

MEMOR™ 20

USER'S MANUAL



Rugged Mobile Computer with 1D/2D Imager

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Patents

See www.patents.datalogic.com for patent list.

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NOTES

INTRODUCTION

CONVENTIONS

This manual uses the following conventions:

"PDA", "mobile computer", "device" and "Memor 20" refer to the Memor 20.

The label artworks may be only a draft. Refer to the product labels for more precise information.

PRODUCT OVERVIEW

Memor™ 20 – Dare to be the best

Memor 20: the best-in-class PDA born to face the toughest Enterprise challenges.

Offered in a slim and compact design, a stunning 5.7" full HD display, and a novel and unique secondary notification display. It incorporates the latest smartphone technologies, combined with high performance 1D/2D barcode scanning and industrial robustness for almost any indoor or outdoor environment.

Top performance while extremely rugged

The Memor 20 is powered by the superior Qualcomm Snapdragon SD660 Octa-core platform clocked at 2.2 GHz for top performance in the most demanding applications. It features the user friendly experience of Android™ 9 (Pie) with Google Mobile Services (GMS). Additionally, it has been validated by Google for the 'Android Enterprise Recommended' program for rugged devices.

The Memor 20 is our most rugged PDA designed for the harshest environments, with an IP65 and IP67 sealing rating and 1.8 m / 6.0 ft repeated drops to concrete.

Wireless charging meets swappable battery

The Memor 20 incorporates Datalogic's industry-first wireless charging system for ultra-reliable contactless charging, thus eliminating the need for cleaning contacts on the device and docks. Moreover, Memor 20 offers a 1-piece swappable battery with Datalogic's patent pending "Safe Swap" technology.

Authentication and security

Memor 20 offers a front facing combination home button together with Fingerprint sensor for secure authentication. Security and customization are also distinctive features available with its Smart Docks that offer a unique locking function and secure the device to avoid unauthorized use, loss or theft.

Communications

The Memor 20 leverages a complete set of embedded wireless technologies for both indoor and outdoor applications: dual band MIMO Wi-Fi including the latest 802.11ac standard, Bluetooth® v5 with BLE for fast and ultra-low power connections, NFC for easy pairing, and particularly the cellular voice and data connectivity, leveraging the next generation of LTE-Advanced with dual SIMs.

AVAILABLE MODELS

The Memor 20 is available in different models depending on the features it is equipped with. All options are listed below:

Americas Models

- 944800003 Memor 20 Full Touch PDA, Wi-Fi only, Ultra-slim MP 2D Imager w Green Spot, Android v9 with GMS, Black Color.
- 944800007 Memor 20 Full Touch PDA, NA, Wi-Fi + LTE, Ultra-slim MP 2D Imager w Green Spot, Android v9 with GMS, Black Color.
- 944800004 Memor 20 HC Full Touch PDA, Wi-Fi only, Ultra-slim MP 2D Imager w Green Spot, Android v9 with GMS, White Color.

EMEA and Row Models

- 944800003 Memor 20 Full Touch PDA, Wi-Fi only, Ultra-slim MP 2D Imager w Green Spot, Android v9 with GMS, Black Color.
- 944800006 Memor 20 Full Touch PDA, EMEA + ROW, Wi-Fi + LTE, Ultra-slim MP 2D Imager w Green Spot, Android v9 with GMS, Black Color.
- 944800004 Memor 20 HC Full Touch PDA, Wi-Fi only, Ultra-slim MP 2D Imager w Green Spot, Android v9 with GMS, White Color.

For further details about the Memor 20 models refer to the web site:

<http://www.datalogic.com>.

For further information regarding Android refer to the website:

www.android.com.

OUT OF THE BOX

The Memor 20 package contains:

- Memor 20 PDA
- Rechargeable one-piece battery pack
- USB Type-C cable
- Light Handstrap
- Quick Start Guide
- Safety & Regulatory Addendum
- End User License Agreement (EULA) Sheet

Remove all the components from their packaging; check their integrity and compare them with all the packing documents.



CAUTION: Keep the original packaging for use when sending products to the technical assistance center. Damage caused by improper packaging is not covered under the warranty.

GENERAL VIEW

Top View



Front View



Side View



Back View



Bottom View



USB Rubber Door and USB Type-C Port



CAUTION: Do not apply any sticker to the Memora 20.



ACCESSORIES

Docks

94A150099	DOCK, SINGLE SLOT, CHARGE ONLY, MEMOR 20
94A150100	DOCK, SINGLE SLOT, FULL, MEMOR 20
94A150101	DOCK, SINGLE SLOT, HC, CHARGE, MEMOR 20
94A150102	DOCK, SINGLE SLOT, HC, FULL, MEMOR 20
94A150103	DOCK, 3 SLOT, CHARGE ONLY, MEMOR 20
94A150104	DOCK, 3 SLOT, FULL, MEMOR 20
94A150105	DOCK, VEHICLE, MEMOR 20
94A050047	USB CABLE W/SCRW, VEHICLE DOCK, MEMOR 20
94ACC0256	POWER ADAPTER,12/24VDC CLA, MEMOR 20
94ACC0302	UNLOCK KEY FOR FULL DOCKS, MEMOR 20 (5pcs)
94ACC0303	MOUNTING PLATE, 3 SLOT DOCK, MEMOR 20
94ACC0304	MOUNTING PLATE, SINGLE SLOT DOCK, MEMOR 20
94ACC0305	MOUNTING PLATE, 4 SLOT BATTERY CHARGER, MEMOR 20

Batteries/ Battery Chargers

94ACC0245	BATTERY, MEMOR 20
94ACC0255	BATTERY, HC, MEMOR 20
94ACC0246	CHARGER, 4 SLOT BATTERY, MEMOR 20
94ACC0249	POWER SUPPLY USBC, DEVICE/DOCK, MEMOR 20
94ACC0250	POWER SUPPLY, DOCKS & CHARGERS, MEMOR 20

Cables/Adapters

94A050046	CABLE, USB C, MEMOR 20
94ACC0257	USB/ETHERNET PLUG IN, BLACK, MEMOR 20
94ACC0258	USB/ETHERNET PLUG IN, WHITE, MEMOR 20

Holsters/ Cases

94ACC0247	RUBBER BOOT, MEMOR 20
94ACC0248	BELT HOLSTER W/BELT CLIP, MEMOR 20

General Accessories

94ACC0251	HANDSTRAP LIGHT, MEMOR 20 (5 PCS)
94ACC0252	HANDSTRAP FULL, MEMOR 20 (5 PCS)
94ACC0253	HANDLE, MEMOR 20
94ACC0254	HANDSTRAP HEALTHCARE, MEMOR 20 (5 PCS)

BATTERY

INSTALL THE BATTERY

Insert the battery pack into the slot, bottom first, and press it into place until it clicks:



NOTE: Ensure that the battery latches are in the locked position.

CHARGE THE BATTERY

The battery pack is not initially fully charged. After installing the battery, charge it with the USB Type-C or with a dock (single slot dock, 3-slot dock, vehicle dock, 4-slot battery charger).

During the charging process the charging LED positioned at the top left side of the display glows red constantly. Once the charging process has been completed, the charging LED glows green constantly.

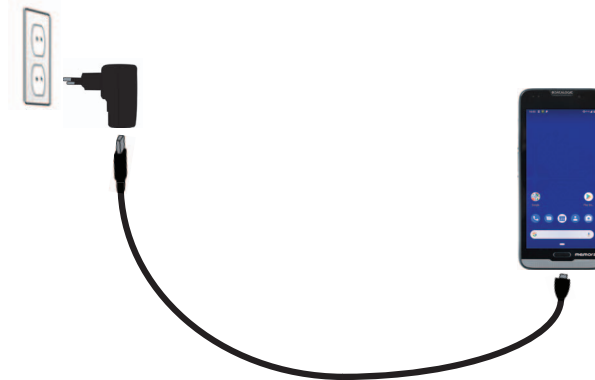


NOTE: The Memor 20 may get warm during charging. This is normal and does not mean a malfunction.

Charge with USB

Use the provided USB Type-C cable in conjunction with the power supply adapter to charge the device from a power outlet.

The charger is modular, with one adapter and five switchover plugs.



You can also use the USB cable to charge the Memor 20 from any self-powered USB hub or USB port on a computer.



CAUTION: Use only the Datalogic power supply 94ACC0249 POWER SUPPLY USBC, DEVICE/DOCK, MEMOR 20 to power the Memor 20.

Use of an alternative power supply will invalidate any approval given to this device and may be dangerous.

Charge with the dock

Insert the device into the dock with the screen facing front and the head facing up.





CAUTION: Do not put any foreign object such as, but not limited to, coins, paper clips, stickers inside the slot of any of the docks (see the examples below).



NOTE: For detailed information on the dock, refer to the Quick Start Guide included in the dock's box.

BATTERY INFORMATION

By default, the main battery pack is disconnected at the factory to avoid damage due to excessive draining.

Even if the storage temperature range is wider, in order to achieve the longest battery life, store the terminal and the spare batteries between 20 to 30°C (68 to 86°F).

Charging is allowed in the ambient temperature range from 0°C to 45°C.

To maximize operating autonomy, the Memor 20 checks its battery level at all times. If the battery is not sufficiently charged, the Memor 20 will not turn on when the ON/OFF Power button is pressed. In this case, either substitute with a charged battery, insert the Memor 20 into a powered cradle, or plug it into a wall charger.

To maximize battery life, turn off radios when they are not needed.



CAUTION: Annual replacement of rechargeable battery pack avoids possible risks or abnormalities and ensures maximum performance.

Avoid storing batteries for long periods in a state of full charge or very low charge.

We recommend charging the battery pack every two to three months to keep its charge at a moderate level to maximize battery life.



WARNING: Use only Datalogic approved batteries and accessories for battery charging.

Risk of explosion if battery is replaced by an incorrect type.

Dispose of used batteries according to the instructions.

Il y a risque d'explosion si la batterie est remplacée par une batterie de type incorrect.

Mettre au rebut les batteries usagées conformément aux instructions.



CAUTION: Do not use and leave the product near a heat source as fire or heater. Device shall operate in its operating temperature range.



CAUTION: Use only the adapter supplied with the device. The adapter shall be installed near the equipment.

BATTERY SAFETY GUIDELINES



WARNING: Installing, charging and/or any other action should be done by authorized personnel and following this manual.

The battery pack may get hot, explode, ignite, and/or cause serious injury if exposed to abusive conditions.

If the battery pack is replaced with an improper type, there is risk of explosion and/or fire.

Do not place the battery pack in or near a fire or other heat source; do not place the battery pack in direct sunlight, or use or store the battery pack inside unventilated areas in hot weather; do not place the battery pack in microwave ovens, in clothes dryers, in high pressure containers, on induction cook surfaces or similar devices. Doing so may cause the battery pack to generate heat, explode or ignite. Using the battery pack in this manner may also result in a loss of performance and a shortened life expectancy.

Use only a Datalogic approved power supply. The use of an alternative power supply will void the product warranty, may cause product damage and may cause heat, an explosion, or fire.

The area in which the units are charged should be clear of debris and combustible materials or chemicals.

Do not use the battery pack of this terminal to power devices other than this terminal. Immediately discontinue use of the battery pack if, while using, charging or storing the battery pack, the battery pack emits an unusual smell, feels hot, changes color or shape, or appears abnormal in any other way.

Do not short-circuit the battery pack contacts connecting the positive terminal and negative terminal. This might happen, for example, when you carry a spare battery pack in your pocket or purse; accidental short-circuiting can occur when a metallic object such as a coin, clip, or pen causes direct connection of the contacts of the battery pack (these look like metal strips on the battery pack). Short-circuiting the terminals may damage the battery pack or the connecting object.

Do not apply voltages to the battery pack contacts.

Do not pierce the battery pack with nails, strike it with a hammer, step on it or otherwise subject it to strong impacts, pressures, or shocks.

Do not disassemble or modify (i.e. bend, crush or deform) the battery pack. The battery pack contains safety and protection devices, which, if damaged, may cause the battery pack to generate heat, explode or ignite. In case of leakage of liquid from the battery, avoid contact with liquid the skin or eyes. If the contact occurs, immediately wash the affected area with water and consult a doctor.

Do not solder directly onto the battery pack.

Do not expose the battery pack to liquids.

Avoid any knocks or excessive vibrations. If the device or the battery is dropped, especially on a hard surface, you should take it to the nearest Authorised Repair Centre for inspection before continuing to use it. Before replacing the battery pack, turn off the device or put it in swap battery mode (refer to the Memor 20 User's Manual).

Do not remove or damage the battery pack's label.



WARNING: Do not use the battery pack if it is damaged in any part.

Battery pack usage by children should be supervised.

Collect and recycle waste batteries separately from the device in compliance with European Directive 2006/66/EC, 2011/65 and subsequent modifications, with US and China regulatory laws and regulations about the environment.

SIM CARD

INSTALL THE SIM CARD

Memor 20 supports up to two nano SIM cards.

1. Turn off the Memor 20.
2. Press the battery latches and remove the battery pack:



3. Pull the rubber label to remove the SIM door, then open the SIM card tray:



4. Place the nano SIM card in the tray with the written part upward and close the SIM tray.



5. Reinsert the SIM door and press it.



6. Reinsert the battery (see "Install the Battery" on page 7).

MOUNT THE HANDSTRAP

MOUNT THE LIGHT HANDSTRAP

1.



2.



3.



4.



MOUNT THE FULL HANDSTRAP

1.



2.



3.



4.



5.



6.

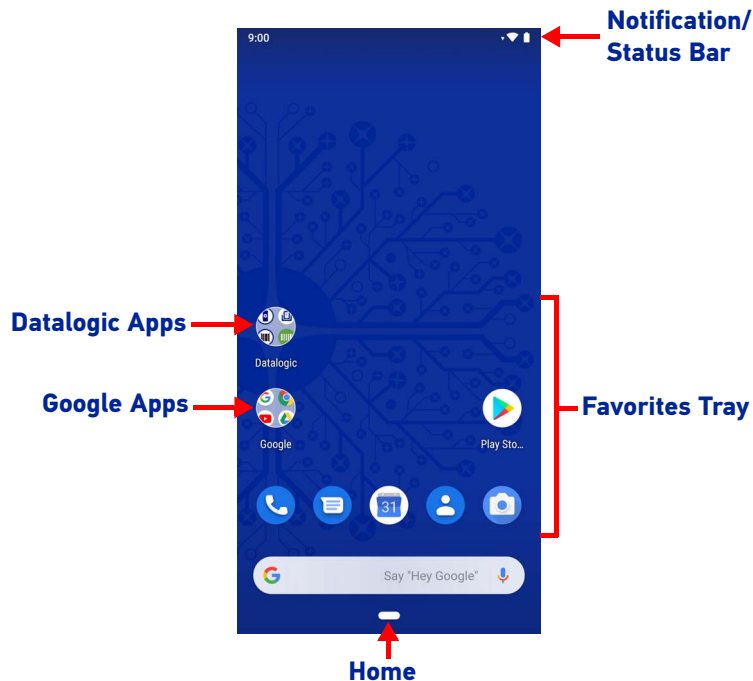


GETTING STARTED

TURN ON THE DEVICE

To turn on the Memor 20, press and hold the power button for at least 4 seconds.











HOME SCREEN



Home Screen Items

Notification/Status Bar	Displays the time, status icons (right side), and notification icons (left side).
Favorites Tray	It is like a dock for your home screen. By default, it includes commonly used apps, but you can customize it.
Datalogic Apps	Shortcut to Datalogic's native applications and settings: Battery Manager, Dock Manager, DXU Agent, Scan2Deploy, Scanner, SoftSpot, Enterprise Agent, SureFox, SureLock, Datalogic Settings.
Google Apps	Shortcut to Google's native applications: Google, Chrome, Gmail, Maps, YouTube, Drive, YT Music, Play Movie, Duo, Photos.

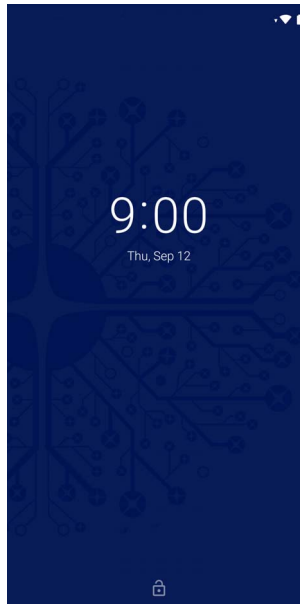
Status Bar Icons

	Wi-Fi is on.		Battery is low.
	Wi-Fi not connected.		External power source is connected.
	Wi-Fi connected no internet.		Battery is full.
	Connected to a Wi-Fi network.		Battery is partially drained.
	Bluetooth is on.		Airplane mode.

SUSPEND MODE

Suspend mode automatically turns the screen off and locks the device to save battery power when the terminal is inactive for a programmed period of time.

Press and release the power button to toggle the terminal in or out of suspend mode:

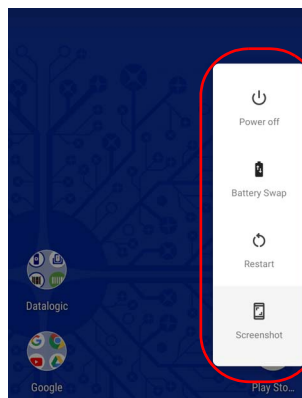


To unlock the home screen, tap anywhere on the screen and drag your finger upward.

To set the timeout limit, see "[Suspend Timeout](#)" on page 42.

LONG PRESS POWER MENU

Press and hold the **Power** button until the **Long Press Menu** menu displays:



Power Off

Tap **Power Off** to turn off the terminal. When you turn off the terminal, the session you are working on expires and it won't be possible to restore it.

Battery Swap

See "[Battery Swap](#)" on page 19.

Restart

Tap **Restart** to restart the terminal.

Screenshot

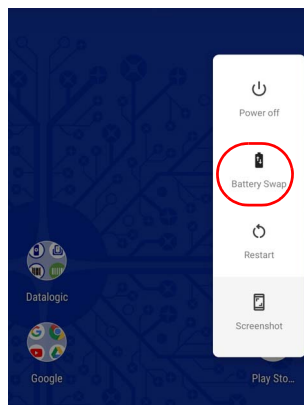
Tap **Screenshot** to take a screenshot.

BATTERY SWAP

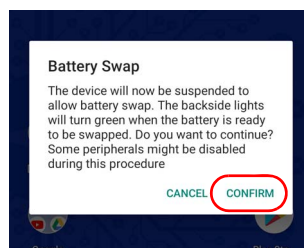
Battery Swap mode is a low power suspend mode that allows you to replace the battery pack without closing files and applications. Such mode is associated with a unique LED notification process, called "SafeSwap" for application data protection, that is object of a Datalogic pending patent application.

To switch to Swap Battery mode and SafeSwap notification follow the steps below:

1. Press and hold the **Power** button to display the **Long Press Menu** and tap **Battery Swap**:



2. Tap **Confirm**:



3. The charging LED starts blinking blue. The battery swap LEDs light up solid red:



4. Wait for the LEDs to turn solid green to replace the battery.



5. Press and release the power button to resume your session. The charging LED turns off.



CAUTION: Be sure to insert a charged battery pack. If the battery is fully discharged, the device will turn off and your session data will be cleared.



CAUTION: The battery swap procedure is not available when the device is connected via USB cable.



CAUTION: Do not insert or replace SIM cards during the battery swap procedure.



CAUTION: The battery swap procedure is not available if the Ni-MH battery is fully discharged.


















NOTE: Replace the battery pack within 90 seconds after its removal from the device.



















CAUTION: The spare battery pack is configured in ship mode at the factory. Before inserting a new battery, charge it with the CHARGER, 4 SLOT BATTERY, MEMOR 20 (available as accessory, p/n 94ACC0246).

APPLICATIONS

The **All Apps** screen displays icons for all installed applications. The table below lists the default applications installed on the Memor 20.

Icon	Description
	Battery Manager - Provides information on the battery type, charge, status and temperature, allows to set the charging profile and to log battery data (see " Battery Manager " on page 54)
	Calculator - Provides the basic and scientific arithmetic functions.
	Calendar - Lets you manage events and appointments.
	Camera - Use it to take photos or record videos.
	Chrome - Google's own web browser. Use it to access the Internet or intranet.
	Clock - Lets you schedule alarms for appointments or as a wake-up.
	Contacts - Allows you to manage contacts information.
	Dock Manager - Provides information on the dock and allows to unlock the docked devices (see " Dock Manager " on page 63).
	Drive - Google's own file storage and synchronization service. Use it to safely store, synchronize and share your photos, videos, files and more in the cloud.
	Duo - Google's own video chat mobile. Use it to make video calls in high definition.
	DXU Agent - Launch to start a pairing with DXU by reading a barcode containing the configuration data of your PC (see " Desktop Configuration Utility (DXU) " on page 66).
	Enterprise Agent- Enhances the lockdown functionalities of SureLock and SureFox to ensure advanced device security (see " SureLock " on page 70 and " SureFox " on page 70).
	Files - It lets you manage files and folders.
	Friendly OMA-DM - Framework implementing OMA-DM 1.2 protocol. It allows the deployment of embedded clients for device management and support. Only available on WWAN US models.
	Gmail - Use it to send and receive email.

Icon	Description
	Google - Google's own web search engine.
	Keep - Note-taking service developed by Google. It offers a variety of tools for taking notes, including text, lists, images, and audio.
	Maps - Google's own mapping mobile app.
	Messages - Google's official app for texting (SMS, MMS) and chat (RCS).
	Phone - Use it to make phone calls.
	Photos - Google's own photo sharing and storage service.
	Play Movies & TV - Google's own online video on demand service. It offers movies and television shows for purchase or rental, depending on availability.
	Play Store - Google's own digital distribution service. It serves as the official app store for the Android operating system and as a digital media store.
	Scan2Deploy - Configuration tool (see " Scan2Deploy " on page 66).
	Scanner – Enables data capture (see " Data Capture " on page 73).
	Settings - Use it to configure the Memor 20 (see " Settings " on page 28).
	SoftSpot - A configurable application meant to provide easy access to frequently used functionalities (see " SoftSpot™ " on page 67).
	SureFox - Use to controls web access for the users (see " SureFox " on page 70).
	SureLock - Use to secure and lock your device (see " SureLock " on page 70).
	Wallpapers - Google's own wallpaper app.
	Youtube - Google's own video-sharing website
	YT Music - Music streaming service from YouTube

TOUCH GESTURES

Tap	Tap the screen with your finger or with the stylus to open items and select options.
Drag	Hold your finger or the stylus on the screen and drag across the screen to scroll or pan. Drag in a list to select multiple items.
Tap-and-hold	Tap and hold your finger or the stylus on an item to see a list of actions available for that item. On the pop-up menu that appears, tap the action you want to perform.

RESET THE DEVICE

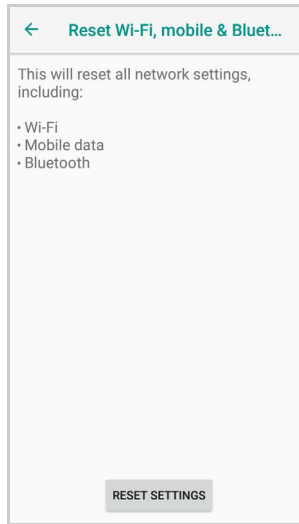
Configuration Reset

Configuration reset sets the configuration of the device (all its settings) to a known status: the factory status or an enterprise-user-defined status.

Reset Wi-Fi, Mobile & Bluetooth

Resets all network settings.

1. Tap **Settings > System > Advanced > Reset options > Reset Wi-Fi, mobile & Bluetooth**.



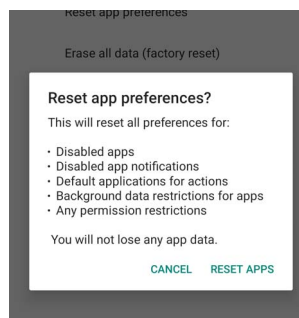
2. Tap **RESET SETTINGS**.

Reset App Preferences

Resets all preferences for:

- disabled apps
- disabled app notifications
- default applications for actions
- background data restrictions for apps
- any permission restrictions.

1. Tap **Settings > System > Reset options > Reset app preferences**.

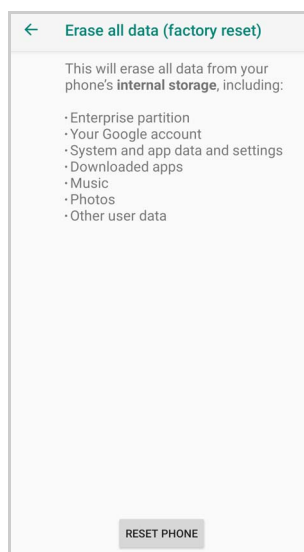


2. Tap **RESET APPS**.

Factory Reset

Brings the device to the default configuration, clearing all the user-customized settings.

1. Tap **Settings > System > Reset options > Erase all data (factory reset)**.



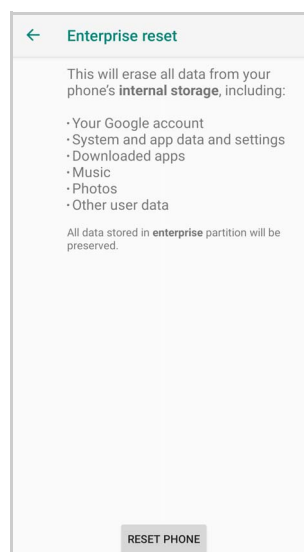
2. Tap **RESET PHONE**.

Enterprise Reset

Enterprise Reset brings the device to an enterprise-user-defined configuration, clearing all data and settings except the ones persisted by the enterprise system applications in the **enterprise** flash partition and in the **splash** flash partition.

The Enterprise folder is a file system storage that is used for deployment and device-unique data. It is persistent and maintains data after an Enterprise reset. Applications and custom settings (i.e. custom boot animation and wallpaper) can persist data after an Enterprise Reset by saving them to the enterprise folder.

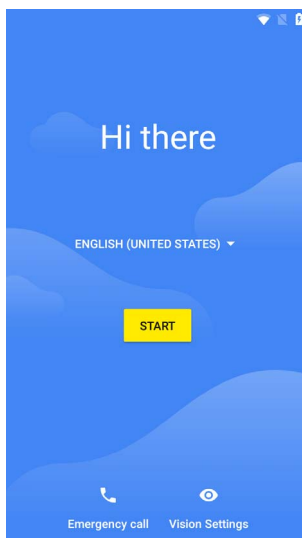
1. Tap **Settings > System > Reset options > Enterprise reset**.



2. Tap **RESET PHONE**.

SETUP WIZARD

After the first boot or a factory reset, the start dialog of the Setup Wizard is displayed, with initial settings for you to configure.



Device Owner Mode

Scan the Device Owner (DO) QR code with one of the side triggers to activate the Device Owner mode for Android Enterprise.

LED INDICATORS

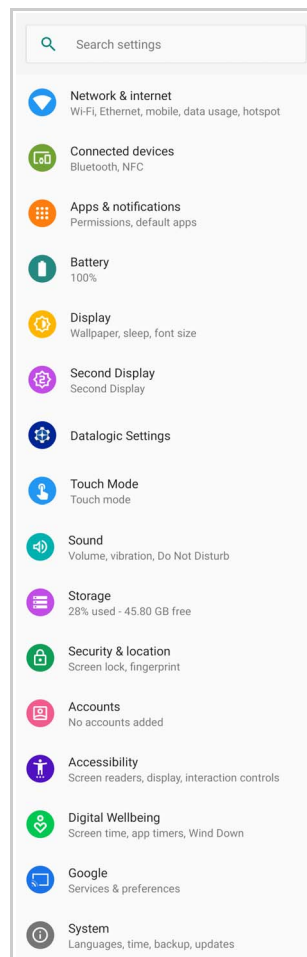
The LEDs illuminate to indicate various functions or errors on the reader. The following tables list these indications. The good read LED indicator is programmable, and may or may not be enabled ("[Scanner Settings](#)" on page 29 for more details). The Charging LED is configurable via SDK.

LED	Status	Description
Charging LED	Red Constant	The device is charging.
	Green Costant	Charging is complete.
	Red Blink	Charge fault.
	White Blink	Notifications.
	Blue Blink	Device in Battery Swap procedure.
Good Read Indicator	Red	Light is solid red from the time the user presses the scan key until the barcode is decoded, until the scanner times out, or until the user releases the scan key.
	Green	Light changes to solid green when a good decode is completed.
Battery Swap LEDs	Red	Do not remove the battery.
	Green	Battery can be replaced.

SETTINGS

OVERVIEW

The **Settings** app allows you to check or set system parameters to customize your device. To open the **Settings** screen, tap the **Settings** icons on the **All Apps** screen or pull down the notification panel and then tap the **Settings** icon on the bottom right corner:

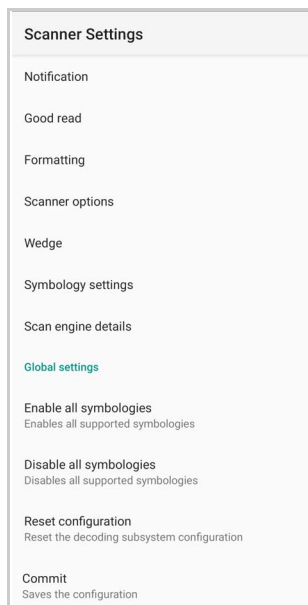


DATALOGIC SETTINGS

Scanner Settings

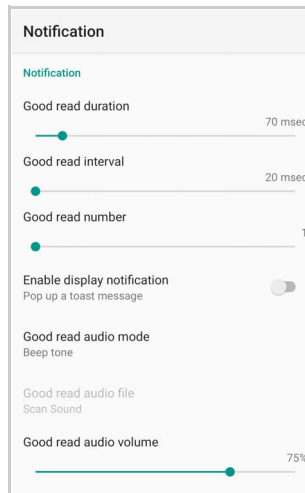
Before you start reading barcodes, use the **Settings** app to view and configure all settings for the scanner.

From the applications menu, tap **Settings > Datalogic Settings > Scanner Settings**. Select the desired configuration from the following options:



Notification

Use it to configure the good read tone and display notification:



Good Read Duration

Sets the duration of the notification (LED, green spot or beep) the scanner emits on a good read.

Good Read Interval

Sets the interval between each notification (LED, green spot or beep) the scanner emits on a good read.

Good Read Number

Sets the number of notifications (LED, green spot or beep) the scanner emits on a good read.

Enable Display Notification

Enables display notifications (toasts). If cleared, the scanner is disabled until you launch a scanner listener application developed using the Datalogic SDK or enable a keyboard/intent wedge.

Good Read Audio Mode

Sets the audio tone to:

- None
- Beep tone
- Audio file

If **Audio file** is selected, the option **Good read audio file** displays. Tap it to select the file you want to use as good read ringtone.



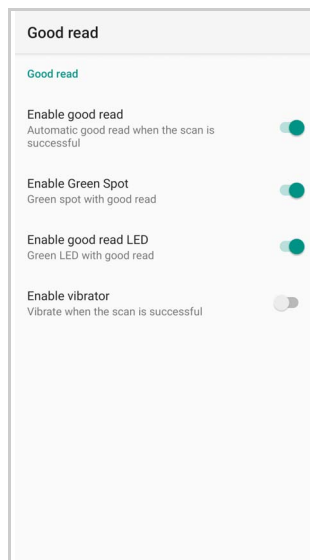
NOTE: The Notification settings do not apply to an audio file.

Good Read Audio Volume

Sets the volume of beep tone or audio file (if enabled).

Good Read

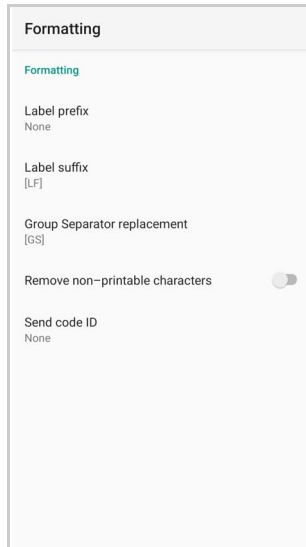
Use it to enable good read notifications (LED, Green Spot):



Tap **Enable good read** to enable/disable notifications (main enabler), then select the notification you want to use.

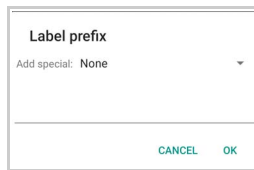
Formatting

Allows to format the barcode text by enabling and configuring the use of prefix, suffix, group separator and code identifier:



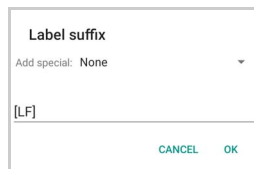
Label Prefix

Tap **Label prefix** to enter the characters you will be using as prefix. Tap **Add special** to select a special character to be added in the current cursor position:



Label Suffix

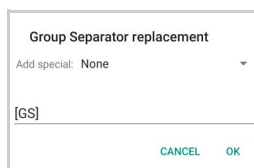
Tap **Label suffix** to enter the characters you will be using as suffix. Tap **Add special** to select a special character to be added in the current cursor position:



Group Separator Replacement

The Group Separator replacement is a non printable data separator character (ASCII code 1D hex). Tap **Group Separator replacement** to enter a string that will be used as GS data separator substituting the standard GS character.

Tap **Add special** to select a special character to be added in the current cursor position:

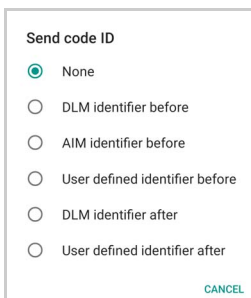


Remove Non-Printable Characters

Enable it to remove non-printable characters from a unicode string.

Send Code ID

Tap **Send code ID** to add a code identifier prefix or suffix to the barcode string:



Send code ID

- None
- DLM identifier before
- AIM identifier before
- User defined identifier before
- DLM identifier after
- User defined identifier after

CANCEL

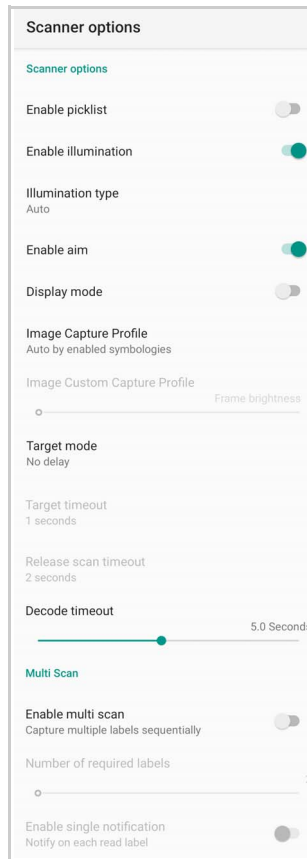
The AIM ID (Association for Automatic Identification and Mobility) is an international barcode identifier. When **AIM identifier before** is enabled, the AIM ID is inserted at the beginning of the decoded barcode.

DLM identifier is a Datalogic specific character identifier.

User defined identifier is a user specific character identifier you can set in the related symbology settings menu.

Scanner Options

Tap **Scanner Options** to customize the Memor 20 scanning behavior.



Enable Picklist

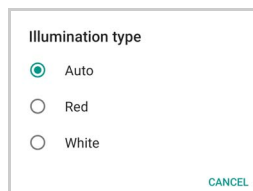
If enabled, it allows you to pick and decode a barcode from multiple barcodes printed close together, when the scan illumination intersects more than one barcode. Only the targeted barcode will be returned.

Enable Illumination

If enabled, it causes the scanner to turn on the illumination to aid decoding.

Illumination Type

Sets the illumination color.



Enable Aim

Enables the laser aim.

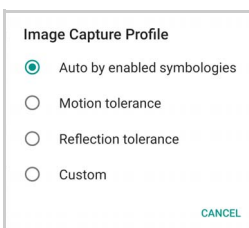
Display Mode

Optimizes the reading of a barcode from a screen.

Image Capture Profile

Sets the scanner profile for image capture:

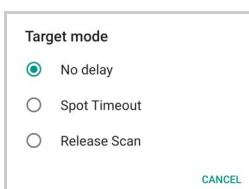
- automatic based on enabled symbologies
- capture frames taking into account motion
- capture frames taking into account reflections.



The screenshot shows a dialog box titled "Image Capture Profile". It contains four radio button options: "Auto by enabled symbologies" (which is selected), "Motion tolerance", "Reflection tolerance", and "Custom". A "CANCEL" button is located at the bottom right of the dialog.

Target Mode

If enabled, when the scan button is pressed, the scanner will project an aiming pattern to assist in centering over the barcode before scanning. Tap **Target mode** to select the desired targeting behavior:



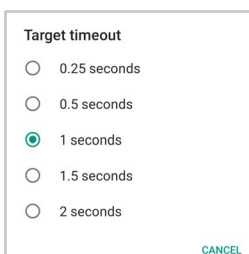
The screenshot shows a dialog box titled "Target mode". It contains three radio button options: "No delay" (which is selected), "Spot Timeout", and "Release Scan". A "CANCEL" button is located at the bottom right of the dialog.

No Delay

Target mode is disabled.

Spot Timeout

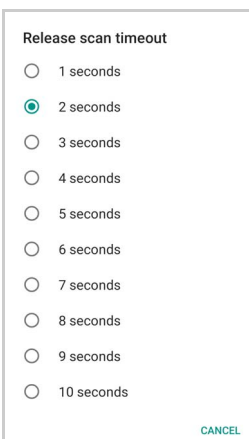
Scanning takes place after a programmable time upon pressing the scan button. Tap **Target timeout** to set the duration of the spot:



The screenshot shows a dialog box titled "Target timeout". It contains five radio button options: "0.25 seconds", "0.5 seconds", "1 seconds" (which is selected), "1.5 seconds", and "2 seconds". A "CANCEL" button is located at the bottom right of the dialog.

Release Scan

Scanning takes place after the scan button is released. Tap **Release scan timeout** to set the scanning timeout after releasing the scan button:



The screenshot shows a dialog box titled "Release scan timeout". It contains ten radio button options: "1 seconds", "2 seconds" (which is selected), "3 seconds", "4 seconds", "5 seconds", "6 seconds", "7 seconds", "8 seconds", "9 seconds", and "10 seconds". A "CANCEL" button is located at the bottom right of the dialog.

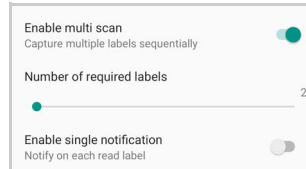
Decode Timeout

Drag the **Decode timeout** slider to set the maximum amount of time the scanner attempt to decode after target timeout (in case **Spot Timeout** is enabled) or after the scan button is pressed (in case **Target mode** is disabled):



Enable Multi Scan

If selected, it allows you to capture multiple labels sequentially.



Number of Required Labels

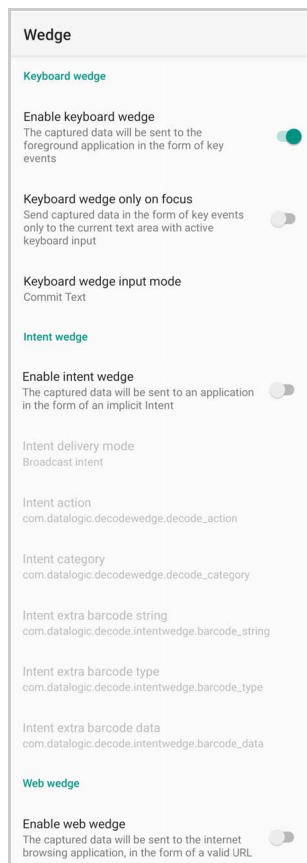
Drag the slider to indicate how many barcodes you want to collect.

Enable Single Notification

If selected, it enables indicators for each label, in order to get an intermediate notification for each label decoded.

Wedge

Use it to enable or disable the keyboard wedge and the intent wedge:



Enable Keyboard Wedge

Enables/disables the keyboard wedge mode.

Keyboard Wedge Only on Focus

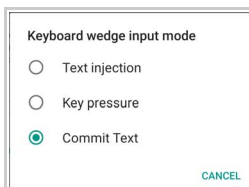
If selected, the scanner is enabled whenever a text area is in focus and can receive text.

It provides a safer way to input keystrokes into the foreground application, allowing to send captured data in the form of key events only to the current text area with active keyboard input.

If this setting is not enabled, keystrokes will be always dispatched to the foreground application.

Keyboard Wedge Input Mode

Allows to select the scanned data input mode.



Text Injection

The scanned barcode is injected into the text area.

Key Pressure

The scanned barcode is translated into keyboard strokes.

Commit Text

The printable characters are injected into the text area, emulating the pressure of keyboard keys for not printable keys.

Enable Intent Wedge

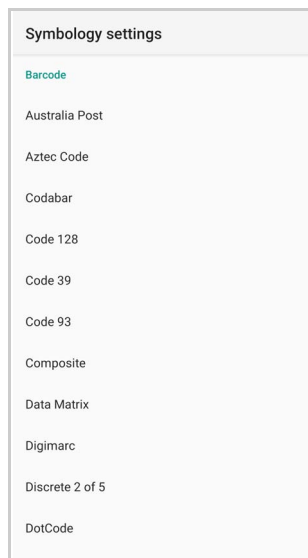
Enables the broadcast of specific intents to the listening applications. The broadcasted intent can have its custom Action, Category and extra content fields. The scanner is enabled whenever the intent option is flagged.

Enable Web Wedge

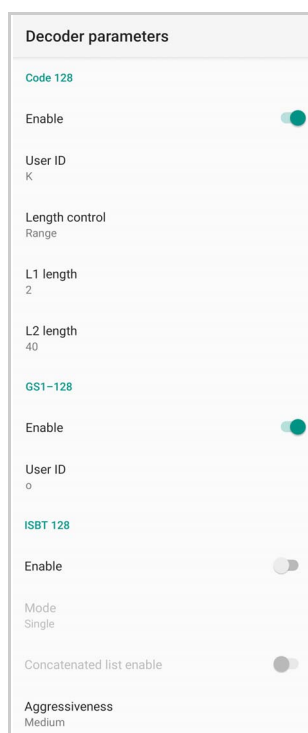
Enables direct data input into internet browsing applications, in the form of a valid URL.

Symbology Settings

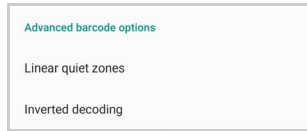
Each barcode symbology can be customized with additional settings that may affect that specific barcode decoding. Tap **Symbology settings** to configure symbology decoding options:



Refer to the sample symbology control panels for examples of the types of fields and options you can modify. The example below shows the settings of a Code 128 barcode symbology:

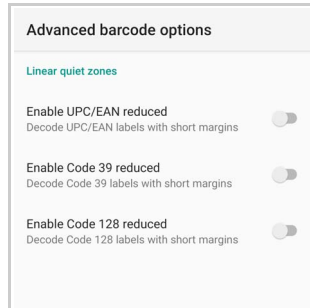


Advanced Barcode Options



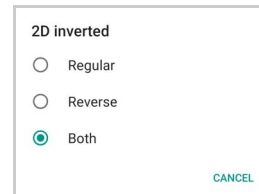
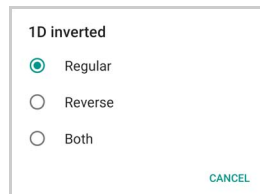
Linear Quiet Zones

Tap **Linear quiet zones** to reduce the blank margin on either side of a linear barcode.



Inverted Decoding

Defines the decoding mode for regular/reverse barcodes for both 1D and 2D barcodes:



Scan Engine Details

Provides information on the scan engine.

← Scan engine information	
Scan engine model	Firefly High End
Library details	
Decoding library version	VL5.13.02U.49905658.12
Digimarc version	3.5.0 - 20180212150120
Module Firmware version	0.1.5.5
Module Hardware version	0
Module Name	DE2102
Module Name ID	8
Software Application version	1.2.11.3

Global Settings

Use this section to change symbologies settings globally and to persist them.

Global settings	
Enable all symbologies	Enables all supported symbologies
Disable all symbologies	Disables all supported symbologies
Reset configuration	Reset the decoding subsystem configuration
Commit	Saves the configuration

Enable All Symbologies

Enables all barcode symbologies.

Disable All Symbologies

Disables all barcode symbologies.

Reset Configuration

Resets back to default scanner configuration settings.

Commit

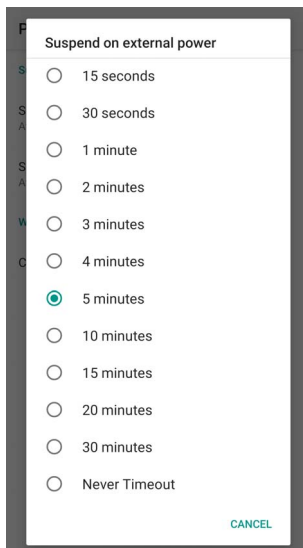
Saves the configuration settings to a persistent storage. Any change you make is temporary and will be lost when the system restarts, unless you tap **Commit**.

Power Management

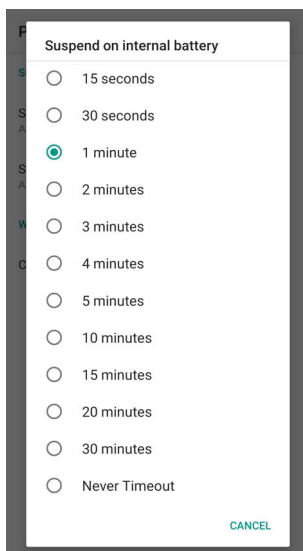
Suspend Timeout

You have two options to set the suspend timeout (see "Suspend Mode" on page 18 for more information on Suspend Mode):

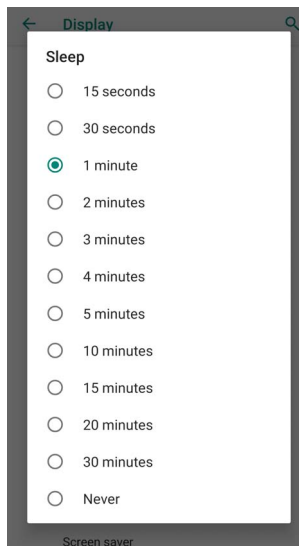
1. Tap **Settings > Datalogic Settings > Power Management:**
 - **Suspend on external power** sets the number of seconds without user input activity before the system is suspended while running on external power.



- **Suspend on internal battery** sets the number of seconds without user input activity before the system is suspended while running on battery power.



2. Tap **Settings > Display > Advanced > Sleep** to set the number of seconds without user input activity before the system is suspended while running on either battery power or external power.

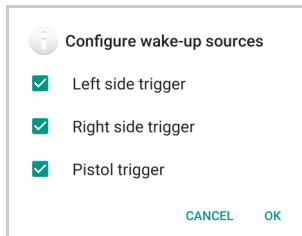


If you use the **Advanced settings** page to set the auto-suspend timeouts, the **Display** page’s **Sleep** control will display the **Suspend on internal battery** if no external power is connected; if the device is connected to an external power source (USB or dock), it will display the **Suspend on external power**.

If you set the **Display** page’s **Sleep** control to a new value, it will override both timeouts for external power and internal battery.

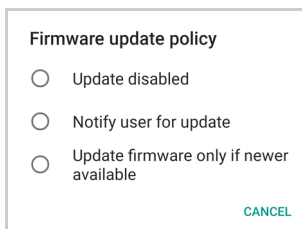
Wake-Up Configuration

The default wake-up sources are the left side trigger, the right side trigger and the pistol trigger. Tap **Settings > Datalogic Settings > Power Management > Configure wake-up sources** to enable/disable wake-up sources.



Dock Management

Allows you to manage the dock’s firmware update through the **Dock Manager** application (see "**Dock Manager**" on page 63).



System Update

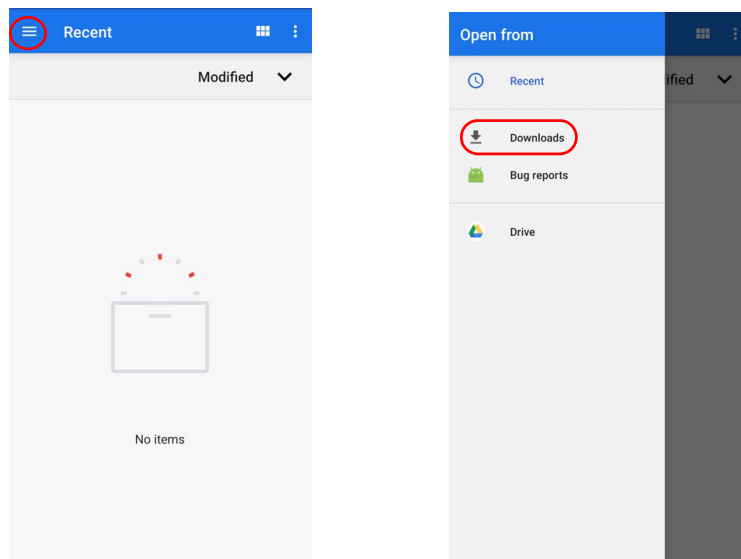
The A/B system update ensures a workable booting system remains on the disk during an over-the-air (OTA) update. OTA updates can occur while the system is running, without interrupting the user. Users can continue to use their devices during an OTA, the only downtime during an update is when the device reboots into the updated disk partition.

To transfer the OTA package from your PC to the Memor 20, follow the steps below:

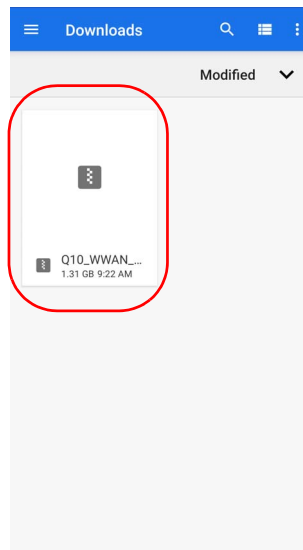
1. Connect the device and the PC via USB cable (see “USB Connection” on page 74);
2. Copy the OTA package to the device **Download** folder;

Local Upgrade

From the **Settings** menu, tap **Datalogic Settings > System Update > Local upgrade**. Tap the menu icon on the top left corner of the screen and then tap **Downloads**.

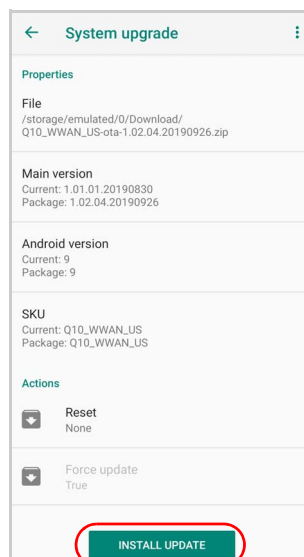


Select the update package you want to install:



NOTE: The OTA package would be also available if copied into another folder. You just need to select the right folder.

The following window displays on screen, showing information about the device and the update package components:

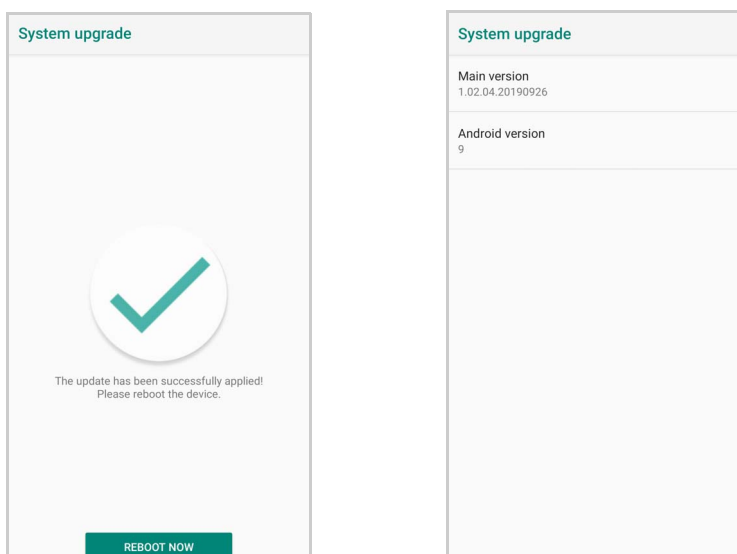


The **PROPERTIES** section shows information about the device model and OS version and the update package version.

The **ACTIONS** section allows to:

- reset the device configuration after the update (see “Reset the Device” on page 24).
- force the update of all components, including those already updated.

Tap **Install Update**. The device will reboot and a success notification will be displayed. Tap the notification to display a report showing the installed update components.



NOTE: During the update, ensure that:

- **battery level is more than 20% if the Memor 20 is not connected to a power source;**

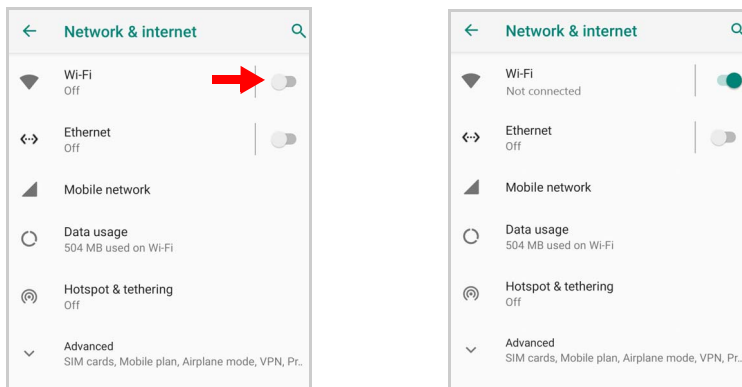
or

- **battery level is more than 15% if the Memor 20 is connected to a power source (USB or dock).**

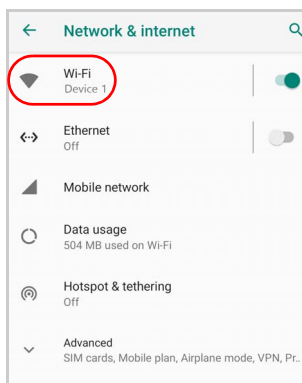
NETWORK & INTERNET

Connect to Wi-Fi Network

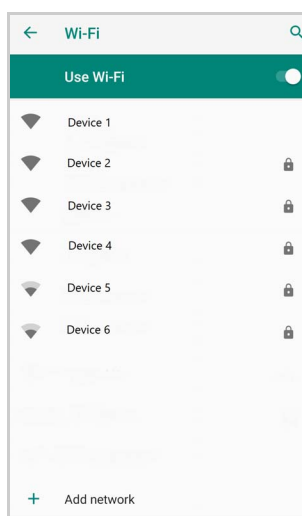
1. To turn on the Wi-Fi, tap **Settings > Network & Internet** and switch right to the **On** position.



If the device finds a network that you connected to previously, it will connect to it automatically.



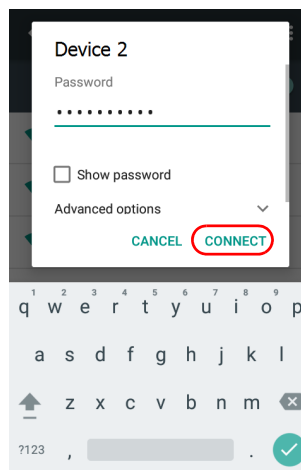
2. Tap **Wi-Fi**. The Memor 20 scans for available Wi-Fi networks within range and lists them. Secured networks are indicated with a lock icon.



3. Select the network name you want to connect to from the available network list.
4. If the network is open, tap the profile and then tap **Connect**, or press and hold and then select **Connect to network**:

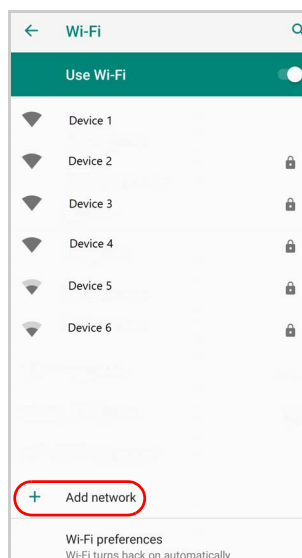


If the network is secured, a dialog box appears requesting information relevant to the network security protocol (e.g., password, key, or certificate). Enter the required information, then tap **Connect**:

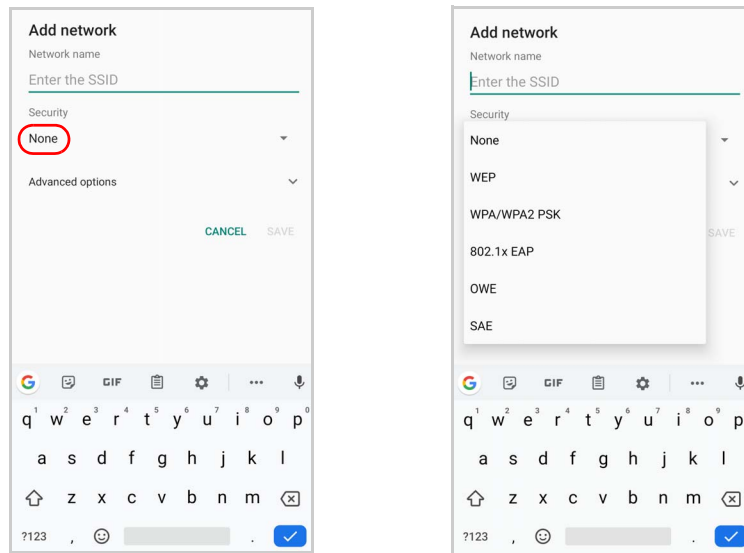


Add a Wi-Fi Network

1. Tap **Settings > Network & Internet** and verify that the Wi-Fi is turned on.
2. Tap **Wi-Fi**.
3. Tap **Add network** at the end of the available network list:



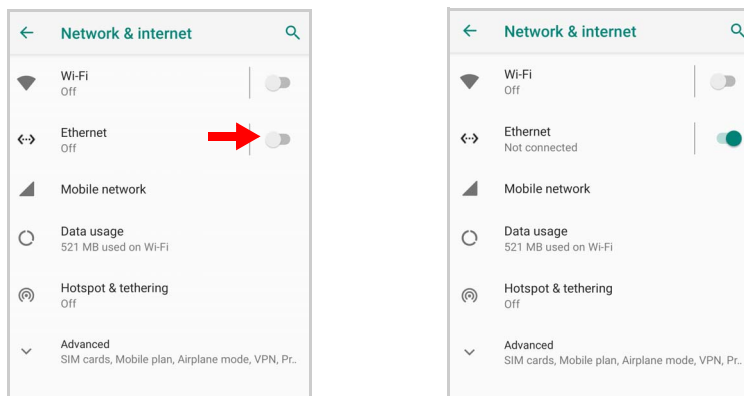
4. Enter the Network SSID (Wi-Fi network name). For secure Wi-Fi network connections, tap **None** under **Security**, and then select the type of security protocol required from the pop-up menu (e.g., WEP, WPA/WPA2 PSK or 802.1xEAP). Enter any additional security information required by the type of security protocol selected.



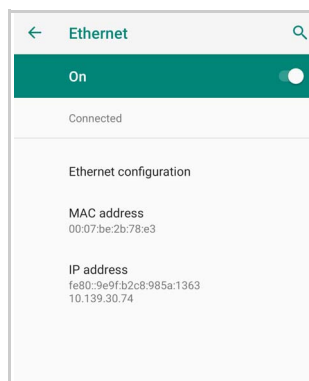
5. Tap **Save**.

Ethernet

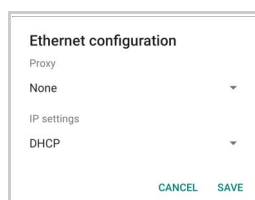
To enable ethernet communication, tap **Settings > Network & Internet > Ethernet** and switch right to the **On** position.



Tap **Ethernet** to display the MAC address and the IP address:



Tap **Ethernet configuration** to configure the ethernet settings:



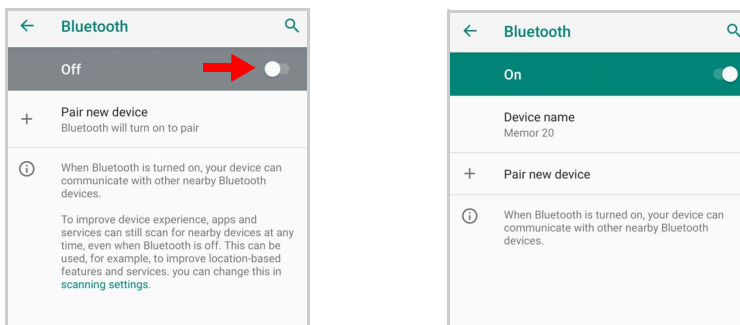
CONNECTED DEVICES

Bluetooth Settings

To create a Bluetooth® pairing between your device and another device that has Bluetooth® capabilities, ensure that the two devices are turned on, discoverable, and within close range.

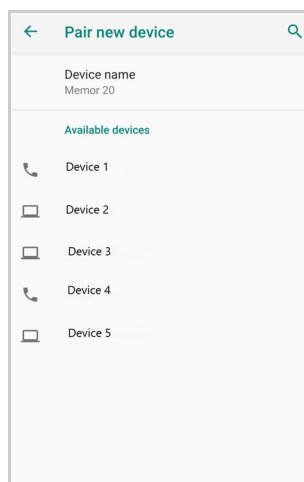
Enable Bluetooth®

1. To turn on the Bluetooth®, tap **Settings > Connected Devices > Connection preferences > Bluetooth** and switch right to the **Bluetooth On** position.

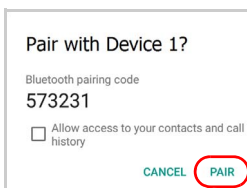


Connect to Other Bluetooth® Devices

1. Tap **Pair new device**. The device automatically starts searching for discoverable devices.



2. Flick the list and select a device. The **Bluetooth pairing request** dialog box displays on the screen:

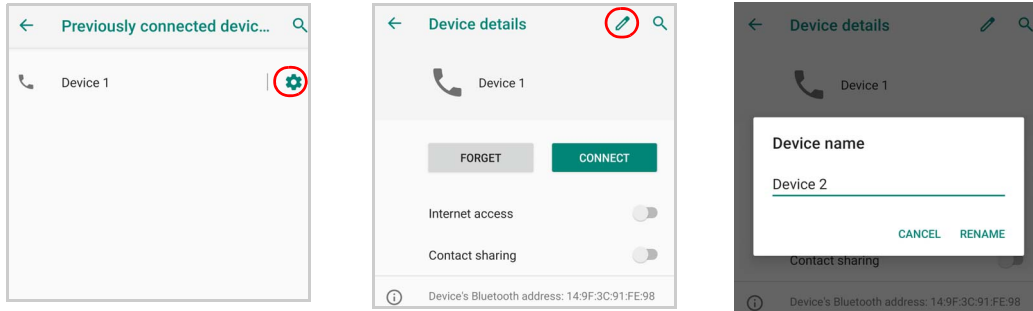


3. Make sure both devices show the same passkey and tap **Pair**.
4. The selected Bluetooth® device is added to the **Previously connected devices** list and a paired connection is established.

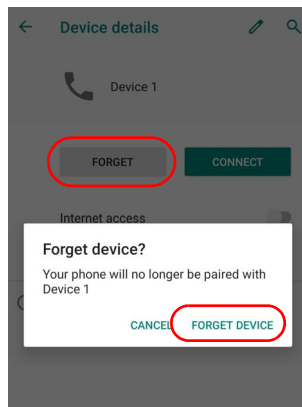
Configure, Rename or Unpair Bluetooth® Devices

Tap **Settings > Connected devices > Previously connected devices**.

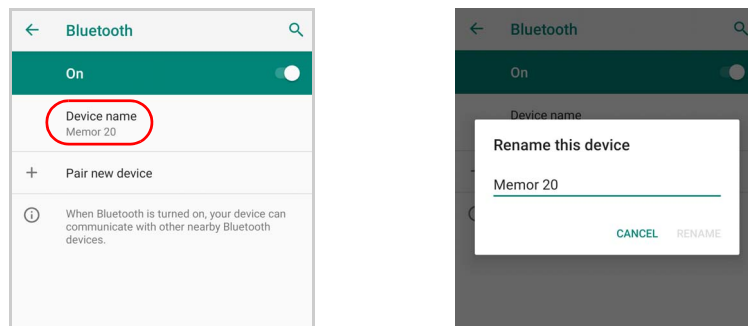
Select a device and tap the settings icon next to its name. The **Device Details** window displays on the screen. Type the **Edit** icon to rename the paired device.



Tap **FORGET** to unpair:



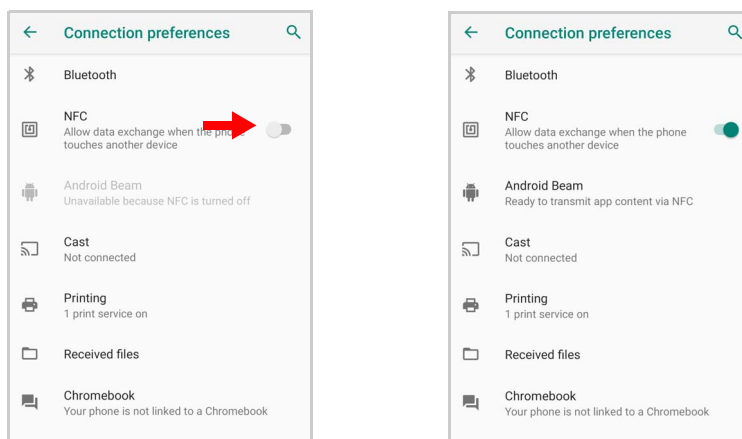
To rename your device, tap **Device name**. Type in the new name.



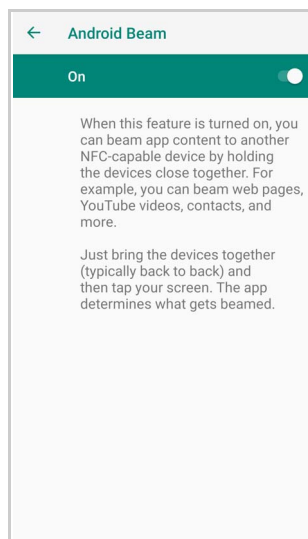
Tap **Rename** to confirm.

NFC

To enable short-range wireless data exchange, tap **Settings > Connected Devices > Connection preferences** and switch right to the NFC ON position.



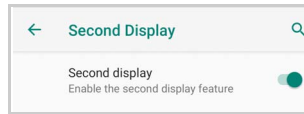
Android Beam is automatically enabled:



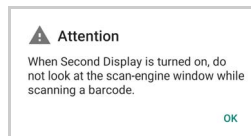
SECOND DISPLAY

If enabled, the second display on the top of the Memor 20 will display the notifications when the device is locked and the screen is off.

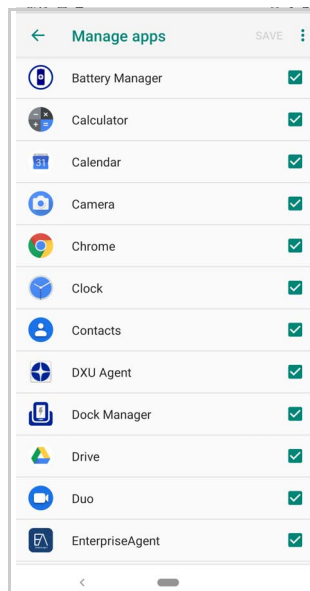
To enable the second display feature, tap **Settings > Second Display** and switch right to the ON position.



The following pop-up will appear. Tap **OK**:



Tap **Manage apps** to select the applications that can send notifications to the second display:



CAUTION: When Second Display is turned on, do not look at the scan engine window while scanning a barcode.

TOUCH MODE

Adjusts touch-screen sensitivity for input with a bare or gloved finger.

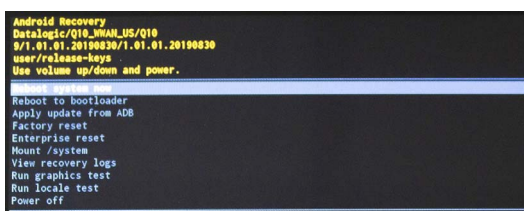


RECOVERY MODE

Recovery is an independent, runtime environment that's included on a separate bootable partition from the main Android OS. It contains tools to help repair your installations as well as install official OS updates by using a combination of key presses. Its main purpose is to reset the device, wipe data or perform system updates when the system crashes and the screen is unresponsive.

To enter boot menu:

1. Turn off the Memor 20 (see "" on page 9).
2. Press the power button and the volume up button simultaneously.
3. The device turns on and the **Recovery Mode screen appears**.



4. Use the volume up/down buttons to navigate the menu. You can apply/force updates and perform a configuration reset. Press the power key to select.
5. Select **Reboot system now**. The device reboot is complete.



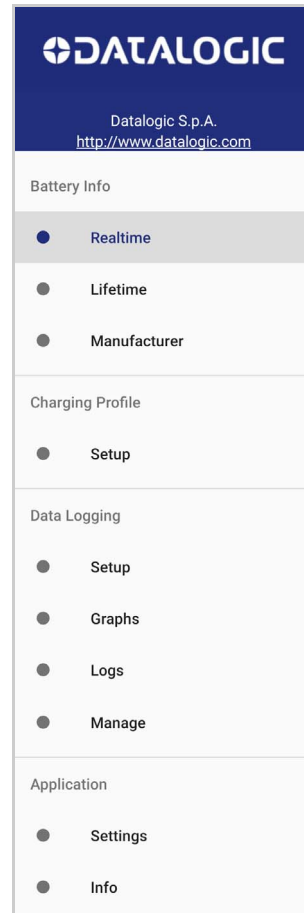
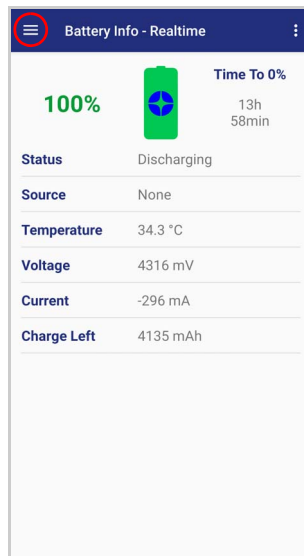
NOTE: In Recovery mode, you can only apply updates from external storage (see “Local Upgrade” on page 44).

DATALOGIC APPLICATIONS

BATTERY MANAGER

This application provides information about the battery features and status, allows to configure the battery charging profile and to log battery data.

Tap **All Apps > Battery Manager** icon, then tap the menu icon on the top left corner of the screen, or swipe right to display the menu.

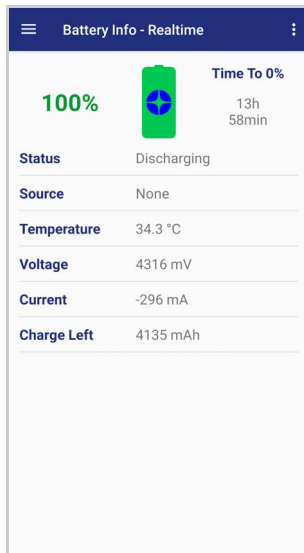


Battery Info

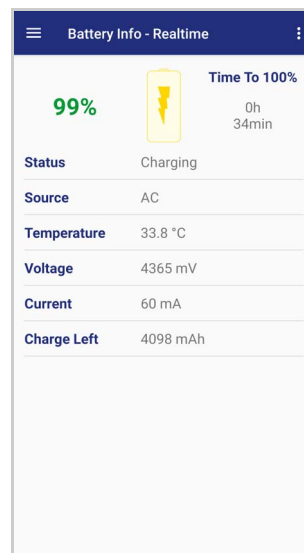
The **Battery Info** section provides information about the battery's health, capacity, manufacturer, level and charging status.

Battery Info - Realtime

This window provides real-time information about the battery.



Discharging Mode



Charging Mode

The top section shows the battery level and the time left to full discharge (when in discharge mode) and to full charge (when in charge mode).

Status

Displays the charging status.

Source

Displays the charging source.

Temperature

Displays the real-time temperature.

Voltage

Displays the real-time voltage.

Current

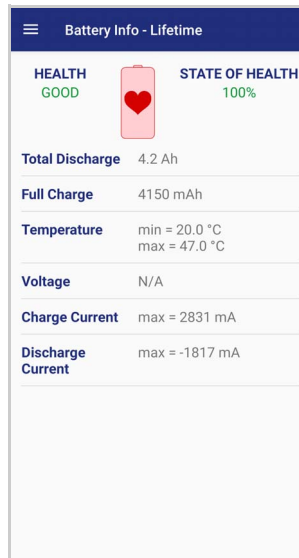
Displays the real-time current.

Charge Left


Shows how much battery power is left.

Battery Info - Lifetime

This window displays information and statistics about battery life, health and usage over its whole life cycle.



The screenshot shows a mobile application window titled "Battery Info - Lifetime". It displays the following information:

Battery Info - Lifetime	
HEALTH	STATE OF HEALTH
GOOD	100%
	
Total Discharge	4.2 Ah
Full Charge	4150 mAh
Temperature	min = 20.0 °C max = 47.0 °C
Voltage	N/A
Charge Current	max = 2831 mA
Discharge Current	max = -1817 mA

Health

Shows the current battery health and signals potential errors.

State of Health

Shows the current battery's health level.

Total Discharge

Shows how much the battery has been used over its whole life cycle.

Full Charge

Shows the actual maximum capacity available to the user.

Temperature

Shows the maximum and minimum temperature reached by the battery.

Voltage

Shows the maximum and minimum voltage reached by the battery.

Charge Current

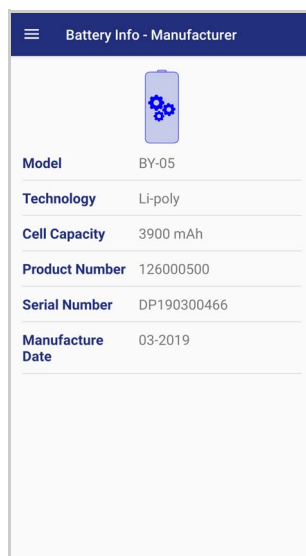
Shows the maximum charge current.

Discharge Current

Shows the maximum discharge current.

Battery Info - Manufacturer

This window displays the model name, the type, the nominal capacity, the serial number, the product number and the manufacture date of the battery.



Charging Profile

Charging Profile - Setup

This window allows to customize the charging process according to the user's needs and priorities.

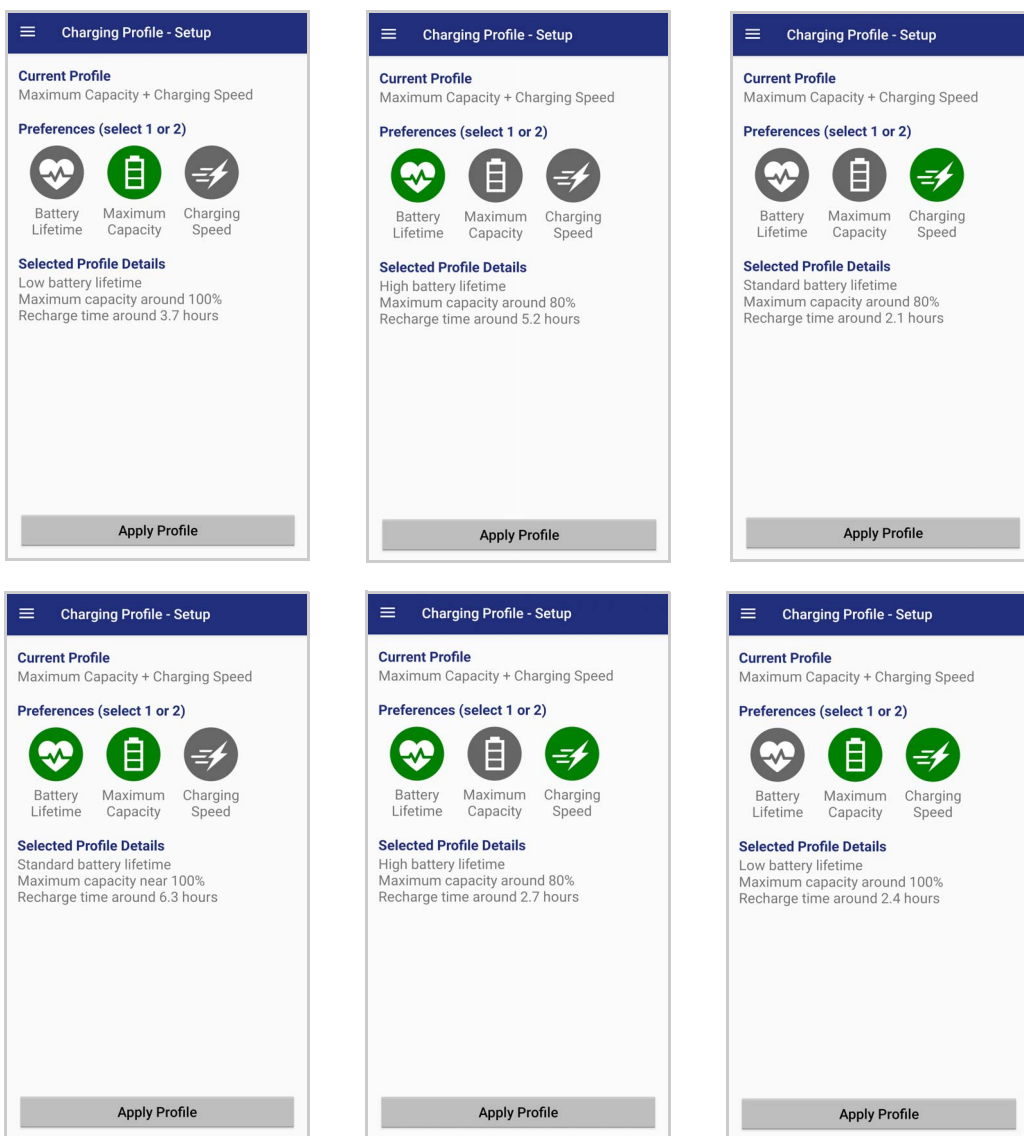
To configure a charging profile, select 1 or 2 of the following preferences:

- Battery Lifetime.
- Maximum Capacity.
- Charging Speed.

If a third preference is selected, the system will automatically clear the oldest option.

Tap **Apply Profile** to confirm.

You can configure up to 6 different charging profiles:



Once you have set your profile, it will be applied by default whenever you charge the device.

You can change your profile at any time, even during charging.

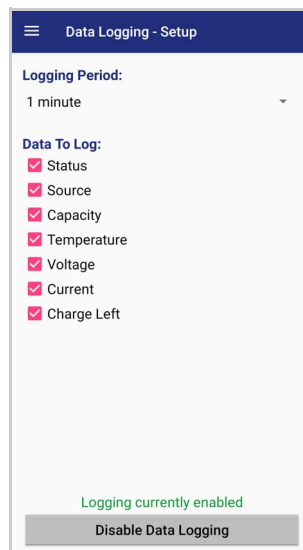
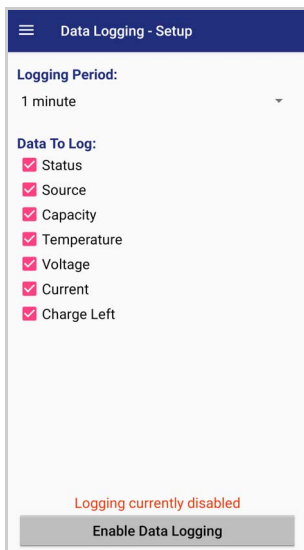
Data Logging

The data logging feature allows to collect, store, display and analyze minute-by-minute battery data.

Setup

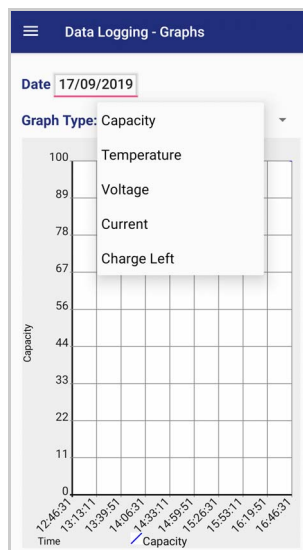
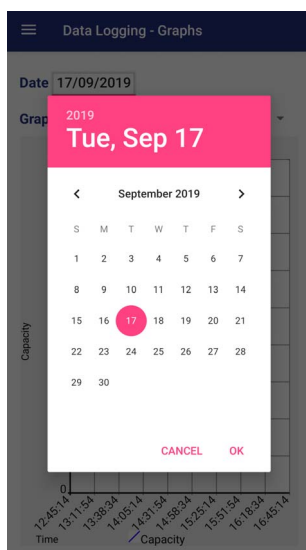
Use the **Setup** window to select the data you want to log.

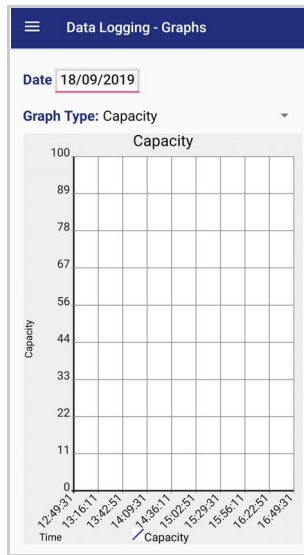
The data logging is disabled by default. To enable it, tap **Enable Data Logging**. When enabled, the log is always running, even when the device is in suspend mode.



Graphs

The **Graphs** window provides a graphical display of selected data on a specific date.





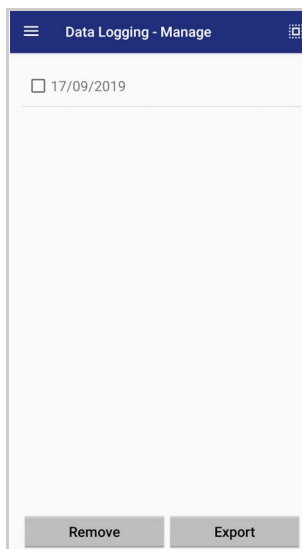
Logs

The Logs window displays data details by date.

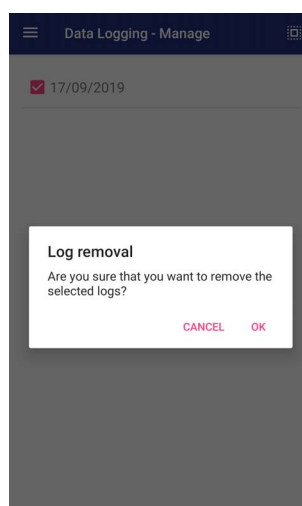
Date	Status	Source %	°C
16:44:14	FULL (GOOD)	AC 100	33.9
16:45:14	FULL (GOOD)	AC 100	33.8
16:46:14	FULL (GOOD)	AC 100	33.7
16:46:31	FULL (GOOD)	AC 100	33.7
16:47:31	FULL (GOOD)	AC 100	33.6
16:48:31	FULL (GOOD)	AC 100	33.6
16:49:31	FULL (GOOD)	AC 100	33.6
16:50:31	FULL (GOOD)	AC 100	33.6
16:52:11	FULL (GOOD)	AC 100	33.5
16:53:11	FULL (GOOD)	AC 100	33.5
16:54:11	FULL (GOOD)	AC 100	33.5
16:55:11	FULL (GOOD)	AC 100	33.5
16:56:11	FULL (GOOD)	AC 100	33.5
16:57:11	FULL (GOOD)	AC 100	33.4
16:58:12	FULL (GOOD)	AC 100	33.5
16:59:12	FULL (GOOD)	AC 100	33.5
17:00:12	FULL (GOOD)	AC 100	33.4
17:01:12	FULL (GOOD)	AC 100	33.4

Manage

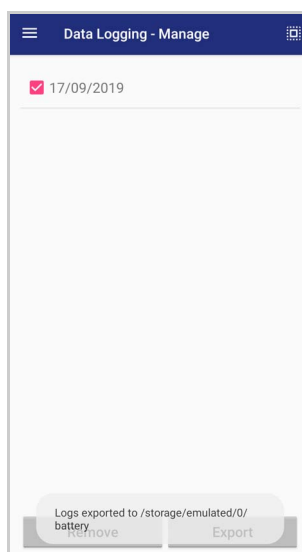
The **Manage** window allows to remove or export logs.



Select one or more logs and tap **Remove** to remove them. Tap **OK** to confirm:



Select one or more logs and tap **Export** to export data and store them for extended periods.

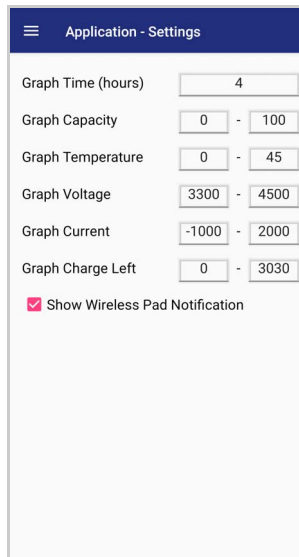


The selected log files will be saved in the "battery" folder in the internal storage of your device.

Application

Settings

The **Settings** section allows to set the value ranges that will be used to create the graphs.



Application - Settings	
Graph Time (hours)	4
Graph Capacity	0 - 100
Graph Temperature	0 - 45
Graph Voltage	3300 - 4500
Graph Current	-1000 - 2000
Graph Charge Left	0 - 3030
<input checked="" type="checkbox"/> Show Wireless Pad Notification	

If you charge the Memor 20 with a wireless charging pad, you're not allowed to customize the charging profile.

If the **Show Wireless Pad Notification** check box is selected, the system displays a warning message saying that the charging profile won't be applied.

Show Wireless Pad Notification is enabled by default. To disable it, clear the **Show Wireless Pad Notification** check box.

Info

The **Info** section displays information about the device name and the software version.

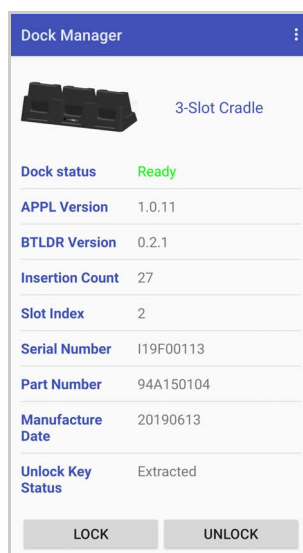
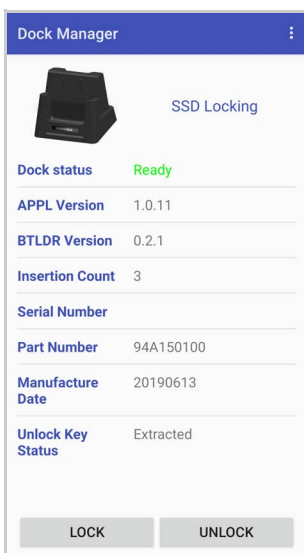
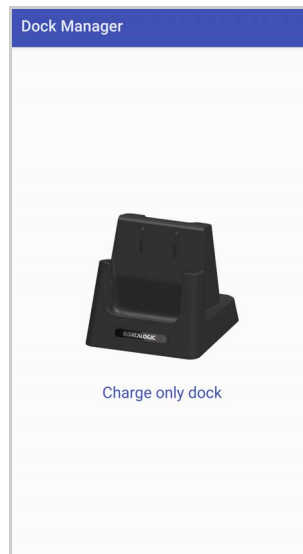
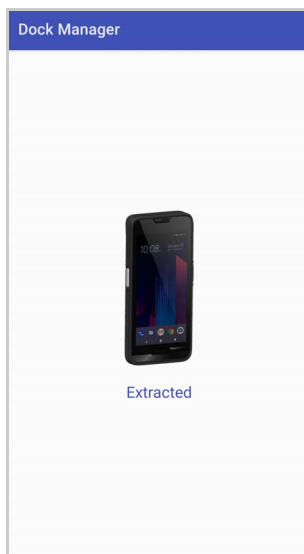


Application - Info	
Device Name	Memor 20
Application Version	1.4.5

DOCK MANAGER

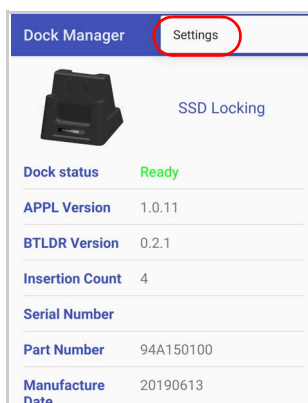
This application provides information about the cradle you're currently using and allows to enable/disable some of its properties.

Below are some screenshots showing the different cradle options:

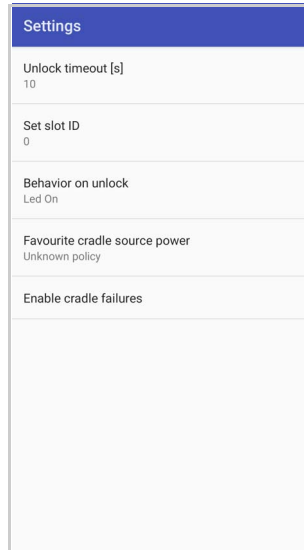


If the Memor 20 is inserted into the Single Slot Dock Full or into the 3-Slot Dock Full, you can unlock and lock the device without using the unlock key, by tapping the **UNLOCK** and **LOCK** buttons.

In addition, you have further details and options. Tap the menu icon on the right top of the screen to access the **Settings** menu:

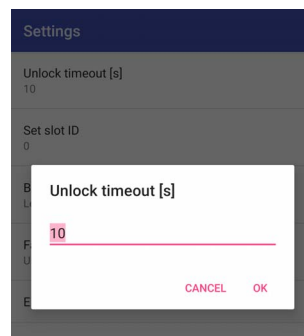


Settings



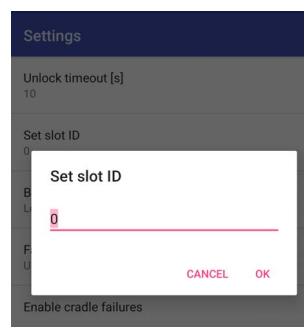
Unlock Timeout

You can set the time available to the user to remove the cradle after tapping the **UNLOCK** button. Tap **Unlock timeout [s]** and digit your desired unlock timeout (5 by 5 seconds):

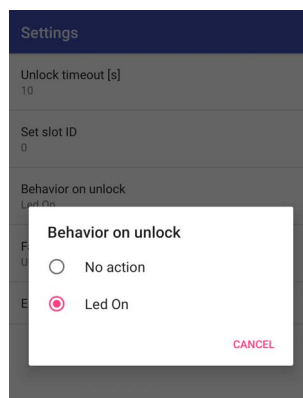


Set Slot ID

Allows to change the ID of the slot where your device is inserted. The ID value is expressed in hexadecimal, ranging from 0000 to FFFF.



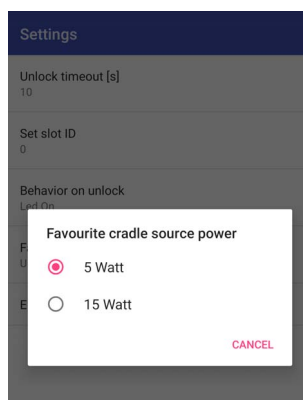
Behaviour on Unlock



If **Led On** is selected, the dock bottom LED illuminates solid green anytime you unlock the device. It is enabled by default.

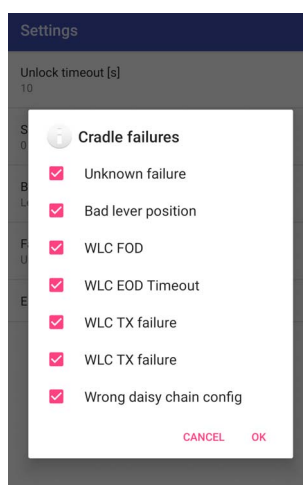
Favourite Cradle Source Power

Allows to select the charging mode (standard or fast).



Enable Cradle Failures

In case of a failure notification, it displays the reason of the failure (see the dock's Quick Start Guide for more details).



DESKTOP CONFIGURATION UTILITY (DXU)

Datalogic DXU is a unified device configuration utility and firmware update utility. DXU can connect directly to the Memor 20 that connects either directly to a PC via USB or remotely over a network via Wi-Fi. DXU reports information about currently connected devices.



For more details on DXU installation, configuration and functioning, visit the website: <https://datalogic.github.io/dxu/>.

SCAN2DEPLOY

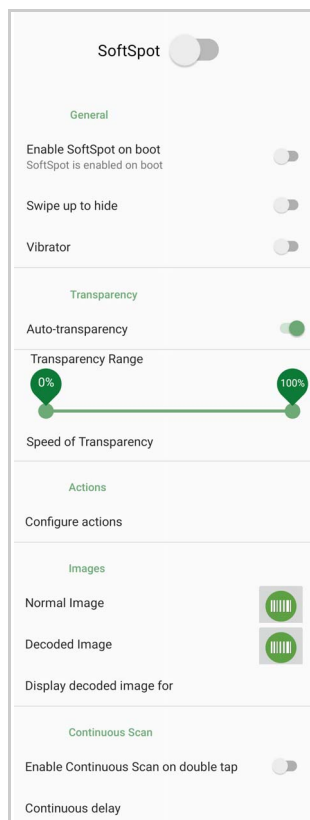
Scan2Deploy is a configuration tool that uses special barcode labels. For more details, visit the website:

<https://datalogic.github.io/scan2deploy>.

SOFTSPOT™

Datalogic's SoftSpot technology is a user-definable "floating soft trigger" meant to provide easy access to the barcode scanner application and other frequently used functionalities on mobile scanning devices.

Tap the SoftSpot icon on the favorites tray or on the All Apps screen to launch SoftSpot:



Tap the SoftSpot to scan barcodes.

SoftSpot

Enables the SoftSpot.

Enable SoftSpot on boot

Enables SoftSpot on boot.

Swipe to hide

If enabled, it allows to hide the SoftSpot from the screen by swiping it up in the Notification/Status bar.

Vibrator

Enables the vibrator.

Auto-transparency

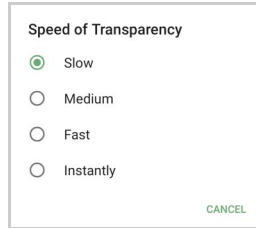
If enabled, the SoftSpot turns transparent automatically when it is not used.

Transparency Range

Sets the SoftSpot transparency level when it is used or when the auto-transparency feature is not enabled.

Speed of transparency

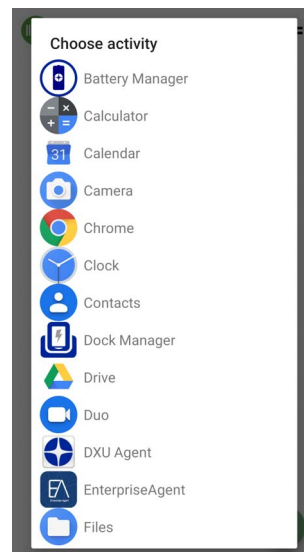
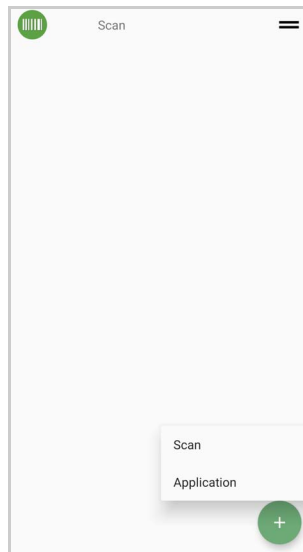
Sets the lapse of time it takes for the SoftSpot to turn transparent.



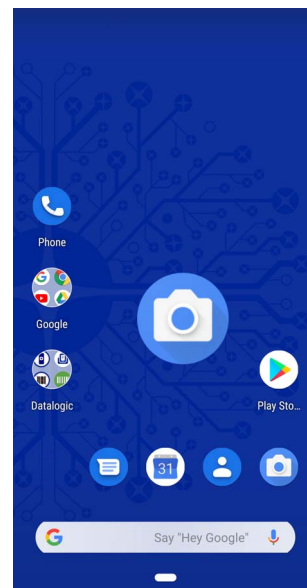
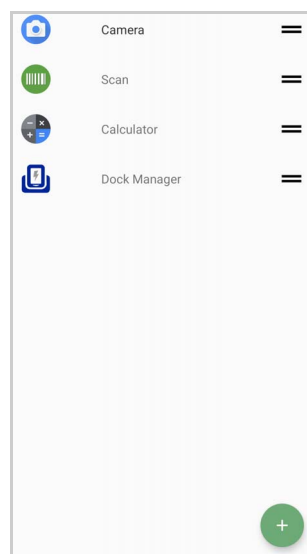
Actions

You can use SoftSpot to quickly switch between the applications you actively use.

Tap **Configure actions** > **+** > **Application** to add the applications you want to launch with SoftSpot.



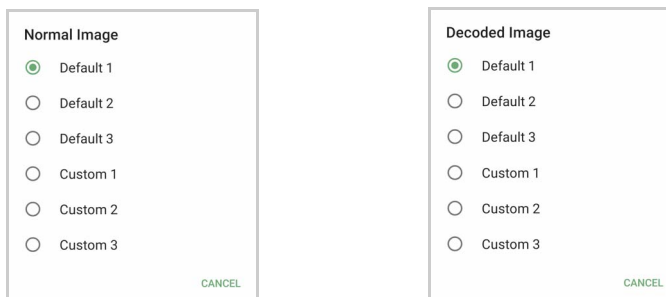
Only one action is active at a given moment. Tap the SoftSpot to launch the application. You can switch between actions by swiping left and right on the SoftSpot.



To remove an application from the actions list, tap and swipe right.

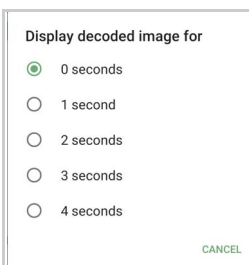
Images

Tap **Normal Image** and/or **Decoded Image** to change the SoftSpot images. You have six options: three default images and three custom images.



Display Decoded Image For

Sets the duration of the decoded image.

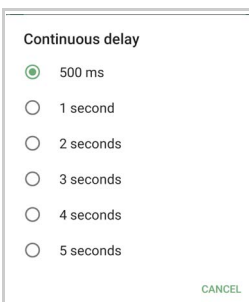


Enable Continuous Scan on Double Tap

To enable the Continuous Scan mode and scan barcodes consecutively, switch right and then double-tap the SoftSpot. Tap one more time to stop laser emission.

Continuous Delay

Allows to set the continuous delay time.



You can also configure the SoftSpot from the DXU. For more details on DXU, see “Desktop Configuration Utility (DXU)” on page 66.

SURELOCK

With **SureLock** you can secure and lock the Memor 20 to ensure its responsible usage, improve productivity and reduce maintenance cost.

It allows access to only required applications and prevents the users from making any intended or unintended changes in the device. Only administrators can access the password protected settings to either modify lockdown configurations or exit the lockdown.

You can use DXU Desktop to remotely accept the SureFox and SureLock EULAs for all devices consuming a.dxu configuration file.

A Datalogic Standard version of **SureLock** is preloaded on the Memor 20. You have the option to upgrade to the Advanced version by contacting 42Gears: <http://www.42gears.com/contact.html>.

Refer to the [SureLock Documentation for Android](#) on the 42Gears website for further details on **SureLock**.

SUREFOX

Businesses require use of browsers to run web applications on devices with Android and there may be situations when controlled web access for the users is required to ensure appropriate use of the devices.

SureFox creates locked browsing environment in your devices with Android making them apt for deployments as public web kiosks or as field devices for your mobile workforce. You can specify the websites that you wish to allow. **SureFox** will then block all other websites and allow the users to browse the allowed websites in locked down kiosk mode.

You can use DXU Desktop to remotely accept the SureFox and SureLock EULAs for all devices consuming a.dxu configuration file.

A Datalogic Standard version of **SureFox** is preloaded on the Memor 20. You have the option to upgrade to the Advanced version by contacting 42Gears: <http://www.42gears.com/contact.html>.

Refer to the [SureFox Documentation for Android](#) on the 42Gears website for further details on **SureFox**.

TOOLS

USB ADB DRIVER

USB connection allows to read and write files on both the internal storage memory and the external storage memory, but doesn't allow to install applications.

Android Debug Bridge (ADB) is a command-line utility included with Google's Android SDK and you can use it to control your device over USB from a computer, copy files back and forth, install and uninstall apps and run shell commands.

SDK ADD-ON

SDK add-on is a library which extends the Android SDK and development tools.

For more information and instructions to install SDK Add-on, Android™ Studio and Android SDK, visit the website <https://datalogic.github.io/android/overview>.

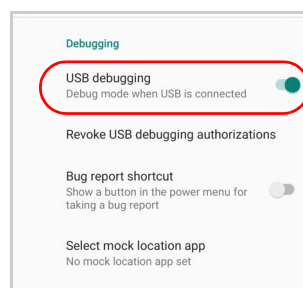
Install ADB Driver

1. Install Android SDK Manager (visit the website <https://datalogic.github.io/android/overview> for further information).
2. Download and install the Google USB Driver (see <https://developer.android.com> for further information).



NOTE: Before installing the Google USB Driver, ensure you have installed the Datalogic plug-in.

3. In order to use ADB with your device connected over USB, you must enable USB debugging in the device system settings. To enable Android **Developer options**, go to **Settings > System > About phone** and tap on the **Build Number** section 7 times. After the 7th tap, the Developer options will be unlocked and available. Go back to **Settings > System > Advanced** and tap **Developer options**. Enable **USB debugging**:



Create a New Application based on Datalogic SDK Add-on with Android Studio

For information and instructions to configure Datalogic SDK Add-on in Android Studio, refer to the website:

<https://datalogic.github.io/android/overview>.

DATALOGIC SDK

For information on the Datalogic SDK APIs, visit the web site: <https://datalogic.github.io/android/overview>.

DATALOGIC OEMCONFIG

OEMConfig is a new Android standard that enables device makers to create custom device features that can be immediately and universally supported by enterprise mobility managements (EMMs). Instead of integrating enterprise APIs from each OEM to support their custom features such as control of barcode scanners or enabling extra security features, EMMs can easily use an OEM-built application that configures all of the unique capabilities of a device.

OEMConfig utilizes a feature in Android Enterprise called managed configurations, which allows developers to provide built-in support for the configuration of apps. With OEMConfig, EMMs can support all of a device manufacturer's diverse set of controls without any incremental development work on their end.

For more details, visit the website: <https://datalogic.github.io/oemconfig>.

WI-FI QR CODE GENERATOR

Allows to generate a QR code that will automatically connect your device to a Wi-Fi network when scanned.

For more details, visit the website: <https://datalogic.github.io/wifiqr>.

DATA CAPTURE

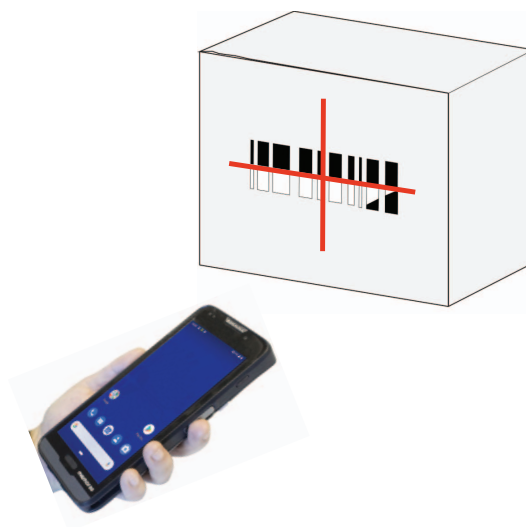
The Memor 20 has an integrated imager that collects data by scanning bar codes. See "Scanner Settings" on page 29 for instructions on configuring the scanner settings.

IMAGER DATA CAPTURE

The imager uses digital camera technology to take a digital picture of a bar code, the image is stored in memory and software decoding algorithms are executed to extract the data from the image.

To scan a bar code symbol:

1. Point the scan window at the bar code.
2. Press one of the scan triggers. The imager projects a laser aiming pattern similar to those used on cameras. The aiming pattern is used to position the barcode or object within the field of view.
3. Center the symbol in any orientation within the aiming pattern. Ensure the entire symbol is within the rectangular area formed by the brackets in the aiming pattern, then either wait for the timeout or release the Scan Key to capture the image. A red beam illuminates the symbol, which is captured and decoded.



If the scan has been successful:

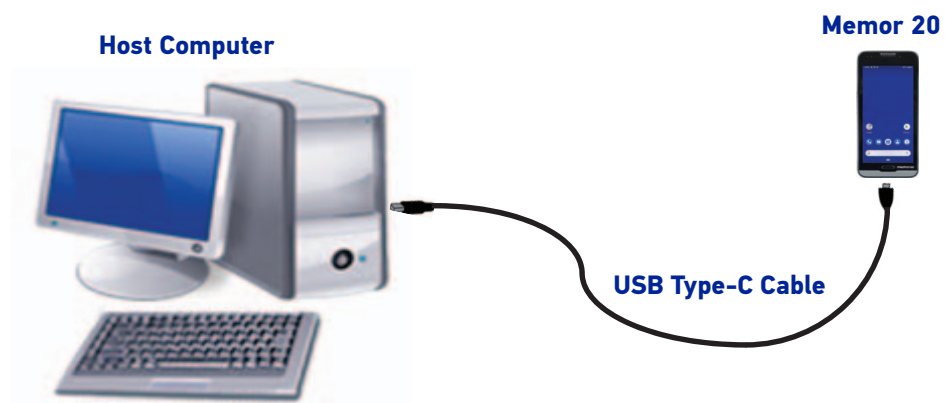
- If enabled, the good read beep plays.
- If enabled, the GreenSpot projects a green spot onto the bar code image.
- If enabled, the good read indicator positioned at the top left side of the display glows solid green.

CONNECTIONS

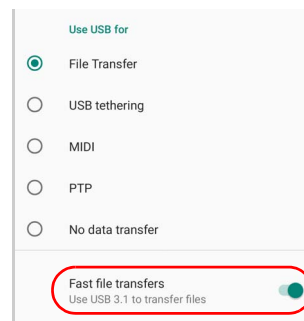
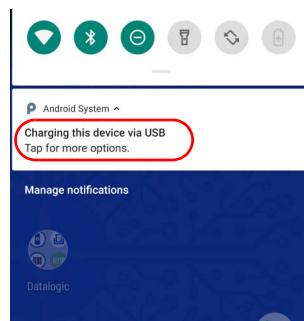
USB CONNECTION

USB Direct Connection

You can use the provided USB Type-C cable to directly connect the Memor 20 to a host computer and transfer data through the USB interface.



1. Turn on the Memor 20.
2. Turn on the host computer.
3. Connect the device to the host PC via USB cable.
4. Scroll down the notification bar, tap the charging notification and change to **Transfer files**. The default data transfer is USB 3.1. Switch the **Fast file transfers** slider to downgrade to USB 2.0.



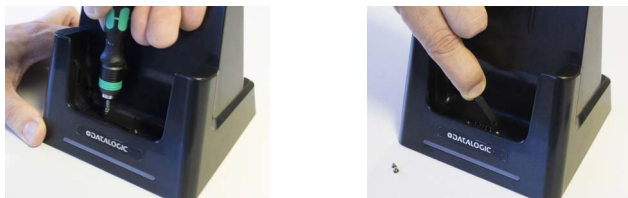
5. The device is now visible in your PC as a USB disk. You can start the data transfer.



NOTE: Connection through the cable complies to USB 3.1 standard.

USB Dock Connection

1. Turn on the host computer.
2. Connect the single slot dock full to the power supply (available as an accessory, p/n 94ACC0249).
3. Connect the single slot dock full to the host computer by means of a standard USB Type-C cable.
4. Remove the cap from the pogo pins on the dock.



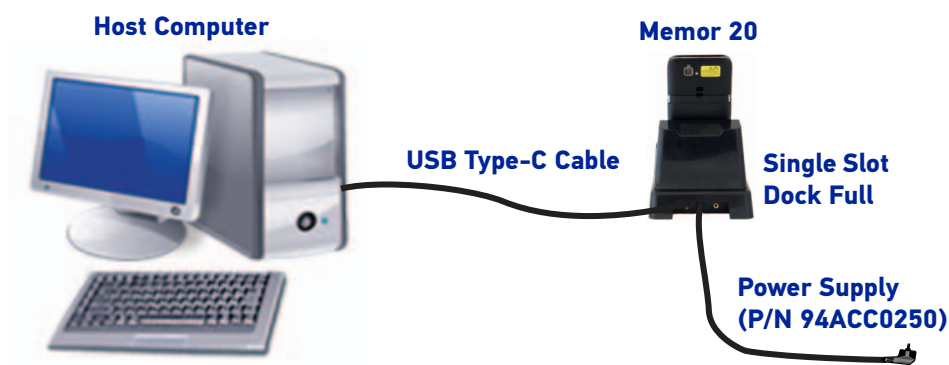
5. Remove the USB rubber cap from the Memor 20



6. Insert the USB/ethernet plug included in the Memor 20's box and fasten it with the two provided screws.



7. Turn on the Memor 20.
8. Insert the Memor 20 into the dock.



NOTE: Connection through the single slot dock full complies to USB 2.0 standard.

ETHERNET CONNECTION

Use the 3-slot dock full to build a reading system for the collection, decoding and transmission of barcoded data.

Ethernet Dock Connection

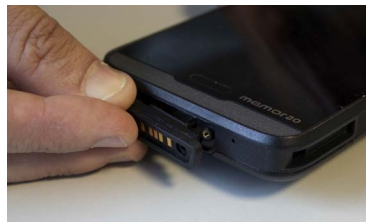
1. Connect the 3-slot dock full to the power supply (available as an accessory, p/n 94ACC0250).
2. Plug a CAT-5 ethernet cable into the ethernet port on the back of the dock.
3. Plug the ethernet cable into the ethernet hub or a port on the host device.
4. Remove the cap from the pogo pins on the dock.



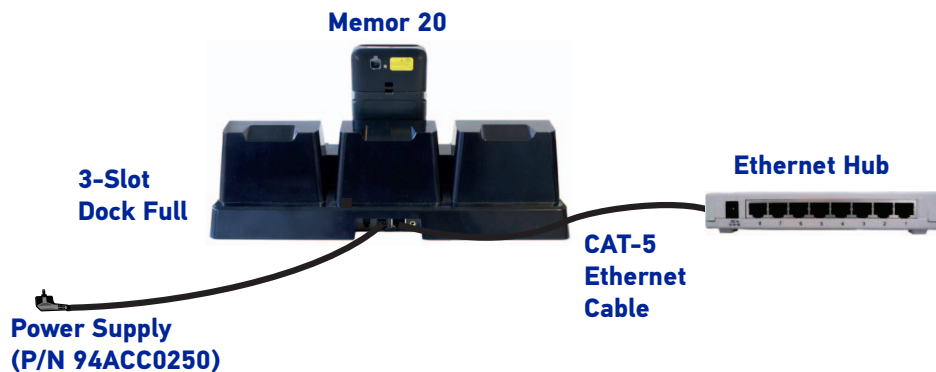
5. Remove the USB rubber cap from the Memor 20



6. Insert the USB/ethernet plug included in the Memor 20's box and fasten it with the two provided screws.

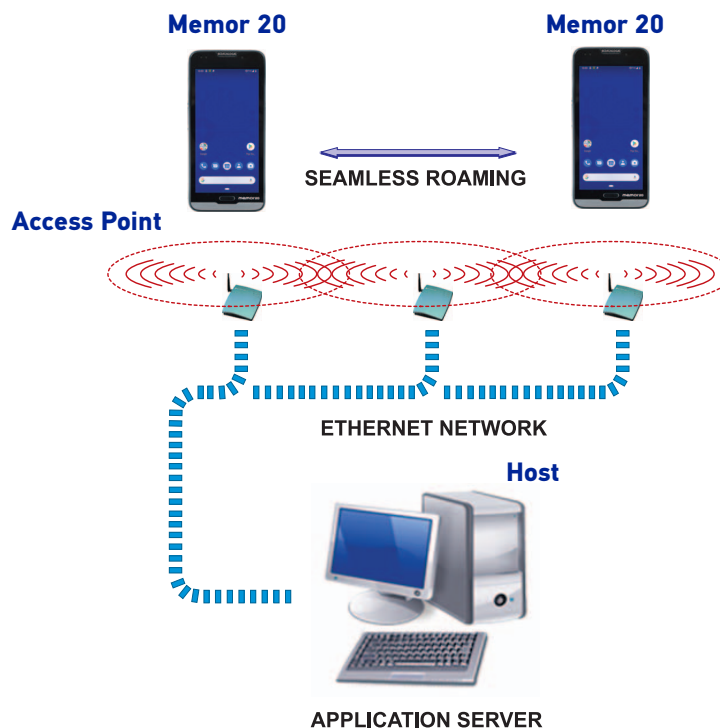


7. Turn on the Memor 20.
8. Insert the Memor 20 into the dock.



WI-FI CONNECTION

The Memor 20 has a IEEE 802.11 a/b/g/n/ac and 802.11 k/r/v WLAN (Wireless Local Area Network) radio and can communicate with other 802.11 a/b/g/n/ac and 802.11 k/r/v Wi-Fi compliant products including access points, workstations via PC card adapters and other wireless portable devices.



NOTE: Area coverage and radio performance may vary, due to environmental conditions, access point types or interference caused by other devices (microwave ovens, radio transmitters, etc.).

MIMO (MULTIPLE-INPUT AND MULTIPLE-OUTPUT)

Memor 20 supports MIMO technology.

MIMO (multiple-input and multiple-output) is a method for multiplying the capacity of a radio link using multiple transmit and receive antennas to exploit multipath propagation. It is a practical technique for sending and receiving more than one data signal with the same radio channel simultaneously via multipath propagation.

MIMO has become an essential element of wireless communication standards including IEEE 802.11n (Wi-Fi), IEEE 802.11ac (Wi-Fi), HSPA+ (3G), WiMAX (4G), and Long Term Evolution (4G).



NOTE: MIMO technology is only available in Wi-Fi models.



NOTE: Ensure your Wi-Fi infrastructure is compatible with MIMO technology to provide the best coverage and speed performance.

WWAN CONNECTION

The Memor 20 enhances your connectivity solutions giving you an opening to an international wireless infrastructure that is the global standard. It is optimized for the following two-way communications:

- Voice: GSM voice data (dial-up).
- Data: Available speed depends on the wireless network carrier and their supported packet-data technology in addition to network conditions.
- GSM: Quad Band (850/900/1800/1900 MHz).

The Memor 20 supports the following 3G bands:

- EU (ROW): WCDMA: B1/2/5/8 (2100/1900/850/900).
- US: WCDMA 2100/1900/1700/850/900.

The Memor 20 supports the following LTE bands:

- EU (ROW) sku: FDD_LTE B1/3/5/7/8/20/28.
- US sku: FDD_LTE B1/2/4/5/7/12/13/17/25/26/30.



In order to use a WWAN Connection you have to install a SIM Card (See "Install the SIM Card" on page 12).



NOTE: You can use the WWAN radio for simultaneous voice and data communication on a UMTS (3G) network only. On a GSM network, if you want to communicate over the phone (voice), you cannot send data. If you want to send data, you cannot use the voice capability.



NOTE: Area coverage and 3G performance may vary, due to environmental conditions, access point types or interference caused by other devices (microwave ovens, radio transmitters, etc.).

BLUETOOTH® SERIAL CONNECTION

The Memor 20 can communicate with a Bluetooth® device, such as a printer, within a range of 10 m, using the on-board Bluetooth® module.



NOTE: Area coverage and Bluetooth® radio performance may vary, due to environmental conditions or interference caused by other devices (microwave ovens, radio transmitters, etc.).

NEAR FIELD COMMUNICATION (NFC)

NFC technology allows short-range, wireless data transfer between the terminal and NFC tags or other NFC enabled devices placed in close proximity to the back of the terminal.

Memor 20 support the following modes of operation:

- NFC tag reader/writer mode: the terminal reads and/or writes digital information from or to an NFC tag.
- Peer-to-Peer (P2P) mode: the terminal uses Android Beam and/or Bluetooth@ technology to transfer screen content (e.g., a picture, web page url, or file) between NFC enabled devices.
- NFC card emulation mode - The terminal emulates an NFC card (smart card) that an external card reader can access.

Read NFC Tags

1. Make sure NFC is enabled (see "NFC" on page 51).
2. Hold the NFC tag close to the back of the terminal.
3. When an NFC tag is recognized, the terminal emits a sound and the tag data displays on the terminal screen.



NOTE: Suspend mode and the screen lock temporarily turns the NFC radio off.

WIRELESS AND RADIO FREQUENCIES WARNINGS



WARNING; Most modern electronic equipment is shielded from RF signals. However, certain electronic equipment may not be shielded against the RF signals generated by Memor 20.

Datalogic recommends persons with pacemakers or other medical devices to follow the same recommendations provided by Health Industry Manufacturers Associations for mobile phones.

Persons with pacemakers:

- Should **ALWAYS** keep this device more than twenty five (25) cm from their pacemaker and/or any other medical device;
- Should not carry this device in a breast pocket;
- Should keep the device at the opposite side of the pacemaker and/or any other medical device;
- Should turn this device **OFF** or move it immediately **AWAY** if there is any reason to suspect that interference is taking place.
- Should **ALWAYS** read pacemaker or any other medical device guides or should consult the manufacturer of the medical device to determine if it is adequately shielded from external RF energy.

In case of doubt concerning the use of wireless devices with an implanted medical device, contact your doctor.

Turn this device **OFF** in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may use equipment that could be sensitive to external RF energy.

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles. Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

An air bag inflates with great force. **DO NOT** place objects, including either installed or portable wireless equipment, in the area over the air bag or in the air bag deployment area. If a vehicle's wireless equipment is improperly installed and the air bag inflates, serious injury could result.

Turn off the device when in any area with a potentially explosive atmosphere. Observe restrictions and follow closely any laws, regulations, warnings and best practices on the use of radio equipment near fuel storage areas or fuel distribution areas, chemical plants or where any operation involves use of explosive materials.

Do not store or carry flammable liquids, explosive gases or materials with the device or its parts or accessories.

Areas with a potentially explosive atmosphere are often, but not always, clearly marked or shown.

Sparks in such areas could cause an explosion or fire, resulting in injury or even death.

TECHNICAL FEATURES

TECHNICAL DATA




Physical Characteristics	
Dimensions	17.0 x 7.97 x 1.92 cm / 6.69 x 3.14 x 0.76 in
Weight	With Battery: 295 g / 10.4 oz
Primary Display	5.7 inch LTPS in 18:9 format - FHD resolution 1080 x 2160; LED backlight
Secondary Display	Second display on top for enriched Android notifications: 0.7 inch POLED
Keys	Physical Keys: 2 side scan keys; Power On/Off; Volume Up/Down; 3 Android soft keys; Fingerprint sensor
Touch Panel	Touch Screen: 5 points multi-touch capacitive panel with hardened Gorilla Glass 3; Support for gloves and stylus
Electrical	
Battery	1 piece swappable battery pack with rechargeable Li-Ion batteries; 3.85v; Rated 3,900 mAh, 15 Watt-hours (typical 4,100 mAh); 'SafeSwap' for application data protection
Wireless Charging	WPC Qi EPP Compliant; 15 Watt fast charging
Sensors	
Vibration	Software programmable for duration and intensity
Accelerometer	3-Axis accelerometer to detect orientation
Gyroscope	Senses angular velocity
Ambient Light	Auto adjusts display backlight
Interfaces	
Interfaces	USB-C: High Speed USB 3.1 gen1 Host and Client; Gigabit Ethernet connectivity (via 3-slot dock)
Proximity	Auto deactivates display when close to face
Biometrics	Capacitive Fingerprint Sensor; 5 fingerprints per user up to 5 users

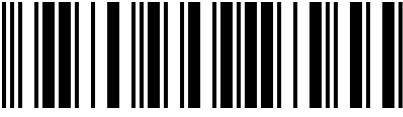
Environmental	
Temperature	Operating: -20 to 50° C / -4 to 122° F Storage/Transport: -30 to 70° C / -22 to 158° F
Drop Resistance	Withstands drops from 1.8 m / 6.0 ft onto concrete (with rubber boot); Withstands drops from 1.2 m / 4.0 ft onto concrete (without rubber boot). Tested onto steel / concrete according to IEC 60068-2-32 method 1 and MIL STD 810G Transit drop test
Tumbles	Withstands 1000 hits from 1 m / 3.3 ft per IEC 600-2-32 with rubber boot; Withstands 600 hits from 0.5 m / 1.6 ft per IEC 60068-2-32 method 1 without rubber boot
Particulate and Water Sealing	IP65 and IP67
Chemical Resistance	Chemical cleanser and industrial oil resistant (both Standard and Healthcare models)
Healthcare Cleanable	Isopropyl Alcohol, Hydrogen Peroxide, Clorox® Bleach; applicable for both the device and docks
Wireless Communications	
Local Area Network (WLAN)	IEEE 802.11 a/b/g/n/ac and 802.11 d/e/h/k/r/v/w; Frequency range: Country dependent, typically 2.4 GHz and 5 GHz bands; 2 x 2 MIMO technology for higher throughput and coverage (Wi-Fi models only)
Personal Area Network (WPAN)	Bluetooth wireless technology v5.0 (Classic Bluetooth wireless technology and BLE)
NFC Communication	Support for the following standards: ISO14443-4 (type-A, type-B); ISO15693; Mifare; Felica
WWAN/Cellular	LTE-Advanced / 4G+; CAT 9; Dual Nano SIM EMEA and ROW Configuration: GSM: Quad band; WCDMA: B1/2/5/8; FDD_LTE: B1/3/5/7/8/20/28; North America Configuration: (AT&T and Verizon certified): GSM: Quad band; WCDMA: B1/2/4/5/8; FDD_LTE:B1/2/4/5/7/12/13/17/25/26/30 VoLTE enabled
Global Positioning System (GPS)	Integrated Assisted-GPS (A-GPS) Supported Types: GPS, GLONASS, BeiDou
System	
SIM Slots	Dual SIM Slot: NanoSIM
Memory	System RAM: 4 GB; eMMC Flash: 64 GB
Microprocessor	Qualcomm SD660 Octa-core 2.2 GHz
Operating System	Android v9.0 Pie GMS
Real-Time Clock	Time and date stamping under software control

Decoding Capability	
1D/Linear Codes	Auto discriminates all standard 1D codes including GS1 DataBar™ linear codes
2D Codes	Aztec Code, Data Matrix, HanXin Code, MaxiCode, MicroQR Code, QR Code, Dotcode
Postal Codes	Australian Post, Japan Post, KIX Code, PLANET, POSTNET, Royal Mail Code (RM4SCC), UPU FICS, USPS Intelligent Mail
Stacked Codes	Micro-PDF417, PDF417, GS1 DataBar Composites, GS1 DataBar Expanded Stacked, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional
Digital Watermark Codes	Digimarc® Barcode
Reading Performance	
Camera	Rear Camera: Resolution: 13 megapixel; Illumination: User controllable LED flash; Lens: Auto focus Front Camera: Resolution: 8 megapixel; Fixed focus
Scan Engine	Halogen™ DE2102 scan engine: 2D Ultra slim area imager (supports 1D / 2D codes); Datalogic's 'Green Spot' for good-read feedback; Depth of Field: 4 to 90 cm / 1.6 to 35 in depending on bar code density and type; Resolution: Megapixel (1280 x 800 pixels); Illumination: Both White and Red LEDs (for Digimarc); Aiming: 650nm VLD; Field of View: 42°H x 26°V
Print Contrast (Minimum)	25%
Minimum Element Width	1D Linear: 0.0635 mm / 2.5 mils PDF: 0.0762 mm / 3 mils Data Matrix: 0.152 mm / 6 mils
Software	
Applications	Datalogic's SoftSpot technology for configurable soft triggers; Supports Datalogic's Queue Busting app; Pre-licensed device and browser lockdown powered by 42Gears; Enterprise class PTT offered by Zello
Provisioning	Android Zero-Touch, QR Code enrollment, NFC Bump provisioning
Configuration and Maintenance	Scan2Deploy Studio, DXU, OEMConfig
Software Maintenance	Datalogic Shield: recurring security patches, firmware updates, and OS upgrades
Development	Java, Cordova and Xamarin SDK available
MDM	SOTI MobiControl, VMWare AirWatch, Ivanti Avalanche, 42Gears SureMDM, Microsoft Intune
Terminal Emulation	StayLinked SmartTE, Ivanti Velocity



Safety & Regulatory	
Agency Approvals	The product meets necessary safety and regulatory approvals for its intended use
Environmental Compliance	Complies to EU RoHS
Warranty	
Warranty	1-Year Factory Warranty

TEST CODES

High Density Codes - 0.25 mm (10 mils)
<p>Code 39</p>  <p>17162</p>
<p>Interleaved 2/5</p>  <p>0123456784</p>
<p>Code 128</p>  <p>test</p>
<p>80%</p> <p>EAN 13</p>  <p>8 012345 000012</p>
<p>80%</p> <p>EAN 8</p>  <p>6450 9723</p>

Medium Density Codes - 0.38 mm (15 mils)	
Code 39	 17162
Interleaved 2/5	 0123456784
Code 128	 test
100% EAN 13	 8 012345 000012
100% EAN 8	 6450 9723

Low Density Codes - 0.50 mm (20 mils)
<p>Code 39</p>  <p>17162</p>
<p>Interleaved 2/5</p>  <p>0123456784</p>
<p>Code 128</p>  <p>test</p>
<p>120%</p> <p>EAN 13</p>  <p>8 012345 000012</p>
<p>120%</p> <p>EAN 8</p>  <p>6450 9723</p>

2D Codes
Datamatrix ECC200  Example
Inverse Datamatrix ECC200  Example

MAINTENANCE

CLEANING

Periodically clean the Memor 20 Healthcare device and the docks using a soft cloth slightly dampened with only water, or one of the following allowed cleaning agents:

- Sani-Cloth® HB, Sani-Cloth® Plus,
- Super Sani-Cloth®
- Hepacide Quat II
- Alcohol Wipes 70%
- CaviWipes™
- Virex® 256
- 409® Glass and Surface Cleaner
- Windex®
- Clorox® Bleach
- 100% Gentle dish soap and water.

Do not use any other cleaning agents (e.g. different alcohol, abrasive or corrosive products, solvents) or abrasive pads to clean the device.

The device is IP65 and IP67 waterproof, nevertheless splash and water resistance are not permanent conditions and resistance might decrease as a result of normal wear.

ERGONOMIC RECOMMENDATIONS



CAUTION: In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures.

SAFETY AND REGULATORY INFORMATION



NOTE: Read carefully the Memor 20 User Manual (available at www.datalogic.com) before performing any type of connection to the Memor 20.

The user is responsible for any damage caused by incorrect use of the equipment or by inobservance of the indication supplied in the user manual.

GENERAL SAFETY RULES

- Before using the device and the battery pack, read carefully the chapter [Battery](#).
- Use only the components and accessories supplied by the manufacturer for the specific Memor 20 being used.
- Do not attempt to disassemble the Memor 20 PDA, as it does not contain parts that can be repaired by the user. Any tampering will invalidate the warranty.
- When replacing the battery pack or at the end of the operative life of the Memor 20 PDA, disposal must be performed in compliance with the laws in force in your jurisdiction.
- Do not submerge the Memor 20 in liquid products.
- For further information or support, refer to this manual and to the Datalogic web site: www.datalogic.com.




NOTE: See the Safety & Regulatory Addendum included with your product for additional regulatory, safety and legal information.

TECHNICAL SUPPORT

SUPPORT THROUGH THE WEBSITE

Datalogic provides several services as well as technical support through its website. Log on to (www.datalogic.com).

For quick access, from the home page click on the search icon , and type in the name of the product you're looking for. This allows you access to download Data Sheets, Manuals, Software & Utilities, and Drawings.

Hover over the Support & Service menu for access to Services and Technical Support.

Reseller Technical Support

An excellent source for technical assistance and information is an authorized Datalogic reseller. A reseller is acquainted with specific types of businesses, application software, and computer systems and can provide individualized assistance.

REFERENCE DOCUMENTATION

For further information regarding Memor 20 refer to the SDK Help on-line and to the Memor 20 User's Manual, downloadable from our developer portal:
<https://developer.datalogic.com/mobile-computers>.

WARRANTY TERMS AND CONDITIONS

The warranty period is 1 year for the device and 90 days for consumables (e.g. battery, power supply, cable etc.) from date of purchase at our company.

GLOSSARY

Access Point

A device that provides transparent access between Ethernet wired networks and IEEE 802.11 interoperable radio-equipped mobile units. Hand-held mobile computers, PDAs or other devices equipped with radio cards, communicate with wired networks using Access Points (AP). The mobile unit (mobile computer) may roam among the APs in the same subnet while maintaining a continuous, seamless connection to the wired network.

ASCII

American Standard Code for Information Interchange. A 7 bit-plus-parity code representing 128 letters, numerals, punctuation marks and control characters. It is a standard data transmission code in the U.S.

Barcode

A pattern of variable-width bars and spaces which represents numeric or alphanumeric data in binary form. The general format of a barcode symbol consists of a leading margin, start character, data or message character, check character (if any), stop character, and trailing margin. Within this framework, each recognizable symbology uses its own unique format.

Bit

Binary digit. One bit is the basic unit of binary information. Generally, eight consecutive bits compose one byte of data. The pattern of 0 and 1 values within the byte determines its meaning.

Bluetooth®

A standard radio technology using a proprietary protocol. The onboard Bluetooth® module in the device is compatible with the 2.1 protocol with Enhanced Data Rate (EDR).

Boot

The process a computer goes through when it starts. During boot, the computer can run self-diagnostic tests and configure hardware and software.

Byte

On an addressable boundary, eight adjacent binary digits (0 and 1) combined in a pattern to represent a specific character or numeric value. Bits are numbered from the right, 0 through 7, with bit 0 the low-order bit. One byte in memory can be used to store one ASCII character.

CDRH

Center for Devices and Radiological Health. A federal agency responsible for regulating laser product safety. This agency specifies various laser operation classes based on power output during operation.

Character

A pattern of bars and spaces which either directly represents data or indicates a control function, such as a number, letter, punctuation mark, or communications control contained in a message.

Decode

To recognize a barcode symbology (e.g., Codabar, Code 128, Code 3 of 9, UPC/EAN, etc.) and convert the content of the barcode scanned from a visual pattern into electronic data.

Density (Barcode Density)

The number of characters represented per unit of measurement (e.g., characters per inch).

Depth of Field (DOF)

The portion of a scene that appears acceptably sharp in the image. Although a lens can precisely focus at only one distance, the decrease in sharpness is gradual on each side of the focused distance, so that within the DOF, the unsharpness is imperceptible under normal viewing conditions.

Dock

A dock is used for charging the terminal battery and for communicating with a host computer, and provides a storage place for the terminal when not in use.

ESD

Electro-Static Discharge

Ethernet

The standard local area network (LAN) access method. A reference to "LAN", "LAN connection" or "network card" automatically implies Ethernet. Defined by the IEEE as the 802.3 standard, Ethernet is used to connect computers in a company or home network as well as to connect a single computer to a cable modem or DSL modem for Internet access.

Firmware

A software program or set of instructions programmed on a hardware device. It provides the necessary instructions for how the device communicates with the other computer hardware. Firmware is typically stored in the flash ROM of a hardware device. While ROM is "read-only memory," flash ROM can be erased and rewritten because it is actually a type of flash memory.

Flash Memory

Non-volatile memory for storing application and configuration files.

GSM

Global System for Mobile communication. It is a standard for digital cellular communications, currently used around the world on as many as seven bands.

Host

A computer that serves other mobile computers in a network, providing services such as network control, database access, special programs, supervisory programs, or programming languages.

IEC

International Electrotechnical Commission. This international agency regulates laser safety by specifying various laser operation classes based on power output during operation.

IEEE 802.11

A set of standards carrying out wireless local area network (WLAN) computer communication in the 2.4, 3.6 and 5 GHz frequency bands. They are created and maintained by the IEEE LAN/MAN Standards Committee.

IP

Internet Protocol. The IP part of the TCP/IP communications protocol. IP implements the network layer (layer 3) of the protocol, which contains a network address and is used to route a message to a different network or subnetwork. IP accepts "packets" from the layer 4 transport protocol (TCP or UDP), adds its own header to it and delivers a "datagram" to the layer 2 data link protocol. It may also break the packet into fragments to support the maximum transmission unit (MTU) of the network.

IP Address

(Internet Protocol address) The address of a computer attached to an IP network. Every client and server station must have a unique IP address. A 32-bit address used by a computer on a IP network. Client workstations have either a permanent address or one that is dynamically assigned to them each session. IP addresses are written as four sets of numbers separated by periods; for example, 204.171.64.2.

LAN

Local area network. A radio network that supports data communication within a local area, such as within a warehouse of building.

Laser

Light Amplification by Stimulated Emission of Radiation. The laser is an intense light source. Light from a laser is all the same frequency, unlike the output of an incandescent bulb. Laser light is typically coherent and has a high energy density.

Laser Diode

A gallium-arsenide semiconductor type of laser connected to a power source to generate a laser beam. This laser type is a compact source of coherent light.

Light Emitting Diode (LED)

A low power electronic light source commonly used as an indicator light. It uses less power than an incandescent light bulb but more than a Liquid Crystal Display (LCD).

Liquid Crystal Display (LCD)

A display that uses liquid crystal sealed between two glass plates. The crystals are excited by precise electrical charges, causing them to reflect light outside according to their bias. They use little electricity and react relatively quickly. They require external light to reflect their information to the user.

MIL

1 mil = 1 thousandth of an inch.

Pairing

A Bluetooth@ pairing occurs when two Bluetooth@ devices agree to communicate with each other and establish a connection.

Parameter

A variable that can have different values assigned to it.

RAM

Random Access memory. Data in RAM can be accessed in random order, and quickly written and read.

Resolution

The narrowest element dimension which is distinguished by a particular reading device or printed with a particular device or method.

RF

Radio Frequency.

ROM

Read-Only Memory. Data stored in ROM cannot be changed or removed.

Scanner

An electronic device used to scan bar code symbols and produce a digitized pattern that corresponds to the bars and spaces of the symbol. Its three main components are:

- Light source (laser or photoelectric cell) - illuminates a bar code.
- Photodetector - registers the difference in reflected light (more light reflected from spaces).
- Signal conditioning circuit - transforms optical detector output into a digitized bar pattern.

SDK

Software Development Kit.

Subnet

A subset of nodes on a network that are serviced by the same router.

Symbol

A scannable unit that encodes data within the conventions of a certain symbology, usually including start/stop characters, quiet zones, data characters and check characters.

Symbology

The structural rules and conventions for representing data within a particular bar code type (e.g. UPC/EAN, Code 39, PDF417, etc.).

USB

Universal Serial Bus. Type of serial bus that allows peripheral devices (disks, modems, printers, digitizers, data gloves, etc.) to be easily connected to a computer. A "plug-and-play" interface, it allows a device to be added without an adapter card and without rebooting the computer (the latter is known as hot-plugging). The USB standard, developed by several major computer and telecommunications companies, supports data-transfer speeds up to 12 megabits per second, multiple data streams, and up to 127 peripherals.

Visible Laser Diode (VLD)

A solid state device which produces visible laser light.

WLAN

A Wireless Local Area Network links devices via a wireless distribution method (typically spread-spectrum or OFDM radio), and usually provides a connection through an access point to the wider internet. This gives users the mobility to move around within a local coverage area and still be connected to the network.

WPAN

A Wireless Personal Area Network is a personal area network - a network for interconnecting devices centered around an individual person's workspace - in which the connections are wireless. Typically, a wireless personal area network uses some technology that permits communication within about 10 meters - in other words, a very short range.

WWAN

Stands for "Wide Area Network." It is similar to a Local Area Network (LAN), but it is not limited to a single location and it uses Mobile telecommunication cellular network technologies such as UMTS, GPRS, CDMA2000, GSM, CDPD, Mobitex, HSDPA or 3G to transfer data. WWAN connectivity allows a user with a laptop and a WWAN card to surf the web, check email, or connect to a Virtual Private Network (VPN) from anywhere within the regional boundaries of cellular service.

NOTES

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