

**COGNEX®**

---

# DataMan® 503

Quick Reference Guide

**DATAMAN**  
ID Readers

**1****Getting Started**

About DataMan 503 • For More Information • DataMan 503 Systems • DataMan 503 Accessories

**Page 4****2****Setting Up Your DataMan**

Reader Layout • Dimensions • Installing the Lens  
• Setting Focus • Installing DataMan Software and  
Connecting the Reader

**Page 10****3****DataMan Software**

Start the Setup Tool • Troubleshooting an Ethernet  
Connection • Industrial Protocols • Use the Setup Tool  
Menu Bar • Triggering • Training the Reader • Script-  
Based Data Formatting • Package Detection Support

**Page 20****4****Connections, Optics, and Lighting**

Acquisition Triggering • I/O Cable • RS-232 Cable •  
External Light Control • High-Speed Output Lines •  
High-Speed Output Wiring

**Page 35****5****Compliance Information, Warnings  
and Notices**

DataMan 503 Specifications • Compliance Statements •  
Warnings and Notices

**Page 42**

## About DataMan 503

The DataMan 503 is a high-performance, fixed-mount ID reader that offers the following advanced features:

- Ultra-sensitive custom image sensor that allows short exposures to freeze part motion.
- High-performance processing unit that provides extremely short cycle times.
- Automatic regulation of exposure time and gain to provide maximum performance.
- Electronically controlled solid-state variable focus system.
- Dynamically configurable network-based multiple-reader decoding ("master-slave").



The DataMan 503 provides advanced Ethernet connectivity, support for serial and discrete I/O, as well as advanced options for lighting and optics.

The DataMan 503 is packaged in a rugged, IP65-rated housing, and it provides numerous ease-of-use features, including one-button code training.

## For More Information...

This document provides basic information about how to configure and use the DataMan 503. Additional information is available through the Windows **Start** menu or the Setup Tool **Help** menu after you install the DataMan software on your PC:



**DataMan Communications & Programming Guide** shows how to integrate your DataMan reader with your automation software and factory network.

Cognex->DataMan Software v x.x->Documentation-> Communications & Programming



**DataMan Reader Configuration Codes** provides printable 2-D codes that you can use to configure the DataMan reader.

Cognex->DataMan Software v x.x->Documentation-> <language> ->Reader Configuration Codes



**DataMan Fixed Mount Readers Reference** is a complete online hardware reference for the DataMan 300, 500, and 503.

Cognex->DataMan Software v x.x->Documentation-> <language> ->Reference Manual



**DataMan Questions and Answers** provides context-sensitive information. You can view this help inside the setup tool or as a standalone help file.

Cognex->DataMan Software v x.x->Documentation-> <language> ->DM503->Questions and Answers



**Release Notes** list detailed system requirements and additional information about this DataMan software release.

Cognex->DataMan Software v x.x->Documentation-> DataMan v x.x.y Release Notes

# DataMan 503 Systems

	High-Speed Part Moving Applications	Omni-directional Code Reading	1DMax™ — Best-In-Class 1-D Reading	IDQuick™ — High-Speed 2-D Reading
DataMan 503QL (DMR-503QL-xx)	✓	✓	✓	
DataMan 503X (DMR-503X-xx)	✓	✓	✓	✓

# DataMan 503 Accessories

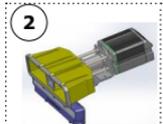
## C-MOUNT LENS OPTIONS



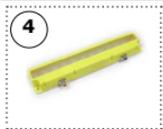
- 1 16 mm, 25 mm and 35 mm lens (LEC-CFFxx-F8)  
(xx specifies focal length)

## FIELD OF VIEW EXPANDERS

- 2 Xpand 15 (DMA-FOVE-15)
- 3 Xpand 25 (DMA-FOVE-25)



## EXTERNAL LIGHT



- 4 SVL Light Bar (IVSL-YLW300-xxx)

## HIGH POWER ILLUMINATIONS

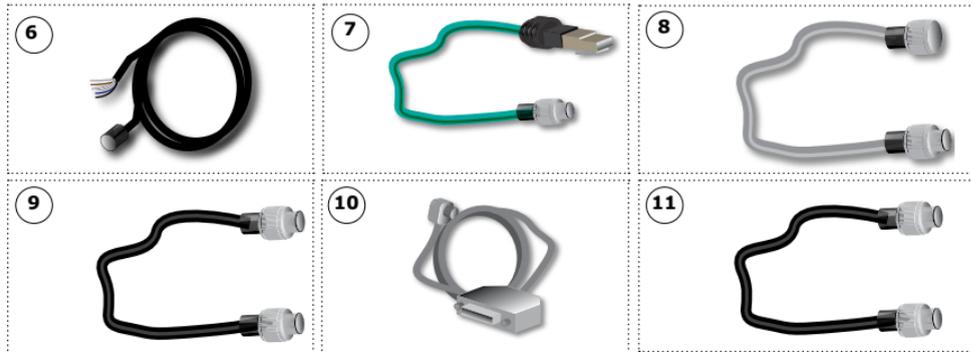
- 5 (DM503-HPIA-xxx)



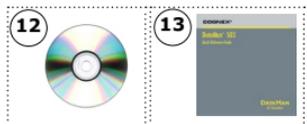
# DataMan 503 Accessories

## CABLES

- 6 Connection cable 24V, I/O (CCBL-05-01)
- 7 Ethernet M12 to RJ45 cable (CCB-84901-y00x-xx)  
(y straight/angled, x-xx specifies length)
- 8 External light cable (CCB-M12x4MS-xxx)  
(xxx specifies length)
- 9 I/O extension cable, 5m straight (CKR-200-CBL-EXT)
- 10 RS-232 M8 to SUB-D cable (CCB-M8X4-xx)
- 11 Synchronization Cable (DM503-SYNC-012 - 1.2 meter, DM503-SYNC-05 - 5 meter)



## CD-ROM, AND DOCUMENTATION

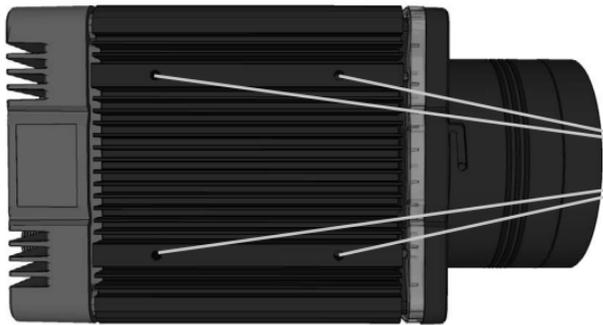


- 12 CD-ROM (Setup Tool and Drivers)  
206-6400-400
- 13 Quick Reference Guide  
(this document) (590-7163)

