BARTEC

MC93^{ex}–NI Mobile Computer

Quick Start Guide

BARTEC

Quick Start Guide - Translation

MC93ex-NI

Mobile Computer

Type B7-A2M*-****/****

ATEX / IECEx Zone 2 / 22

Class I, II, III Division 2

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1 Basic safety information

1.1 Information on this Quick Start Guide

Read carefully before putting the devices into operation.

The Quick Start Guide is a fixed part of the product. It must be kept in the direct vicinity of the device and the installation, operating and service staff must have access to it at all times.

The Quick Start Guide contains important information, safety instructions and test certificates which are necessary for the perfect function of the device in operation.

The Quick Start Guide is directed at all individuals concerned with the commissioning, handling and servicing of the product. The applicable guidelines and standards for areas with gas and dust atmosphere (EN/IEC 60079-17, EN/IEC 60079-19) must be observed when conducting this work.

Knowledge of the safety and warning information in this Quick Start Guide and the strict compliance with it is essential for safe installation and commissioning. Accidents, injuries and material damage can be avoided by circumspect handling and systematically following the instructions.

The examples, tables, and figures provided in this Quick Start Guide are for illustration purposes. Due to the different requirements of the respective application, the BARTEC company cannot assume responsibility or liability for actual use based on the examples and figures.

The BARTEC company reserves the right to carry out technical changes at any time.

In no event will BARTEC company be responsible or liable for indirect or consequential damages resulting from the use or application of this Quick Start Guide.

Safety and warning information is particularly emphasised in this Quick Start Guide and marked by symbols.

DANGER

DANGER describes a directly imminent danger. If not avoided, death or severe injury will be the consequence.

WARNING

WARNING describes a possibly imminent danger. If not avoided, death or severe injury may be the consequence.

CAUTION

CAUTION describes a possibly imminent danger. If not avoided, mild or slight injury may be the consequence.

ATTENTION

ATTENTION describes a possibly damaging situation. If not avoided, the plant or objects in its vicinity may be damaged.

Important information on effective, economical & environmentally compliant handling.

1.1.1 Languages

The original Quick Start Guide is written in German. All other available languages are translations of the original Quick Start Guide.

The Quick Start Guide is available in German and English. If further languages are required, these must be requested from BARTEC or stated on placing an order.

1.1.2 Changes in the document

BARTEC reserves the right to change the content of this document without notification. No warranty is assumed for the correctness of the information. In cases of doubt, the German safety instructions apply because it is not possible to rule out errors of translation or printing. In the case of legal disputes our General Terms and Conditions for Deliveries and Services apply.

The current versions of the datasheets, certificates and Declarations of conformity can be downloaded from www.bartec.com or may be requested directly from BARTEC GmbH.

1.1.3 Registered trademarks

Bluetooth®	is a registered trademark of Bluetooth Special Interest Group
Android™	The "Android" name, the Android logo, the Google Play trademark and other Google trademarks are the property of Google LLC.
WiFi	is a registered trademark of Wi-Fi-Alliance, an association of manufacturers founded in 1999.

1.2 Handling the product

The product described in this Quick Start Guide left the factory in a perfect and tested state in terms of safety. To maintain this state and to achieve a perfect and safe operation of this product, it may only be operated in the manner described by the manufacturer. In addition, the perfect and safe operation of this product requires correct transportation, proper storage and careful operation.

The safe and perfect handling of the Mobile Computer is a prerequisite for its perfect and correct functioning.

1.3 Intended use

1.3.1 Exclusive purpose

The Mobile Computer is a handheld piece of electrical equipment. It serves the purpose of the mobile recording, processing and/or radio transmission of data within potentially explosive atmospheres.

It is used exclusively in combination with devices which comply with the requirements placed on the overvoltage category I.

The admissible operating data of the device used must be considered.

1.3.2 Unintended use

Any other use is unintended and may lead to damage and accidents. The manufacturer shall not be liable for any use extending beyond the exclusive purpose.

1.4 Duties of the operator

The operator undertakes to only permit persons to work with the Mobile Computer who

- are acquainted with the basic regulations on safety and accident prevention, and who have been inducted in the use of the Mobile Computer,
- have read and understood the documentation, the safety chapter and the warnings.

The operator checks that the safety and accident prevention regulations applicable to the respective case of use have been observed.

