MARK 2

USER MANUAL

PROGLOVE

MARK 2 USER MANUAL

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DOCUMENT OVERVIEW

This user manual contains a system overview, technical data about the Hardware and Wearables, detailed step-by-step instructions for using MARK 2 system and information about configuration settings and troubleshooting.

It is intended for process planners, configurators and maintenance technicians who are using MARK 2 system for the first time. It is designed so that MARK 2 system can be used safely without prior knowledge.

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MARK 2 User Manual
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EXPLANATION OF SYMBOLS

A warning notice is used in these instructions. Always read and observe this warning notice. The warning notice is introduced with the word **CAUTION** and means the following:

CAUTION
Slight bodily injury or danger of physical damage to MARK 2 system is possible.

In addition, other symbols are used that mean the following:

NOTE
Additional notices provide more information about the respective chapter.

TIP
Additional tips facilitate the implementation of a certain procedure.

RESULT
The result will show the outcome of the prior action.

SAFETY INSTRUCTIONS

HARDWARE

(!) CAUTION
Keep all cables and wires away from high voltage sources!
This may otherwise lead to damage or faults due to overvoltage, line noise, electrostatic discharge or other irregularities.

(!) CAUTION
Do not use damaged cables!
Otherwise the safe functioning of MARK 2 system cannot be ensured.

(!) CAUTION
Do not unscrew the Hardware housing!
This may otherwise lead to MARK 2 system not functioning properly.

(!) CAUTION
Do not replace the battery of MARK 2!
This may otherwise lead to MARK 2 not functioning properly.

WEARABLES

(!) CAUTION
Keep Wearables away from moving machine parts and do not use without MARK 2!
Otherwise the Wearables may get stuck on objects.

(!) CAUTION
Use Wearables in the right size!
Otherwise this may cause pain or pressure points on your hand.

SCOPE OF DELIVERY

CAUTION
Do not use any damaged Hardware or Wearables!
➔ Check whether Hardware and Wearables are properly packaged and undamaged.

MARK 2

MARK 2
Standard or mid-range

CHARGING STATION S

Charging Station S
with power cable
(USB-C) and power
supply

WEARABLES

Standard Glove

Longlife/Palm Trigger

Index Trigger

NOTE
The Access Point One S is only delivered if connected via 868/915 MHz.

ACCESS POINT ONE S - USB CONNECTION

Access Point One S
with USB cable

ACCESS POINT ONE S - RS232 CONNECTION

Access Point One S
with RS232 cable

Power supply
with power cable
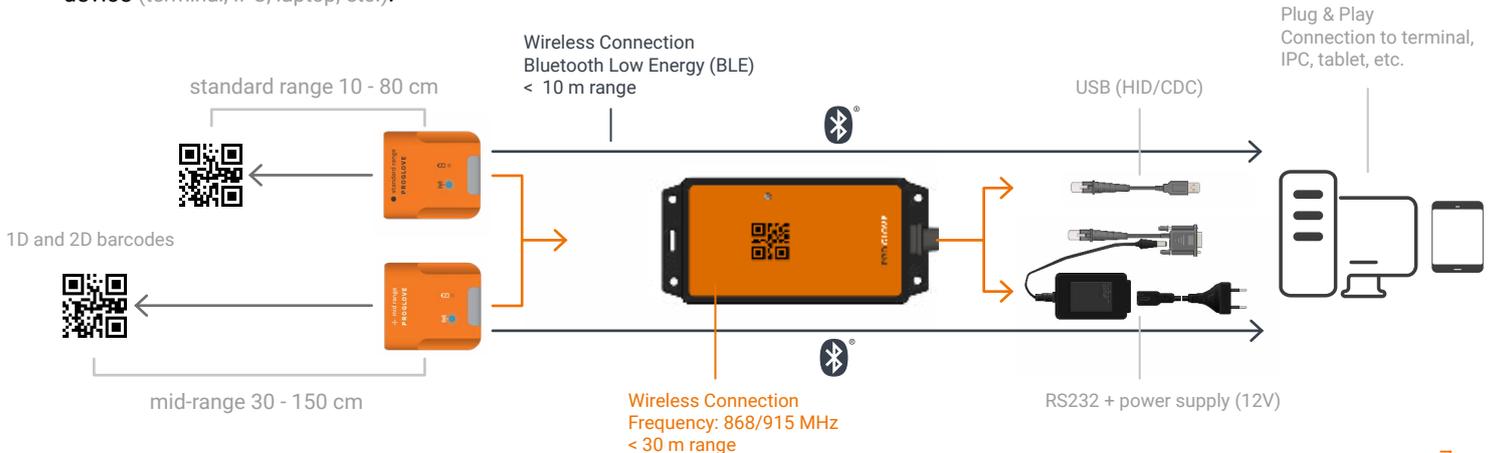
MARK 2 SYSTEM

VIA 868/915 MHz OR BLE HID

MARK 2 is a barcode scanner that can read 1D and 2D barcode types. The scanning range is between 10 - 80 cm (standard range) or 30 - 150 cm (mid-range). There are two types of transmission:

VIA 868/915 MHz

MARK 2 transmits the barcode data via 868 MHz (US frequency: 915 MHz) to the Access Point One S. This is either connected via a USB cable (USB HID mode or USB CDC mode) or a RS232 cable (standard connection) to the end device (terminal, IPC, laptop, etc.).

VIA BLE HID

MARK 2 transmits the barcode data to the end device via Bluetooth Low Energy Human Interface Device (BLE HID) without Access Point One S.

standard range 10 - 80 cm

Wireless Connection
Bluetooth Low Energy (BLE)
< 10 m range

Plug & Play
Connection to terminal,
IPC, tablet, etc.

