



IDM Bluetooth (IDMxx1-4xx)

QUICKSTART en



1 About this document

This Quickstart serves as a quick reference for the installation and operation of IDM hand-held scanners.

They are configured by scanning individual configuration codes or a sequence of configuration codes. Configuration codes are presented in this document; factory settings are indicated by the symbol ◆.

Supplementary and other relevant documents:

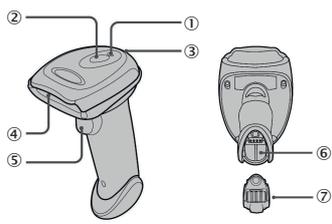
- Further language versions of this document (available online).
- Operating instructions for IDM hand-held scanners (available online).

These documents and additional information, such as application examples and downloads of associated documents and associated software, can be found on the SICK product page on the Internet at [www.sick.com/\[product_family\]](http://www.sick.com/[product_family]), for example for the product family IDM240: www.sick.com/IDM24x

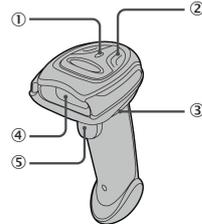
2 Product description

Product families

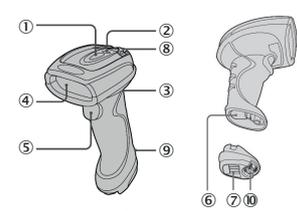
IDM141



IDM241



IDM161/IDM261

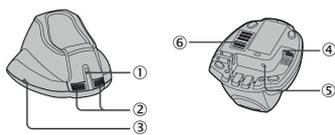


- ① Connection indicator
- ② Status indicator
- ③ Beeper
- ④ Reading window
- ⑤ Trigger

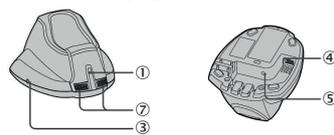
- ⑥ Battery compartment
- ⑦ End cap
- ⑧ Mounting eye (metal)
- ⑨ Mounting eye (plastic)
- ⑩ Retaining screw

IDM Bluetooth base stations

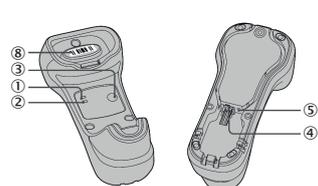
IDMx41 smart base station



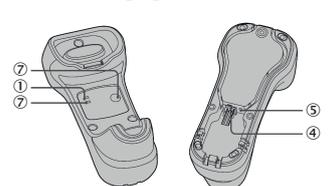
IDMx41 charging station



IDMx61 smart base station



IDMx61 charging station



- ① Operating indicator
- ② Status indicators
- ③ Paging/Reset pushbutton
- ④ Host interface
- ⑤ DC female connector (power supply unit)
- ⑥ Quick Pair barcode
- ⑦ Reserved
- ⑧ Quick Pair barcode

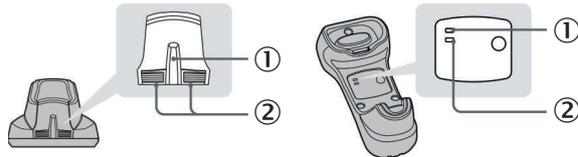
2.1 Indicators

Hand-held scanner

Description	Connection indicator	Audible signal
Wireless active	Flashes blue once every 2.5 s	Off
Wireless inactive	Flashes blue three times every 2 s	Off
During connection	Flashes blue rapidly	Short clicks
Wireless connection established	Flashes blue once every 2.5 s	4 ascending audible signals
Wireless connection disconnected	Flashes blue three times every 2 s	4 descending audible signals
Data transmission	Flashes blue rapidly	Short clicks

Description	Status indicator	Audible signal
Charging (on base station)	Permanently red	Off
Fully charged (on base station)	Permanently green	Off
Batch scanning active	Flashes green once every 2.5 s	Off
Connection error	Flashes blue 3 times every 2 s	Off
Memory full	Flashes red twice	2 long audible signals
Rechargeable battery low	Flashes red once at regular intervals	1 audible signal at regular intervals
Rechargeable battery extremely low	Flashes red once	8 audible signals
Successful reading	Flashes green once	1 audible signal following successful scan
Configuration is running	Permanently red	Off
“Uninstall” status	Flashes red and green alternately	Off
Upgrade status	Permanently red	Short click
Timeout warning	Off	3 long audible signals
Paging via smart base station	Off	6 audible signals for paging
Sleep mode/rechargeable battery depleted	Off	Off
Power off	Off	Off