1.5 Safety information

- Do not dry wipe or clean devices in potentially explosive atmospheres!
- Do not open devices in potentially explosive atmospheres.
- Do not replace or charge battery in potentially explosive atmospheres.
- General statutory provisions or guidelines on occupational health and safety, accident prevention provisions and environmental protection laws must be heeded, e.g. Operational Safety Ordinance (BetrSichV) and nationally applicable ordinances.
- Use suitable clothing and shoes with respect to the danger of hazardous electrostatic charges.
- Avoid heat influences outside the specified temperature range.
- Protect device from external influences! Do not expose device to caustic/aggressive liquids, vapours or spray. In the case of malfunction or damaged enclosure, remove the device immediately from the potentially explosive atmosphere and bring it to a safe place.

1.6 Maintenance

The pertinent erection and operating provisions for electrical systems must be observed! (e.g. Directive 2014/34/EU, BetrSichV and nationally applicable ordinances EN/IEC 60079-14 and the series DIN VDE 0100)!

Observe the national waste disposal regulations when disposing of the devices.

1.6.1 Servicing

No constant servicing will be necessary if operated correctly under consideration of the assembly instructions and environmental conditions.

1.6.2 Inspection

According to EN/IEC 60079-17 and EN/IEC 60079-19 the operator of electrical systems in potentially explosive atmospheres is obliged to have these inspected by an electrician to ensure correct condition.

1.6.3 Repairs

Repairs to explosion-protected devices may only be performed by authorised personnel with original spare parts and according to the state of the art.

Therfore all repairs to the Mobile Computer have to conducted by BARTEC.

Contact information and instructions for repair requests and processing can be found at:

bartec.com/service-support/returns-repair

Select “Automation and Enterprise Mobility”

- Procedure guide
- RMA Form

1.6.4 Commissioning

It must be checked that all components and documents are available before commissioning.

1.7 Labelling, test certificate, and standards

Labels on explosion protection and the test certificate are attached to the Mobile Computer. Labelling see chapter: Technical Data.

The guidelines and standards applicable to the Mobile Computer for devices and protected systems for intended use in potentially explosive atmospheres see chapter: Declaration of Conformity.

1.8 Warranty

WARNING

No changes or retrofits may be made without the written consent of the manufacturer.

If non-specified components are used, the explosion protection will no longer be guaranteed. In the case of externally procured parts, it is not guaranteed that these have been designed and manufactured in accordance with their load and requisite safety.

▶ Contact the manufacturer before any changes or retrofits to receive a release. Only use original spare and wearing parts.

The manufacturer shall exclusively assume the complete warranty only for spare parts ordered from him.

Our General Terms and Conditions for Deliveries and Services shall apply in principle. These shall be made available to the operator on signing of contract at the latest. Warranty and liability claims in the case of injury and damage to property shall be excluded if they are attributable to one or several of the following causes:

- Unintended use of the Mobile Computer.
- Incorrect handling
- Failure to observe the information in the Quick Start Guide and the user manual with respect to transport, storage, commissioning, operation and service.
- Independent structural changes
- Faulty monitoring of parts subject to wear and tear.
- Incorrectly performed repairs.
- Cases of disaster through the impact of foreign bodies and force majeure.

For the Mobile Computer, we offer a manufacturer warranty of one year starting from the date of transfer of risk, as defined in our general terms and conditions.

For batteries and accessories, the manufacturer warranty period is 6 months from the transfer of risk.

This warranty covers all parts of the delivery and shall be restricted to the free replacement or repair of the defective parts in our Bad Mergentheim factory. For this purpose, any packaging supplied must be kept where possible. In the case of warranty, the goods must be returned to us after written agreement using an RMA form. There shall be no claim to repair at the sight of erection.

The information contained herein refers to the explosion-protected version of the Mobile Computer MC93ex-NI.

This Quick Start Guide contains all important information on the subject of explosion protection.

Further product information on handling and commissioning can be found on the BARTEC support page: https://automation.bartec.de/mobileE.htm

1.9 Co-applicable documents

All documents are available online from the following websites:

BARTEC: www.bartec.com or http://automation.bartec.de

ZEBRA: www.zebra.com

In the event of an overlaps with Zebra, the instructions of BARTEC apply.

Document BARTEC	Explanation
Quick Start Guide Mobile Computer MC93ex-NI	The safety relevant information, initial use and further data of the Mobile Computer MC93ex-NI are described in this Quick Start Guide.
Data sheet Mobile Computer MC93ex-NI	This technical data sheet contains the most important explosion-relevant technical data as well as general technical data.
Document ZEBRA	**Explanation**
For MC9300 ▪ **MC93XX Mobile Computer Quick Start Guide (EN)** ▪ **MC93XX Mobile Computer Integrator Guide (EN)** ▪ **MC93XX Mobile Computer User Guide (EN)**	Instructions for commissioning, operating, configuring, programming and maintaining of the Mobile Computer.

1.10 Definition of terms

A few abbreviations are used in the documentation.

NI = Non Incendive =>
is used as generic term for Zone 2 and Division 2 version

MC = stands for the entire product series of Mobile Computer

1.11 Configuration

The devices are only supplied with preinstalled operating system.
Customer software or further applications are not contained in the delivery.

This Quick Start Guide refers to the following configurations:

Configuration	Version
Processor	Qualcomm Snapdragon 660 Octa-Core, 2.2 GHz
Display	4.3“ WVGA Color Display with 800 x 400 Pixel resolution
Memory	4 GB
Mass storage	32 GB
Operating system	The MC93ex-NI is delivered by BARTEC according to the currently available Android™ version. (Details see data sheet) Android is a trademark of Google LLC.
WLAN	IEEE 802.11 a/b/g/n/ac/d/h/i/r/w
Bluetooth	5.0
NFC	ISO 14443 Typ A and B; FeliCa- and ISO 15693-Cards; P2P-Mode and Card emulation over Host (HCE)
Scanner Options (optional)	**SE4770-SR:** 1D/2D standard range omnidirectional imager **SE4850-ER:** Extended range 1D/2D imaging engine

2 Product description

2.1 MC93ex-NI

The MC93ex-NI is a tough Mobile Computer with 4.3" color display, which has been designed for use in the industrial environments and especially developed by BARTEC in close cooperation with ZEBRA for use in potentially explosive atmospheres.

2.2 Purpose of use

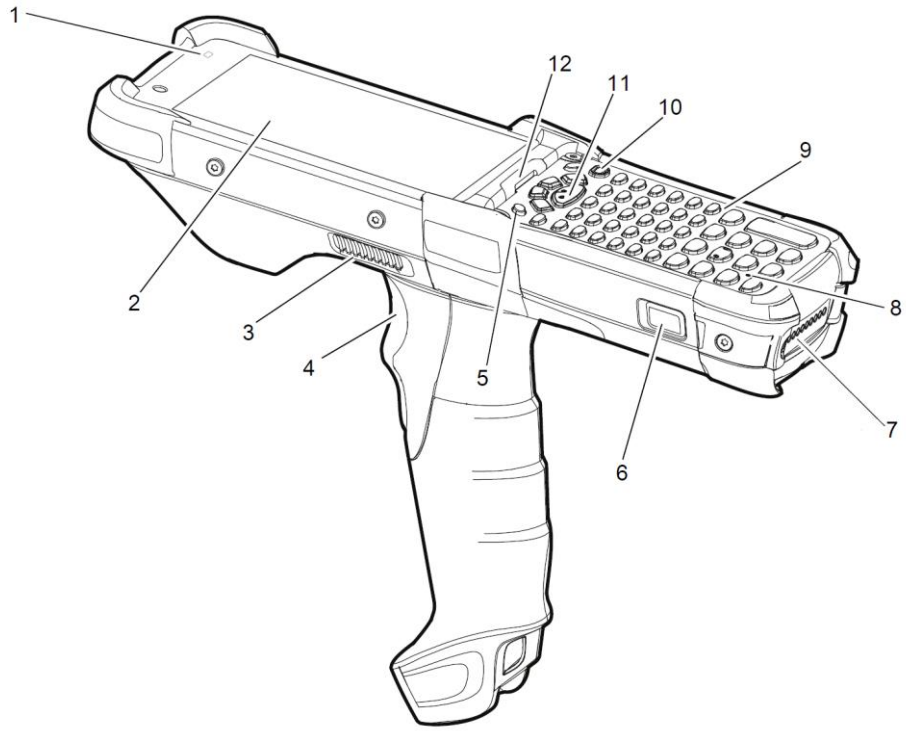
The Mobile Computer MC93ex-NI are handheld electrical devices. They serve the purpose of entry, processing and (radio) transmission of data within potentially explosive atmospheres.

The Mobile Computer MC93ex-NI are used exclusively in combination with devices which comply with the requirements placed on the overvoltage category I.

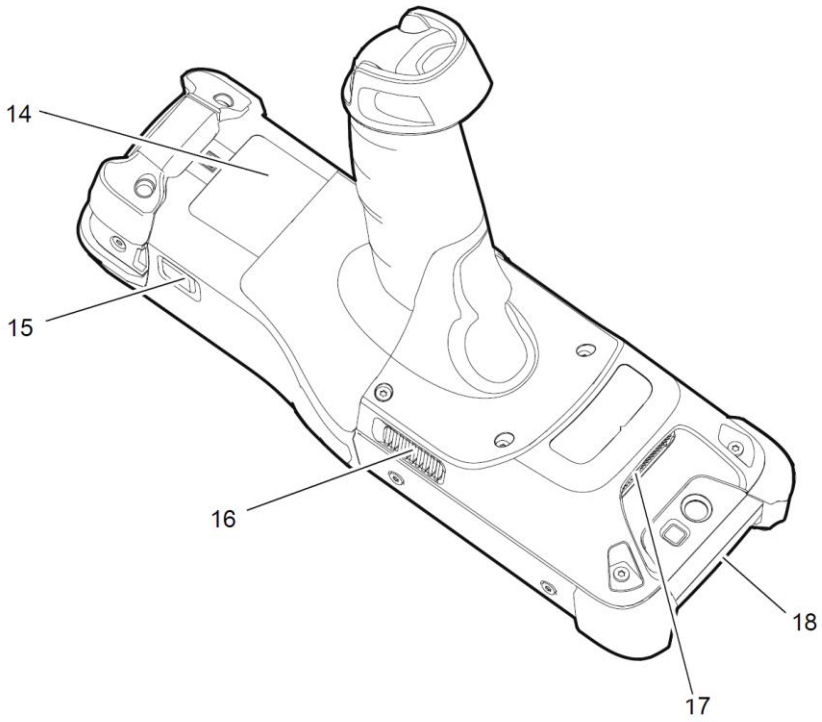
The **Mobile Computer MC93ex-NI, Type B7-A2M*-****/**** have been modified for use in the following potentially explosive atmospheres:

- ATEX / IECEx Zone 2 and Zone 22
- Class I, II, II Div. 2, Groups A, B, C, D, F, G; T6

3 Structure



1	**Ambient Light Sensor**	Controls display and keyboard backlight.
2	**Display**	Displays all information needed to operate the device.
3	**Speaker Side Port**	Provides audio output for video and music playback.
4	**Trigger**	Initiates data capture when a scan application is enabled.
5	**P1 - Dedicated PTT Key**	Initiates push-to-talk communications (programmable).
6	**Battery Release Latch**	Releases the battery from the device. **NOTE:** To release the battery, simultaneously press the battery release latches on both the sides of the device.
7	**Battery**	Provides power for operating the device.
8	**Microphone**	Use for communications in Handset mode..
9	**Keypad**	Use to enter data and navigate on screen functions.
10	**Power Button**	Press and hold to turn on the device. Press to turn on or off the screen. Press and hold to select one of these options: **Power off:** Turn off the device. **Restart:** Restart the device when software stops responding.
11	**Center Scan Button**	Initiates data capture when a scan application is enabled.
12	**Charger/Decode Status LED**	Indicates battery charging status while charging, app generated notifications, and data capture status.



14	**Passive NFC Tag (Inside the battery compartment.)**	Provides secondary product label information (configuration, serial number and manufacture data code) in the event that the readable product label is worn or missing.
15	**Battery Release Latch**	Releases the battery from the device.
16	**Side Speaker Port**	Provides audio output for video and music playback.
17	**Scanner Exit Window**	Provides data capture using the scanner/imager.
18	**NFC Antenna**	Provides communication with other NFC-enabled devices.

4 Technical data

4.1 Explosion protection

ATEX Zone 2 / Zone 22		
Type	B7-A2M3-****/****	MC93ex-NI
Labelling		Ex II 3G Ex ic op is IIC T6 Gc Ex II 3D Ex ic op is IIIB T80°C Dc IP 65 -20 °C ≤ Ta ≤ +50 °C
Test certificate		EPS 19 ATEX 1 239 X
Standards		See chapter: EU Declaration of Conformity
IECEx Zone 2 / Zone 22		
Type	B7-A2M3-****/****	MC93ex-NI
Labelling		Ex ic op is IIC T6 Gc Ex ic op is IIIB T80°C Dc IP 65 -20 °C ≤ Ta ≤ +50 °C
Test certificate		IECEx EPS 19.0108X
Standards		See chapter: EU Declaration of Conformity
Class I, II, III, