



QUICK START GUIDE

ODT-HH-MAH120-HD

Handheld - High Density

CE





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1 Introduction

1.1 Purpose of this Quick Start Guide

This Quick Start Guide is designed to help you learn the basic functions for operating the device. The guide also contains brief instructions for using the device again at a later stage. However, this Quick Start Guide does not replace the manual on the CD supplied.

The Quick Start Guide does not explain complex scenarios or offer detailed information. If you wish to use the full range of device functions, refer to the manual. We also recommend reading the manual if you are unsure about handling the device or experience device malfunctions.

1.2 Intended use

Operating the Handheld in a way different from that described in these instructions may have a negative effect on the reliability and function of the device and connected systems. Protection of operating personnel and the overall system is no longer guaranteed if the device is not used as specified.

The handheld was designed for identifying 1D and 2D codes and should be used for this purpose only. The handheld is flexible and can therefore be used to decode codes in many branches of industry, such as the logistics sector.

2 Installation and Commissioning

2.1 Connection

You have the opportunity to connect the handheld to the following PC interfaces:

- USB
- RS232
- PS/2

The handheld is ready for immediate use once you have connected it to the computer.



Attaching the connecting cable to the handheld

1. Slide the protective cap over the 8-pin DIN plug.



2. Align the 8-pin plug so that it fits into the socket on the handheld.



3. Press the 8-pin DIN plug and protective cap onto the socket.



4. Use a screwdriver and the screws provided to fasten the protective cap onto the bottom of the handle.



2.1.1 Connection via USB



Connecting USB connecting cable to computer

1. Insert the USB plug of the connecting cable in a free USB port on your computer. This can be done during operation.

The handheld turns itself on automatically once you have connected it to the computer.

2. Scan the code **USB Keyboard Mode**:



M134_02

3. Scan the code **Save Settings**:



M188_02

Further USB configuration options, see chapter 2.2.1.

2.1.2 Connection via RS 232



Connecting RS 232 connecting cable to computer

1. Turn the computer off.
2. Connect the RS 232 plug of the connecting cable to the RS 232 port of the computer.
3. Connect the low-voltage plug of the power-supply unit to the low-voltage jack of the RS 232 connecting cable.
4. Connect the mains power plug of the power-supply unit to the mains power supply.

5. Turn the computer on.

The handheld turns itself on automatically once you have turned the computer on.

6. Scan the code **RS232 1 Way Mode**:



M131_01

7. Scan the code **Save Settings**:



M188_02

The handheld uses the following RS 232 factory settings:

- RS232 1 Way Mode
- 57600 baud
- 2 stop bits
- 8 data bits
- No parity

Further RS232 configuration options, see chapter 2.2.2.

2.1.3 Connection via PS/2



Connecting PS/2 connecting cable to computer

1. Turn the computer off.
2. Disconnect the connection to the computer if an external keyboard is connected to the computer.
3. If you are using a USB keyboard, connect the keyboard with an appropriate adapter to the PS/2 connecting jack of the connecting cable. If you are using a keyboard with PS/2 plug, connect the plug directly to the PS/2 connecting jack of the connecting cable.
4. Connect the PS/2 plug of the connecting cable to the computer's PS/2 port for keyboards.
5. Turn the computer on.

The handheld turns itself on automatically once you have turn the computer on.

6. Scan the code **PS/2 Mode**:



M126_01

7. Scan the code **Save Settings**:



M188_02

2.2 Operating modes



Caution!

Data loss

An incorrectly preset interface may lead to data loss.

Make sure that the Handheld is connected to the interface (USB, RS 232, Bluetooth) preset in the Handheld. If necessary, use another interface cable or modify the settings in the Handheld.

2.2.1 USB operating modes



Changing USB operating modes

There are 3 operating modes for USB operation of the handheld.

To change the USB operating mode, scan the relevant code in the following table.

USB Keyboard Mode

Scan this code to transmit all the scanned data from the handheld to the computer.

The data transmitted by the handheld are handled by the computer as data which have been input via a USB keyboard.