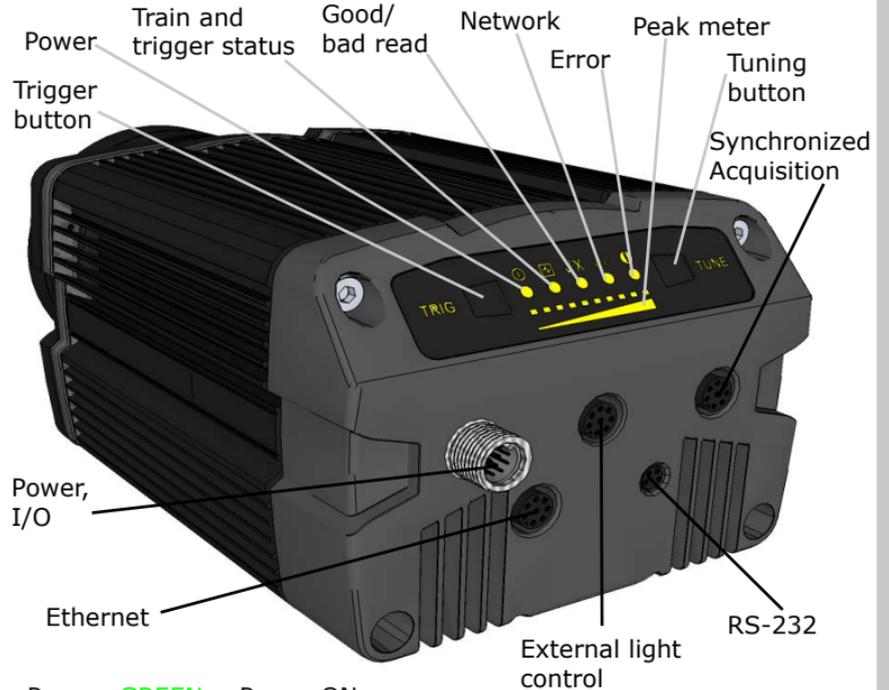
# Reader Layout

The following image shows the layout of the DataMan 503 series reader.

External illumination mounting points



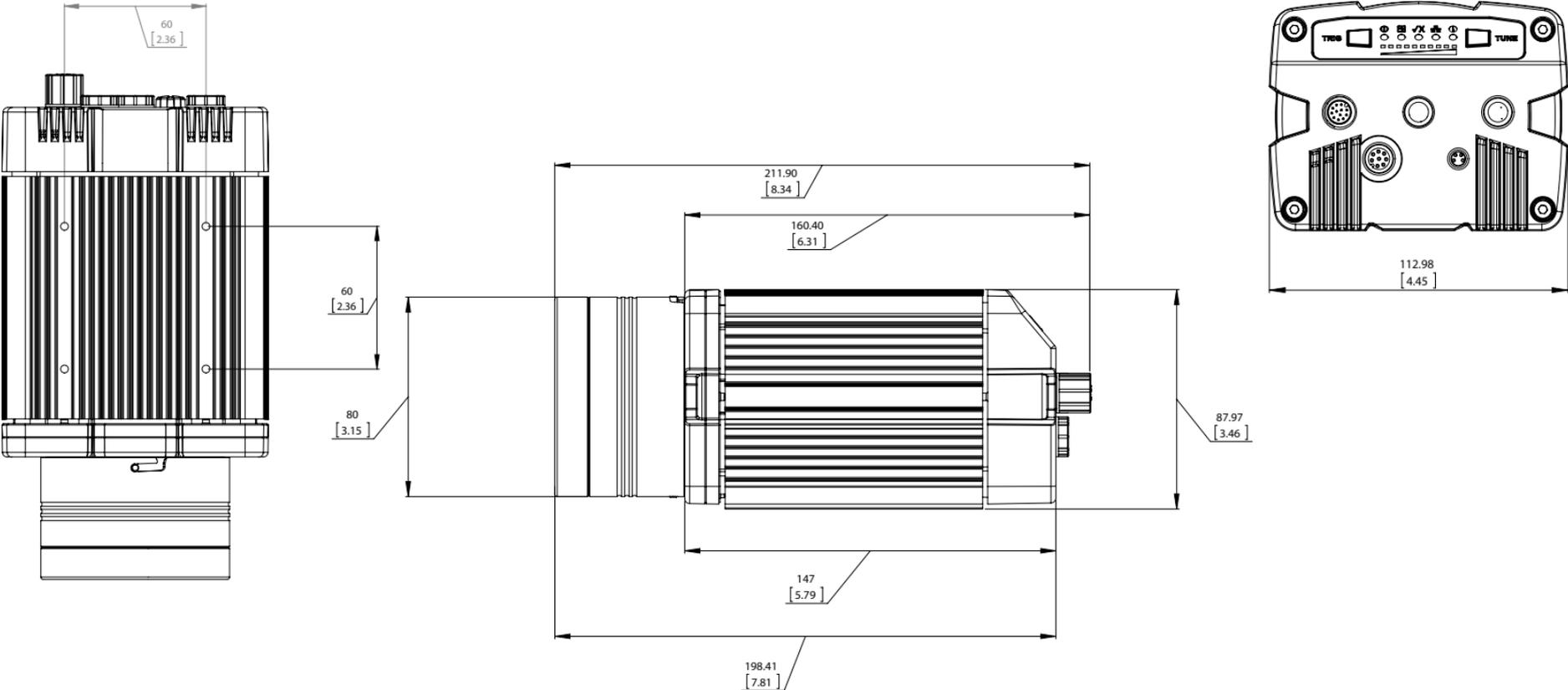
Mounting holes  
(M3 x 5mm)



- Power: **GREEN** = Power ON
- Signal: **GREEN** = trained / **YELLOW** = untrained / **BLINK OFF** = trigger detected
- Good/bad read: **GREEN** = good read / **RED** = bad read
- Network: **YELLOW** = link up / **BLINK** = activity
- Error: **RED** = error
- Peak meter: decode yield, train progress/quality

# Dimensions

Observe the following DataMan 503 dimensions when installing your reader.