Smart base station



- ① Operating indicator
- ② Status indicator

Description	Indicators		Audible signal	
	Operating indicator	Status indicator		
Voltage supply on	Flashes blue once	Off	Audible signals when switching on	
Upgrade status for smart base station	Off	Permanently red	Short clicks	
“Uninstall” status	Off	Flashes red and green alternately	Off	
PICO mode	Wireless active	Permanently blue	Permanently green (left status LED only)	Off
	Wireless inactive	Off	Permanently red	Off
PAIR mode	Wireless active	Permanently blue	Off	Off
	Wireless inactive	Off	Permanently red	Off
Paging of smart base station via scanner	PICO mode	Permanently blue	Permanently green (left status LED only)	6 audible signals for paging
	PAIR mode	Permanently blue	Off	6 audible signals for paging

Charging station

Description	Operating indicator	Audible signal
Voltage supply on	Permanently blue	Off

3 Preparation

3.1 Inserting / removing the rechargeable battery

WARNING

Explosion risk!

Risk of explosion if using a wrong battery type.

- Use only the battery types approved by the manufacturer.

Approved battery types: part number 6041193 (BT2100, 3.7 V, 2600 mAh)



- With the charging contacts facing forward, slide the rechargeable battery into the battery compartment until it engages.
 - Lock the compartment with the end cap.
 - Secure the end cap using the screw provided (IDMx4x) or by turning the integrated knurl wheel (IDMx6x).
- ▶ To remove the rechargeable battery, perform these steps in reverse order.

NOTE

The overhang of the battery sticker can be used if necessary to pull out the battery.

3.1.1 Disposal of used batteries

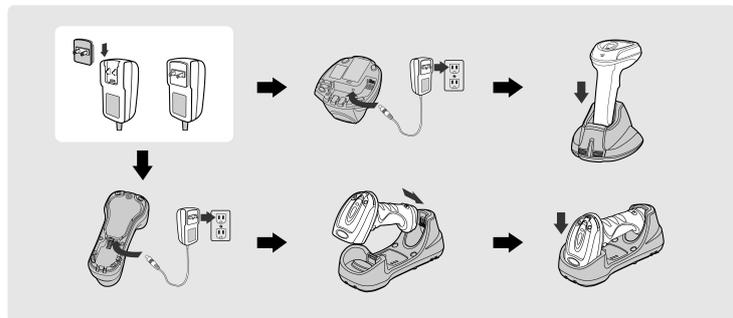
Batteries must not be disposed of with household waste!

Batteries must be disposed of in accordance with statutory requirements and can be taken to local collection points or anywhere that sells batteries, for example.

The following symbol on batteries and rechargeable batteries, on the device or in this document indicate this obligation:



3.2 Charging the rechargeable battery via the power supply unit



- Select a suitable adapter and slide onto the power supply unit until it engages.
 - Plug the power supply unit into a suitable wall socket.
 - Connect the power supply cable to the DC female connector on the base station.
 - Place the hand-held scanner on the charging station.
- ✓ The smart base station emits audible signals to confirm that it is connected to the power supply and the operating indicator lights up blue once.
- ✓ When the charging station is in use, the operating indicator lights up permanently in blue.
- ✓ While charging is in progress, the status indicator on the scanner lights up permanently in red. Once the battery is fully charged, the status indicator on the scanner lights up permanently in green.

NOTE

Charge the rechargeable battery for 8 hours prior to use.

3.3 Charging the rechargeable battery via the USB 3.0 port

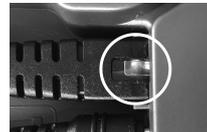
By charging the rechargeable battery and operating the mobile handheld scanner via a USB 3.0 port, it will not be necessary to use an external power supply unit. For USB 2.0, the external power supply unit is required.

- ▶ Connect the base station and host device using a USB cable. Make sure that the connecting cable is fully inserted into the RJ female connector:

Correct



Incorrect



4 Setup

NOTE

Products delivered as a set (hand-held scanner with smart base station) are already linked together in PAIR mode.

4.1 Quick setup of host interface

Quick setup is only available in conjunction with a smart base station.



4.2 Quick setup of connection mode



4.3 Wireless connection modes

The hand-held scanners with Bluetooth interface offer various wireless connection modes for communication with the host device.

