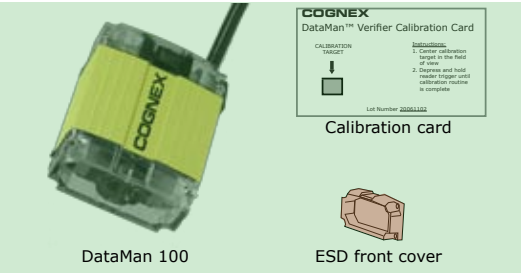
COGNEX®

DataMan™ 100 Verifier

Quick Reference

DataMan 100 Verifier Kit Contents



DataMan 100

Calibration card

ESD front cover

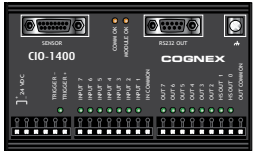
The DM100-100V-00 kit contains only these components, while the DM100-100V-01 kit contains all the components on this page.

16 mm lens and aluminum spacer

Hardcopy documentation and DataMan software CD

USB cable

Light assembly

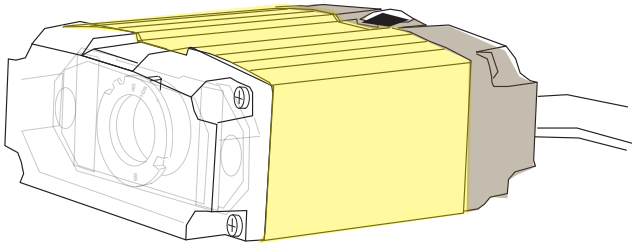


1400 I/O module and I/O module adapter

Install the SHD Lens

Installing the SHD kit causes the factory lens calibration to be lost. If you wish to remove the SHD kit later and re-use the original DataMan 100 lens, contact Cognex for assistance.

1



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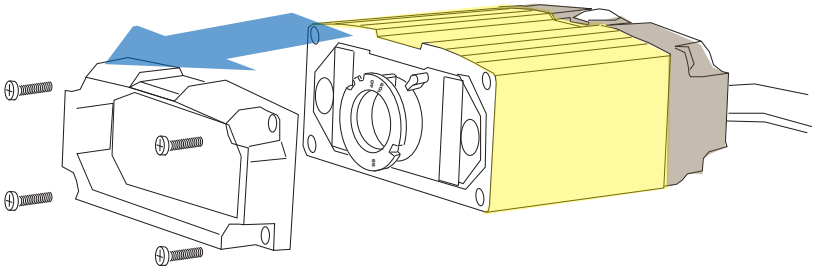

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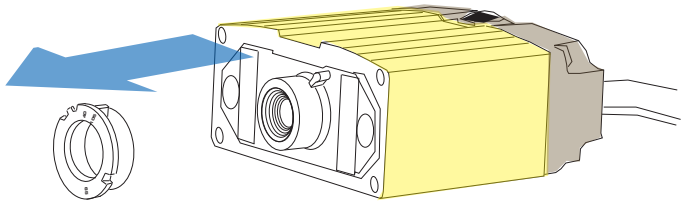

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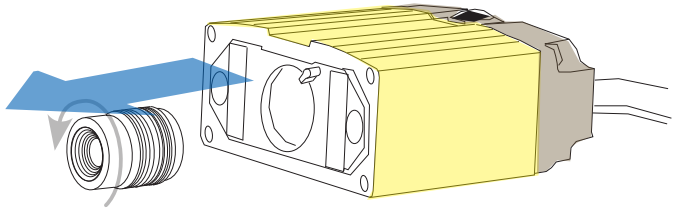
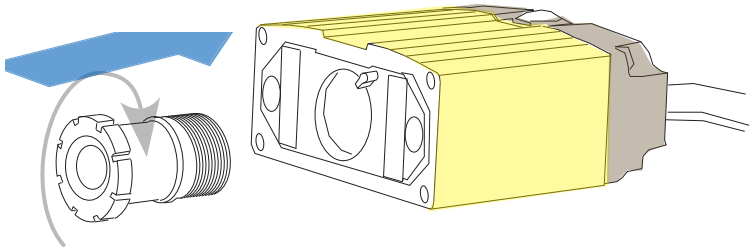


Do not leave the DataMan sensor 100 lens mount open to the environment or you risk contaminating the DataMan 100 image sensor with dirt and dust.