# Installing the Lens

DataMan 503 ships with no lens installed. You must install a standard C-mount lens before using your reader.

For reading distances and field of view charts, see the *DataMan Fixed Mount Reference*, available through the Windows Start menu or the Setup Tool Help menu.

**1** Remove the front cover, if attached, and lens cover.



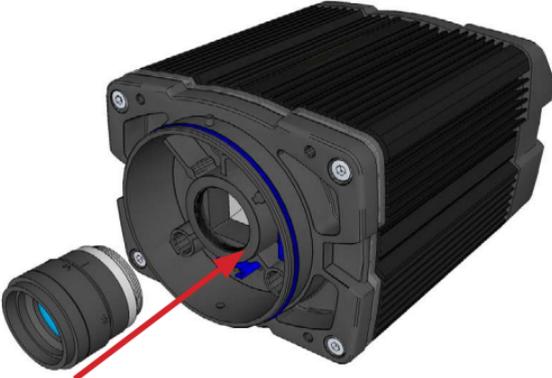
**i** Unscrew the protective cover from the lens mount.



**!** Do not leave the DataMan sensor exposed to the environment!

# Installing C-Mount Lens

**2** Insert and thread lens into the reader.



## Installing C-Mount Lens (continued)

**3** Align the peg on the reader and the slot on the cover, and re-attach it.



**4** Lock the cover in place.



## Setting Focus

There is a range of reading distances available for different code sizes and focus positions. To set focus on your reader, use the **Focus Feedback** option on the Setup Tool's **Results Display** pane.

For maximizing the performance of Focus Feedback, observe the following:

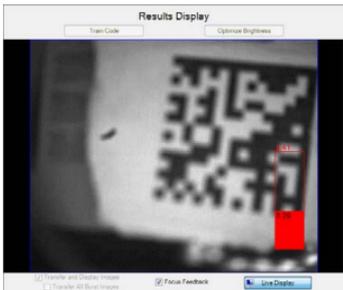
- Use a focus target (such as the one supplied with this Quick Reference Guide) that includes high-contrast features and is big enough that it fills at least a 100x100 pixel region in the center of the field of view at the desired working distance.
- Make sure the target is perfectly flat (avoid floppy pieces of paper).
- Make sure that the target is perfectly perpendicular to the optical axis of the reader.
- Make sure that the rest of the field of view (such as the part not covered by the focus target) does not contain any high-contrast features. For example, you would ideally fill the entire field of view with a white card or sheet of paper (no shadows), then position the focus target in the middle.
- The supplied focus target (120x120mm) is appropriate for typical working distances. If you are using a working distance such that the target does not completely fill the image, make sure that there are no high-contrast features visible outside of the target (see previous bullet).

Perform the following steps to use **Focus Feedback**:

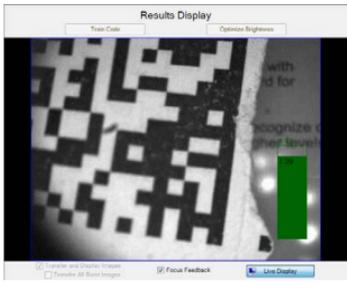
1. Connect the reader to the Setup Tool.
2. On the Results Display pane, check the Focus Feedback option and enable Live Display.

## Setting Focus (Continued)

3. The Focus Feedback column is displayed in colors ranging from red (bad focus) through yellow to green (sharp focus).



Position the reader in a way that the focus column becomes green. This makes sure that the lens is in focus and you will be able to decode the image.



## Installing DataMan Software and Connecting the Reader

### CONNECT YOUR READER

1. Connect the I/O+24V cable to your reader.
2. For a network connection, connect your reader, through an Ethernet cable, to your network.
3. Connect the cable to a 24V power supply. **Safety Note:** Do not use power supply with maximum current above 40A.

### INSTALL DATAMAN SOFTWARE AND CONNECT

1. Check the DataMan Release Notes for a full list of system requirements.
2. Insert CD-ROM and follow the on-screen prompts until you successfully completed the DataMan Software installation process.
3. Connect the DataMan 503 Series reader to your PC.
4. Launch the Setup Tool and click **Refresh**.  
  
Detected readers will appear under **COM ports** or **Network devices**, or both.
5. Select a reader from the list and click **Connect**.

# Start the Setup Tool

Connect the reader to the Setup Tool to configure it with the type of symbologies it will decode as well as other parameters, such as the type of trigger it will use and the format of the results it will generate.

## Quick Setup

Configure your reader in a few basic steps

## Connect to Reader

Establish a connection to the reader

## Results Display

View results

## Light and Imager Settings

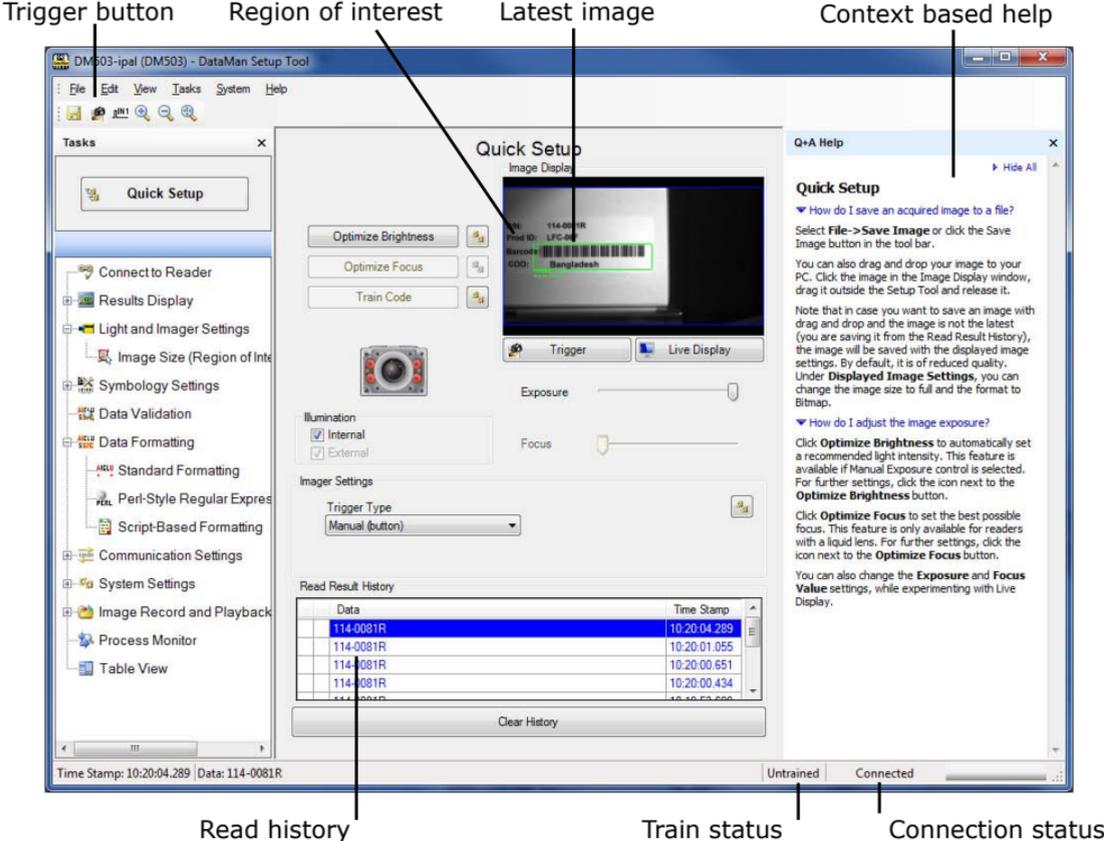
Choose a trigger type and other acquisition parameters