If no Bluetooth-enabled host device is available, the mobile handheld scanner can communicate with the smart base station in PAIR mode (peer-to-peer connection) or in PICO mode (multi-user connection, for more information see the operating instructions). This enables the wireless plug-and-play migration of existing devices that are not Bluetooth enabled.

NOTE

Products delivered as a set (hand-held scanner with smart base station) are already linked together in PAIR mode.

Connection to Bluetooth-enabled host devices is possible via SPP mode or HID mode (see operating instructions for more information).

If the wireless connection is interrupted, the hand-held scanner re-establishes the connection automatically as soon as the host device can be reached.

- ▶ To change the wireless connection mode, scan the Uninstall command:



PAIR mode

For connecting one hand-held scanner to a base station.

If the Bluetooth device is not available in the existing system, PAIR mode is the simplest plug-and-play solution. In this mode, only one hand-held scanner can be used with a smart base station.

The smart base station provides the Bluetooth wireless connection for the hand-held scanner and also offers conventional cable interfaces such as USB HID, USB COM, and RS-232 serial.

HID mode

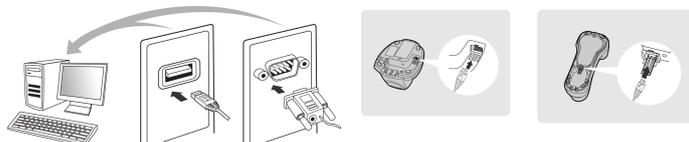
For direct HID communication with Bluetooth host without base station.

In HID mode, the hand-held scanner can be operated as a Bluetooth keyboard.

In this mode, the hand-held scanner can be detected via the wireless connection request of the remote host device. In some cases, the authorization key (PIN) may have to be entered for security reasons in order to establish the Bluetooth connection.

4.4 Using PAIR mode

- The rechargeable battery is fully charged.
- Connect the connecting cable (USB or RS-232) to the host device and the smart base station:



- Switch on the host device.
- The connection indicator on the hand-held scanner flashes blue once every 2.5 seconds and the operating indicator on the smart base station lights up permanently in blue: The devices are linked together.
 - The connection indicators on the hand-held scanner and the smart base station each flash red and green alternately: The devices still need to be

connected; to do this, follow the steps below.

3. Scan the Quick Pair barcode on the base station.
- ✓ The status indicator on the hand-held scanner lights up permanently in red.
- ✓ A short audible signal sounds which confirms that the connection process has been activated. The scanner continuously emits short clicks and the scanner's connection indicator flashes blue at short intervals during the connection process. The connection process is complete when four ascending audible signals sound. The operating indicator on the smart base station lights up permanently in blue.
- ✓ If the hand-held scanner is removed from the smart base station, the connection indicator on the hand-held scanner flashes blue once every 2.5 seconds.

If the connection process for the mobile handheld scanner was not successful, the error is indicated by two audible signals (di-do di-do). The hand-held scanner is automatically reset to the "Uninstall" status.

4. Scan the required code for the quick setup of the host interface to complete the installation, see [Quick setup of host interface, page 2](#).

The default setting for the host interface of the smart base station is USB HID. To use USB COM, the virtual USB COM software driver (available at www.sick.com) must be installed on the host device before using the scanner.

4.5 Using HID mode

NOTE

The procedure described below is based on a typical Windows environment. The installation process may vary depending on the remote host device, operating system, and Bluetooth driver.

- ✓ The rechargeable battery is fully charged.
- ✓ The connection indicator on the hand-held scanner flashes red and green alternately ("Uninstall" status).

If the hand-held scanner is not set to the "Uninstall" status:

- ▶ To disconnect the connection, scan the **Uninstall** configuration code.

NOTE

If the remote host has the current Bluetooth drivers or if it is an iOS or Android device, HID mode is recommended in order to establish a fast connection (**HID mode** configuration mode).

If you encounter problems with HID mode, use the conventional HID mode instead (**HID legacy mode** configuration code).

1. Scan the required configuration code:



- ✓ The connection indicator on the hand-held scanner flashes blue three times every 2 seconds if the hand-held scanner is not on the smart base station.

2. Perform a search for Bluetooth-enabled devices via the Bluetooth host.

3. Select "IDMxxx" from the list of devices found.

If the host device prompts you to enter a PIN code or authorization key:

- ▶ Enter "00000000" (default) and then select "Keyboard on IDMxxx".

- ✓ The connection process is complete when four ascending audible signals sound.

- ✓ The connection indicator on the scanner flashes blue once every 2.5 seconds if the hand-held scanner is not on the smart base station.

