wenglor
the innovative family

CSHH00x

1D/2D Handheld Scanners

Operating Instructions

Table of Contents

1. General

1.1 Information Concerning these Instructions

• These instructions apply to the product with ID code CSHH00x.

• They make it possible to use the product safely and efficiently.

• These instructions are an integral part of the product and must be kept on hand for the entire duration of its service life.

• Local accident prevention regulations and national work safety regulations must be complied with as well.

• The product is subject to further technical development, and thus the information contained in these operating instructions may also be subject to change. The current version can be found at www.wenglor. com in the product's separate download area.

NOTE!
The operating instructions must be read carefully before using the product and must be kept on hand for later reference.

1.2 Explanations of Symbols

• Safety precautions and warnings are emphasized by means of symbols and attention-getting words

• Safe use of the product is only possible if these safety precautions and warnings are adhered to

• The safety precautions and warnings are laid out in accordance with the following principle:

ATTENTION-GETTING WORD!
Type and Source of Danger!
Possible consequences in the event that the hazard is disregarded.
• Measures for averting the hazard.

The meanings of the attention-getting words, as well as the scope of the associated hazards, are listed below.

DANGER!
This word indicates a hazard with a high degree of risk which, if not avoided, results in death or severe injury.

WARNING!
This word indicates a hazard with a medium degree of risk which, if not avoided, may result in death or severe injury.

CAUTION!
This word indicates a hazard with a low degree of risk which, if not avoided, may result in minor or moderate injury.

	ATTENTION!
⚠️	This word draws attention to a potentially hazardous situation which, if not avoided, may result in property damage.

	NOTE!
ℹ️	A note draws attention to useful tips and suggestions, as well as information regarding efficient, error-free use.

1.3 Limitation of Liability

• The product has been developed in consideration of the current state-of-the-art and applicable standards and guidelines. Subject to change without notice.

• A valid declaration of conformity can be accessed at www.wenglor.com in the product's separate download area.

• wenglor sensoric elektronische Geräte GmbH (hereinafter referred to as "wenglor") excludes all liability in the event of:

  • Non-compliance with the instructions
  • Use of the product for purposes other than those intended
  • Use by untrained personnel
  • Use of unapproved replacement parts
  • Unapproved modification of products

• These operating instructions do not include any guarantees from wenglor with regard to the described procedures or specific product characteristics.

• wenglor assumes no liability for printing errors or other inaccuracies contained in these operating instructions, unless wenglor was verifiably aware of such errors at the point in time at which the operating instructions were prepared.

1.4 Copyrights

• The contents of these instructions are protected by copyright law.

• All rights are reserved by wenglor.

• Commercial reproduction or any other commercial use of the provided content and information, in particular graphics and images, is not permitted without previous written consent from wenglor.

2. For Your Safety

2.1 Use for Intended Purpose

This hand scanner is used to decode 1D/2D codes.

This product can be used in the following industry sectors:

• Automotive industry
• Food industry
• Packaging industry
• Pharmaceuticals industry
• Clothing industry
• Plastics industry
• Consumer goods industry
• Paper industry
• Electronics industry
• Glass industry
• Printing industry
• Special machinery manufacturing
• Heavy machinery manufacturing
• Logistics
• Woodworking industry
• Steel industry
• Aviation industry
• Construction industry
• Chemicals industry
• Agriculture Industry
• Alternative energy
• Raw materials extraction

2.2 Use for Other than the Intended Purpose

• Not a safety component in accordance with 2006/42/EC (Machinery Directive)

• The product is not suitable for use in potentially explosive atmospheres.

• The product may only be used with accessories supplied or approved by wenglor, or combined with approved products. A list of approved accessories and combination products can be accessed at www.wenglor.com on the product detail page.

DANGER!
Risk of personal injury or property damage in case of use for other than the intended purpose!
Use for other than the intended purpose may lead to hazardous situations.
• Observe instructions regarding use for intended purpose.

2.3 Personnel Qualifications

• Suitable technical training is a prerequisite

• In-house electronics training is required

• Trained personnel must have uninterrupted access to the operating instructions

DANGER!
Risk of personal injury or property damage in case of incorrect initial start-up and maintenance!
Personal injury and damage to equipment may occur.
• Adequate training and qualification of personnel.

2.4 Modification of Products

DANGER!
Risk of personal injury or property damage if the product is modified!
Personal injury and damage to equipment may occur. Non-observance may result in loss of the CE marking and the guarantee may be rendered null and void.
• Modification of the product is impermissible.

2.5 General Safety Precautions

NOTE!
• These instructions are an integral part of the product and must be kept on hand for the entire duration of its service life.

• In the event of possible changes, the respectively current version of the operating instructions can be accessed at www.wenglor.com in the product's download area.

• Read the operating instructions carefully before using the product.

• Protect the sensor against contamination and mechanical influences.

2.6 Approvals

$$C\,\epsilon$$

3. Technical Data

Order Number / Technical Data	CSHH001
Optical data	
Scanning distance	0...200 mm
Resolution	1280×960 pixels
Light source	Red light
Max. permitted ambient light	97,000 lux
Electrical data	
Supply voltage	5 V DC
Power consumption	< 2250 mW
Temperature range	−20…55 °C
Interface	USB
Acoustic signal	Yes
Vibrational signal	Yes
Visual signal	Yes
Mechanical data	
Housing material	Plastic
Protection	IP54
Weight	130 g
Connector type	Cable
Cable length	180 cm

3.1 Scanning field / working distances

Test code	Minimum distance	Maximal distance
0,076mm (Code 39)	25 mm	50 mm
0,190 mm (Code 39)	20 mm	150 mm
0,267 mm (GS1 DataBar)	0 mm	150 mm
0,330 mm (UPC)	15 mm	200 mm
0,107 mm (DataMatrix)	15 mm	45 mm
0,127 mm (DataMatrix)	15 mm	60 mm
0,16 mm (DataMatrix)	5 mm	75 mm
0,254 mm (DataMatrix)	0 mm	100 mm
0,528 mm (DataMatrix)	10 mm	190 mm

Codes with minimal contrast (DPM)

Test code	Minimum distance	Maximal distance
Laser printed codes	0 mm	35 mm
Needle punched codes	0 mm	70 mm

NOTE!
- Working ranges are a combination of both the wide and high density fields. All samples were high quality codes and were read along a physical center line at a 10° angle. Default AGC settings were used. Accuracy= +/−10 %.

3.2 Housing Dimensions
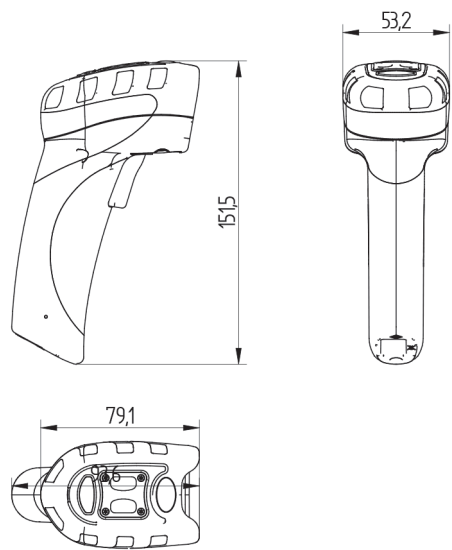
3.3 Accessory Products

wenglor can provide you with suitable connection technology for your product.

Suitable mounting technology no.	431
Interface cable	ZDNV001
Interface cable	ZDNV002
Mains power pack	ZNNN001
Mains power pack	ZNNN002

3.4 Scope of Delivery

• Product
• USB cable (CSHM001, CSHM003)
• RS-232 cable + power supply (CSHM002, CSHM004)

4.   Transport and Storage

4.1 Transport

Upon receipt of shipment, inspect the goods for damage in transit. In the case of damage, conditionally accept the package and notify the manufacturer of the damage. Then return the device making reference to damage in transit.

4.2 Storage

The following points must be taken into condition with regard to storage:

• Do not store the product outdoors
• Store the product in a dry, dust-free place
• Protect the product against mechanical impacts
• Protect the product against exposure to direct sunlight

ATTENTION!
Risk of property damage in case of improper storage!
The product may be damaged.
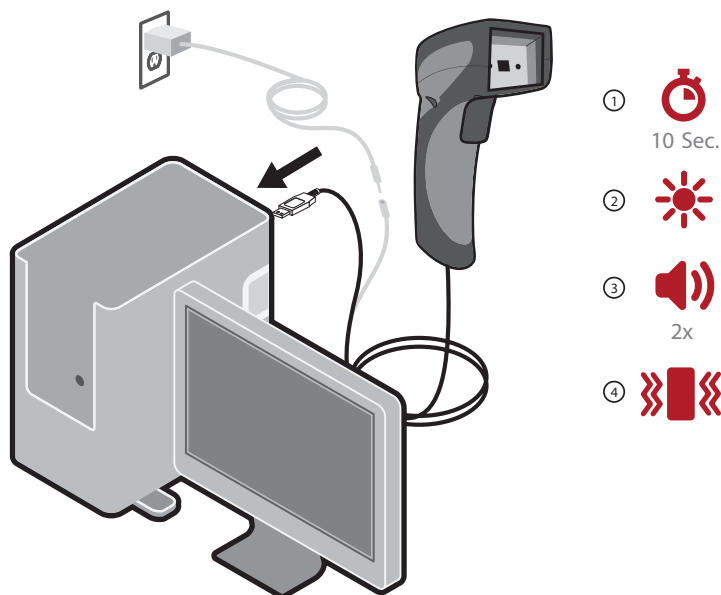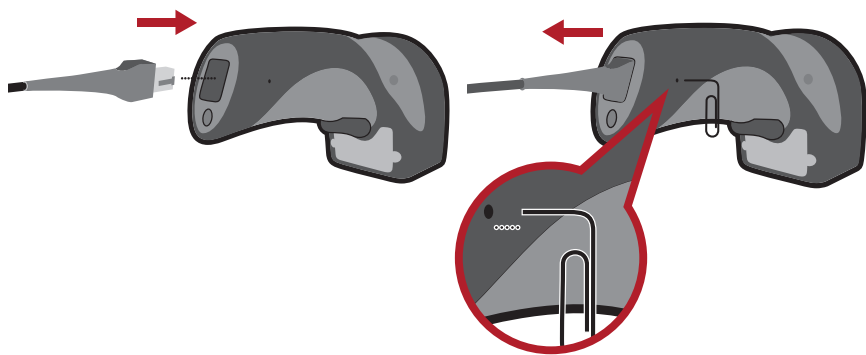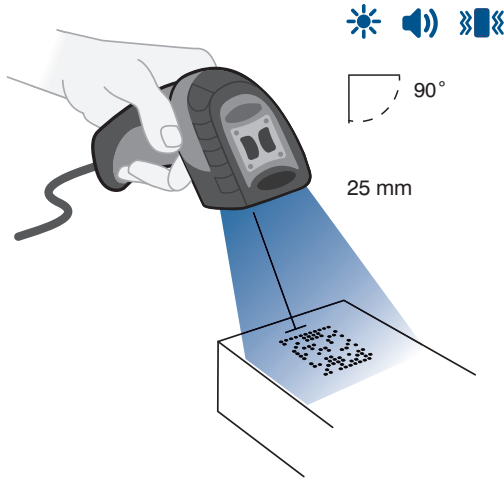• Comply with storage instructions.

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5. Installation and Electrical Connection

5.1 Installation

• Protect the product against contamination during installation.

• Observe all applicable electrical and mechanical regulations, standards, and safety rules.

• Protect the product against mechanical influences.

• There must not be any objects underneath the working range.

☀ 🔊 〉▮〈

90°

25 mm

ATTENTION!
Risk of property damage in case of improper installation!
The product may be damaged.
• Comply with installation instructions.

CAUTION!
Risk of personal injury or property damage during installation!
Personal injury and damage to the product may occur.
• Ensure a safe installation environment.

5.2 Electrical Connection

The CSHH00x hand scanner has an RJ-50 connector with the following configurations:

Pin 1	+ 5 V
Pin 2	USB_DM
Pin 3	USB_DP
Pin 4	RS-232 TX (scanner output)
Pin 5	RS-232 RTS (scanner output)
Pin 6	RS-232 RX (scanner input)
Pin 7	RS-232 CTS (scanner input)
Pin 8	External trigger (active low scanner input)
Pin 9	N/C
Pin 10	Grounding

NOTES:

1. Part to be ROHS and Reach compliant.
2. Maximum Voltage Tolerance = 5 V +/− 10 %.
3. Caution: Exceeding the maximum voltage will void manufacturer warranty.

Connector A	Name	Wire	Color	Connector B
1	VIN	24 A WG	Red	1
2	DM	28 A WG	White	2
3	DP	28 A WG	Green	3
4	GND	24 A WG	Black	10
Shell	—	Shield	Bare	Shell

**Connector A**   **Connector B**

NOTES:

1. Part to be ROHS and Reach compliant.
2. Maximum Voltage Tolerance = 5 V +/−10 %.
3. Caution: Exceeding the maximum voltage will void manufacturer warranty.

Conn A	Name	Wire	Color	Conn B	Wire	Color	Conn C
1	VIN	24 A WG	Red	9	24 A WG	Red	TIP
4	TX	28 A WG	Brown	2			
5	RTS	28 A WG	Orange	8			
6	RX	28 A WG	Yellow	3			
7	CTS	28 A WG	Green	7			
10	GND	24 A WG	Black	5	24 A WG	Black	RING
Shield	—	Shield		Shield			

Connector C

Connector A   **Connector B**
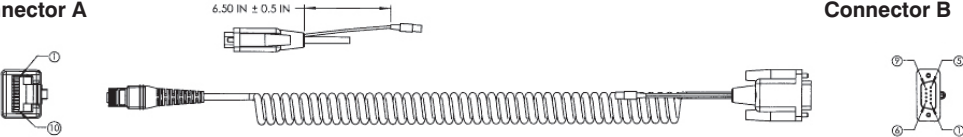
5.3   Diagnostics

Required action in case of fault:

NOTE!
- Shut down the machine.
- Analyze and eliminate the cause of error with the help of the diagnostics information.
- If the error cannot be eliminated, please contact wenglor's support department
- Do not operate if malfunctioning indeterminately.
- The machine must be shut down if the error cannot be definitively explained or properly eliminated.

DANGER!
Risk of personal injury or property damage in case of non-compliance!
The system's safety function is disabled. Personal injury and damage to equipment.
- Required action as specified in case of fault.

6. Functions Overview

6.1 Default Settings

The following code types are activated upon delivery:

- Atztec
- Codabar
- Code 39
- Code 93
- Code 128:
- Data matrix
- Data Matrix Inverse
- Data matrix rectangle
- All GS1 DataBars
- Interleaved 2 of 5
- PDF417
- QR Code
- UPC/EAN/UPC-E

Additional types of codes can be activated using either the wenglor eazyScan parametrization software or the parametrization codes in

6.2 Read modes and code types

Read characteristics differ from each other depending on how the code is applied, as well as the surface of the product to which the code is applied.

Read Mode	Code Type / Application Method
Auto (standard)	Reads needle punched and laser printed codes with automatic adjustment for best possible reading performance with varying codes and different application methods.
Dark field	Options: 1. Reads needle punched codes at an angle of 15° to 45°, or 2. Reads laser printed codes at an angle of 90°, or 3. Reads needle punched codes at an angle of 15° to 45° or laser printed codes at an angle of 90°
Diffuse bright field	Options: 1. Reads needle punched codes at an angle of 90°, or 2. Reads laser printed codes at an angle of 90°, or 3. Reads needle punched and laser printed codes at an angle of 90°
Direct bright field	Reads printed code on paper
Curved surface	Reads needle punched and laser printed codes on curved surfaces at an angle of 90°

6.3   Scanner feedback

Scenario	Top LED	Sound	Vibration
Scanner has been started up correctly	Green LED blinks	1 beep	Vibrating handle
Successfully connected with the host (RS-232)	Green LED off	2 beeps	Vibrating handle
Ready for deciphering	Green LED off	None	None
Successful deciphering and data transmission	Green LED blinks	1 beep	Vibrating handle
Configuration code successfully deciphered and applied	Green LED blinks	2 beeps	Vibrating handle
Configuration code successfully deciphered but couldn't be applied	Green LED blinks	4 beeps	Vibrating handle

7.   Installing the eazyScan software

7.1   Installation procedure

First verify whether there is a current version of the software available on the website. Go to www.wenglor.com and download the most current version of the software, as needed.
If the software on the CD is the latest version, proceed as follows:

1. Insert the installations CD into the CD drive.
• Double-click on the "Install_eazyScan" setup program to begin. Administrator rights are required here.

2. Installation instructions will follow.
• The eazyScan software is installed.

The language setting for the software is the same as for the operating system. If a different language is desired, it can be selected in the Settings menu.

8. General setup of the eazyScan software

8.1 Start screen

The following start window appears after the program has been started. Various options are provided by the software.
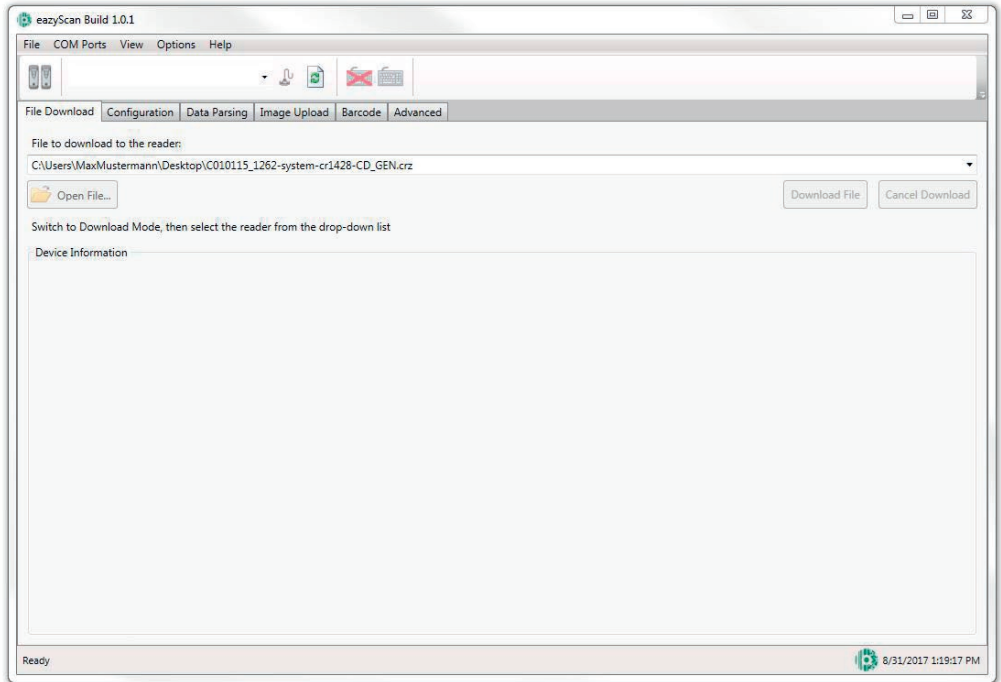

8.2 Operator interface

The depicted layout of the operator interface shows the standard configuartion of the software upon first use. However, the user interface can be adapted to meet your individual needs.