## System Settings

Configure input and output signals

## Table View

See all the selectable values in the Setup Tool in one table



## Troubleshooting an Ethernet Connection

Based on your network configuration, the Setup Tool may not be able to communicate with the reader and it will not appear in the list of **Network devices**.

First check your Ethernet connection with the reader and click **Refresh** in the Setup Tool. Next, scan the **Enable DHCP** code in the *Reader Configuration Codes* document available from the Start menu. This might allow the reader to acquire a suitable IP address from a DHCP server on your subnet.

If the reader still does not appear, you can use either the **Add Device** or **Force Network Settings** options in the Setup Tool.

If you know the IP address of the reader, use the **Add Device** option. If you do not know the IP address, use the **Force Network Settings** options. Either method should allow the DataMan 503 reader to appear in the list of **Network devices** so that you can connect to it through the Setup Tool and your Ethernet connection.

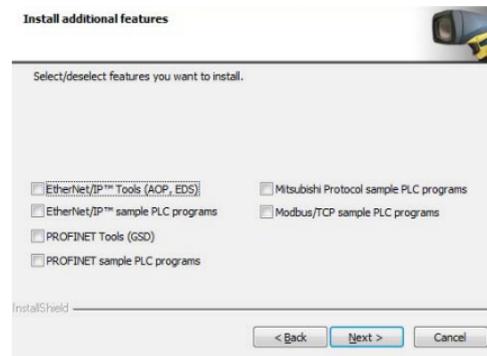
You can also use the RS-232 connection to configure the reader with parameters that allow it to communicate over your Ethernet network.

## Industrial Protocols

The DataMan 503 series readers support the following industrial protocols:

- EtherNet/IP™
- PROFINET
- MC Protocol
- Modbus TCP

Select industrial protocol samples and tools you want to use when you install the DataMan Software.



There are three ways to enable or disable Industrial Protocols. Using either method, a reboot is required for the changes to come into effect.

- Enable the protocols using the **Industrial Protocols** pane of the Setup Tool (under Communication Settings).
- Scan the appropriate **Reader Configuration codes** (see *Reader Configuration Codes* available through the Windows Start menu or the Setup Tool Help menu).
- Send the appropriate **DMCC** (see *Command Reference* available through the Windows Start menu or the Setup Tool Help menu).

For more information on using the industrial protocols, read the *DataMan Communications and Programming Guide* available through the Windows Start menu or the Setup Tool Help menu.

## Use the Setup Tool Menu Bar

The In1 button on the toolbar creates a virtual rising edge signal on Input 1. Use the In1 button to activate various actions such as training a code, optimizing brightness or setting a match string without a physical input 1 channel.

Each reader can store its current set of runtime parameters to a configuration (.cfg) file, which contains information such as the enabled symbologies and how any output data should be formatted.

The same configuration file can be loaded onto multiple readers, as the file does not contain identification information such as the IP address or device name of the reader used to create it.

A reader can also generate a Cognex device configuration (.cdc) file, which stores the set of runtime parameters plus any identification data, such as the name of the device, its IP address, subnet mask, and so on. Cognex recommends generating a device configuration file for each reader to allow you to restore a reader to its operating state with minimal effort.

Use the **File** menu of the Setup Tool to manage .cfg and .cdc files, export parameters, or to load, save, or train uploaded images.

File Menu	
Open Configuration	Open a saved .cfg configuration file.
Save Configuration	Create a .cfg configuration file of current runtime parameters.
Restore Device	Load a saved device configuration .cdc file, with run-time parameters plus device-specific information for a particular DataMan 503 reader.
Backup Device	Create a device configuration .cdc file for a specific reader.
Export Parameters	Save (all or only the non-default) parameters of your device in a text file.
Load Image	Load an 8-bit uncompressed grey-scale .bmp or .jpg image for analysis.
Save Image	Save the latest acquired image with the .jpg or .bmp file format.
Save Burst Images	Save the latest batch of burst images.
Train Image	Upload an image to be used for training.

## Use the Setup Tool Menu Bar (Continued)

Use the **Edit** menu for standard Cut, Copy and Paste operations.

Use the **View** menu to view reader information (serial number, firmware version, and so on) and to enable and disable various elements of the Setup Tool, and the **Tasks** menu to switch between various Setup Tool options.

Use the **System** menu to manage the current settings on the reader and to upgrade the features it currently supports:

### System Menu

Save Settings	Save the current parameters to non-volatile memory, which allows the reader to restore these settings each time you reboot it.
Reset Configuration	Reset all configuration parameters in RAM (volatile memory) to the default settings.
Update Firmware	Update the reader software.
Upload Feature Key	Unlock additional features available in the reader software if you have the right key.
Show Device Log	Error and exception conditions, such as missed triggers and trigger overruns are logged.
Delete Device Log	Clear your device log.