If the hand-held scanner is not connected to the host device within 1 minute of scanning the configuration code, the hand-held scanner is automatically set to sleep mode. To continue with the installation from sleep mode, the trigger on the hand-held scanner must be actuated.

4.6 IDM Set Up Tool software

The **IDM Set Up Tool 4.0** software is a Windows-based configuration software package for IDM hand-held scanners. Configuration via the software is an alternative to the configuration described below, which involves scanning configuration codes.

The software can be downloaded free of charge at www.sick.com. The IDM operating instructions contain a detailed description of the configuration using the **IDM Set Up Tool** software.

4.7 Out-of-range scanning

If there is a wireless connection between the scanner and remote host device, the hand-held scanner transmits all scanned code data directly after scanning the bar code. The hand-held scanner is however preset so that it is not possible to scan bar code data if the wireless connection to the remote host device is lost.

If the function for out-of-range scanning is activated, the hand-held scanner can continue scanning bar code data outside the wireless range. All scanned data is temporarily stored in the internal memory until the wireless connection is restored.

- ▶ To activate/deactivate the function, scan one of the following configuration codes:



If the hand-held scanner is outside the scanning range, four descending audible signals indicate that the wireless connection has been interrupted. The connection indicator on the hand-held scanner flashes blue three times every 2 seconds.

Once the hand-held scanner is back within the wireless range, four ascending audible signals indicate that the wireless connection has been restored. The

hand-held scanner flashes blue once every 2.5 seconds. If the "Out-of-range scanning" function is activated, all scanned data that has been temporarily stored is transmitted automatically.

4.8 Presentation scanning

Presentation scanning (hand-held scanner detects bar codes automatically and reads these in without actuating the trigger) is intended for hands-free applications. If the auto-sense function is activated, the hand-held scanner switches to presentation mode as soon as it is placed on the smart base station (only in conjunction with devices from the IDMx41 product family) or in the presentation stand.

- ▶ To activate/deactivate the function, scan one of the following configuration codes:



4.9 Sleep mode and power off

The hand-held scanner is preset so that it switches to sleep mode if it is not used for a certain period of time. If the hand-held scanner is in "sleep mode" and is not reactivated after a certain period of time, it switches automatically to the "power off" status. Both statuses can also be activated by scanning a configuration code. The scanner can be reactivated by actuating the trigger.

- ▶ To activate the function, scan one of the following configuration codes:



4.10 Quick setup of keyboard interface

The characters are output via the keyboard interface in the following sequence:

Preamble	Data length	Prefix ID	Scanned data	Suffix ID	Postamble	Data set suffix
1-15 characters	2-4 characters	1 or 3 characters	Variable	1 or 3 characters	1-15 characters	1 character

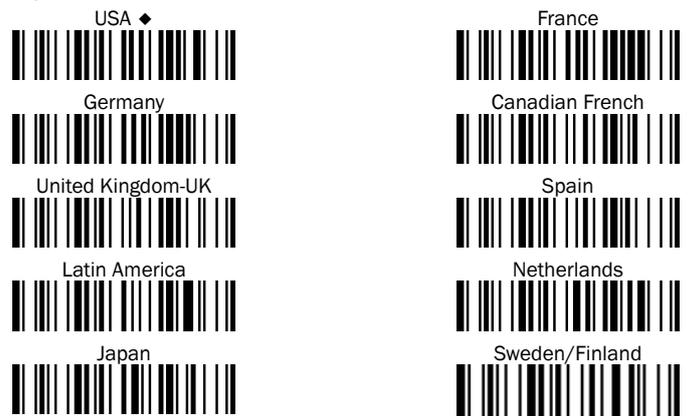
To make a quick change to the data set suffix when using the keyboard interface (USB), the configuration codes shown below can be used. Information on configuring other segments of the sequence, such as preamble or postamble, can be found in the operating instructions.

4.10.1 Data set suffix



4.10.2 Keyboard layout

The USA keyboard layout is set as default. To change the layout to another country, scan one of the codes below.



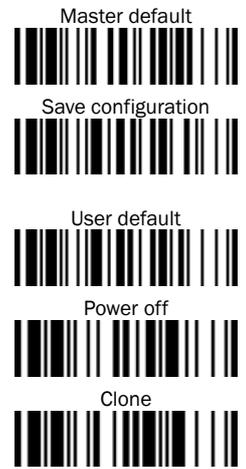
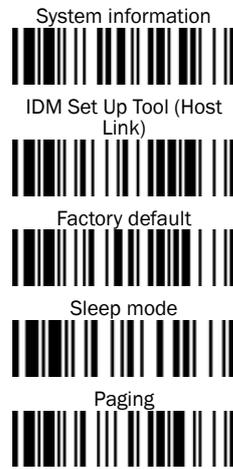
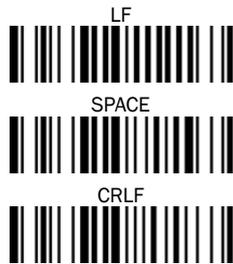
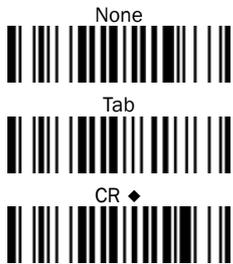
4.11 Quick setup of serial interface

The characters are output via the serial interface in the following sequence:

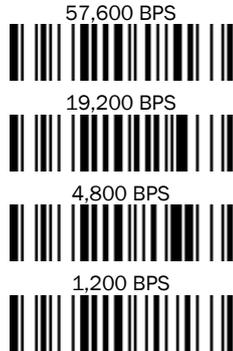
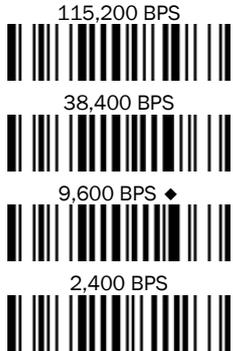
STX	Preamble	Data length	Prefix ID	Scanned data	Suffix ID	Postamble	ETX	Data set suffix
1 char	1-15 chars	2-4 chars	1 or 3 chars	Variable	1 or 3 chars	1-15 chars	1 char	1 char

To quickly change the data set suffix when using the serial interface (RS-232 or USB COM port), the configuration codes shown below can be used. Information on configuring other segments of the sequence, such as preamble or postamble, can be found in the operating instructions.

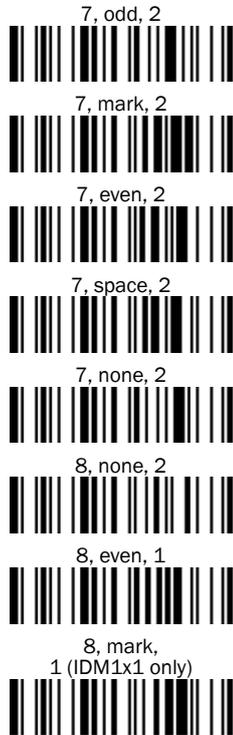
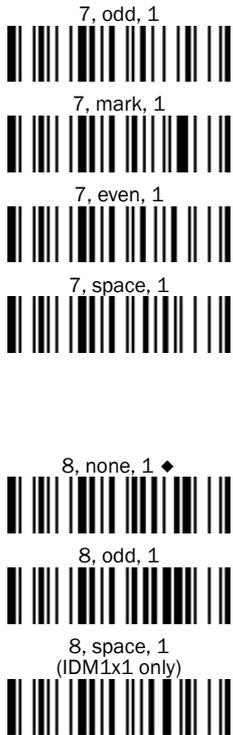
4.11.1 Data set suffix



4.11.2 Baud rate



4.11.3 Data frame



4.12 System commands

- **Factory settings:** After scanning the **Factory default** command, all parameters are reset to their default values.
- **Master default:** After scanning the **Master default** command, the scanner retains the following preset parameters: **Host interface selection**, **Keyboard interface setting** (with the exception of data set suffix, preamble, postamble), **Serial interface setting** (with the exception of data set suffix, preamble, postamble), and **Scanner/laser emulation setting**. The other parameters are reset to the default values.
- **Save configuration:** Once the scanner has been configured, you can save the configuration by scanning the **Save configuration** command. If you scan **User default**, the scanner loads the saved configurations. If you scan **Master default** or **Factory default**, the user-defined configuration is deleted.
- **Use configuration software:** Scanning the **IDM Set Up Tool (Host Link)** command enables the handheld scanner to be configured via the IDM Set Up Tool configuration software.
- **Search:** Scanning the **Paging** command enables the connected smart base station to be located.
- **Clone:** When using PICO mode, this function enables host interface parameters to be transferred from one connected hand-held scanner to others. To do this, the host interface parameters must be configured with a hand-held scanner and saved via the **Save configuration** command. By scanning the **Clone** command with other hand-held scanners, these receive the same configuration; to do this, there must be a wireless connection between the hand-held scanners and the base station.