8.3 Establishing connection

1. Open the eazyScan software
2. Plug the USB cable or RS-232 jack into your PC
3. If an RS-232 scanner is to be connected, the COM port used must be selected in the software.
4. The scanner will connect automatically. Two beeps will be heard when the scanner was connected correctly. With an RS-232 scanner, the Reload symbol must be pressed to start the search for RS-232 scanners.
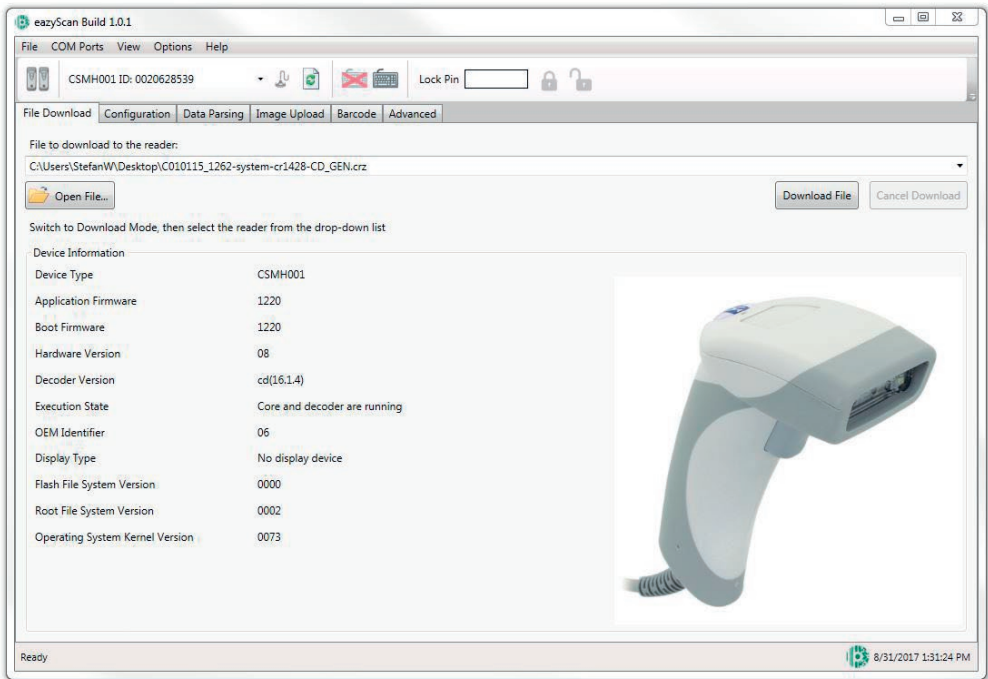
5. USB scanners start in USB keyboard mode, which is set in download mode by clicking the ✖-icon. When the mode has been changed, the scanner and its device information will appear in the software.
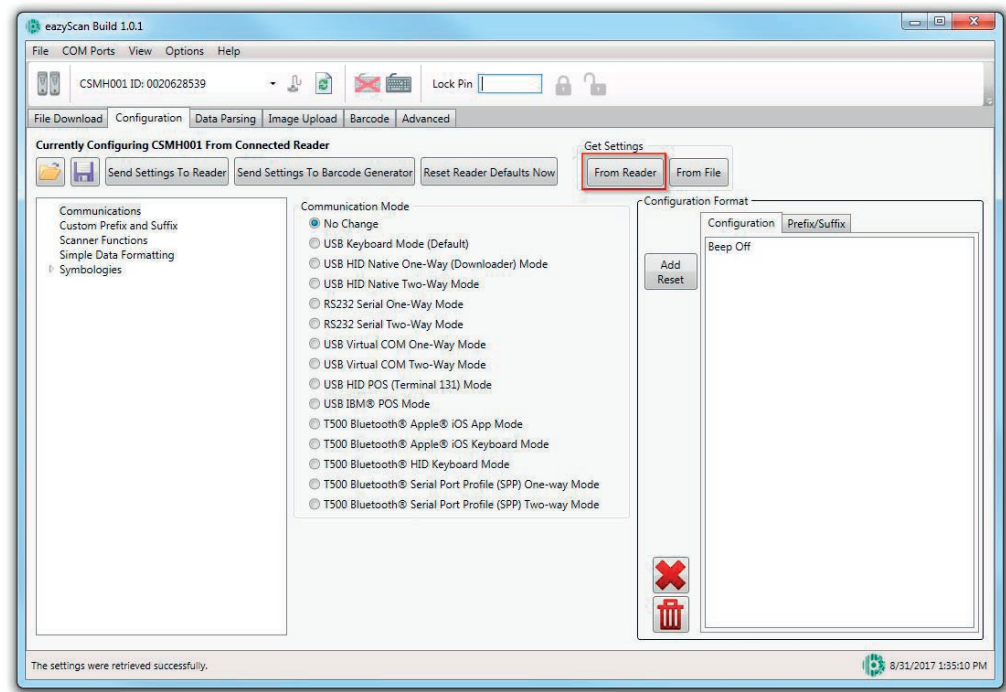
8.4 Firmware updates

Click on Open file... to look for firmware files on the PC. When a firmware file has been selected, the firmware update process is started by clicking on Download file.
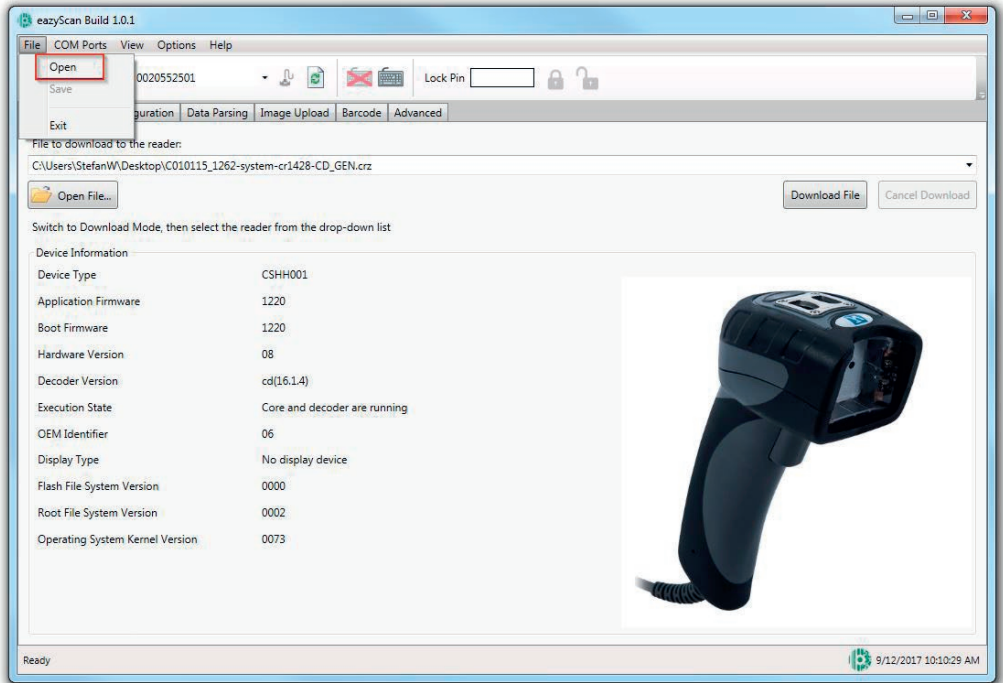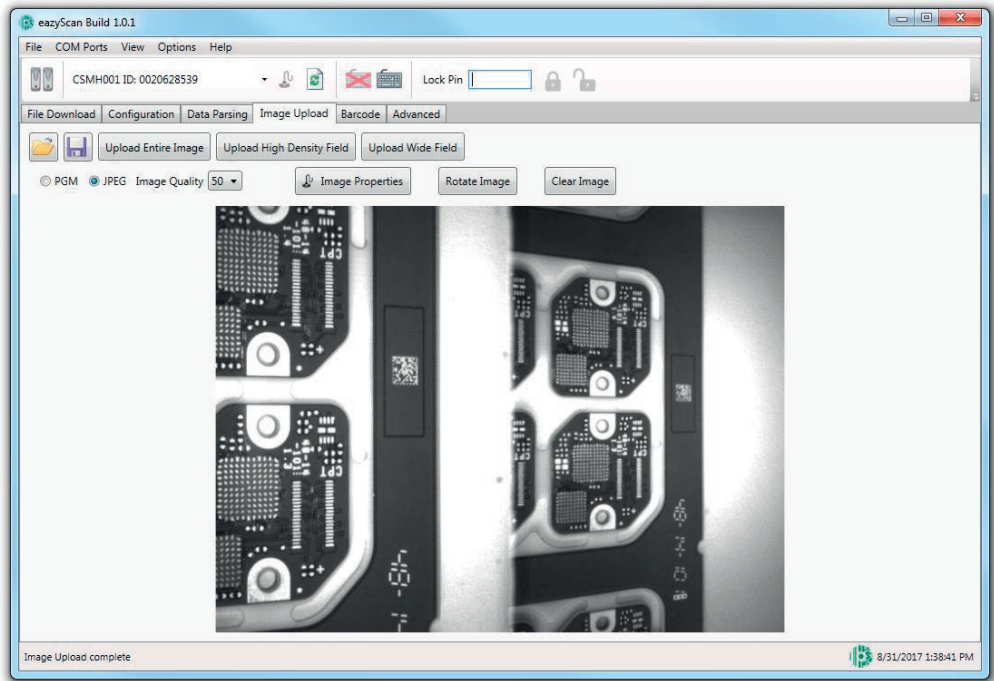
8.5   Configuration