Use the **Help** menu to display Setup Tool version information.

## DataMan 503 Triggering

DataMan 503 supports *self-triggered* operation. In self-trigger mode, at an interval you configure, the reader automatically detects and decodes codes in its field of view. The high-speed image acquisition and processing capabilities of the DataMan 503 allow it to detect *and decode* codes at up to 80 codes per second, multiple decodes per scan. If you set a higher re-read delay than the trigger interval, there is a code output only once until the code is out of the field of view for the duration of the re-read delay.

DataMan 503 also supports these additional trigger modes:

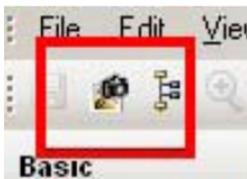
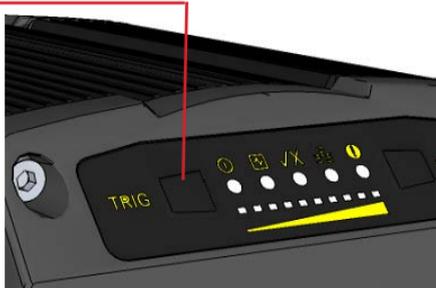
- **Single (external trigger):** Acquires a single image and attempts to decode any symbol it contains, or more than one symbol in cases where multicode is enabled. The reader relies on an external trigger source.
- **Presentation:** Scans, decodes and reports a single code in the field of view. The reader relies on an internal timing mechanism to acquire images.
- **Manual:** Begins acquiring images when you press the trigger button on the reader, and continues acquiring images until a symbol is found and decoded or you release the button.
- **Burst:** Performs multiple image acquisitions based on an external trigger and decodes any symbol appearing in a single image or within a sequence of images, or multiple symbols in a single image or within a sequence of images when multicode is enabled. You can control the number of images within each burst and the interval between image acquisitions.
- **Continuous:** Begins acquiring images based on a single external trigger and continues to acquire and decode images until a symbol is found and decoded, or until multiple images containing as many codes as specified in multicode mode are located, or until the trigger

## DataMan 503 Triggering (Continued)

is released. You can configure your reader to acquire images based on the start and stop signal from separate digital IO pulses.

If you are using external triggering you can use any of these methods to trigger DataMan 503:

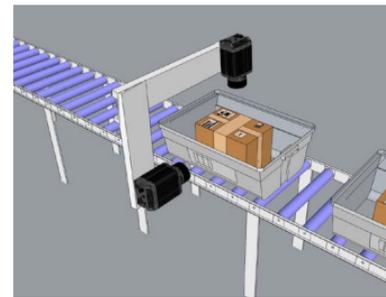
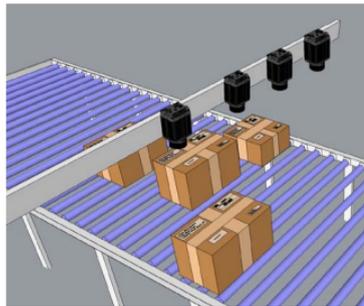
- Press the trigger button on the reader.
- Send a pulse on the I/O cable:
  - Trigger + (red/blue)
  - Trigger - (white)
- Send a trigger command over the RS-232 connection or Ethernet connection.
- Press <CTRL>-T on the keyboard.
- Click the Trigger button in the Setup Tool:



## Multi-Reader Triggering

For trigger modes other than Presentation, the DataMan 503 supports *multi-reader triggering*, also known as *master-slave* configuration. In this configuration, you configure multiple DataMan 503 readers as a group. Whenever any reader in the group is triggered, all the readers are triggered and the results from all the readers are assembled and transmitted by a single reader that you designate as the master.

Multi-reader triggering is used to support extended field of view reading and reading codes from multiple product surfaces:



To configure multi-reader triggering, select the **Master/Slave** pane in the Setup Tool (under **System Settings**). For more information, see the *DataMan Fixed Mount Readers Reference*.

## Synchronized Acquisition

In Single, Burst, Continuous, and Self trigger modes, it is possible to synchronize image acquisition on multiple devices using the synchronization interface.

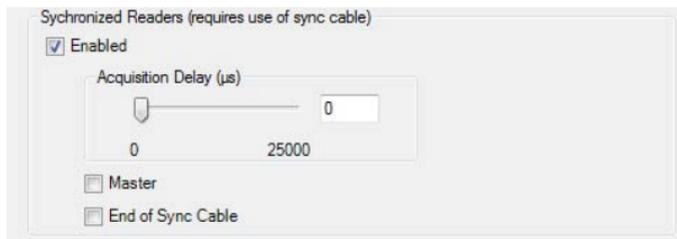
Synchronization allows using one shared strobed illumination to expose all sensors simultaneously. You can synchronize up to 16 readers, with optionally triggering them in a defined sequence to avoid that opposing readers blind each other.

Note that this and other imager settings will not get synchronized by this mechanism - for example, you must configure exposure and gain on each reader individually.

This feature only synchronizes the actual image acquisition, triggering happens through the existing master-slave mechanism.

Enable **Synchronized Exposure** on the Setup Tool's **Master/Slave** pane. Set the **Acquisition Delay** ( $\mu\text{s}$ ) (relative to the received signal through the synchronization interface) on each reader individually to optionally define an exposure sequence in case the illumination of some readers might affect other readers.

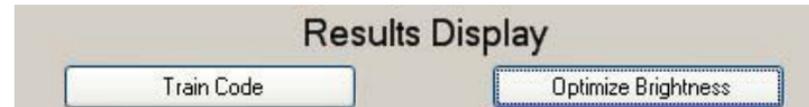
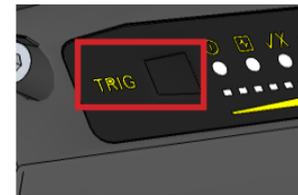
You must also set which two readers on the ends of the synchronization interface bus are bus terminators by checking the **End of Sync Cable** checkbox for the currently connected devices at the end of a sync cable.



## Training the Reader

Training your reader with the expected symbology can decrease the time required to decode successive symbols. To train your reader, first switch to Single mode, then place a code in front of the reader and do one of the following:

- Press and hold the trigger button for a minimum of 3 seconds.
- Click and hold the trigger button in the Setup Tool for a minimum of 3 seconds.
- Click **Train Code** in the Results Display pane.



- Upload the code through **File** menu  $\rightarrow$  **Train Image**.

You can now switch to Burst, Continuous or Self trigger modes if necessary. **NOTE** that only a single symbol of each symbology kind can be trained.

## Training the Reader (Continued)

### Training Feedback

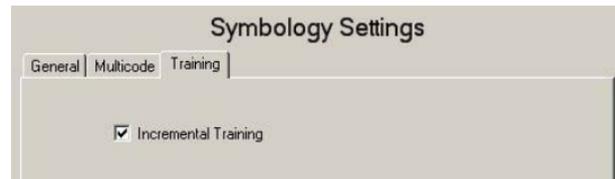
The middle LED on the reader glows green to indicate that it is currently trained, or yellow to indicate that it is not trained.

Connect the reader to the Setup Tool to untrain it and allow it to recognize other enabled symbologies.

### Incremental Training for Multiple Symbologies

If you want to train the reader to recognize multiple symbologies, you can present a single image showing all the desired symbologies and perform the training procedure previously described.

If you cannot present a single image showing all the necessary symbologies, you can enable incremental training on the **Training** tab of the **Symbology Settings** pane:



With incremental training enabled, you can train the reader using multiple images showing the symbologies you expect to decode. The reader will train each new symbology while retaining the existing trained symbologies.

## Script-Based Data Formatting

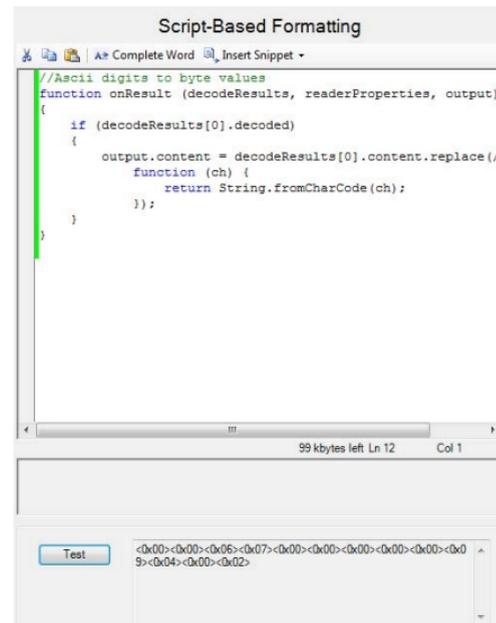
In addition to standard formatting possibilities, you have the option to **write a script** inside the Setup Tool. When script-based formatting is enabled, you can define a JavaScript module to format data according to your needs.

The script not only allows you to have different data formatting combinations, but you can also perform operations on the output channel, for example, to pull output 1 up. You can configure read results flexibly and configure reader events before the result returns.

Enter your script on the **Script-Based Formatting** pane under Data Formatting.

For the details of how to write the script and for scripting examples, please see the *DataMan Communications and Programming Guide*. You can find scripting samples in the right-click context menu of the Script-Based Formatting pane.

You can open your own scripts through the Setup Tool's **File** menu → **Open Script...** option.



## Package Detection Support

You can connect your package detection sensor to one of the digital inputs of your DataMan reader. When the reader receives a signal that a package is detected, images that the reader collected are not discarded at the end of the trigger. This way you can make sure that there was a package there, only the code was not readable. Looking at the No Read images will help you find out why there was no decode results.

Package detection is only supported with Continuous trigger mode.

To make sure that the No Read images are collected, perform the following:

1. Connect your package detection device to one of the Inputs of your reader.
2. On the Setup Tool's System Settings pane's Inputs tab, check **Allow Buffered No-Read Images** on the input you connected your reader to.
3. On the Setup Tool's Image Record and Playback pane, change **What Images to Buffer** to All, or No Read.

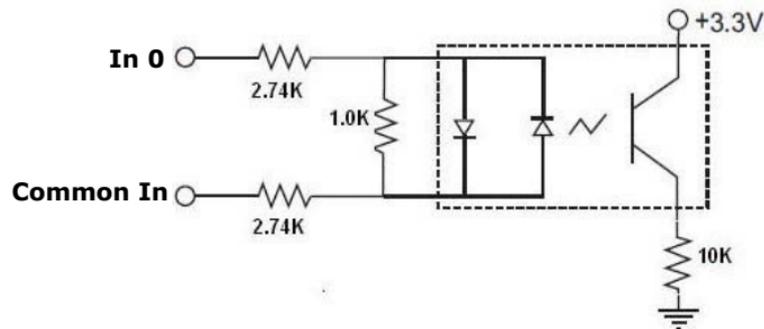
- In case of **All**, good reads are also saved together with No Reads.
- In case of **No Read** the image is buffered if the reader fails to read.

For more information, see the *DataMan Fixed Mount Readers Reference*, available through the Windows Start menu or the Setup Tool Help menu.

## Acquisition Triggering

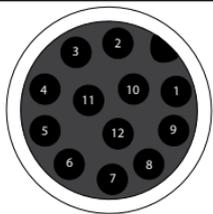
The acquisition trigger input on the reader is opto-isolated. To trigger from an NPN (pull-down) type photo-detector or PLC output, connect **In 0** to +24V and connect **Common In** to the output of the detector. When the output turns on, it pulls **Common In** down to 0V, turning the opto-coupler on.

To trigger from an PNP (pull-up) photo-detector or PLC output, connect **In 0** to the output of the detector and connect **Common In** to 0V. When the output turns on, it pulls **In 0** up to 24V, turning the opto-coupler ON.

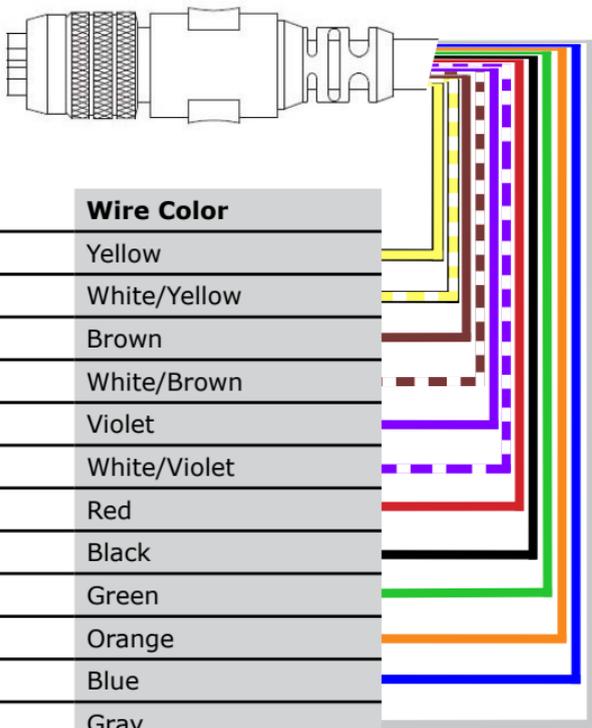


28V Max. Across input pins - Transition approx. 12V (Min).

## I/O Cable



The I/O cable provides access to trigger and high-speed outputs. Unused wires can be clipped short or tied back using a tie made of non-conductive material.

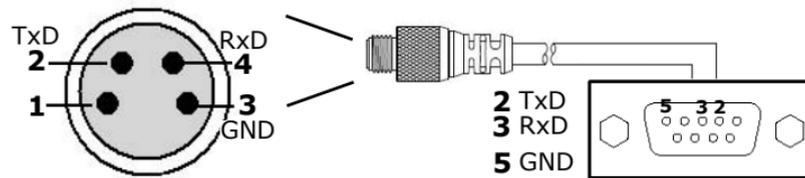


The above drawing shows the **plug** on the device.

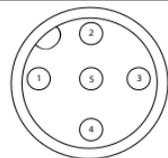
Pin #	Signal Name	Wire Color
1	Out 2	Yellow
2	In 3	White/Yellow
3	In 2	Brown
4	Out 3	White/Brown
5	In 1	Violet
6	Common In	White/Violet
7	+24 VDC	Red
8	GND	Black
9	Common Out	Green
10	In 0	Orange
11	Out 0	Blue
12	Out 1	Gray

## RS-232 Cable

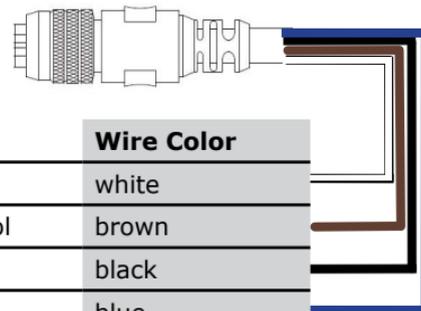
The RS-232 cable provides an optional connection between the reader and your PC.



## External Light Control



A 4-pin cable is provided for the external light control.  
Current load: average: 500mA, peak: 1A (max. 100µs).

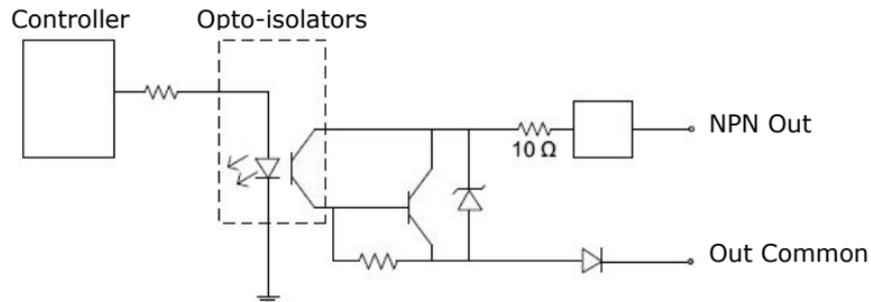


Pin #	Signal Name	Wire Color
1	+24 VDC	white
2	Brightness Control	brown
3	GND	black
4	Strobe	blue
5	Chassis	not connected

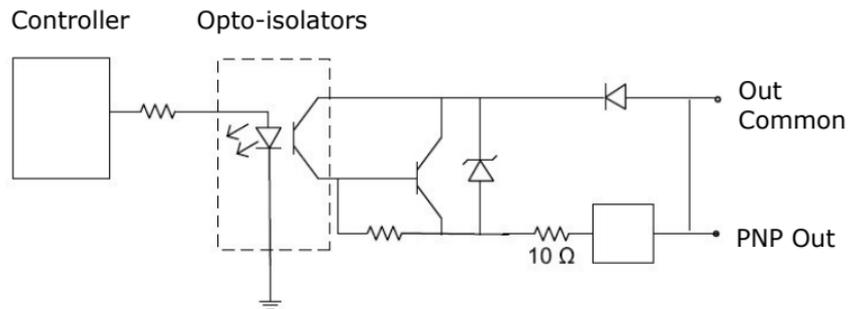
**NOTE** that this socket does not work if the external light is connected to one of the outputs on the I/O cable.

## High-Speed Output Lines

The high-speed outputs can be used as either NPN (pull-down) or PNP (pull-up) lines. For NPN lines, the external load should be connected between the output and the positive supply voltage (<28V). The outputs pull down to less than 3V when ON, which causes current to flow through the load. When the outputs are OFF, no current flows through the load.



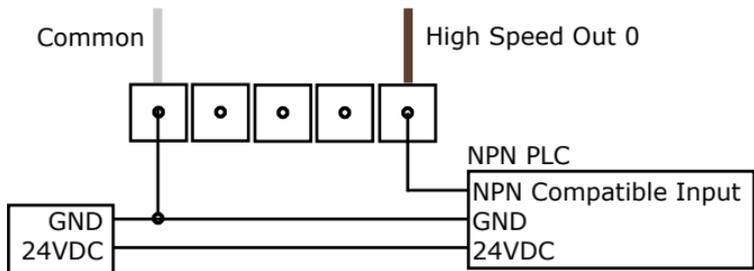
For PNP lines, the external load should be connected between the output and the negative supply voltage (0V). When connected to a 24VDC power supply, the outputs pull up greater than 21V when ON, and current flows through the load. When the outputs are OFF, no current flows through the load.



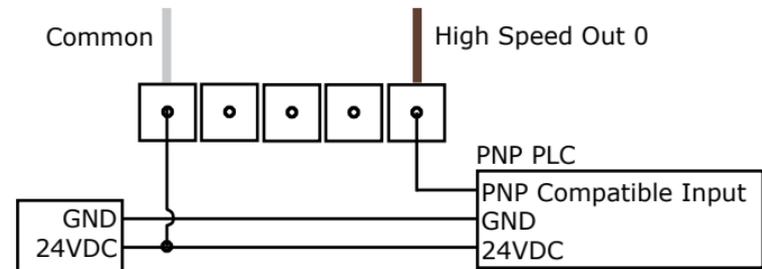
Specification	Description
Voltage	28V maximum through external load
Current	50mA maximum sink current
	OFF state leakage current 100µA
	External load resistance 240 Ohms to 10K Ohms
Each line rated at a maximum 50mA, protected against over-current, short circuits and transients from switching inductive loads. High current inductive loads require external protection diode.	

## High Speed Output Wiring

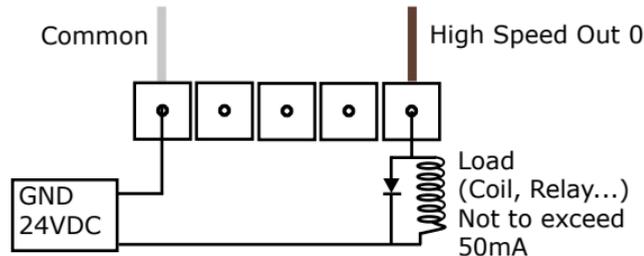
To connect to an NPN-compatible PLC input, connect Output 0 or Output 1 directly to the PLC input. When enabled, the output pulls the PLC input down to less than 3V.



To connect to a PNP-compatible PLC input, connect Output 0 or Output 1 directly to the PLC input. When enabled, the output pulls the PLC input up to greater than 21V.



To connect the high-speed outputs to a relay, LED or similar load, connect the negative side of the load to the output and the positive side to +24V. When the output switches on, the negative side of the load is pulled down to less than 3V, and 24 appears across the load. Use a protection diode for a large inductive load, with the anode connected to the output and the cathode connected to +24V.



# DataMan 503 Specifications

Weight	1602 g		
Operating Temperature	0°C — 45°C (32°F — 113°F)		
Storage Temperature	-10°C — 60°C (-14°F — 140°F)		
Maximum Humidity	95% (non-condensing)		
Environmental	IP65 (with cable or protection cap attached to all connectors, front cover properly installed)		
Vibration	IEC 60068-2-6, 60068-2-27		
RS-232	Rx/D, Tx/D according to TIA/EIA-232-F		
Codes	Data Matrix™ (IDMax: ECC 0, 50, 80, 100, 140, and 200; IDQuick: ECC200) QR Code and microQR Code, MaxiCode UPC/EAN/JAN Codabar, Interleaved 2 of 5, Code 39, Code 128, and Code 93, Pharma, Postal, RSS/CS, PDF 417, MicroPDF 417		
Discrete I/O operating limits	HS Output 0,1	I <sub>MAX</sub>	@ 24 VDC 50 mA
		R <sub>MAX</sub>	@ 12 VDC 150 Ω @ 24 VDC 470 Ω
	Input 0 (Trigger) Input 1	V <sub>IH</sub>	±12 — ±28 V
		V <sub>IL</sub>	0 — ±7 V
		I <sub>TYP</sub>	@ 12 VDC 2.0 mA @ 24 VDC 4.2 mA
Power Supply Requirements	24V +/- 10%	Maximum current: 500 mA (at 25°C) Maximum power: 18W (external lights)	
Light Connector	Current load	Average: 500mA Peak: 1A (max. 100µs)	

# Compliance Statements

The DataMan 503 series meets or exceeds the requirements of all applicable standards organizations for safe operation. However, as with any electrical equipment, the best way to ensure safe operation is to operate them according to the agency guidelines that follow. Please read these guidelines carefully before using your device.

Regulator	Specification
USA	FCC Part 15, Subpart B, Class B
Canada	ICES-003, Class B
European Community	EN55022:2006 +A1:2007, Class B EN55024:1998 +A1:2001 +A2: 2003 EN60950
Australia	C-TICK, AS/NZS CISPR 22 / EN 55022 for Class B Equipment
Japan	J55022, Class B

## FCC Class B Compliance Statement



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency

## Compliance Statements (Continued)

energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at personal expense.

### Canadian Compliance

This Class B digital apparatus complies with Canadian ICES-003.  
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

### C-Tick Statement



Conforms to AS/NZS CISPR 22/ EN 55022 for Class B Equipment.

### European Compliance



The CE mark on the product indicates that the system has been tested to and conforms to the provisions noted within the 2004/108/EEC Electromagnetic Compatibility Directive and the 2006/95/EEC Low Voltage Directive.

For further information please contact:

Cognex Corporation  
One Vision Drive  
Natick, MA 01760  
USA

Cognex Corporation shall not be liable for use of our product with equipment (i.e., power supplies, personal computers, etc.) that is not CE marked and does not comply with the Low Voltage Directive.

### For European Community Users

Cognex complies with Directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment (WEEE).

This product has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment, if not properly disposed.

In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems for product disposal. Those systems will reuse or recycle most of the materials of the product you are disposing in a sound way.



The crossed out wheeled bin symbol informs you that the product should not be disposed of along with municipal waste and invites you to use the appropriate separate take-back systems for product disposal.

If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You may also contact your supplier for more information on the environmental performance of this product.

## Warnings and Notices

---

 CAUTION: IP protection is ensured only when all connectors are attached to cables or shielded by a sealing cap.

### **FAILURE TO FOLLOW THESE INSTRUCTIONS MAY CAUSE SERIOUS INJURY**

- Do not attempt to service or repair this product -- return it to Cognex for service.
- Do not permit anyone other than Cognex Corporation to service, repair, or adjust this product.
- Do not attempt to open or modify this device except as described in this document.
- Do not operate this device if it is damaged or if the covers or seals are missing or damaged.

**For assistance contact Cognex Corporation at <http://support.cognex.com>**



Reset Scanner to  
Factory Defaults



Reboot Scanner

Copyright © 2013 Cognex Corporation All Rights Reserved. This document may not be copied in whole or in part, nor transferred to any other media or language, without the written permission of Cognex Corporation. The hardware and portions of the software described in this document may be covered by one or more of the U.S. patents listed on the Cognex web site <http://www.cognex.com/patents.asp>. Other U.S. and foreign patents are pending. Cognex, the Cognex logo, and DataMan are trademarks, or registered trademarks, of Cognex Corporation.



590-7163

P/N 590-7163