USB (HID/CDC)

1D and 2D barcodes

mid-range 30 - 150 cm

Wireless Connection
Frequency: 868/915 MHz
< 30 m range

RS232 + power supply (12V)

7

MARK 2

OVERVIEW

After scanning a barcode, MARK 2 provides feedback signals haptically by vibrations, acoustically by audio signals and visually by LEDs. The serial number on the label attached on the back of the device specifies whether it is a standard or mid-range device.

Standard range serial number: M2SR ...

Mid-range serial number: M2MR ...

Connection symbol

Battery symbol

LEDs

Fastening rail

Standard range   Mid-range

TECHNICAL DATA

MECHANICAL PROPERTIES:

Dimensions:............................ 50 x 45 x 16mm
Weight:................................... 40g

ELECTRONIC PROPERTIES:

Battery type: .... Lithium polymer
Charge duration:..................... approx. 2 hours
Number of scans:................... 6000 scans

RADIO TRANSMISSION 868/915 MHz:

European frequency range:.... 863 to 870 MHz on 70 channels
(100 kHZ channel spacing)

USA frequency range: .... 903 to 926 MHz on 32 channels
(752 kHZ channel spacing)

Transmission power: .... ≤ 9dBm

BLE RADIO TRANSMISSION:

Supported Bluetooth versions: .... Bluetooth Low Energy 4.0, 4.1, 4.2, 5.0

Transmission power: .... ≤ 0dBm

SCAN ENGINE PROPERTIES:

Laser class: .... Laser class 2
Reading range: .... horizontal, 31°, vertical: 23°
Rotation tolerance:................. + - 60°
Tilt tolerance:......................... + - 60°
Roll tolerance:........................ 360°
Ambient light: .... Maximum of 96,900 lux
(direct sunlight)

ENVIRONMENTAL CONDITIONS:

Drop test: .... > 50 drops from 6ft
(onto concrete)

Protection against dust and
water: IP54

Working temperature: .... -23°F to +122°F

BARCODE TYPES

1D:

Code 128, GS1-128, EAN-128, EAN-13, GTIN-13, EAN-8, GTIN-8, ISBN-13, ISSN, ISMN, EAN-14, GTIN-14, DUN-14, SCC-14, ITF-14, EAN-18/NVE, SSCC-18, UPC-A, GTIN-12, UPC-E, Code 39, Code 39 Extended, Code 25, Code 25 Interleaved, EAN-5, EAN-2, JAN, EAN-99, EAN-Velocity, ISBN-13 Dual, ISBN-10, Codabar, Code 93, Code 93 Extended, PZN7, PZN8, guiding code, Ident code, Code 128A, Code 128B, Code 128C, MSI Plessey

2D:

PDF417, MicroPDF417, Data matrix, QR Code, Micro QR Code, Aztec, RSS, Composite, TLC-39, MaxiCode

POSTAL:

US PostNet, US Planet, UK Postal, Australia Postal, Japan, Postal, Dutch Postal (KIX)

DECODER READING RANGE

SMALLEST SYMBOL IN THE BARCODE: the mil inch [thousandths of an inch] (mm) number indicates the size of the smallest function in the barcode	POSSIBLE DISTANCE: between MARK 2 and barcode
5 mil (0.127 mm) Code 128....................................	7.4 in. (18.8 cm) to 16.0 in.(40.6 cm)
5 mil (0.127 mm) PDF417	8.1 in. (20.6 cm) to 13.1 in.(33.3 cm)
10 mil (0.254 mm) Data Matrix.................................	7.0 in. (17.8 cm) to 17.0 in.(43.2 cm)
100% UPCA	2.3 in. (5.8 cm) to 38.0 in.(96.5 cm)
20 mil (0.508 mm) Code 39	2.1 in. (5.3 cm) to 54.0 in.(137.2 cm)
100 mil (2.54 mm) Code 39	11.0 in. (27.9 cm) to 172.0 in.(436.9 cm)

ACCESS POINT ONE S

OVERVIEW

The Access Point One S receives the scanned barcode data from MARK 2 via 868/915 MHz. This barcode data is transmitted to the end device via USB cable or RS232 cable. In the USB HID mode, the Access Point One S simulates a computer keyboard. A standard connection is emulated in the USB CDC mode. In order to use the USB CDC mode, (config.proglove.de) under "Device settings - Output mode" the device must be set to "USB CDC" in the configuration tool. More detailed information about the conversion can be found in chapter 5 "Configuration tool."
A RS232 cable establishes a serial connection between Access Point One S and the end device.

Pairing Barcode

LED

Label with serial number

Cable release opening

RJ45 socket

TECHNICAL DATA

MECHANICAL PROPERTIES:

Dimensions:...........................	138 x 64 x 33mm
Weight:...................................	100g

ELECTRONIC PROPERTIES:

Power supply of Access Point One S via USB cable: ...	5 VDC (0.5A) via host computer
Power supply of Access Point One S via RS232 cable:	12 VDC (1A) via power supply PG12-10P55

RADIO TRANSMISSION:

Encryption:.............................	AES-128
Transmission range:	up to 30m within a building

ENVIRONMENTAL CONDITIONS:

Protection against dust and water:	IP22
Working temperature:	-23°F to +122°F

CONNECTIONS

USB CDC CONNECTION:

Baud rate: .... All standard baud rates are
supported.
Standard setting: 115.200

Data bits:................................ 8

Stop bits:................................ 1

Parity:..................................... NONE

Data flow:............................... OFF

Required Control Signal: DTR

Handshake control:............... OFF

RS232 CONNECTION:

Baud rate: .... All standard baud rates are
supported.
Standard setting: 115.200

Data bits:................................ 8

Stop bits:................................ 1

Parity:..................................... NONE

Data flow:............................... OFF

Handshake control:............... OFF

USB HID CONNECTION - KEYBOARD LAYOUT:

Croatian, Czech, English (GB), English (US),
French (Belgium), French (Canada), French (France), German
(Germany), German (Switzerland),
Italian, Portuguese (Brazil), Portuguese (Portugal), Spanish,
Slovakian, Slovenian

CHARGING STATION S

OVERVIEW

The Charging Station S consists of two charging trays that charge two MARK 2 devices at the same time. The charging status is indicated by the LEDs of MARK 2. The LEDs pulse red while in charging mode. When the battery is fully charged, the LEDs pulse green constantly. It takes about 2 hours to charge a MARK 2. The Charging Station S can be attached to work stations, for example, through the attachment openings (with M5 screws or cable ties).