The scanner configuration can be found under the Configuration tab. All available scanner setup parameters are displayed there.

8.6 Image capturing


1. Select the image type in which you would like to save the image. You may choose PGM or JPEG. If JPG is selected, you may also choose the image quality.
2. Position the scanner where the barcode is to be read.
3. Select image windows from which readouts are to be made.
4. If the image was captured, three additional buttons will become visible. Image properties, Rotate image, Delete image.

8.7 Data Matrix Code Generator

Click on the barcode and the data matrix code generator will open. After entering the data into the free field and defining the module size of the code, generate a code by clicking on Create.
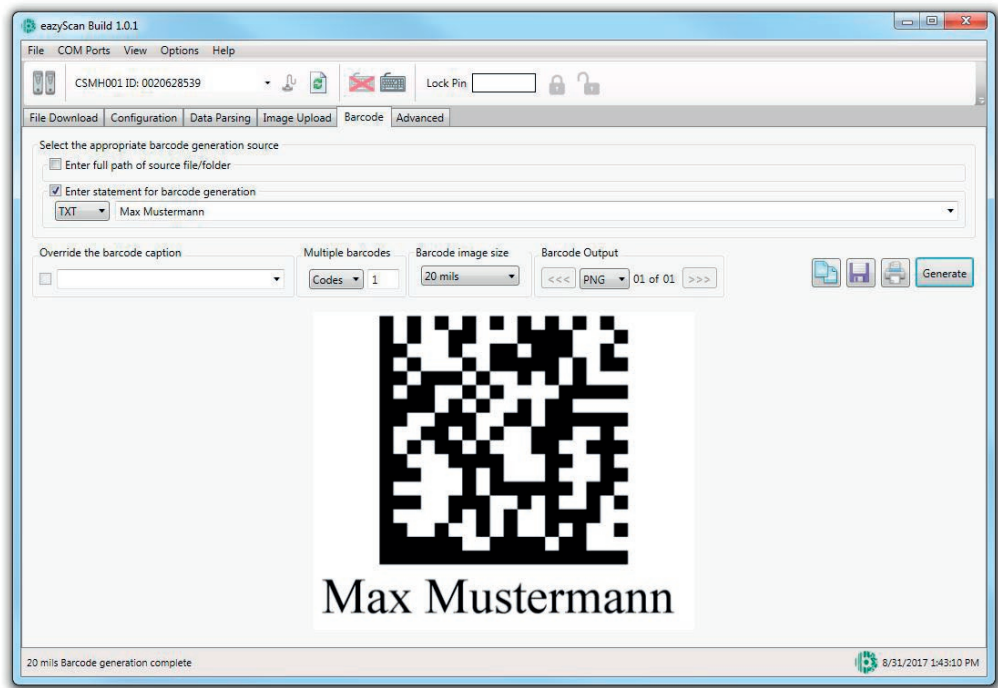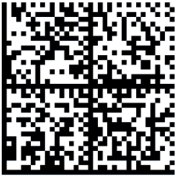
9.   Setup using data matrix code

9.1   USB port

The scanner is normally set to USB native mode (HID)
In this mode, unformatted, unpacked data is usually sent to the scanner via the USB port.

M10002_02

Reset to USB Factory Defaults

Scan this barcode to place the reader in USB Downloader Mode. This mode allows file transfer to/from the reader. File types eligible for transfer include firmware, configuration, and images (also default mode for CortexTools).

M10004_02

USB Downloader Mode

Scan this barcode to use Virtual COM mode to transfer batch data. The reader will talk to a virtual COM port on the host device and transmit data serially (i.e. like an RS232 device).

M10005_01

USB Virtual COM - 1 Way Mode - Batch Mode Only

M10431_01

USB Virtual COM Multiple Ports

M10432_01

USB Virtual COM Common Ports

Scan this barcode to place the reader in bi-directional, packetized USB mode with automatic retry on packets.

M10006_02

USB Native Two Way Mode

9.2 RS-232 Interface

With RS-232 communication, the scanner communicates with the host using a communication program like ESP Terminal.

The standard settings for creating an RS-232 connection are:

Baud rate: **115.2 K**

Parity: **None**

Stop bits: **1**

Data bits: **8**

If the RS-232 interface is active, USB communication is turned off, and you will have to reset the scanner or press the "USB Keyboard Mode" symbol to return to USB.
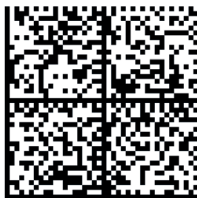
M10389_03

Reset to RS232 Factory Defaults

Baud Rate (RS-232)

The baud rate is the speed at which the scanner and host transmit data. It only needs to be changed when the host settings need to be adjusted.

M10392_01

RS232 Interface 1200 Baud Rate

M10393_01

RS232 Interface 2400 Baud Rate

M10394_01

RS232 Interface 4800 Baud Rate

M10395_01

RS232 Interface 9600 Baud Rate

M10396_01

RS232 Interface 19200 Baud Rate

M10397_01

RS232 Interface 38400 Baud Rate

M10398_01

RS232 Interface 57600 Baud Rate

M10399_01

RS232 Interface 115200 Baud Rate

Parity (RS-232)

Parity is an error detection routine in which every character in a data bit is set to 1 or 0 so that the total number of 1 bits in each data field is even or odd. It only needs to be changed when the host settings need to be adjusted.

M10400_01

RS232 Interface Even Parity

M10401_01

RS232 Interface Odd Parity

M10402_01

RS232 Interface No Parity

Data Bits (RS-232)

Data bits represents the total number of bits in a character. This setting only needs to be changed when the host settings need to be adjusted.

M10390_01

RS232 Interface 8 Data Bits

M10391_01

RS232 Interface 8 Data Bits (Standard)

M10406_01

RS232 Interface Stop Bits 1

M10407_01

RS232 Interface Stop Bits 1

M10408_01

RS232 Interface Flow Control Off

M10409_01

RS232 Interface Flow Control - Hardware

9.3 Communications Mode

Data is transmitted from the scanner to the host in raw format, without packet framing or check characters. One-way communication is conducted in raw format. No response from the host is expected and data will not be resent.

