



# PROGLOVE

USER MANUAL  





# PROGLOVE USER MANUAL

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# ABOUT THESE OPERATING INSTRUCTIONS

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## FUNCTION OF THIS DOCUMENT

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

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

→ Read carefully before use and keep for future reference.

### ADDRESS:

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81379 Munich

ProGlove Inc.  
520 W. Erie St.  
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Chicago, IL. 60654  
USA

### DOCUMENT TITLE:

ProGlove User Manual

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### VERSION:

1.0

# EXPLANATION OF SYMBOLS

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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 ProGlove 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 ProGlove system cannot be ensured.
- ⚠ **CAUTION**  
Do not unscrew the Hardware housing!  
This may otherwise lead to ProGlove system not functioning properly.
- ⚠ **CAUTION**  
Do not replace the battery of the scanner!  
This may otherwise lead to ProGlove not functioning properly.
- ⚠ **CAUTION**  
Do not modify ProGlove system!  
This may otherwise lead to ProGlove system not functioning properly.

- ⚠ **CAUTION**  
Do not stare directly into beam!  
Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure. Class 2 laser scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.

## WEARABLES

- ⚠ **CAUTION**  
Keep Wearables away from moving machine parts and do not use without a scanner  
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.

## SCANNER



MARK 2



MARK Basic



MARK Display

## WEARABLES



Index Trigger



Reel

## CHARGING STATION



Charging Station S / 10-Slot  
Charging Station with power  
cable (USB-C) and power supply



## USB CONNECTION



Access  
Point One S  
with USB  
cable



Gateway 1  
with USB  
cable

## RS232 CONNECTION



Access  
Point  
with RS232  
cable



Power supply  
with power  
cable



# SCANNER

## OVERVIEW

After scanning a barcode, the scanner returns feedback signals: haptically by vibrations, acoustically by audio signals and optically by LEDs. The serial number on the rear label indicates whether it is a standard or mid range device.

Standard range serial number: MXSR ...

Mid range serial number: MXMR ...

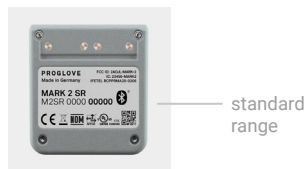
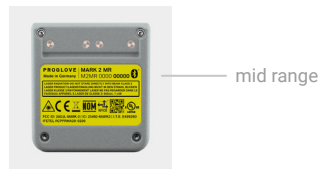
**Standard range** (available for MARK 2):

4 - 31 in (10 - 80 cm)

**Mid range** (available for MARK 2, MARK Basic, MARK Display):

12 - 59 in (30 - 150 cm)

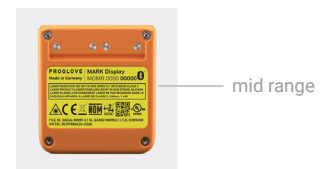
## MARK 2



## MARK BASIC



## MARK DISPLAY





## TECHNICAL DATA MARK 2 AND MARK BASIC

### MECHANICAL PROPERTIES:

Dimensions:..... 1.47 x 1.77 x 0.63 in  
(50 x 45 x 16 mm)

Weight:..... 1.41 oz (40g)

### ELECTRICAL PROPERTIES:

Battery type: ..... Lithium polymer (rechargeable)

Charge duration:..... 2 hours

Number of scans:..... MARK 2: up to 10000 scans  
MARK Basic: up to 5000 scans  
(depending on application  
and environmental conditions)

### BARCODE TYPES - 1D:

Auto decodes all standard 1D codes including GS1 DataBar linear codes et al.

### BARCODE TYPES - 2D:

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

### BARCODE TYPES - POSTAL:

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

### LED CLASSIFICATION:

CDRH Class 2/IEC 825 Laser Class 2 Device (mid range)  
Excluded risk group LED product according to IEC/EN 62471  
(standard range)

### **i** NOTE

Further technical specifications are available on [support.proglove.com](http://support.proglove.com).



## TECHNICAL DATA MARK DISPLAY

### MECHANICAL PROPERTIES:

Dimensions:..... 1.47 x 1.77 x 0.7 in  
(50 x 45 x 18 mm)  
Weight:..... 1.7 oz (48g)

### ELECTRICAL PROPERTIES:

Battery type: ..... Lithium polymer (rechargeable)  
Charge duration:..... 2 hours  
Number of scans:..... up to 6000 scans  
(depending on application  
and environmental conditions)

### DISPLAY:

Display: ..... E-Paper Display  
Size:..... 1.54 inch  
Resolution:..... 200 x 200 pixel resolution,  
188 Dpi

### INTEGRATION REQUIREMENT:

ProGlove Connect: ..... Provides a full featured  
integration for Android  
enterprise applications.  
All information on  
[proglove.com/integration](http://proglove.com/integration)

### BARCODE TYPES - 1D

Auto decodes all standard 1D codes including GS1DataBar  
linear codes et al.

### BARCODE TYPES - 2D:

PDF417, MicroPDF417, Data matrix, QR Code, Micro QR Code,  
Aztec, RSS, Composite, TLC-39, MaxiCode, Dotcode et al.

### BARCODE TYPES - POSTAL:

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

### LED CLASSIFICATION:

According to EN 60825-1: 2014 and IEC 60825-1 (Ed. 3.0)  
Laser class 2 device (mid range)

### **i** NOTE

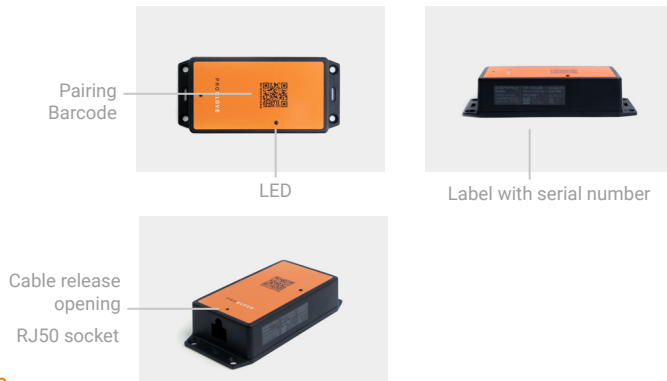
Further technical specifications are available on  
[support.proglove.com](http://support.proglove.com).