Attachment opening for M5 screws
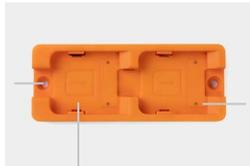
Pins

Charging tray

Attachment opening for cable ties

Label with serial number

USB-C

TECHNICAL DATA

MECHANICAL PROPERTIES:

Dimensions: .... 140 x 56 x 19mm

Weight: 110g

ELECTRONIC PROPERTIES:

Power supply: .... 5 VDC (1.2 A)
via power supply SAW-0501200

ENVIRONMENTAL CONDITIONS:

Protection against dust and water: IP20

Working temperature: ....   -23°F to +122°F

STANDARD GLOVE

OVERVIEW

The textile trigger is located on the index finger and is attached to the right or left glove.

i NOTE

The Standard Glove is available in four different sizes (standard industry sizes 7,8,9,10).

Fastening rail

Nitrile/PU coating

Textile trigger

Label with size indication

PROPERTIES

GENERAL:

Packaging unit:......................... 5 gloves per package

Coating:.................................... Nitrile/PU coating

SAFETY & CERTIFICATION:

Standards: EN388 (2131)
EN420

Certification:............................ RoHS
CE mark

according to EN 420 and EN 388: .... Abrasion resistance 2
Cut resistance 1
Tear strength 3
Penetration force 1

LONGLIFE/PALM TRIGGER

OVERVIEW

The textile trigger is located on the inside of the hand and is attached to the right or left glove. The Longlife / Palm Trigger can be used in applications where free fingertips are needed or can be worn over other gloves.

i NOTE
The Longlife/Palm Trigger is available in three different sizes (S,M,L).

PROPERTIES

GENERAL:
Packaging unit:...................... 3 gloves per package

SAFETY & CERTIFICATION:
Certification:.......................... RoHS
CE mark

Variable
Velcro connection
Fastening rail

Textile trigger

INDEX TRIGGER

OVERVIEW

The textile trigger is located on the index finger and is attached to the right or left glove. The Index Trigger can be used in applications where free fingertips and palms are needed or can be worn over other gloves.

ℹ NOTE
The Index Trigger is available in three different sizes (S,M,L).

PROPERTIES

GENERAL:
Packaging unit:...................... 3 or 10 gloves per package

SAFETY & CERTIFICATION:
Certification:......................... RoHS
CE mark

Fastening rail

Textile trigger

Variable
Velcro connection

SETUP OF MARK 2 SYSTEM

1ST STEP: CHARGE MARK 2

⚠ CAUTION
Only use MARK 2 in a dry Charging Station S and only touch with dry hands!
This may otherwise lead to the Charging Station S not functioning properly.

➔ The pins face down.
Insert MARK 2
in the Charging Station S.

✓ RESULT
MARK 2 pulses red and charges in the Charging Station S.

ℹ NOTE
The LEDs pulse red while in charging mode. When the battery is fully charged, the LEDs pulse green. It takes about 2 hours to charge MARK 2.

2ND STEP: CONNECT THE ACCESS POINT ONE S (868/915 MHZ)

⚠ CAUTION
Only touch the Access Point One S with dry hands!
This may otherwise lead to the Access Point One S system not functioning properly.

ℹ NOTE
The following steps are only needed when connecting via 868/915 MHz.

CONNECTION WITH USB CABLE IN USB HID MODE:

1. Connect the USB cable with the end device.

2. Plug the other end of the USB cable into the RJ45 socket of the Access Point One S.
A clear clicking sound confirms the correct fastening.

✓ RESULT
The LED of the Access Point One S lights up green. The Access Point One S is connected to the end device.

CONNECTION WITH USB CABLE IN USB CDC MODE:

1. Connect the USB cable to the end device.

2. Plug the other end of the USB cable into the RJ45 socket of the Access Point One S. A clear clicking sound confirms the correct fastening.

3. In the configuration tool (config.proglove.de) under "Device settings - USB output mode," select USB CDC. More detailed information about this can be found in chapter 5 "Configuration tool."

4. Connect with the COM port on the end device.

CONNECTION WITH RS232 CABLE:

1. Connect the RS232 with the end device. Connect the power supply to the RS232 and into an external power source.

2. Plug the other end of the cable into the RJ45 socket of the Access Point One S. A clear clicking sound confirms the correct fastening.

3. Check which baud rate must be set. The baud rate is set to 115,200 as a standard. At a different baud rate, this is to be set in the configuration tool (config.proglove.de). More detailed information about this can be found in chapter 5 "Configuration tool".

4. Select the COM port on the end device and set the appropriate baud rate.

✓ **RESULT**
The LED of the Access Point One S lights up green.
The Access Point One S is connected to the end device.

✓ **RESULT**
The LED of the Access Point One S lights up green.
The Access Point One S is connected to the end device.

3RD STEP: SWITCH ON MARK 2

1. Position MARK 2 on the fastening rail of the glove. The pins face down.

2. Push MARK 2 down. A clear clicking sound confirms the correct fastening.

3. Press the textile trigger on the glove for about 2 seconds.

✓ **RESULT**
MARK 2 lights up with all LEDs. You can hear a beeping sound and feel a short vibration.
MARK 2 is switched on.

ℹ **NOTE**
MARK 2 switches off automatically after 15 minutes without being used.

