

PROGLOVE

MARK

SYSTEM





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READY FOR 4.0

ProGlove's smart gloves connect the worker to Industry 4.0.

“ We believe that despite artificial intelligence and automation, humans remain an irreplaceable part of industry. ”

explains CEO Andreas König the vision of ProGlove.

From complex production steps on the assembly line to small-part picking in the warehouse: Every second counts in industrial operations to improve process efficiency. ProGlove's smart gloves replace the conventional pistol scanner. This enables the operator in production and logistics to work hands-free and hence more efficiently, safely and ergonomically.



PROGLOVE

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Improved
ergonomics



Improved process quality
and time savings



Economic benefit

SPEED

The elimination of non-value added process steps enables faster and more efficient work

ERGONOMICS

Hands-free scanning enables ergonomic work.
Weight savings of up to 1.5 tonnes per shift!

QUALITY

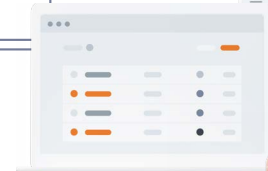
Optimized hand movements reduces mistakes and improves quality.

PLUG & PLAY

Integration via USB (HID/CDC), RS232 connection or Bluetooth Low Energy.
Simple configuration on config.proglove.com

FEATURES

- ✓ Two-component system: Different types of work glove with integrated textile trigger and intelligent scanner modules
- ✓ Real-time feedback (visual, acoustic, haptic)
- ✓ Accelerated 1D/2D barcode capture with powerful scan engine



USE CASES

ProGlove replaces the traditional pistol scanner. Until now, using the traditional scanner costs the user a lot of time by having to pick up and put back the scanner. For both 1D and 2D barcodes the ProGlove MARK enables you to scan and work at the same time which creates more efficient logistic and manufacturing processes. The ProGlove MARK simplifies processes, eliminates process steps and reduces mistakes. MARK is available in different models for a variety of use cases.



EXAMPLES FOR PRODUCTION

Assembly lines:

Pre-assembly, final assembly ...

Material handling

Just in Sequence: Kitting, sequencing ...

Work stations

Quality control, rework ...

KANBAN

Reordering, milk run ...

EXAMPLES FOR LOGISTICS

Inbound

Receiving, putting away ...

Picking

Supermarkets, small parts picking ...

Material transport

high level order pickers, picking trolleys ...

Outbound

Paletting, packing, shipping ...

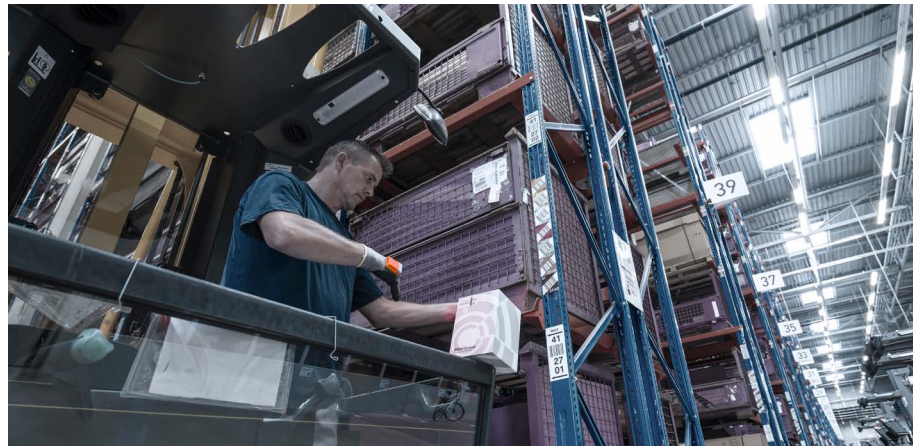
BMW GROUP

@SCALE WITH MARK

The BMW Group has rolled out MARK in Europe and North America. This allows the car manufacturer to benefit from the ProGlove scale effect in the form of optimised efficiency and increased speed.

FOR EXAMPLE, BMW PLANT DINGOLFING SAVES:

- ✓ 4 seconds per scan
- ✓ 4000 minutes of scanning time per day for the entire facility



OTHER REFERENCES

 **SCHENKER**

40% time saving

REWE..
GROUP

Major reduction in picking errors

 **Lufthansa Technik**
Logistik Services

Easy worker guidance


Audi

FCA
FIAT CHRYSLER AUTOMOBILES

 **BOSCH**
Technik fürs Leben

KUKA

ŠKODA


brose
Competence in Mechatronics


SEAT

FESTO


JOHN DEERE

redcoon.de


thyssenkrupp

MAHLE





● standard range

Scan engine: Scan range up to 80cm / 31in depending on barcode size



Optic, acoustic and haptic feedback function



Accelerated 1D/2D barcode capture using a powerful scan engine

+ mid range

Scan engine: Scan range of 30cm / 12in to 150cm / 59in depending on barcode size



Connection via Bluetooth Low Energy and 868 / 915 MHz

MARK 2

Whether confirming work orders or documenting work steps - scanning with barcodes is a standard process. However, it is precisely this step that can often lead to unnecessary stress, since an additional device must be used for this purpose.

MARK 2 IS DIFFERENT:

Users can conveniently scan while keeping their hands free. The process is simplified, errors are avoided and ergonomics are improved.

TECHNICAL SPECIFICATIONS

- ✓ **Size:** 50mm x 45mm x 15mm / 1.9in x 1.7in x 0.5in
- ✓ **Weight:** 40g / 1.4oz
- ✓ **Connectivity:** RS232, USB or Bluetooth Low Energy (BLE)
- ✓ **Protection class:** IP 54
- ✓ **Battery runtime:** approx. 6000 scans
- ✓ **Feedback:** LEDs provide feedback in the user's field of vision

* MARK 2 is shown here in original size (1.9x1.7 inch/50x45mm).



Connection via Bluetooth
Low Energy



Optic, acoustic and haptic
feedback function

✦ mid range

Scan engine: Scan range of
30cm / 12in to 150cm / 59in
depending on barcode size



Accelerated 1D/2D bar-
code capture using
a powerful scan engine

MARK Basic

MARK Basic is your entry to hands-free scanning - ideal for workstations with a low to medium number of scans. Experience the logistics-optimized industry wearable.

MARK Basic MOBILIZES:

Thanks to Bluetooth Low Energy connection MARK Basic finally makes mobile. In combination with tablets, smartphones and other portable devices you can work independent of the workstation.

TECHNICAL SPECIFICATIONS

- ✓ **Size:** 50mm x 45mm x 15mm / 1.9in x 1.7in x 0.5in
- ✓ **Weight:** 40g / 1.4oz
- ✓ **Connectivity:** Bluetooth Low Energy (BLE)
- ✓ **Protection class:** IP 43
- ✓ **Battery runtime:** approx. 3000 scans
- ✓ **Feedback:** LEDs provide feedback in the user's field of vision

* MARK Basic is shown here in original size (1.9x1.7 inch/50x45mm).

WEARABLES

STANDARD GLOVE

USE IN LOGISTICS AND PRODUCTION



- ✓ For areas with lower-level protection requirements for gloves
- ✓ Small parts, high bay warehouse picking, tugger trains, etc.

TRIGGER

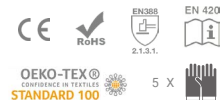
Textile trigger located on the side of the index finger. Clip left or right.

COATING

Nitrile-/ PU coating

SIZES

7-10
Industry standard sizes



PALM TRIGGER

USE IN LOGISTICS AND PRODUCTION



- ✓ Areas without risk of injury
- ✓ Workspaces with or without special glove requirements
- ✓ Wearable both with a free hand as well as in combination with different glove types

TRIGGER

Protected trigger ring in palm of the hand. Triggered in the palm of the hand by middle or ring finger.

SIZES

S, M, L
variable adaptable by industrial velcro fastener



INDEX TRIGGER

USE IN LOGISTICS AND PRODUCTION



- ✓ Areas without risk of injury
- ✓ Workspaces with or without special glove requirements
- ✓ Wearable both with a free hand as well as in combination with different glove types

SIZES

S, M, L
variable adaptable by industrial velcro fastener

TRIGGER

Lateral release between
Thumb and index finger



3 X



10 X



REEL

USE IN LOGISTICS AND PRODUCTION



- ✓ Low-frequency scanning environment
- ✓ Workspaces with special glove requirements
- ✓ Handling highly sensitive assets

TRIGGER

Automatically releasing the scan engine when pulling it out. Additional release button.

ATTACHMENT

Two possibilities: Tilttable clip and lanyard.

2 X



SOFTWARE



CONFIGURATION TOOL

- ✓ Easy configuration via the ProGlove website:
config.proglove.com
- ✓ Quick prefix and suffix programming
- ✓ Configuration with mobile devices possible



PROGLOVE CONNECT

- ✓ Easy, flexible and „worker-friendly“ device pairing
- ✓ Integration with browsers, native and hybrid Android Apps
- ✓ Usable with device management systems (SOTI)
- ✓ The basis for new features

SOFTWARE FEATURES



WORKER FEEDBACK

- ✓ Direct feedback on process steps on MARK
- ✓ Configurable optical, acoustic and haptic feedback
- ✓ Connection via COM port



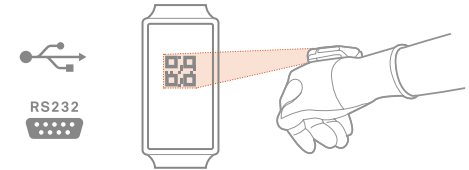
CUSTOM CHANNEL

- ✓ Individual configuration of the radio frequency on fixed channels within the 868 / 915 MHz band
- ✓ No interference with other radio applications

DATA TRANSFER 868 / 915 MHZ

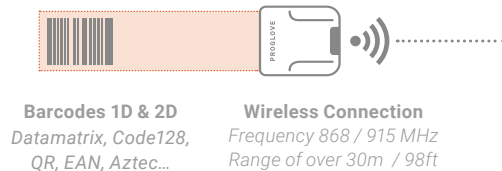
1 The Access Point is connected via RS232 or USB to the PC or terminal of the workstation. A simple scan of the pairing barcode on the Access Point connects MARK 2. Depending on the process requirements, one or more MARK 2 scanners can be connected there.

1 CONNECTION
To pair MARK 2, use the pairing barcode on the Access Point.
Pairing of multiple MARK 2 scanners to one Access Point is possible.



2 Data transfer between MARK 2 and the Access Point takes place via 868 MHz.

2 USB OR RS232 DATA TRANSFER



Plug & Play Connection
 Connected to computer terminals, PCs, tablets...

3 Information about the current process step is transferred directly to the hand with visual, haptic and acoustic feedback by MARK 2. Process instructions are sent back to the MARK 2 module. This means that errors that occur are detected early on.

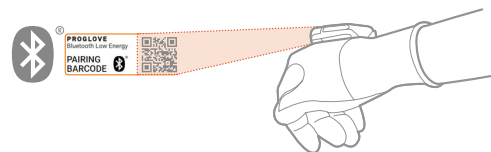
3 FEEDBACK
Visual, haptic and acoustic feedback.
Workspace extension possible by means of mobile worker feedback.



DATA TRANSFER BLUETOOTH

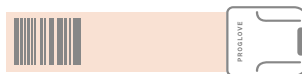
- 1 MARK 2 and MARK Basic can be connected to Microsoft Windows, Google Android or Apple iOS devices via Bluetooth Low Energy (BLE HID). This can be done by simply scanning the pairing barcode.

- 1 CONNECTION**
To pair MARK 2 and MARK Basic via BLE use the pairing barcode.



- 2 Data transfer between MARK 2, MARK Basic and the terminal takes place via the frequency band of Bluetooth Low Energy.

- 2 BLE DATA TRANSFER**



1D & 2D Barcodes
Datamatrix, Code128, QR, EAN, Aztec...



BLE Connection
The range between MARK 2 or MARK Basic and the terminal is <10m / 33ft



PROGLOVE - *for a smarter workforce*

Contact us:
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