M10387_01

RS232 Raw Mode

Packet mode data is sent with framing (meaning a preamble that communicates the quantity of data to be transmitted and a postamble with error detection) and check characters, and a response is expected from the host. Two-way communication is conducted in packet form.


M10388_02

RS232 Packet Mode

9.4 Keyboard Mapping

The Keyboard Mapping option provides alternative settings for keyboards that do not have the US English keyboard layout.
**Note:** The universal keyboard layout is somewhat slower than other language-specific options since the keys are assigned using the entire ASCII character set. The advantage of the universal keyboard layout is that every language and keyboard layout can be mapped.
Important: This option should not be confused with the USB keyboard mode, which provides the ability to create wired USB communication.
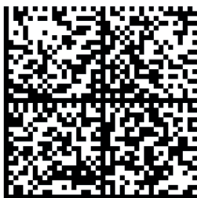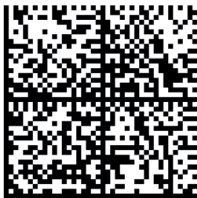

M10418_02

Keyboard Support: Russian Keyboard Mapping for Windows
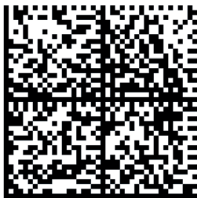
M10419_02

Keyboard Support: English Keyboard Mapping for Apple

M10460_02

Keyboard Support: English (US) Keyboard Mapping for Windows

M10469_01

Keyboard Support: USInternational (Universal) Keyboard Mapping for Windows
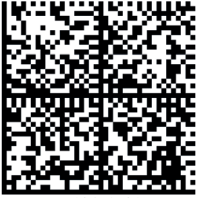
M10471_01

Keyboard Support: English (UK) Keyboard Mapping for Windows

M10461_02

Keyboard Support: Belgian French Keyboard Mapping for Windows

M10420_02

Keyboard Support: French Keyboard Mapping for Apple
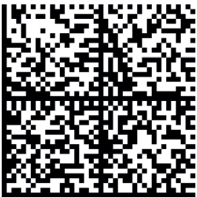
M10462_02

Keyboard Support: French Keyboard Mapping for Windows

M10421_02

Keyboard Support: German Keyboard Mapping for Apple

M10463_02

Keyboard Support: German Keyboard Mapping for Windows

M10422_02

Keyboard Support: German-Swiss Keyboard Mapping for Apple

M10466_02

Keyboard Support: Swiss German Keyboard Mapping for Windows

M10423_02
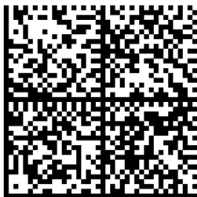
Keyboard Support: Italian Keyboard Mapping for Apple
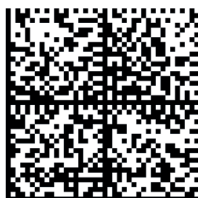
M10424_02

Keyboard Support: Spanish Keyboard Mapping for Apple
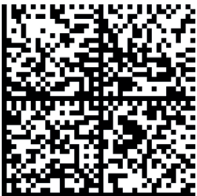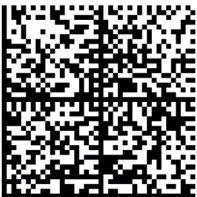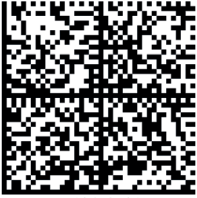
M10472_01

Keyboard Support: Spanish Keyboard Mapping for Windows
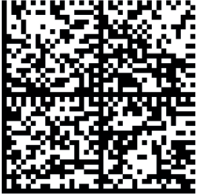
M10464_02

Keyboard Support: Japanese Keyboard Mapping for Windows
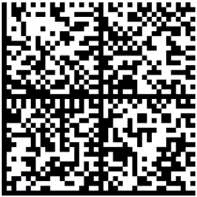
M10465_02

Keyboard Support: Latin American Keyboard Mapping for Window

M10425_01

USB HID POS Mode (Terminal ID 131)

M10426_02

Translate all Characters to Uppercase Off

9.5 Alternative operating systems

The reader will modify its enumeration and communication scheme to work on Linux, Windows CE, or OS X operating systems.
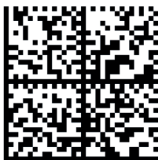
M10122_02

Alternative operating systems (Linux/Mac) off (Standard)
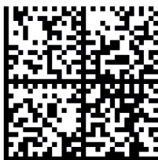
M10123_02

Alternative operating systems (linux/Mac) on

9.6 Scanning process

When on, reader will constantly flash its LEDs and attempt to decode. Turn on to disable this feature. Continues Read off.

M10011_01

Continuous Scan Off

When on, reader will constantly flash its LEDs and attempt to decode. Turn on to enable this feature. Continues Read on.

M10012_02

Continuous Scan Both Imagers On

M10144_01

Duplicate Scan Disabled

M10145_01

1 Second Duplicate Scan Delay

M10146_01

2 Second Duplicate Scan Delay

M10147_01

3 Second Duplicate Scan Delay

M10148_01

5 Second Duplicate Scan Delay

M10149_01

10 Second Duplicate Scan Delay

M10150_01

30 Second Duplicate Scan Delay

M10151_01

1 Hour Duplicate Scan Delay

M10152_01

1 Day Duplicate Scan Delay

You can activate and deactivate LED alignment assistance using the Targeting parameter. Alignment assistance is activated by default.

M10153_01

Targeting On (Standard)

M10154_01

Targeting On

Use Motion Detection to specify that the scanner start a decoding trial as soon as it detects movement in its visual field.

M10013_02

Motion Detection Off In and Out of Stand

M10014_03

Optimize Motion Detection for Bright Environments

M10015_03

Optimize Motion Detection for Dark Environments

M10016_03

No Motion Detection Delay

M10017_03

500 ms Motion Detection Delay

M10403_02

Motion Detection On in Stand Trigger out of Stand

M10404_02

Motion Detection On In and Out of Stand

9.7 Dual scanning area

The scanner can read small 2D codes as well as large 1D codes thanks to its dual scanning area. An image will be captured of every area. First it will attempt to decode the image (at close or far range) that was successfully decoded during the last cycle. If this fails, the next image will be decoded. Move the scanner closer if the symbols are smaller and further away if they are larger.