4TH STEP: CONNECT MARK 2 (868/915 MHZ)

CONNECT VIA 868/915 MHz:

1. Press the textile trigger on the glove in order to activate the red crosshairs.

2. Aim MARK 2 crosshairs on the Access Point One S and scan the pairing barcode.

✓ **RESULT**
MARK 2 lights up twice. You can hear a beeping sound and feel a short vibration.
MARK 2 is connected to the Access Point One S.

ℹ **NOTE**
Several MARK 2 can be connected to an Access Point One S.

4ᵀᴴ STEP: CONNECT MARK 2 (BLE HID)

CONNECT VIA BLE HID:

MARK 2 can be used to establish a connection via Bluetooth Low Energy Human Interface Device (BLE HID) to an end device. Possible operating systems are: Apple iOS, Google Android, Microsoft Windows.

The individual steps for connecting to the respective operating systems for the first time can be found in the following. More detailed information about using MARK 2 system daily can be found in the Quickstart Guide MARK 2 under support.proglove.com.

PREREQUISITES:

☑ the end device supports at least Bluetooth 4.0 standard

☑ no interference or physical obstacles (e.g. metal shelves) interfere with the connection between MARK 2 and the end device

☑ the range between MARK 2 and the end device is < 10 meters

TIP
Visually label the connected devices (MARK 2 with the end device) , e.g. using numbering or a color code. This will allow the user to find the right devices faster.

TIP
Adhere the pairing barcode to the end device. In this way, the user can find it quickly and easily.

On a battery-operated end device, the power-saving mode can lock the end device and MARK 2 simultaneously.
➜ Permanently disable the power-saving mode of the end device.

The last 5 digits of the serial number attached to the back side identify MARK 2 among the available Bluetooth devices.
➜ Read the serial number of MARK 2.

RESULT
Example serial number: MARK 2 - 00000.

To make MARK 2 visible for the end device, the MARK 2 must be put into pairing mode.

1. Press the textile trigger on the glove in order to activate the red crosshairs.

2nd Aim MARK 2 crosshairs at the pairing barcode and scan.

RESULT
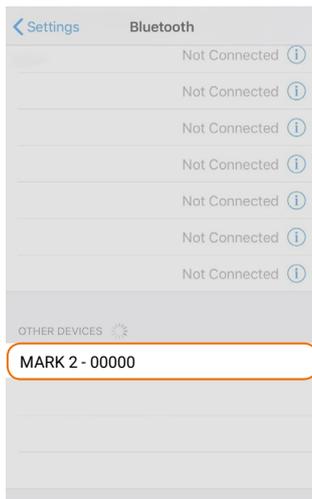MARK 2 pulses blue and beeping sounds can be heard. MARK 2 searches for an end device in pairing mode.
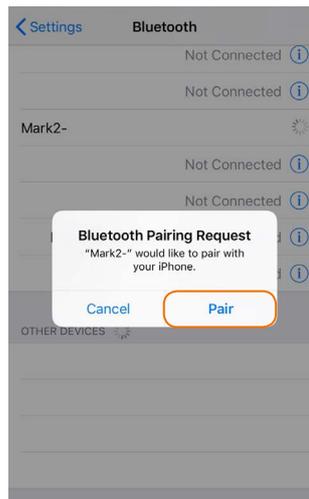
CONNECT WITH APPLE iOS 11 OR HIGHER:

01

Under: "Settings - Bluetooth" activate the Bluetooth option.
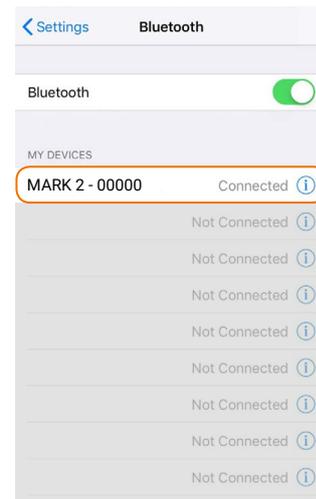
02

Select "MARK 2 - 00000."

03

Confirm the "Bluetooth Pairing Request."
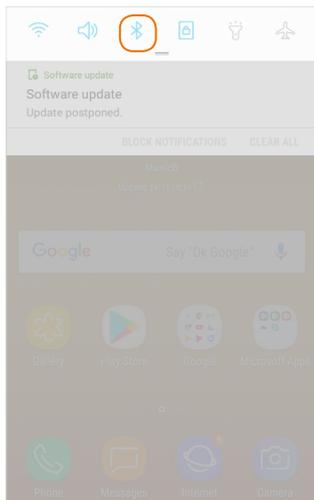
✓ **RESULT**

MARK 2 will flash blue twice and you will hear two beeps. MARK 2 will be shown as connected under "My devices" and is ready for use.
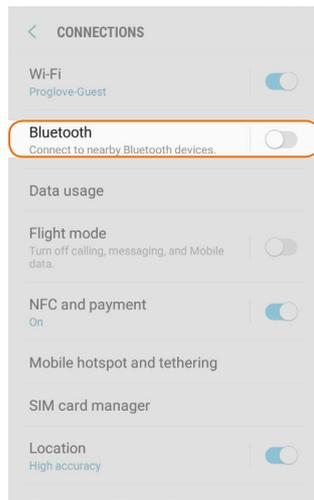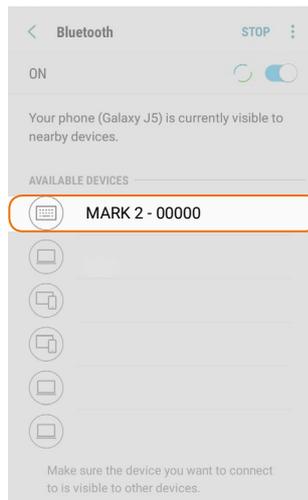
CONNECT WITH GOOGLE ANDROID 4.4 OR HIGHER:

01

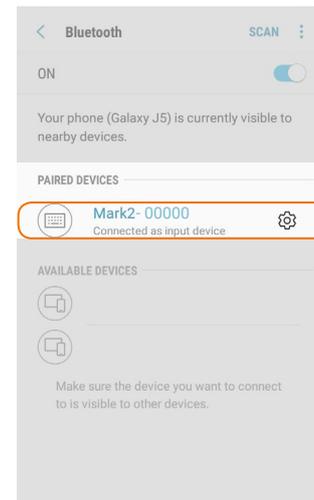Under "Settings - Connected devices" switch on the Bluetooth option.

02

Tap "Bluetooth" and select "Couple new device."

03

Select "MARK 2 - 00000."

✓ RESULT

MARK 2 will flash blue twice and you will hear two beeps. MARK 2 will be shown as connected under "My devices" and is ready for use.
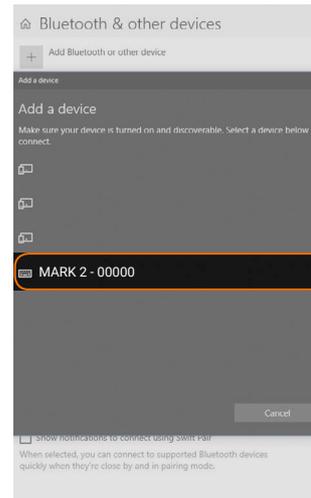
CONNECT WITH MICROSOFT WINDOWS 10:

01

02

03

04

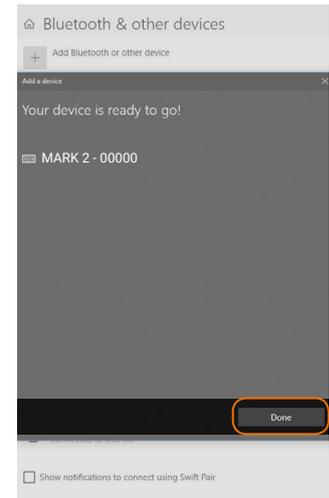Under "Bluetooth and other devices," click on "Add Bluetooth and other devices."
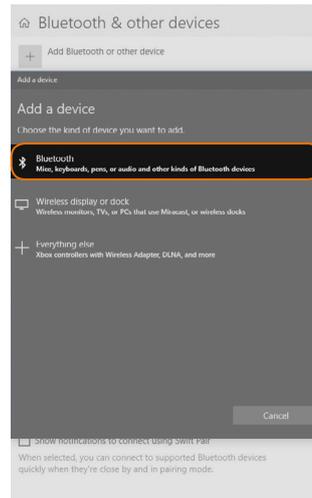
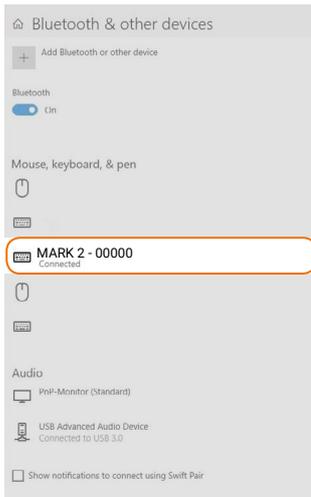Select the option "Bluetooth: Mouses, keyboards and other types."

Select "MARK 2 - 00000."

Click "Done."

✅ RESULT

MARK 2 will flash blue twice and you will hear two beeps.
MARK 2 will be shown as connected under "My devices" and is ready for use.

5TH STEP: SCAN WITH MARK 2

⚠ **CAUTION**

For mid-range scanning range: do not look directly into the crosshairs!
Otherwise this can lead to temporary blinding effects.

MARK 2 is an omnidirectional scanner. MARK 2 can thus scan barcodes from different angles.
For a standard range device (serial number: M2SR…), the scanning range is between 10 - 80 cm per application case and barcode size. For a mid-range device (serial number: M2MR…), the scanning range is 30 - 150 cm per application case and barcode size.
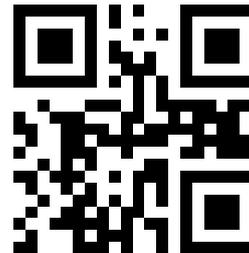

standard range   mid range

1. Press the textile trigger on the glove in order to activate the crosshairs.

2. Aim MARK 2 crosshairs at the barcode and scan.

EXAMPLE BARCODE:

✔ **RESULT**

MARK 2 lights up green. You can hear a beeping sound and feel a short vibration.
MARK 2 has scanned the example barcode and transmitted it to the end device.

6TH STEP: DISCONNECT MARK 2 (868/915 MHZ)

**DISCONNECT MARK 2 FROM THE
ACCESS POINT ONE S:**

➜ Use MARK 2 to scan
the pairing code of a
different Access Point
One S.

✓ **RESULT**
MARK 2 is disconnected from Access Point One S
and is connected to the new Access Point One S.

➜ Place MARK 2 in the
Charging Station S.

✓ **RESULT**
MARK 2 is disconnected from the Access Point One
S and can be connected to a new one.

**DISCONNECT THE CONNECTION CABLE FROM
THE ACCESS POINT ONE S:**

1. Press an elongated object
(e.g. paper clip) into the opening
on the top of the Access Point
One S to open
the safety closure.

2. Once the safety closure has
been pressed, disconnect the
connection cable out of the
RJ45 socket.

✓ **RESULT**
The LED of the Access Point One S no longer lights up
green.
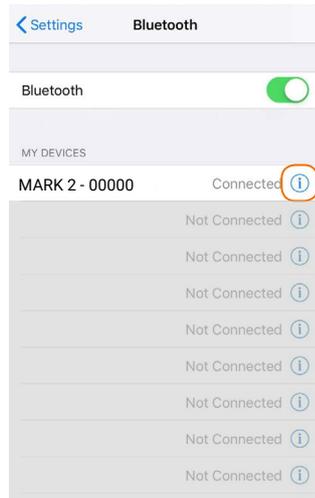The connection cable is disconnected from Access Point
One S.
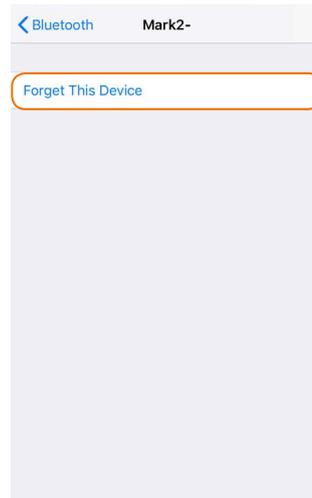
25

6TH STEP: DISCONNECT MARK 2 (BLE HID)

i NOTE: Only disconnect MARK 2 if this is to be newly connected to another end device.

DISCONNECT FROM APPLE iOS:

01

Under: "Settings - Bluetooth," tap on the ⓘ symbol.
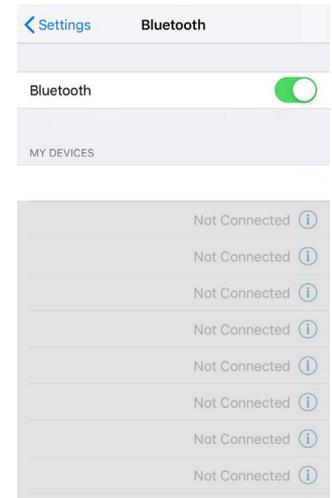
02

Tap on "Forget this device."

03

Confirm "Forget device."

✓ RESULT

MARK 2 will flash red three times and you will hear three beeps. MARK 2 will no longer be shown as connected under "Other devices."

DISCONNECTING FROM GOOGLE ANDROID:

01

In the Bluetooth option under "Connected devices" tap on the gear wheel symbol of "MARK 2 - 00000."
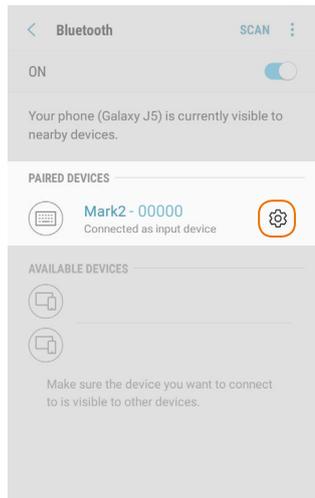
02

Select "Remove."

✓ RESULT

MARK 2 will flash red three times and you will hear three beeps.
MARK 2 will no longer be shown as connected under "Other devices."

DISCONNECTING FROM MICROSOFT WINDOWS:

01

02

✓ **RESULT**

Under "Bluetooth and other devices," select "MARK 2 - 00000."

Click "Remove device."

MARK 2 will flash red three times and you will hear three beeps.
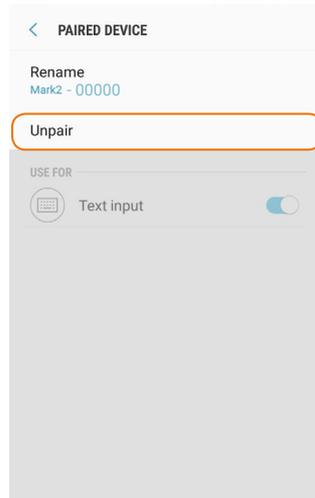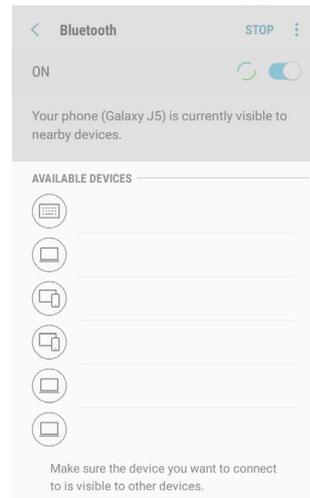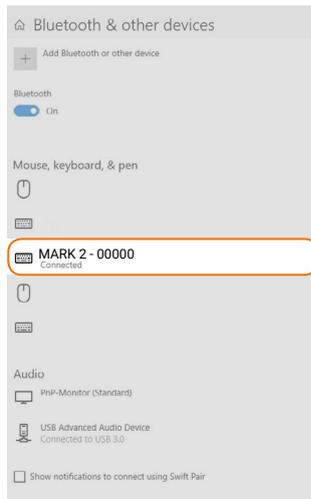MARK 2 will no longer be shown as connected under "Other devices."

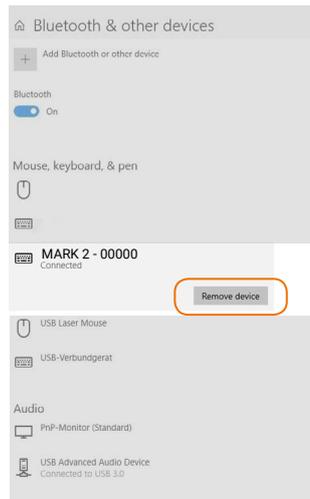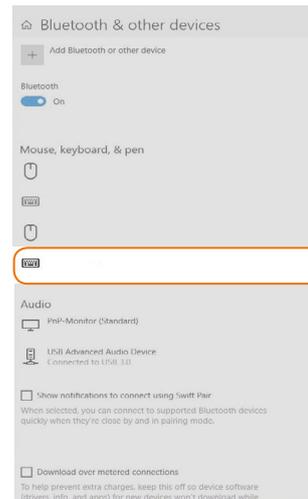# 7TH STEP: RELEASE MARK 2 FROM WEARABLES

1. Use your fingers to press between MARK 2 and the fastening rail of the glove.

2. Press MARK 2 up slightly and push it forward.

CONFIGURATION TOOL

The configuration tool under **config.proglove.de** can be used to individually setup the MARK 2 system and improve scanning processes.

The configuration occurs in 5 steps:

1ST STEP: BARCODE SETTINGS

The barcode settings can be used to switch the barcode types (including inverse barcodes) on or off and to set barcode lengths, edge tolerances as well as check digits.

APPLICATION EXAMPLE:
Avoid incorrect scans with different barcode types on one label.
➔ Switch off unused barcode types.

2ND STEP: DATA FORMATTING - PREFIX AND SUFFIX

Prefixes and suffixes can be used to change barcode data with a maximum of 1 character.

APPLICATION EXAMPLE:
Identify different work stations.
➔ Create prefix with a specific digit.

3RD STEP: DATA FORMATTING - ADVANCED FORMATTING

Advanced formatting can be used to change barcode data through rules with conditions and actions. These are then in an **IF-THEN relationship** with each other, which means that:

IF a condition is defined,
THEN an action occurs.
An action is also carried out without a condition. 4 conditions and 4 actions are possible per rule. Overall, up to 16 rules can be defined.

APPLICATION EXAMPLE:
Insert the suffix "H-TAB" for the barcode type Code128
➔ Create the condition "Code types: Include code types: Code128: and the action "Insert: Suffix: H-TAB."

4TH STEP: DEVICE SETTINGS

The device settings can be used to make the settings for the Access Point One S (e.g. keyboard layout), output mode (USB HID or USB CDC mode) as well as settings about feedback profiles and optimizations of the scan engine.

APPLICATION EXAMPLE:
Change the baud rate for a connection with a RS232 cable:
1. Click in the field "RS232 baud rate – 115,200"
2nd Select the appropriate baud rate.

5TH STEP: CONFIGURATION BARCODES

Configuration of MARK 2 and Access Point One S with new settings.
➜ Use MARK 2 to scan the configuration barcodes.

STANDARD SETTINGS:
The standard settings are activated as a default setting. They are defined as follows:

	868/915 MHZ	BLE HID
BARCODE SETTINGS	All barcode types are activated. Inverse barcode types are disabled.	
DATA FORMATTING - PREFIX AND SUFFIX	"ENTER" is activated as a suffix	
DATA FORMATTING - ADVANCED FORMATTING	No rules are activated	Not available
DEVICE SETTINGS	USB-HID output mode Keyboard layout German (DE), All feedback functions are enabled, no engine settings are enabled	Keyboard layout German (DE), All feedback functions are enabled, no engine settings are enabled

SIGNAL TABLE

GENERAL:

Description	LED	Connection symbol	Battery symbol	Audio signal	Vibration
Barcode data could be transferred	Short green flashing			Short positive beep	Short vibration
Barcode data could not be transferred	Red flashing 3 times briefly			Long negative beep	Long vibration
Battery charge under 10%			Slow red flashing		
Battery charge under 7%			Red flashing 3 times briefly		
Switch on MARK 2 with battery charge under 5%			Red flashing 3 times briefly		
Battery charge under 95%			Pulsating red		
Battery charge over 95%			Constantly green		

CONNECTION VIA 868/915 MHz:

Description	LED	Connection symbol	Battery symbol	Audio signal	Vibration
MARK 2 is connected to the Access Point One S	Blue flashing 2 times briefly	Blue flashing 2 times briefly		Short rising positive beep	Short vibration

CONNECTION VIA BLE HID:

Description	LED	Connection symbol	Battery symbol	Audio signal	Vibration
MARK 2 is searching for an end device	Blue pulsing			Continuously rising beep	
MARK 2 is connected to an end device	Blue flashing 2 times briefly	Blue flashing 2 times briefly		Short rising positive beep	Short vibration
MARK 2 cannot connect with the end device	Red flashing 3 times briefly		Slow red flashing	Negative beep briefly 3 times	Long vibration
MARK 2 is disconnected from an end device	Red flashing 3 times briefly		Red flashing 3 times briefly	Negative beep briefly 3 times	Long vibration

STORAGE AND CLEANING

STORAGE

STORAGE LOCATION:
Store the Hardware (MARK 2, Access Point One S, Charging Station S and cable) as well as Wearables (Standard Glove, Longlife/Palm Trigger, Index Trigger) in a dry and dirt-free environment.

TEMPERATURE:
Store the Hardware (MARK 2, Access Point One S, Charging Station S and cable) as well as Wearables (Standard Glove, Longlife/Palm Trigger, Index Trigger) in an environment between - 4°F and + 140°F.

CLEANING

HARDWARE:

⚠ **CAUTION:**
Protect Hardware from moisture!
This may otherwise lead to MARK 2 system not functioning properly.

⚠ **CAUTION:**
Do not clean Hardware with chemical agents!
Otherwise, the material can be damaged.

➡ Regularly clean the scanner glass with cotton swabs.

WEARABLES:

⚠ **CAUTION:**
Protect Wearables from moisture!
This may otherwise lead to the Wearables not functioning properly.

➡ Do not wash Wearables.

TROUBLESHOOTING

MARK 2

PROBLEM	CAUSE	SOLUTION
MARK 2 is not responding.	Battery is not charged.	➜ Charge MARK 2 in the Charging Station S for at least 20 min.
	Glove is defective.	➜ Change glove.
MARK 2 is not vibrating or does not beep after successful data transfer.	Feedback signals are disabled.	➜ Check whether the feedback signals in the configuration tool (config.proglove.de) are enabled under "Feedback Profiles."
The battery symbol of MARK 2 flashes red.	The battery charge is low.	➜ Charge MARK 2 in the Charging Station S for at least 20 min.

PROBLEM	CAUSE	SOLUTION
The crosshairs light up, but no barcodes are scanned.	The barcode label cannot be read.	➜ Create new barcode label.
	The barcode type cannot be read.	➜ Check whether the barcode type in the configuration tool (config.proglove.de) is enabled under "Barcode settings."
	The barcode length cannot be read.	➜ Check whether the barcode length in the configuration tool (config.proglove.de) is enabled under "Barcode settings."
	Scanner glass is dirty.	➜ Clean the scanner glass with a cotton swab.
The crosshairs light up, but the barcodes are hard to scan.	The barcode label is difficult to read.	➜ To enhance the scanning performance, make the following settings in the configuration tool (config.proglove.de) under "Device settings: "Fuzzy 1D processing: ON
	Scanner glass is dirty.	➜ Clean the scanner glass with a cotton swab.
	Scanning distance is not optimally used.	➜ Position MARK 2 closer or further away from the barcode label and scan. For standard range: 10 - 80 cm For mid range: 30 - 150 cm.

868/915 MHZ - DATA TRANSFER

PROBLEM	CAUSE	SOLUTION
Barcode data is not transferred.	MARK 2 is not connected to the Access Point One S.	➜ Scan the pairing barcode on the Access Point One S.
	MARK 2 is out of range of the Access Point One Ss One S. (maximum range is < 98ft.)	➜ Bring MARK 2 closer to Access Point One S.
	Access Point One S is defective.	Access Point One S must be replaced. ➜ More detailed information can be found at proglove.com/support.
	MARK 2 is defective.	MARK 2 must be replaced. ➜ More detailed information can be found at proglove.com/support.
Different barcode data is transferred.	The keyboard layout of the end device is set with a different language.	➜ Adjust the keyboard layout of the configuration tool to the keyboard layout of the end device. In the configuration tool (config.proglove.de) under "Device settings - USB keyboard layout," adjust the language.

BLE HID - DATA TRANSFER

PROBLEM	CAUSE	SOLUTION
Barcode data is not transferred.	MARK 2 is not connected to the end device.	1. Scan the pairing barcode. 2. Lights up blue twice briefly while MARK 2 is connecting and after a successful connection.
MARK 2 lights up green after the data transfer, but no barcode data is shown on the end device.	MARK 2 is out of range of the end device. (Maximum range is < 33ft.)	➜ Bring MARK 2 closer to the end device and scan the pairing barcode.
Different barcode data is transferred.	The keyboard layout of the end device is set with a different language.	➜ Adjust the keyboard layout of the configuration tool to the keyboard layout of the end device. In the configuration tool (config.proglove.de) under "Device settings - BLE-HID keyboard layout," adjust the language.
MARK 2 flashes red 3 times, 3 negative beeps are heard and a long vibration is felt.	MARK 2 cannot connect with the end device.	1. Check whether the range between MARK 2 and end device is < 10 m. If not, get closer. 2. Disconnect the connection between the end device and MARK 2 and reconnect (see 19 Chapter 4) "Step 6: Disconnect MARK 2" and "Step 4: Connect MARK 2." 3. Scan the pairing barcode again. 4. Scan barcode again.

CHARGING STATION S

PROBLEM	CAUSE	SOLUTION
MARK 2 does not charge in Charging Station S.	MARK 2 is not correctly inserted in Charging Station S.	➜ Insert MARK 2 in the Charging Station S again.
	Charging Station S is not connected to power source.	➜ Connect Charging Station S to power source.
	MARK 2 is defective.	MARK 2 must be replaced. ➜ More detailed information can be found at proglove.com/support.
	Charging Station S is defective.	The Charging Station S must be replaced. ➜ More detailed information can be found at proglove.com/support.
LEDs of MARK 2 do not light up immediately when MARK 2 is placed in the Charging Station S.	MARK 2 charges in the Charging Station S, but the feedback signals are delayed by about 30 seconds.	➜ Wait until the LEDs of MARK 2 signal the charging.

DISPOSAL

Natural resources are used for the production of MARK 2 system. These may contain hazardous substances, which could harm the environment. MARK 2 system corresponds to the directive 2002/96/EC of the EUROPEAN PARLAMENT AND COUNCIL of 27 January 2003 regarding old electronic and electric devices (WEEE). That is why MARK 2 system cannot be disposed of through the household waste. If you have questions about a return or an environmentally-friendly disposal, please contact ProGlove support (contact data under chapter 10 "Support and Service").

Carry out the following steps to decommission MARK 2 system:
1. Release MARK 2 from Wearables
2. Disconnect the connection cable from the Access Point One S
3. Disconnect the mains plug from the Charging Station S
4. Properly dispose of Hardware and Wearables as electronic scrap

CERTIFICATION

SAFETY / LVD TESTING AS PER:
IEC 60950-1:2005/AMD1:2009
IEC 60950-1:2005/AMD2:2013
IEC 60950-1:2005
EN 60950-1: 2006 / A11: 2009 / A1: 2010 / A12: 2011 / A2:2013

COMPLIANCE WITH ENVIRONMENTAL PROTECTION:
2011/65/EU restriction of certain hazardous substances in electric and electronic devices (RoHS).

FCC REQUIREMENT:
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. >No changes shall be made to the equipment without the manufacturer's permission as this may void the user's authority to operate the equipment

SUPPORT

TECHNICAL SUPPORT CONTACT DATA

If you have questions about integrating or using the ProGlove devices, our customer support department will be happy to help you. They will process your request as soon as possible. You can reach them at:

SUPPORT WEBSITE:
🌐 proglove.com/support

E-MAIL ADDRESS:
✉ support@proglove.de (EU)
✉ support@proglove.com (US)

TELEPHONE NUMBER:
💬 0800 7762255 (free within Germany)
☎ +49 1520 2907017 (outside of Germany)
☎ +1 (833) 357-2273 (US)

👤 Monday – Friday, 9:00 am to 5:00 pm

SALES CONTACT DATA

E-MAIL ADDRESS:
✉ sales@proglove.de (EU)
✉ us@proglove.de (US)

TELEPHONE NUMBER:
☎ +49 89 26203505 (EU)
☎ +1 (833) 357-2273 (US)

YOUR CONTACT PARTNER:
Enter your contact partner here:

👤 Name:

☎ Telephone number:

✉ E-mail address:

NOTES

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Rupert-Mayer-Str. 44
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Configuration at:
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