button. **Note:** The desired capture format must be pre-defined in the **Preferences** dialog.



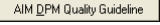
For Multi-Capture Verification, click the **ISO 15415 Multi-Capture** button. **Note:** The desired capture format must be pre-defined in the **Preferences** dialog.



For AS9132A Verification, click the **AS9132A Verification** button.



For AIM DPM Verification, click the **AIM DPM Quality Guideline** button.



Results are displayed in the viewing area at the lower right of the **Verification** screen.

Note: The example below shows **AIM DPM** verification results.

ISO/IEC 15415 results show reference decode algorithm, symbol contrast, fixed pattern damage, axial and grid non-uniformity, modulation, unused error correction capacity, print growth, symbol type, symbol size, and pixels per element. All but the last four parameters are given a numeric and alphabetical grade.

AS9132A results show marking method, element shape, dot zone, contrast, cell fill, cell size, dot ovality, dot shape, dot center offset, dot spacing, angle of distortion, symbology type, matrix size, and pixels per element. Symbol grading is on a pass/fail basis.

AIM DPM results show reference decode algorithm, cell contrast, fixed pattern damage, axial and grid non-uniformity, cell modulation, unused error correction capacity, minimum reflectance, print growth, symbol type, symbol size, element size, and pixels per element. All but the last five parameters are given a numeric and alphabetical grade.

PARAMETER	VALUE	GRADE
REFERENCE DECODE	OK	A++
CELL CONTRAST	85	A++
AXIAL NON-UNIFORMITY	45	A++
GRID NON-UNIFORMITY	45	A++
MODULATION	45	A++
PRINT GROWTH	45	A++
UNUSED ERROR CORRECTION CAPACITY	45	A++
MINIMUM REFLECTANCE	85	A++
PRINT GROWTH	45	A++
CELL CONTRAST	85	A++
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