Image area

960

Far range

Visual field: 50° horizontal,
33,5° vertical
Focus: Approx. 115 mm

640

(1280)

Close range

Visual field: 30° horizontal, 20° vertical
Focus: Approx. 100 mm

640
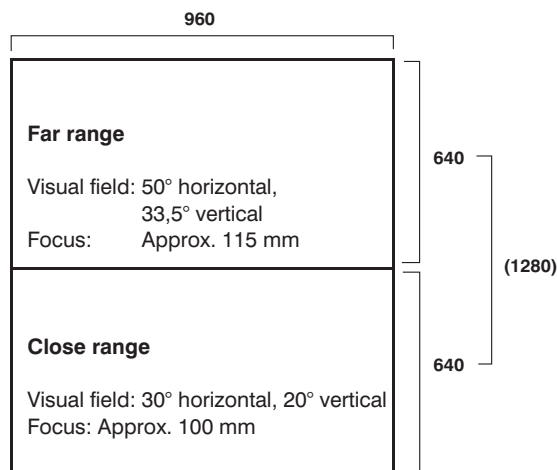
M10182_01

Scan this barcode to read from the wide optical field only

M10183_01

Scan this barcode to read from the high density optical field only

M10190_01

Scan this barcode to read from both optical fields.

9.8 Mirroring

The scanner can decode mirrored symbols with the Mirroring function. When Mirroring is active, all other decoding functions are turned off.
Note: If the scanner is set to Mirroring On, it can now only return to standard mode when the Mirroring Off symbol pictured below is pressed.

M10124_02

Mirroring Off (Standard)

M10125_01

Mirroring On

9.9 Preamble and postamble

attached at the beginning of a decoded data string. The characters are displayed in the order that they are activated (from left to right). If you, for example, enter a comma and then a space, then decode a barcode with the "ABC" data, the following will output:

, ABC

The number of preamble characters that can be entered depends on the total quantity of memory space available. Specify the desired preamble character by pressing the corresponding symbol, shown below.

M10127_01

Prefix Comma

M10128_01

Prefix Space

M10129_01

Prefix Tab (USB Keyboard Mode Only)

M10319_01

Prefix Tab (RS232 Mode Only)

M10405_01

Prefix Carriage Return Line Feed (RS232 Mode Only)

M10126_01

Erase Prefix Data (Standard)

M10131_01

Suffix Comma

M10132_01

Suffix Space

M10133_01

Suffix Tab (USB Keyboard Mode Only)

M10134_01

Suffix Enter (USB Keyboard Mode Only)

M10320_01

Suffix Carriage Return (RS232 Mode Only)

M10321_01

Suffix Line Feed (RS232 Mode Only)

M10322_01

Suffix Carriage Return Line Feed (RS232 Mode Only)

M10323_01

Suffix Tab (RS232 Mode Only)

M10135_01

Erase Prefix & Suffix Data (Standard)

M10342_01

Turn on Timestamp Prefix

M10343_02

Turn off Timestamp Prefix

9.10 Text Command

Use Text Command to determine whether a text command from the host is to be received.

M10136_01

Reader Text Commands Off (Standard)

M10137_01

Reader Text Commands On

9.11 Beeper / Vibrator

Press the configuration symbols below in order to activate or deactivate the beeper and vibrator functions.

M10140_01

Beep On Vibrate On (Standard)

M10141_02

Beep Off Vibrate On

M10142_01

Beep On Vibrate Off

M10143_02

Beep Off Vibrate Off

M10194_01

Beep Volume 0 %

M10195_01

Beep Volume 33 %

M10196_01

Beep Volume 67 %

M10197_01

Beep Volume 100%

9.12 Code settings

9.12.1 Aztec Code

M10019_01

Aztec On (Standard)

M10018_01

Aztec Off

M10020_01

Aztec Inverse On

M10021_01

Aztec Inverse & Normal On

9.12.2 Codabar

M10022_01

Codabar On (Standard)

M10023_01

Codabar Off

M10026_01

Codablock F Off

M10027_01

Codablock F On

M10538_01

Keep Codabar Start and Stop Delimiters – Default

M10537_01

Remove Codabar Start and Stop Delimiters

9.12.3 Code 11

M10028_02

Code 11 Off (Standard)

M10029_02

Code 11 On

M10031_02

Code 11 Checksum Stripped from Result On

M10550_01

Enable Code 11 Decoding with one checksum digit checked, and remove checksum from output

9.12.4 Code 32 (Italian Pharmacode)

M10238_02

Code 32 (Italian Pharmacode) Off (Standard)

M10239_02

Code 32 (Italian Pharmacode) On

9.12.5 Code 39

M10033_02

Code 39 On (Standard)

M10034_02

Code 39 Off

M10035_01

Code 39 Checksum Off

M10036_01

Code 39 Checksum On

M10037_01

Code 39 Checksum Stripped from Result On

M10038_01

Code 39 Extended Full ASCII Off

M10039_01

Code 39 Extended Full ASCII In

9.12.6 Code 49

M10458_01

Enable Code 49

M10459_01

Disable Code 49

9.12.7 Trioptic Barcode

M10040_01

Trioptic Off (Standard)

M10041_01

Trioptic On

M10445_01

Trioptic - Disable Reverse Order option (Bit 3)

M10446_01

Trioptic - Enable Reverse Order option (Bit 3)

9.12.8 Code 93

M10042_01

Code 93 On

M10043_01

Code 93 Off

9.12.9 Code 128

M10044_01

Code 128 On (Standard)

M10045_01

Code 128 off

9.12.10 Composite Barcode

M10046_01

Composite off (Standard)

M10047_02

Composite on

9.12.11 Data Matrix

M10048_01

Data Matrix Rectangular & Rectangular Extended Off

M10049_01

Data Matrix Rectangular On & Rectangular Extended Off (Standard)

M10050_03

Data Matrix Inverse Off

M10051_03

Data Matrix Inverse On (Standard)

M10470_01

Data Matrix Rectangular On & Rectangular Extended On

9.12.12 Grid Matrix

M10535_01

Enable Grid Matrix Symbology

M10536_01

Disable Grid Matrix Symbology – Default

M10544_01

Enable Grid Matrix & Grid Matrix Inverse Decoding

M10545_01

Enable Grid Matrix & Grid Matrix Mirror Decoding

M10546_01

Enable Grid Matrix, Grid Matrix Inverse & Grid Matrix Mirror Decoding

9.12.13 GoCode

M10547_01

Enable GoCode & GoCode Inverse Decoding

M10548_01

Enable GoCode & GoCode Mirror Decoding

M10549_01

Enable GoCode, GoCode Inverse & GoCode Mirror Decoding

9.12.14 GS1 Databar

M10054_01

All GS1 DataBar On (Standard)

M10055_01

All GS1 DataBar Off

M10056_03

GS1 DataBar Limited On

M10057_03

GS1 DataBar Omnidirectional and GS1 DataBar Truncated On

M10058_03

GS1 DataBar Stacked and GS1 DataBar Stacked Omnidirectional On

M10059_03

GS1 DataBar Expanded On

M10353_03

GS1 DataBar Stacked and GS1 DataBar Stacked Omnidirectional Off

M10354_02

GS1 DataBar Limited Off

M10355_02

GS1 DataBar Omnidirectional and GS1 DataBar Truncated Off

M10356_02

GS1 DataBar Expanded Stacked Off

M10357_02

GS1 DataBar Expanded Stacked On

M10417_02

GS1 DataBar Expanded Off

9.12.15 Interleaved 2 of 5

M10060_01

Interleaved 2 of 5 On (Standard)