M134_02

| | |
|---|--|
| USB Downloader | |
| Scan this code to transmit unformatted, unpacked data via the USB interface to the handheld. |  M133_01 |
| USB Virtual COM 1 Way Mode | |
| Scan this code to port USB keyboard data to a serial application. You will also need a Virtual Com driver, which can be found at www.pepperl-fuchs.com . |  M668_01 |
| Reset to USB Factory Defaults | |
| Scan this code to reset the handheld to the USB factory settings. |  M049_03 |

2.2.2 RS232 operating modes



Changing RS232 communication parameters

Scan the respective code to change the individual RS 232 connection settings (view table "RS232 communication settings" on page 12).

RS232 communication settings

| Setting data bit | | | |
|--|---|--|--|
| 7 data bits  M100_01 | 8 data bits (default)  M101_01 | | |
| Setting stop bit | | | |
| 2 stop bits (default)  M106_01 | 1 stop bit  F001_01 | | |

| Setting baud rate | | | |
|--|---|---|--|
| 1200  M092_01 | 2400  M093_01 | 4800  M094_01 | 9600  M095_01 |
| 19200  M096_01 | 38400  M097_01 | 57600 (Default)  M098_01 | 115200  M099_01 |
| Setting parity | | | |
| Even  M102_01 | Odd  M104_01 | None  M103_01 | |
| Scan this code to reset the handheld to the RS232 default settings: |  M418_02 | | |

2.3 Positioning and reading techniques

This handheld uses digital camera technology to record an image of the code to be read. After an image has been recorded, the handheld uses highly developed evaluation procedures to evaluate the data contained in the recording.

This handheld supports you with target projections in the form of two squares distinguished by color when codes are sighted and focused. This projection is realized by one red and one green LED on the handheld. Precise positioning becomes increasingly important in the case of small codes or codes with a high information density.



- 1 Handheld too far away from the code
- 2 Handheld positioned too close to the code
- 3 Handheld optimally positioned (optimum distance: 5.8 cm)



Note!

Because of the large detection area of the handheld, we advise to cover the codes you don't want to scan. Thus you prevent to set a wrong setting inadvertently.



Sighting and reading 1D and 2D codes

1. With the trigger button pressed, aim the red square at the code to be read.
2. Alter the distance between the handheld and the code, depending on the position of the green square: the code is optimally sighted as soon as the two squares overlap.

The code is read automatically. In the event of successful decoding, the acoustic and tactile signal sounds and the status LED flashes green once (depending on the configuration of the handheld).

2.4 Optimizing reading performance



With this handheld, you can improve the reading performance by specifying the size and information density of the codes that are to be scanned.

1. If you typically tend to read a wide variety of codes, scan the **Wide-Field DOT (Default)** code.
2. If you typically tend to read small, 2D codes with high information density, scan the **SXGA Mode** code.
3. If you typically tend to read medium-sized, 1D and 2D codes with low information density, scan the **VGA Mode** code.
4. To save your settings, scan the **Save Settings** code.

Wide-Field DOT (Default)



M729_02

SXGA Mode



M730_01

VGA Mode



M731_01

Save Settings



M188_02

2.5 Reading high-density data matrix codes

This handheld is suitable for reading very small data matrix codes with an extremely high information density (high-density data matrix codes).



Note!

Note the color of the illumination LEDs.

Please note the different data matrix codes for handhelds with white and red illumination LEDs. Always scan the correct code for the relevant model. Failure to do so may cause malfunctions.



Optimizing the handheld for high-density data matrix codes



Note!

Data loss

All other settings are deleted when the code is scanned. Change all the necessary settings again if necessary.

To optimize the handheld to read high-density data matrix codes, scan the relevant data matrix code:

For handhelds with red LEDs, please use the following data matrix code:



CC000626_02

For handhelds with white LEDs, please use the following data matrix code:



Near Field White

2.6 Factory defaults



Resetting the handheld to factory defaults

To reset the handheld to the factory defaults of the operating mode, scan the appropriate code.

| Operating mode | Code | | Operating mode | Code | | Operating mode | Code |
|----------------|--|--|----------------|--|--|----------------|--|
| USB |  M049_03 | | RS232 |  M418_02 | | PS/2 |  M060_03 |



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