Install the SHD Lens

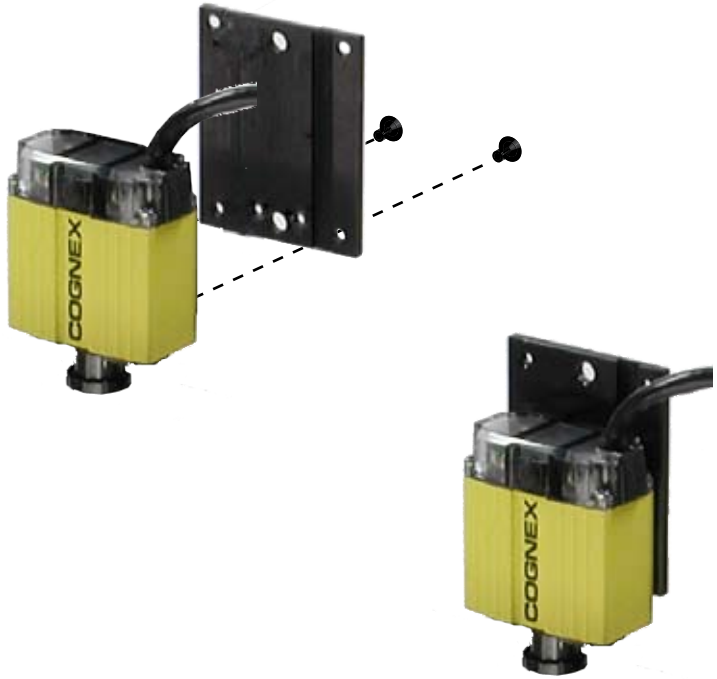
5



6

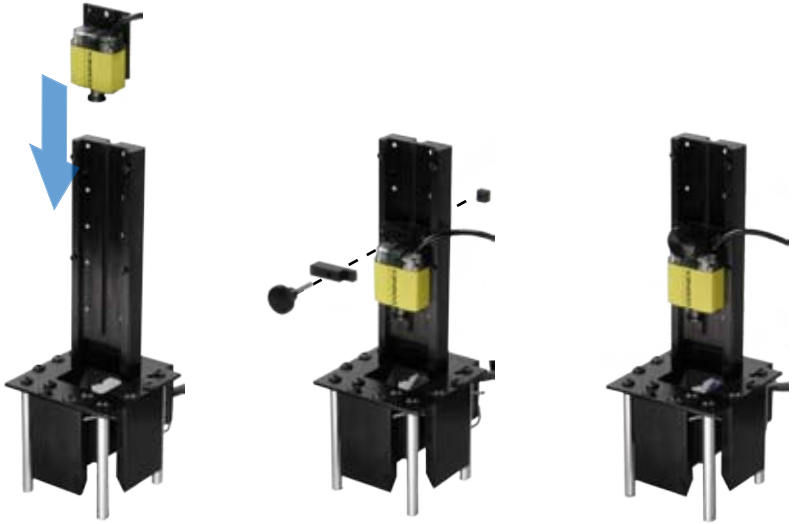
Mount the Reader

1



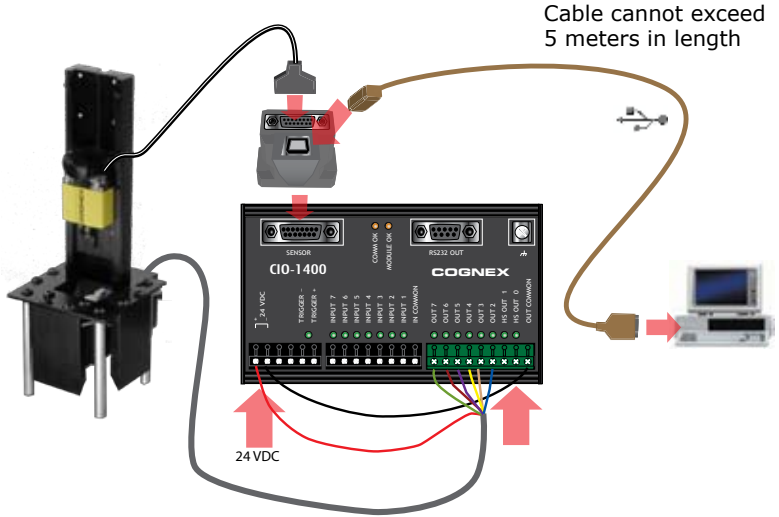
Mount the Reader

2



The lighting attachment offers five mounting positions.

Wiring



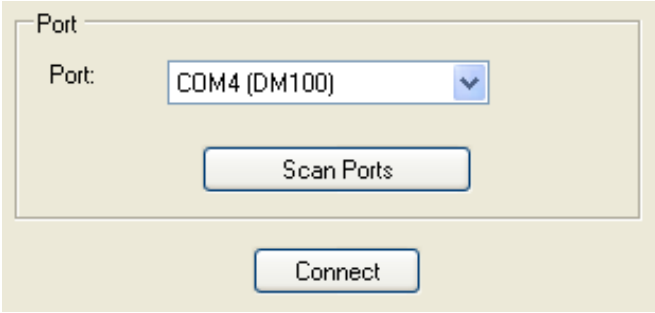
Install DataMan 100 Software

You must install the DataMan software regardless of which DataMan kit you use. Your PC must meet the following minimum requirements.

- Microsoft® Windows™ XP or Windows Vista