M10061_01

Interleaved 2 of 5 Off

M10234_01

Int 2 of 5 Checksum Off (Standard)

M10235_01

Int 2 of 5 Checksum On

M10065_01

Int 2 of 5 Checksum Stripped from Result On

9.12.16 Maxicode

M10066_01

Maxicode Off (Standard)

M10067_02

Maxicode on

9.12.17 Matrix 2 of 5

M10068_01

Matrix Code 2 of 5 Off (Standard)

M10069_01

Matrix Code 2 of 5 On

9.12.18 PDF417

M10070_01

PDF417 On (Standard)

M10071_01

PDF417 Off

M10072_01

Micro PDF417 Off (Standard)

M10073_01

Micro PDF417 On

9.12.19 MSI Plessey

M10076_01

MSI Plessey On

M10077_01

MSI Plessey Off (Standard)

9.12.20 Hong Kong 2 of 5

M10078_02

Hong Kong 2 of 5 Off (Standard)

M10079_01

Hong Kong 2 of 5 On

9.12.21 NEC 2 of 5

M10082_01

NEC 2 of 5 on

M10083_01

NEC 2 of 5 off

9.12.22 QR Code

M10095_04

Standard QR Code On (Standard)

M10101_02

All QR Code on

M10351_03

All QR Code Off

9.12.23 Telepen

M10103_01

Telepen On

M10104_01

Telepen Off (Standard)

M10520_01

Output Telepen as Numeric

M10521_01

Output Telepen as ASCII

9.12.24 UPC/EAN

M10105_01

UPC On
Scanner reads UPC-A, UPC-E, EAN-13 and EAN-8

M10106_01

UPC Off

M10107_01

UPC E Expansion Off (Standard)
Scanner expands UPC-E bar codes into UPC-A barcodes

M10108_01

UPC E Expansion On
Scanner expands UPC-E bar codes into UPC-A barcodes

M10109_01

UPC Supplemental Off (Standard)
Reader will scan the two or five digit supplemental barcode that accompanies some UPC/EAN barcodes

M10110_01

UPC Supplemental On
Reader will scan the two or five digit supplemental barcode that accompanies some UPC/EAN barcodes

M10475_01

Transmit UPC-A Check Digit

M10476_01

Do Not Transmit UPC-A Check Digit

M10477_01

Transmit UPC-A Number System

M10478_01

Do Not Transmit UPC-A Number System

M10479_01

Transmit UPC-E Check Digit

M10480_01

Do Not Transmit UPC-E Check Digit

M10481_01

Transmit UPC-E Number System

M10482_01

Do Not Transmit UPC-E Number System

M10483_01

Transmit EAN-13 Check Digit

M10484_01

Do Not Transmit EAN-13 Check Digit

M10485_01

Transmit EAN-8 Check Digit

M10486_01

Do Not Transmit EAN-8 Check Digit

M10487_01

Do Not Convert EAN-8 to EAN-13

M10488_01

Convert EAN-8 to EAN-13

M10489_01

Do Not Convert UPC-A to EAN-13

M10490_01

Convert UPC-A to EAN-13

M10491_01

Do Not Convert Bookland EAN-13 to ISBN

M10492_01

Convert Bookland EAN-13 to ISBN

M10493_01

Do Not Convert Bookland EAN-13 to ISSN

M10494_01

Convert Bookland EAN-13 to ISSN

9.12.25 UK Plessey

M10236_02

UK Plessey Off (Standard)

M10237_02

UK Plessey ON

9.12.26 Straight 2 of 5

M10240_01

Straight 2 of 5 Off (Standard)

M10241_01

Straight 2 of 5 On

9.12.27 Han Xin

M10248_01

an Xin On

M10249_01

Han Xin Off (Standard)

9.12.28 Pharmacode

M10274_03

Pharmacode Off (Standard)

M10275_02

Pharmacode On

M10280_02

Pharmacode Reverse Barcode Decoding (Right to Left)

M10281_02

Pharmacode Normal Barcode Decoding (Left to Right)

9.12.29 Post Codes

M10282_02

USPS Postnet On

M10283_02

USPS Postnet Off (Standard)

M10284_02

USPS Planet On

M10285_02

USPS Planet Off (Standard)

M10286_02

USPS Intelligent Mail/IMB/ 4-State CB On

M10287_02

USPS Intelligent Mail/IMB/ 4-State CB Off (Standard)

M10288_02

Australian Post On

M10289_02

Australian Post Off (Standard)

M10290_02

KIX (Dutch Post) Code On

M10291_02

KIX (Dutch Post) Code Off (Standard)

M10292_02

Japan Post On

M10293_02

Japan Post Off (Standard)

M10294_02

UK Royal Mail On

M10295_02

UK Royal Mail Off(Standard)

M10358_01

Korean Post On

M10359_01

Korean Post Off (Standard)

M10360_02

Universal Postal Union ID-Tag On

M10361_02

Univeral Postal Union ID-Tag Off (Standard)

9.13 Other commands

M10138_02

Clear All Stored Data and Images

M10139_02

Clear all JavaScript Rules

M10157_01

Reader ID and Firmware Version

Save settings

M10159_01

Save All Reader Settings

M10162_01

Cell Phone Reading Enhancement Off (Standard)

M10163_01

Cell Phone Reading Enhancement On

M10220_03   Scan this barcode to translate all alphabetic data to upper case

M10439_01   Convert Barcode Data to Lowercase

M10441_01

Control Character Input - Language Default - Default

M10442_01

Control Character Input - Ctrl + Character

M10443_01

Control Character Input - Alt + Keypad

M10444_01

Control Character Input -Alt + Leading Zero

M10522_01

Output Good Read on RTS line Off

M10523_01

Output Good Read on RTS line - Active Low

M10524_01

Output Good Read on RTS line - Active High

M10296_01

Reboot Reader

10. Maintenance Instructions

NOTE!
- This wenglor sensor is maintenance-free
- It's advisable to clean the transducer and the display, and to check the plug connections at regular intervals
- Do not clean the sensor with solvents or cleansers which could damage the product
- The product must be protected against contamination during initial start-up

11. Proper Disposal

wenglor sensoric GmbH does not accept the return of unusable or irreparable products. Respectively valid national waste disposal regulations apply to product disposal.

12. Appendix

12.1 List of Changes to Operating Instructions

Version	Date	Description/change	Associated software version
1.0.0	12th September 2017	Initial version of the operating instructions	

12.2 Check list for initial start-up

- This checklist is intended to provide assistance during initial start-up.
- This check list does not replace the checks before intitial start-up as well as the regular checks on the part of specialized personnel

1. Standards and guidelines; selecting the ESPE		
Are the safety rules for the machine based on applicable standards and guidelines?	Yes	No
	Yes	No
	Yes	No
2. Safety clearance		
Was the safety clearance calculated according to applicable standards?	Yes	No

12.3 EU Declaration of Conformity

The EU declaration of conformity can be found on our website at www.wenglor.com in download area.