# CONNECTIVITY DEVICE

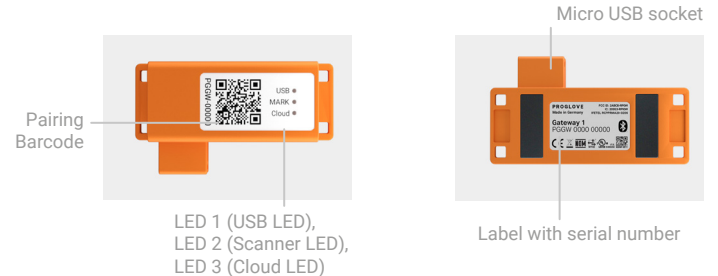
## OVERVIEW ACCESS POINT

The Access Point receives the scanned barcode data from the scanner 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 simulates a computer keyboard. A serial connection is emulated in the USB CDC mode. In order to use the USB CDC mode, the device must be set to "USB CDC" in the configuration tool ([config.proglove.de](https://config.proglove.de)) under "Device settings - Output mode". A RS232 cable establishes a serial connection between Access Point and the end device.



## OVERVIEW GATEWAY

The Gateway receives the scanned barcode data from the scanner via BLE. This barcode data is transmitted to the end device via USB cable. In the USB HID mode, the Gateway simulates a computer keyboard. A serial connection is emulated in the USB CDC mode. In order to use the USB CDC mode, the device must be set to "USB CDC" in the ProGlove Insight Configuration Tool (<https://insight.proglove.com/>) under "Connectivity Configuration - Integration path". Also multipairing is possible. The Gateway can be connected with up to 5 scanners simultaneously.



## TECHNICAL DATA ACCESS POINT

### MECHANICAL PROPERTIES:

Dimensions:..... 5.4 x 2.5 x 1.3 in  
(138 x 64 x 33mm)

Weight:..... 3.5 oz (100g)

### ELECTRONIC PROPERTIES:

Power supply of Access Point 5 VDC (0.5A)  
via USB cable:..... via host computer

Power supply of Access Point 12 VDC (1A)  
via RS232 cable:..... via power supply PG12-10P55

### **i** NOTE

Further technical specifications are available on  
[support.proglove.com](http://support.proglove.com).

### 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

## TECHNICAL DATA GATEWAY

### MECHANICAL PROPERTIES:

Dimensions:..... 3.74 x 2.06 x 0.94 in  
(95 x 52,3 x 23,8 mm)

Weight:..... 1.50 oz (42,5 g)

### ELECTRONIC PROPERTIES:

Power supply of Access Point 5 VDC (0.5A)  
via USB cable:..... via host computer

### UTILITIES & ACCESSORIES:

PG Configuration Tool:..... <https://insight.proglove.com/>  
Use for barcode, interface,  
device configuration et al.

### CONNECTION OPTIONS:

USB:..... USB HID (keyboard input on  
host)  
USB CDC (virtual com port)  
ProGlove Deep Integration  
Protocol via USB

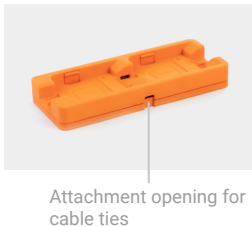
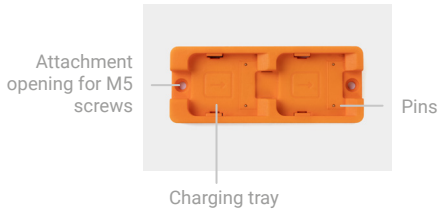
### **i** NOTE

Further technical specifications are available on  
[support.proglove.com](https://support.proglove.com).

# CHARGING STATION S

## OVERVIEW

The Charging Station S consists of two charging trays that charge two scanners at the same time. The charging status is indicated by the LEDs of the scanner. 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 scanner. The Charging Station S can be attached to work stations, for example, through the attachment openings (with M5 screws or cable ties).



## TECHNICAL DATA

### MECHANICAL PROPERTIES:

Dimensions: ..... 5.5 x 2.2 x 0.7 in  
(140 x 56 x 19mm)

Weight: ..... 3.9 oz (110g)

### ELECTRONIC PROPERTIES:

Power supply: ..... 5 VDC (1.2 A)  
via power supply  
EU: SYS1561-1105  
NA: SAW-06D-050-1200GB

### **i** NOTE

Further technical specifications are available on [support.proglove.com](https://support.proglove.com).



# 10-SLOT CHARGING STATION

## OVERVIEW

The 10-Slot Charging Station provides multiple options to mount to flat surfaces, workstations and racks. The charging status is indicated by the LEDs of the scanner. 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 scanner.

## MOUNTING



### CAUTION

Do not mount the 10-Slot Charging Station higher than 2m!

On the front and back side are different holes and recesses to enable secure mounting of the 10-Slot Charging Station (with screws and/or zip-ties).

Two wall mount slots on the back side can be used to fix the device with screw heads 135mm apart from each other.

The rail slot on the back enables mounting to a standard DIN rail, facilitating the installation in an IT rack or similar constructions. Additionally, the 10-Slot Charging Station can be installed on a monitor arm or stand with holes 75mm apart horizontally and vertically.

## TECHNICAL DATA

### MECHANICAL PROPERTIES:

Dimensions: ..... 3.74 x 2.06 x 0.94 in  
(298 x 203 x 25 mm)

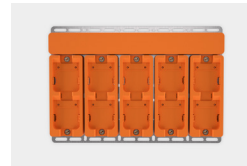
Weight: ..... 2,2 kg

### ELECTRONIC PROPERTIES:

Power supply: ..... 24 VDC (1.67A)

via power supply  
INT: GE40I 24-P1J

Use the provided power supply only. Using any other type of AC power supply is prohibited.





# WEARABLES

## INDEX TRIGGER

The Textile Trigger is located on the index finger and is attached to the right or left glove, depending on the design. The Index Trigger can be used in applications where free fingertips are needed or can be worn over other gloves. The Index Trigger is a consumable which must be changed regularly after use. → Send repeat orders to [order-management@progllove.com](mailto:order-management@progllove.com).



Textile trigger

Fastening rail for scanner

Label with size indication

Variable velcro connection

## PROPERTIES

### GENERAL:

Packaging unit:..... 3 or 10 pieces per package

Available sizes:..... S, M, L

### SAFETY & CERTIFICATION:

Standards: ..... EN388 (2131)  
EN420

Certification: ..... RoHS  
CE mark

### **i** NOTE

Further technical specifications are available on [support.progllove.com](http://support.progllove.com).



# WEARABLES

## REEL

The Reel can be attached to the worker's clothing. The black rotating fastening clip can be used for this purpose. It can be attached to a belt loop or worn around the neck with a lanyard.