- Pentium CPU 500 MHz or faster
- .NET 1.1 SP1 (installed automatically)

1. Insert the installation CD and follow the on-screen prompts.
2. Launch the Setup tool.
3. Click **Scan Ports**.

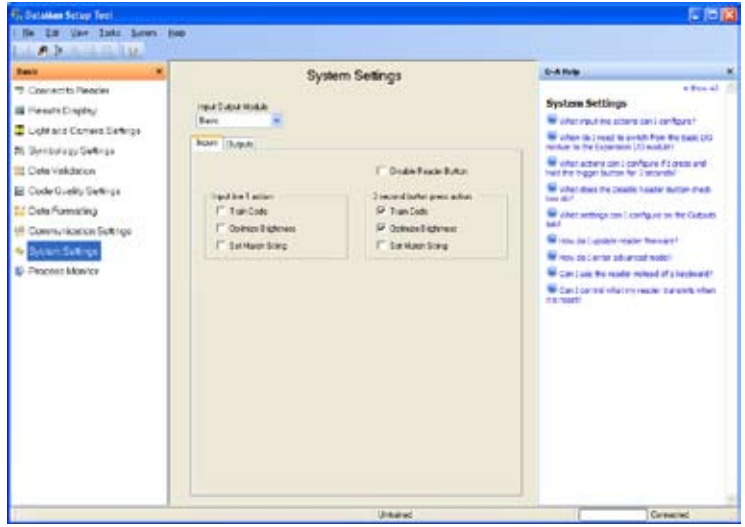
   The Port field must show **(DM100)** to establish a conection.



4. Click **Connect**.

Prepare to use Verifier Light

1



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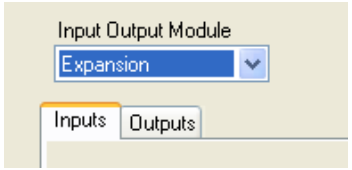
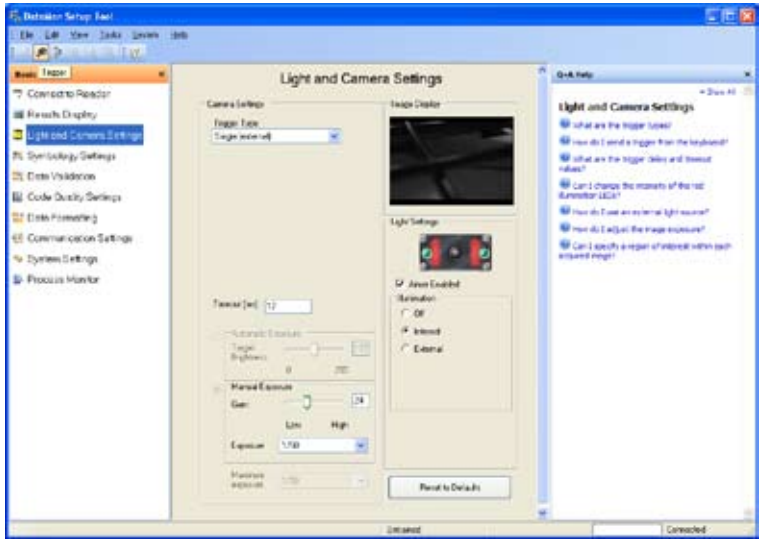


Focus the Lens

1



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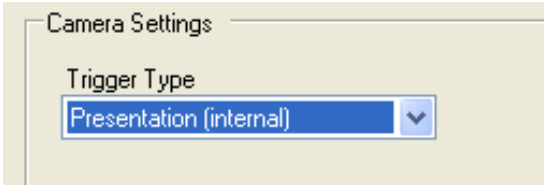

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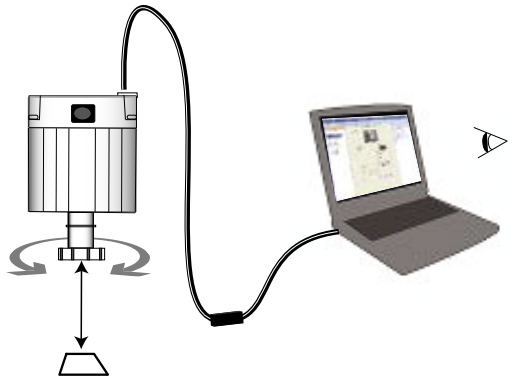


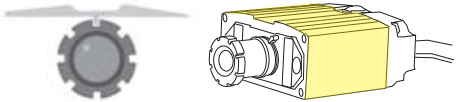
Adjust the lens focus while observing the image display in the Setup tool.

4

Connect the Red Lens Cover

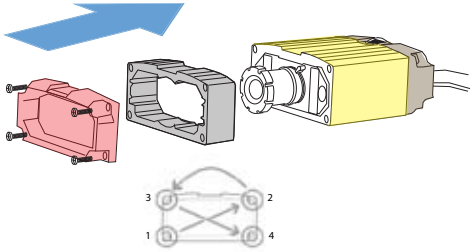
1

2



Adjust lens so that a slot aligns with the locking tab in the cover.

3



Tighten screws in the order shown.
Maximum torque for the cover screws is 9 N-cm (0.79 pound-inch)

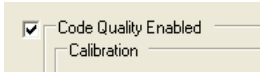
4

Calibrate the DataMan 100

You have to calibrate the DataMan 100 regardless of which kit you use.

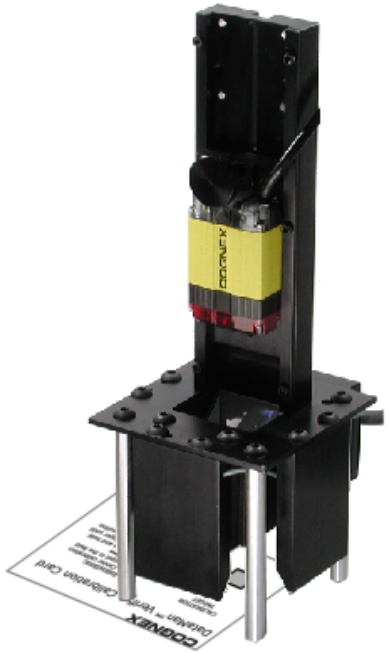
1

2 Check

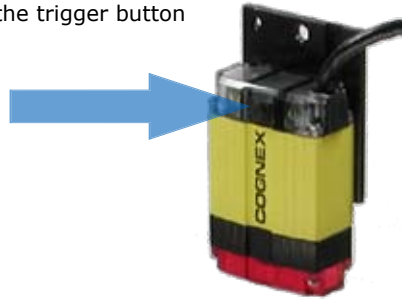


3 Click

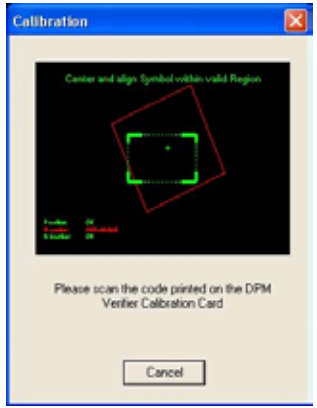
4 Align the calibration symbol from the calibration card under the DataMan reader



5 Press and hold the trigger button

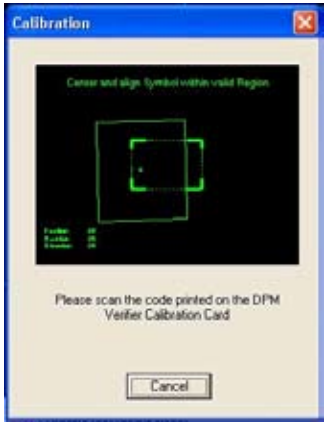


6 Use the calibration graphics to align the calibration symbol with the DM100.



Calibrate the DataMan 100

7 Adjust the placement of the calibration symbol until the alignment graphics turn green.

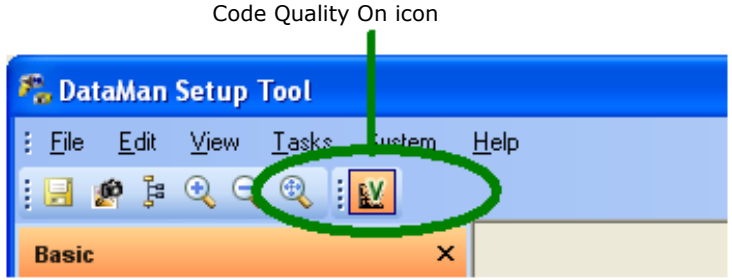


8 Wait for the calibration process to finish. The Setup tool will indicate when the DataMan reader is calibrated:

Perform Code Quality Verification

In order to perform Direct Part Mark verification your reader must be calibrated as described in the previous section. To read symbols and view verification results, perform the following steps:

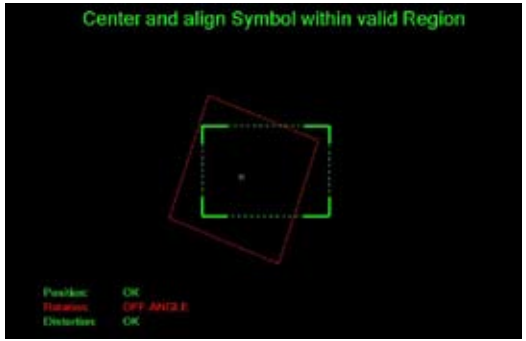
1. Start the DataMan Setup tool and connect to your reader.
2. Enable the **Turn Code Quality On** icon in the tool bar.



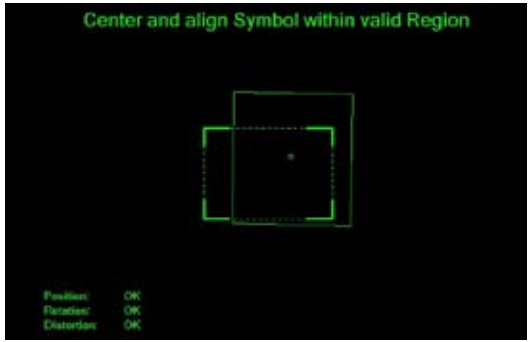
4. Select the **Results Display** task pane.
5. Place the symbol under the reader and press the trigger. The symbol must be centered within the field of view, and the reader must be perpendicular to the surface containing the symbol and at the correct rotation.

Perform Code Quality Verification

If the symbol is out of position, the Setup Tool displays this guide:

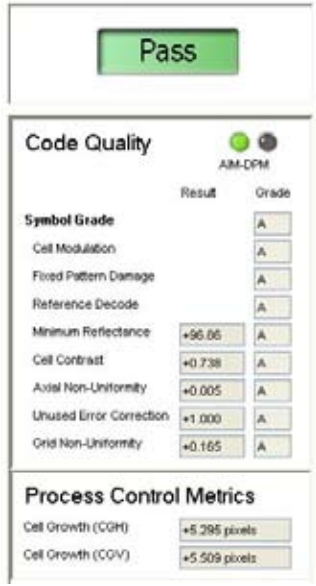


Move the symbol until the center of the red rectangle lies within the green target rectangle and turns green:



Code Quality Results

The Results Display task pane presents the results of the verification on the right-hand side.



Overall verification result (Pass/Fail)

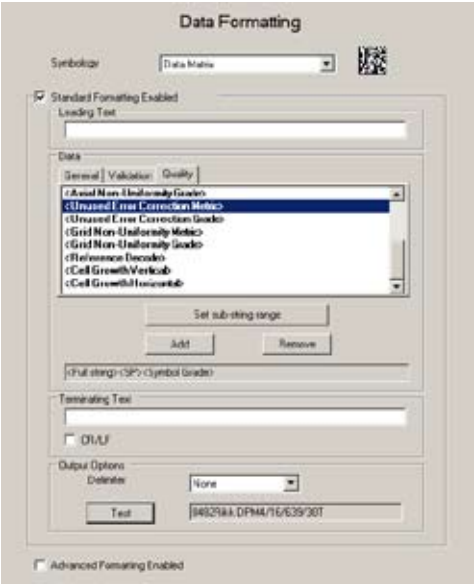
Individual AIM/DPM metrics and grades

Process control metrics (if enabled)

For more information on interpreting the verification results, select **View->Q+A Help**. The **Results Display** task pane can toggle between displaying results or Q+A information.

Formatting Output Data

Use the **Data Formatting** task pane of the DataMan Setup Tool to construct a customized output string each time you read and verify a symbol. This allows the verifier to return Code Quality results when connected to a third-party application instead of the DataMan Setup Tool.

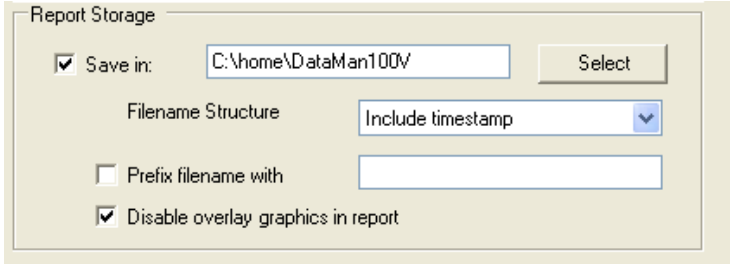


In addition to standard formatting, the DataMan Setup Tool supports the use of Perl-Style Regular Expression features in Advanced mode.

Data Logging

Use the **Data Logging** task pane to generate a Code Quality Report for each symbol that you read and verify. Be aware that data logging works only when the reader is connected to the DataMan Setup Tool.

1. Select **View->Advanced** if the DataMan Setup Tool is not in Advanced mode.
2. Select the **Data Logging** task pane under **System Settings**.
3. Enable the **Report Storage** option and use the **Save in** option, as shown in the following example, to configure a directory location to save each report along with an image of the verified symbol:



In addition, you can enable the **Prefix filename with** option to give each Code Quality Report a set prefix.

Saving the Setup

Once you have configured your reader with the settings you want it to use, choose **System->Save Settings** to save the configuration.

Choose **File->Save Configuration** to save the configuration to a directory on the PC. A saved configuration can be opened later and uploaded to any reader, allowing multiple readers to use the same configuration settings.

Be aware, however, that each reader must be calibrated individually.

Code Quality Configuration Codes

Use the following Code Quality configuration symbols to quickly turn Code Quality on and off without connecting the reader to the DataMan Setup Tool. Additional Code Quality Reader Configuration symbols are available in the online documentation.

Code Quality On

Code Quality Off

590-7058