As soon as the module clip is pulled forward, the red crosshair is triggered. In addition, there is a trigger on the back which also triggers the red crosshair.

The cord between module clip and platform can extend to 70 cm.

→ Send repeat orders to [order-management@proglove.de](mailto:order-management@proglove.de).

## PROPERTIES

### GENERAL:

Packaging unit:..... 2 reels per package

### SAFETY & CERTIFICATION:

Certification:..... RoHS  
CE mark

### **i** NOTE

Further technical specifications are available on [support.proglove.com](http://support.proglove.com).







# COMPATIBILITY MATRIX

This Compatibility Matrix shows the connection possibilities with the different scanners:

	<b>MARK 2</b>	<b>MARK BASIC</b>	<b>MARK DISPLAY</b>
<b>ACCESS POINT</b>	YES (s. page 18)	NO	NO
<b>GATEWAY</b>	YES (s. page 18)	YES (s. page 18)	NO
<b>BLE HID</b>	YES (s. page 21)	YES (s. page 21)	NO
<b>PG INSIGHT MOBILE</b>	YES (s. page 20)	YES (s. page 20)	YES (s. page 20)

## **i** NOTE

For a simplified display, only a MARK 2 scanner and, if necessary, an Access Point will be used in the next steps.



# APPLICATION OF PROGLOVE SYSTEM

## 1<sup>ST</sup> STEP: CHARGE SCANNER



### CAUTION

Only use scanner in a dry Charging Station and only touch with dry hands!  
This may otherwise lead to the Charging Station not functioning properly.



→ The pins face down.  
Insert scanner in the Charging Station.



### RESULT

Scanner pulses red and charges in the Charging Station.



### 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 a scanner.

## 2<sup>ND</sup> STEP: CONNECT THE CONNECTIVITY DEVICE



### CAUTION

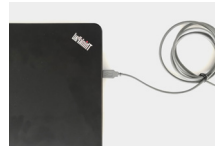
Only touch the connectivity device with dry hands!  
This may otherwise lead to the connectivity device not functioning properly.



### NOTE

The following steps are only needed when connecting via Access Point or Gateway.

### 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.

A clear clicking sound confirms the correct fastening.



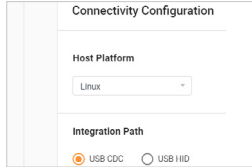
2. Plug the other end of the USB cable into the Micro USB socket of the Gateway. A clear clicking sound confirms the correct fastening.

✓ **RESULT**

The LED of the Access Point lights up green. The boot up of the Gateway takes around 2min until the LED 1 lights up green. The connectivity device is connected to the end device.

**CONNECTION WITH USB CABLE IN USB CDC MODE:**

Follow the previous step 1 and step 2 for “Connetion with USB Cable in USB HID Mode”. Continue with the following steps:



3. In the configuration tool (<https://insight.proglove.com/>) under “Connectivity Configuration > Integration Path” select USB CDC. More detailed information about this can be found in chapter “Configure devices and firmware update.”

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

✓ **RESULT**

The LED of the Access Point lights up green. The boot up of the Gateway takes around 2min until the LED 1 lights up green. The connectivity device is connected to the end device.

**CONNECTION WITH RS232 CABLE VIA ACCESS POINT**



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



2. Plug the other end of the RS232 cable into the RJ45 socket of the Access Point. 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](http://config.proglove.de)).

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

✓ **RESULT**

The LED of the Access Point lights up green. The Access Point is connected to the end device.



### 3<sup>RD</sup> STEP: SWITCH ON THE SCANNER



1. Position Scanner on the fastening rail of the wearable. The pins face down.

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



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



#### RESULT

Scanner lights up with all LEDs. You can hear a beeping sound and feel a short vibration. Scanner is switched on.



#### NOTE

Scanner switches off automatically after 15 minutes without being used.

### 4<sup>TH</sup> STEP: CONNECT THE SCANNER

#### CONNECT VIA CONNECTIVITY DEVICE



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



2. Aim scanner crosshairs on the connectivity device and scan the pairing barcode on the Access Point or Gateway.



#### RESULT

Scanner lights up twice. You can hear a beeping sound and feel a short vibration. Scanner is connected to the connectivity device.

### 4<sup>TH</sup> STEP: CONNECT SCANNER (BLE)

#### CONNECT VIA PG INSIGHT MOBILE:

➔ For using MARK Display or MARK 2 / MARK Basic with PG Insight Mobile via Software Keyboard, Intent or SDK find more information under [proglove.com/support](https://proglove.com/support) > PG Insight Mobile.

## CONNECT VIA BLE HID TO AN END DEVICE

The scanner 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.

### 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 the scanner and the end device
- ☑ The range between the scanner and the end device is < 33 ft (10m)



### TIP 1

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

### TIP 2

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 the scanner among the available Bluetooth devices.

➔ Read the serial number of the scanner.



### RESULT

Example serial number: MARK 2 - 00000.

To make the scanner visible for the end device, the scanner must be put into pairing mode:



1. Press the tetile trigger on the wearable in order to activate the red crosshairs.

2. Aim the scannercrosshairs at the pairing barcode and scan.



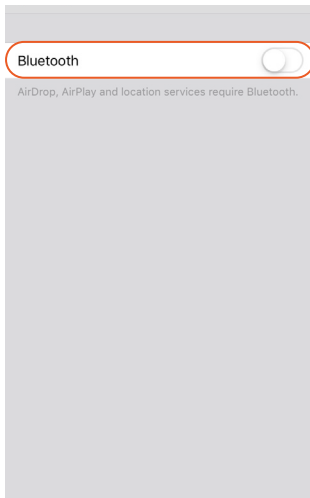
### RESULT

Scanner pulses blue and beeping sounds can be heard. Scanner is searching for an end device in pairing mode.



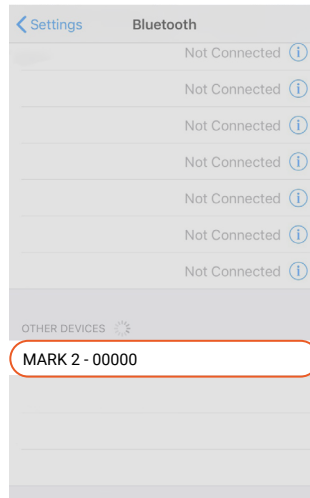
## CONNECT WITH APPLE iOS 11 OR HIGHER:

01



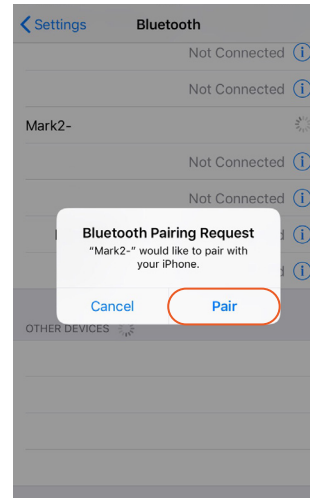
Under "Settings - Bluetooth," activate the Bluetooth option.

02



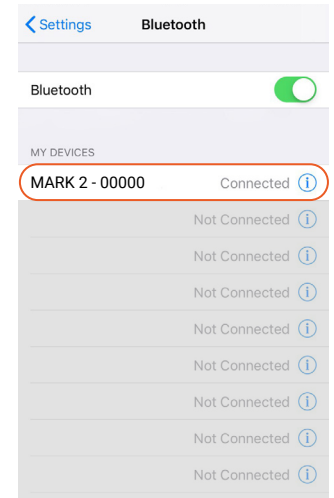
Select "MARK 2 - 00000".

03



Confirm the "Bluetooth Pairing Request".

✓ RESULT



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



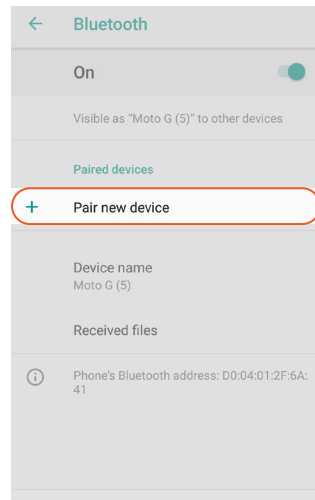
## CONNECT WITH GOOGLE ANDROID 4.4 OR HIGHER:

01



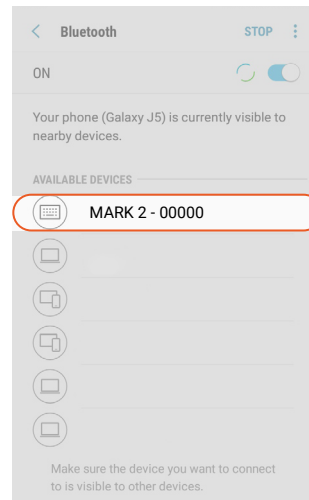
Under "Settings - Connected devices," switch on the Bluetooth option.

02



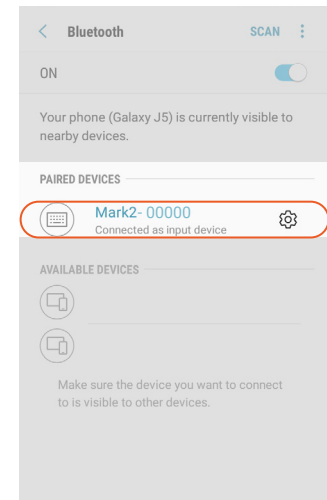
Tap "Bluetooth" and select "Pair new device."

03



Select 'MARK 2 - 00000'.

✓ RESULT



The scanner will flash blue twice and you will hear two beeps. The scanner will be shown as connected under "Paired devices" and is ready for use.



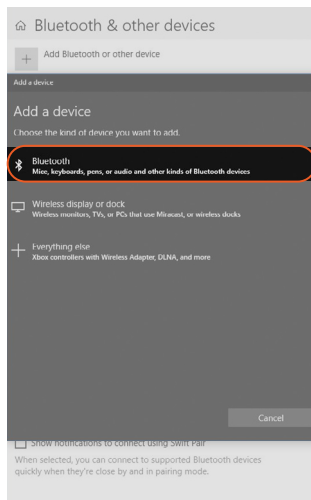
## CONNECT WITH MICROSOFT WINDOWS 10:

01



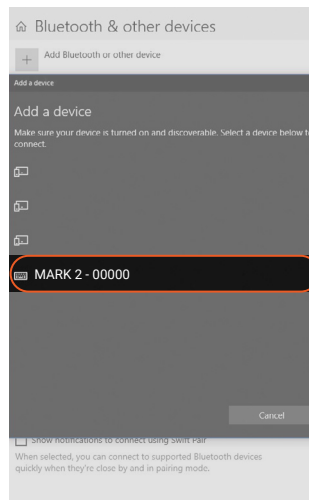
Under “Bluetooth & other devices,” click on “Add Bluetooth and other devices”.

02



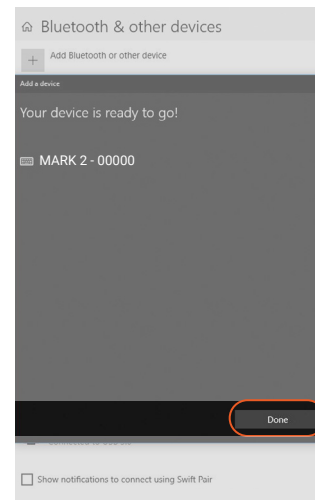
Select the option “Bluetooth: Mouses, keyboards and other types”.

03



Select “MARK 2 - 00000”.

04

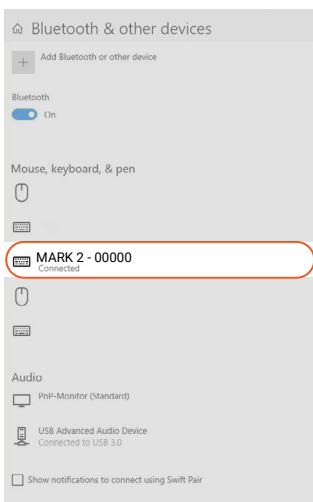


Click “Done”.





✓ RESULT



The scanner will flash blue twice and you will hear two beeps. The scanner will be shown as connected under “Bluetooth & other devices,” and is ready for use.



## 5<sup>TH</sup> STEP: SCAN



### CAUTION

For mid range scanning range: do not look directly into the crosshairs!

Otherwise this can lead to temporary blinding effects.



The scanner is an omnidirectional scanner. Scanner can thus scan barcodes from different angles.

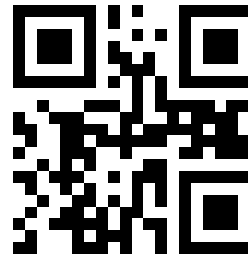
For a standard range device (serial number: MXSR...), the scanning range is between 4 - 31 in (10-80 cm) per application case and barcode size. For a mid range device (serial number: MXMR...), the scanning range is 12 - 52 in (30-150 cm) per application case and barcode size.



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



2. Aim scanner crosshairs at the barcode and scan.



### EXAMPLE BARCODE



### RESULT

Scanner lights up green. You can hear a beeping sound and feel a short vibration.

Scanner has scanned the example barcode and transmitted it to the end device.

## 6<sup>TH</sup> STEP: DISCONNECT SCANNER

### DISCONNECT SCANNER FROM THE CONNECTIVITY DEVICE



→ Use the scanner to scan the pairing code of a different Access Point.

#### ✓ RESULT

Scanner is disconnected from the Access Point and is connected to a new Access Point.



→ Place the scanner in the Charging Station.

#### ✓ RESULT

The scanner is disconnected from Access Point or Gateway and can be connected to a new one.

### DISCONNECT THE CONNECTION CABLE FROM THE ACCESS POINT:



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



2. Once the safety closure has been pressed, disconnect the connection cable out of the RJ50 socket.

### DISCONNECT THE CONNECTION CABLE FROM THE GATEWAY:



→ Disconnect the connection cable out of the Micro USB socket.

#### ✓ RESULT

The LED of the Access Point or the Gateway no longer lights up green. The connection cable is disconnected from the Access Point or the Gateway.

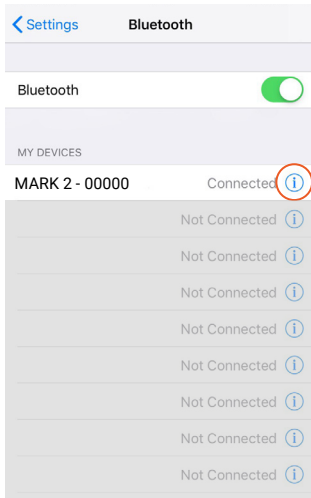


## 6<sup>TH</sup> STEP: DISCONNECT SCANNER (BLE HID)

### DISCONNECT FROM APPLE iOS:

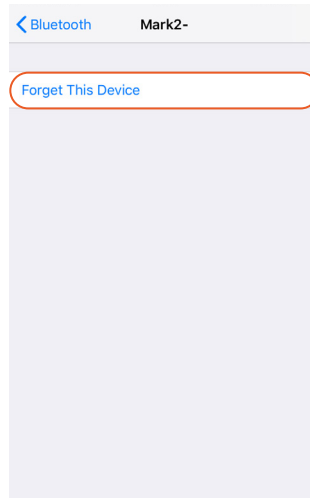
**i NOTE:** Only disconnect scanner if this is to be newly connected to another end device.

01



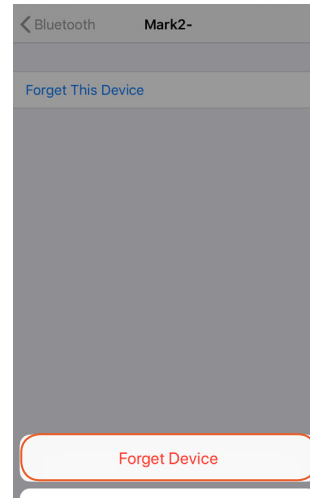
Under: "Settings - Bluetooth," tap on the **i** symbol.

02



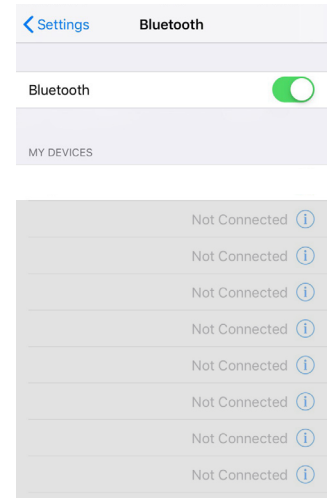
Tap on "Forget this device."

03



Confirm "Forget Device."

**✓ RESULT**

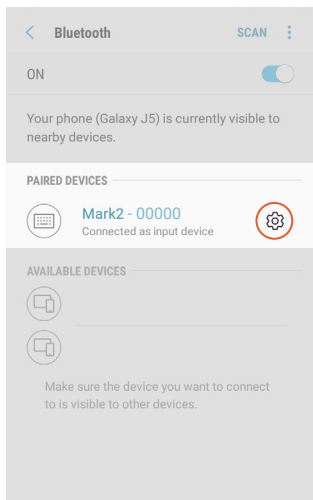


The scanner will flash red three times and you will hear three beeps. Scanner will no longer be shown as connected under "My devices."



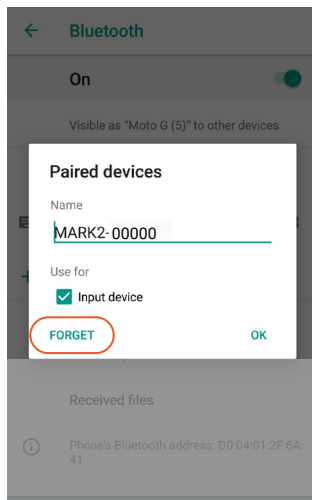
## DISCONNECTING FROM GOOGLE ANDROID:

01



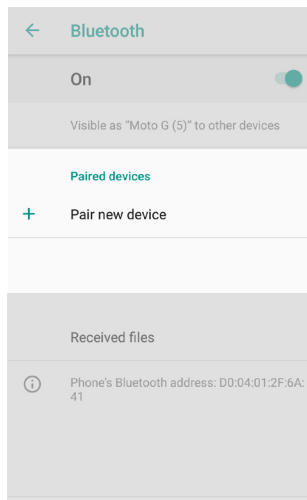
In the Bluetooth option under "Paired devices," tap on the gear wheel symbol of "MARK 2 - 00000."

02



Select "Forget."

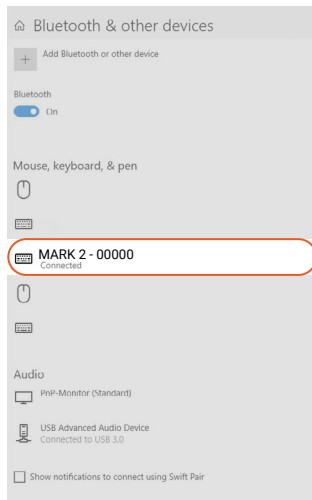
✓ RESULT



The scanner will flash red three times and you will hear three beeps. Scanner will no longer be shown as connected under "Paired devices."

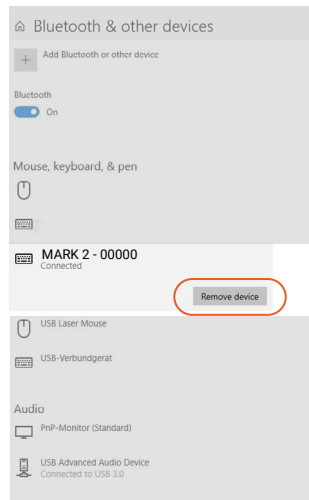
## DISCONNECTING FROM MICROSOFT WINDOWS:

01



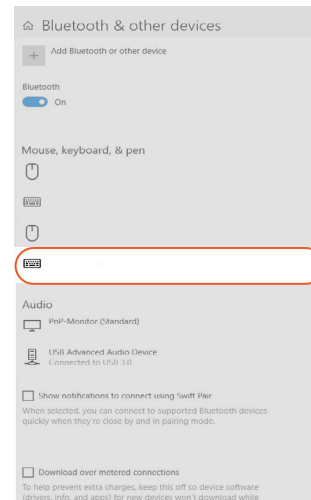
Under "Bluetooth & other devices," select "MARK 2 - 00000."

02



Click "Remove device."

✓ RESULT



The scanner will flash red three times and you will hear three beeps. Scanner will no longer be shown as connected under "Bluetooth & other devices."

## 7<sup>TH</sup> STEP: RELEASE SCANNER FROM WEARABLES

### ! CAUTION

Do not rub over the pins of the wearable with the scanner!

→ This may otherwise lead to bended pins.

More information about releasing the scanner correctly can be found under [proglove.com/support](https://proglove.com/support).



1. Use your fingers to press between scanner and the fastening rail of the wearable.



2. Press scanner up slightly and push it forward.

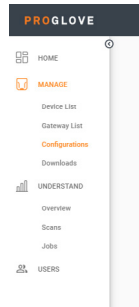


# CONFIGURE DEVICES AND FIRMWARE UPDATE

The configuration tool under <https://insight.proglove.com/> can be used to individually set the ProGlove System to improve scanning processes and to update the firmware.

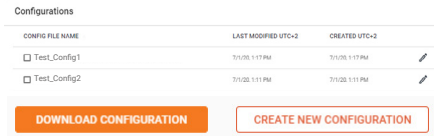
- To **update the firmware** proceed with **step 7**.
- To **create a new configuration** proceed with **step 1**.

## 1<sup>ST</sup> STEP: OPENING CONFIGURATIONS



1. Go to Configurations in the Insight navigation.

2. Select a saved configuration or create a new one.



## 2<sup>ND</sup> STEP: CREATE A NEW CONFIGURATION

→ Choose which connectivity option is used and need to be configured.



## 3<sup>RD</sup> STEP: CONNECTIVITY CONFIGURATION

Here it is possible to configure the connectivity settings according to the end device.

**Gateway Multipairing:** It is also possible to adjust the maximum number of scanners that can connect to the Gateway (up to 5 devices).

→ Choose the preferred settings.

→ To **install a saved configuration** proceed with **step 7**.



## 4<sup>TH</sup> STEP: DEVICE SETTINGS

The Device Settings can be used to optimize the scanner for certain use cases.

The **Engine Settings** allow to improve the readability of barcodes:

- activate Fuzzy 1D processing for hard to read 1D barcodes
- activate Display mode for barcodes on screens or foils
- activate Picklist mode to enable a more accurate aiming with the scanning field

The **Feedback profiles** allow to customize the scanners feedback.

The **Sleep Mode** determines the duration of inactivity after which the scanner turns off.

Device Settings

---

<b>Engine Settings</b>	<b>Feedback Profiles</b>
<input type="checkbox"/> Fuzzy 1D processing	Normal
<input type="checkbox"/> Display Mode	<input checked="" type="checkbox"/> Enable Haptic Feedback
<input type="checkbox"/> Picklist Mode	<b>Sleep Mode</b>
	5
	Minutes

## 5<sup>TH</sup> STEP: SYMBOLOGY SETTINGS

The Symbology 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.

- Switch off unused barcode types.
- Switch on inverse barcode types if needed.

## 6<sup>TH</sup> STEP: WORKFLOW RULES

The Workflow Rules can be used to manipulate the barcode data. These 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 true, **THEN** an action is executed. An action is also carried out without a condition.

### APPLICATION EXAMPLE:

Insert the prefix “Pro” for the following barcode:



Condition: Barcode matches  
“Glove”

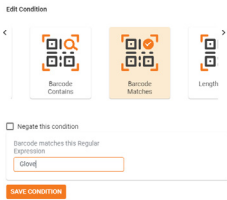
Action: Add Prefix “Pro”

Outcome: “ProGlove”

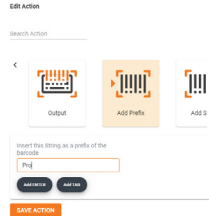


→ Create the condition “Barcode Matches: *Gloves*” and the action “Add Prefix *Pro*.”

1. set condition (if)



2. set action (then)



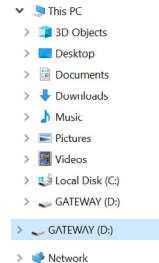
## 7TH STEP: CONFIGURE DEVICES AND FIRMWARE UPDATE

For the **configuration** of the device:

→ Click on Save. Assign a name and download the configuration file.  
Follow the next steps.

For a **firmware update**:

→ Download the latest firmware version at <https://insight.proglove.com/devices/downloads> or get it from your ProGlove contact person.  
Follow the next steps.



1. Connect the Gateway with the computer.

The Gateway boots up. This takes about 2 min and is finished when the USB LED shows constant green light.

2. Scan the Pairing Barcode on the Gateway.

3. Scan this barcode to enable the Gateway as a mass storage device on the computer.

4. Copy the downloaded configuration file or the firmware file into the mass storage device Gateway.



5. Scan this barcode to disable the Gateway as a mass storage device on the computer.

 **CAUTION**

Do not disconnect the Gateway from the computer during the upload!

 **RESULT**

The upload of the configuration takes about 5 seconds / the upload of the firmware takes about 2 minutes and is finished when the USB LED shows constant green light. The Gateway is now configured / updated and can be connected to a scanner.















 **NOTE**

The configuration will be applied to the scanner and the Gateway directly. Scanners, that get connected to the Gateway later will receive the same configuration!










# SIGNAL TABLE












## GENERAL SCANNER:

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 scanner with battery charge under 5%			Red flashing 3 times briefly 		
Battery charge under 95%			Pulsating red 		
Battery charge over 95%			Constantly green 		

### SCANNER CONNECTION VIA ACCESS POINT:













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

### SCANNER CONNECTION VIA BLE:


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













**MARK DISPLAY:**

				
<b>Description</b>	<b>LED</b>	<b>Audio signal</b>	<b>Vibration</b>	<b>Screen</b>
MARK Display boots up	LED loop 	Short rising positive beep	Short vibration	-
MARK Display is in Standby Mode				 mid range PROGLOVE TRIGGER TO START
MARK Display is ready to connect				 SCAN PAIRING BARCODE
MARK Display is connecting	Blue pulsing 	Continuously rising beep		 CONNECTING
MARK Display is connected to an end device		Short rising positive beep	Short vibration	 CONNECTED
MARK Display could not connect to an end device	Red flashing 3 times briefly 	Negative beep briefly 3 times	Long vibration	 COULD NOT CONNECT



Description	LED	Audio signal	Vibration	Screen
MARK Display lost the connection to end device	Red flashing 3 times briefly 	Negative beep briefly 3 times	Short vibrations 3 times briefly	-
MARK Display tries to reconnect to end device	Blue pulsing 	Continuously rising beep		
MARK Display is reconnected to the end device	Blue flashing 2 times briefly 	Short rising positive beep	Short vibration	-
MARK Display is disconnected from an end device	Red flashing 3 times briefly 	Negative beep briefly 3 times	Short vibrations 3 times briefly	
Battery charge under 10 %	Red flashing 	Info tone	Short vibrations 2 times briefly	-
Battery charge under 5 %	Red flashing 	Info tone	Short vibrations 2 times briefly	-



Description	 <b>LED</b>	 <b>Audio signal</b>	 <b>Vibration</b>	 <b>Screen</b>
MARK Display is charging	Red pulsing 			
MARK Display is fully charged	Green pulsing 			
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	-



## GATEWAY



### Description

**LED 1 (USB - LED)    LED 2 (SCANNER - LED)    LED 3 (Cloud - LED)**

Gateway boots up\*

\*the boot up takes around 2 min.

Left to right run through all LEDs alternating Blue / Green until start



Gateway is connected to the end device via USB

Constantly green



Gateway is not connected to the end device via USB

No feedback

Gateway searches for a scanner

Pulsing Blue
















Gateway is connected to the scanner via BLE

Constantly green





Description	LED 1 (USB LED)	LED 2 (Scanner - LED)	LED 3 (Cloud - LED)
Firmware Update: Gateway is in download mode	Constantly yellow 	Constantly yellow 	Constantly yellow 
Firmware Update: Scanner is flashing / Gate- way deploys	Constantly purple 	Constantly purple 	Constantly purple 
Firmware Update: Gateway is flashing	left to right run trough all LEDs alternating purple until done 		
Firmware Update: successfull	Long green flashing 	Long green flashing 	Long green flashing 
Gateway is connected to a scanner and is searching for more scanner		Constantly green 	
Gateway can not connect to another scanner		Constantly red 	
Gateway can not connect to another scanner but another scanner tries to connect		Red flashing 3 times briefly 	



# STORAGE AND CLEANING

## STORAGE

### STORAGE LOCATION:

Store the Hardware as well as Wearables in a dry and dirt-free environment. In case of transport, ProGlove System must be transported shockproof in its original packaging.

### TEMPERATURE:

Store the Hardware as well as Wearables in an environment between - 4°F (-20°C) and 140°F (+60°C).

## CLEANING

### WEARABLES:



#### CAUTION:

Protect Wearables from moisture!  
This may otherwise lead to the Wearables not functioning properly.

→ Do not wash Wearables.

### HARDWARE:



#### CAUTION:

Protect Hardware from moisture!  
This may otherwise lead to ProGlove System not functioning properly.



#### CAUTION:

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

- Use isopropyl Alcohol or cleaning agents approved for electronics and use it to wipe all surfaces of the hardware with a soft cloth.
- Regularly clean the scanner glass with cotton swabs.



# SOLUTION TO THE PROBLEM

## SCANNER

### PROBLEM

### CAUSE

### SOLUTION

Scanner is not responding.	Battery is not charged.	→ Charge Scanner in the Charging Station for at least 20 min.
	Wearable is defective.	→ Change wearable.
Scanner is not vibrating or does not beep after successful data transfer.	Feedback signals are disabled.	→ Check whether the feedback signals in the configuration tool are enabled under "Feedback Profiles."
The battery symbol of Scanner flashes red.	The battery charge is low.	→ Charge Scanner in the Charging Station for at least 20 min.

## PROBLEM

The crosshairs light up, but no barcodes are scanned.

## CAUSE

The barcode label cannot be read.

The barcode type cannot be read.

The barcode length cannot be read.

Scanner glass is dirty.

The crosshairs light up, but the barcodes are hard to scan.

The barcode label is difficult to read.

Scanner glass is dirty.

Scanning distance is not optimally used.

## SOLUTION

→ Create new barcode label.

→ Check whether the barcode type in the configuration tool is enabled under "Symbology settings".

→ Check whether the barcode length in the configuration tool is enabled under "Symbology settings".

→ Clean the scanner glass with a cotton swab.

→ To enhance the scanning performance, make the following settings in the configuration tool ([config.proglove.de](http://config.proglove.de)) under "Symbology settings".  
Fuzzy 1D processing: ON

→ Clean the scanner glass with a cotton swab.

→ Position scanner closer or further away from the barcode label and scan.  
For standard range: 3.9 - 31.5 in (10-80 cm)  
For mid range: 11.8 - 59 in (30-150 cm)



## ACCESS POINT - DATA TRANSFER

### PROBLEM

### CAUSE

### SOLUTION

Barcode data is not transferred.

Scanner is not connected to the Access Point.

→ Scan the pairing barcode on the Access Point.

Scanner is out of range of the Access Point.  
(maximum range is < 98 ft. (30m))

→ Bring Scanner closer to Access Point.

Access Point is defective.

Access Point must be replaced.  
→ More detailed information can be found at [proglove.com/support](http://proglove.com/support).

Scanner is defective.

Scanner must be replaced.  
→ More detailed information can be found at [proglove.com/support](http://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](http://config.proglove.de)) under "Device settings - USB keyboard layout," adjust the language.

## BLE - DATA TRANSFER

### PROBLEM

Barcode data is not transferred.

### CAUSE

Scanner is not connected to the end device.

### SOLUTION

1. Scan the pairing barcode.
2. Lights up blue twice briefly while scanner is connecting and after a successful connection.

Scanner lights up green after the data transfer, but no barcode data is shown on the end device.

Scanner is out of range of the end device.  
(Maximum range is < 33 ft. (10m))

- Bring scanner closer to the end device and scan the pairing barcode.

Scanner flashes red 3 times, 3 negative beeps are heard and a long vibration is felt.

Scanner cannot connect with the end device.

1. Check whether the range between scanner and end device is < 33 ft. (10m) If not, get closer.
2. Disconnect the connection between the end device and scanner and reconnect (see p. 21) "Step 6: Disconnect scanner" and "Step 4: Connect scanner"
3. Scan the pairing barcode again.
4. Scan barcode again.



## GATEWAY - DATA TRANSFER

### PROBLEM

Barcode data is not transferred.

### CAUSE

Scanner is not connected to the Gateway.

Scanner is out of range of the Gateway.  
(Maximum range is 100 - 130 ft. (30 - 40m))

Gateway is defective.

Scanner is defective.

### SOLUTION

1. Scan the pairing barcode on the Gateway.
2. Lights up blue twice briefly while scanner is connecting and after a successful connection.

→ Bring scanner closer to the Gateway.

Gateway must be replaced.  
→ More detailed information can be found at [proglove.com/support](http://proglove.com/support).

Scanner must be replaced.  
→ More detailed information can be found at [proglove.com/support](http://proglove.com/support).



## CHARGING STATION

### PROBLEM

Scanner does not charge in Charging Station.

### CAUSE

Scanner is not correctly inserted in Charging Station.

Charging Station is not connected to power source.

Scanner is defective.

Charging Station is defective.

### SOLUTION

→ Insert scanner in the Charging Station again.

→ Connect Charging Station to power source.

Scanner must be replaced.  
→ More detailed information can be found at [progllove.com/support](http://progllove.com/support).

The Charging Station must be replaced.  
→ More detailed information can be found at [progllove.com/support](http://progllove.com/support).



### TIP 1

Problem could not be solved?

→ Insert scanner into the wearable. Press the trigger on the wearable for about 15 seconds and restart scanner.

### TIP 2

Problem could not be solved?

→ Scan with scanner the Factory Default Barcodes:



**SCANNER**



**ACCESS POINT / GATEWAY**

Factory Default Barcode will reset all configurations!



## DISPOSAL



ProGlove 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 ProGlovesystem 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 "Support and Service").

Carry out the following steps to decommission ProGlove system:

1. Release Scanner from Wearables
2. Disconnect the connection cable from the Access Point / Gateway
3. Disconnect the mains plug from the Charging Station S
4. Properly dispose of Hardware and Wearables as old electronic and electric devices

## DIRECTIVES & CERTIFICATION

### EUROPEAN DIRECTIVES:

2014/53/EU Radio Equipment Directive (RED)

2011/65/EU RESTRICTION OF HAZARDOUS SUBSTANCES (ROHS)

### DECLARATION OF CONFORMITY:

Workaround GmbH (ProGlove) hereby declares that the devices are in compliance with all applicable Directives. For the full text of the CE Declaration of Conformity please contact the ProGlove Support (ProGlove Support contact data see p. 45).

### FCC/IC CERTIFICATION COMPLIANCE:

ProGlove MARK 2 System

The ProGlove MARK 2 System, , comprised of: MARK 2 MR, MARK 2 SR, MARK Basic, MARK Display, Charging Station S, Access Point, Gateway, wearables, peripherals and accessories, complies with the following FCC/IC product categories:

- FCC Part 15 Subpart C 247 (intentional radiators = RF transceiver)
- FCC Part 15 Subpart C 249 (intentional radiators = RF transceiver)
- FCC Part 15 Subpart B 107/109 (unintentional radiator)
- ISED Canada RSS-Gen Category I (radio apparatus)
- ISED Canada RSS-247
- ISED Canada RSS-102
- ISED Canada RSS-210

The ProGlove MARK 2 is a portable device (distance between person's body and the antenna is 20 cm or less) and excluded from SAR (Specific Absorption Rate) requirements.

FCC/IC Certification Compliance

Under the regulations of the FCC and the IC the user has to be aware of the following when using the ProGlove MARK 2:

1. This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption rate (SAR).

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) des lignes directrices de la FCC et les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement émet une énergie RF très faible qui est considérée comme conforme sans évaluation du débit d'absorption spécifique (DAS).

2. This ProGlove System has been tested and meets the FCC/IC RF exposure rules when used with ProGlove's accessories supplied or designated for this product. Use of other accessories may not ensure compliance with FCC/IC RF exposure rules.

Le système ProGlove a été testé et est conforme aux règles d'exposition aux fréquences radioélectriques (RF) de l'IC ainsi que de la FCC lorsqu'il est utilisé avec les accessoires ProGlove fournis ou conçus pour ce produit. L'usage d'autres accessoires ne garantit pas nécessairement la conformité aux règles d'exposition aux RF de l'IC ou de la FCC.

#### FCC Specific Certification Compliance

Under the regulations of the FCC the user has to be aware of the following when using the ProGlove MARK 2:

##### 1. FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

2. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

3. 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.

4. Note: This equipment has been tested and found to



comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### IC Specific Certification Compliance

Under the regulations of the IC the user has to be aware of the following when using the ProGlove MARK 2:

1. This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- 1) l'appareil ne doit pas produire de brouillage;
- 2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### LASER CLASS 2 (mid range):

Complies with 21CFR1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007. Laser safety according to EN60825-1:2014 and IEC 60825-1 (Ed. 3.0).

The laser warning label is located on the bottom of scanner (mid range).





# 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](https://proglove.com/support)

### E-MAIL ADDRESS:

 [support@proglove.de](mailto:support@proglove.de)  
 [support@proglove.com](mailto:support@proglove.com)

### TELEPHONE NUMBER:

 0800 7762255 (free within Germany)  
 +49 1520 2907017 (outside of Germany)  
 +1 (217) 721-0740 (USA)

 Monday – Friday, 9:00 am to 5:00 pm




## SALES CONTACT DATA

### E-MAIL ADDRESS:

 [sales@proglove.com](mailto:sales@proglove.com)


### TELEPHONE NUMBER:

 +49 89 26203505

### YOUR CONTACT PARTNER:

Enter your contact partner here:

 Name:

 Telephone number:

 E-mail address:

# PROGLOVE

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Germany

## **ProGlove Inc.**

520 W. Erie St.  
Suite 400  
Chicago, IL. 60654  
USA

## **Support at:**

[proglove.com/support](https://proglove.com/support)  
[support@proglove.com](mailto:support@proglove.com)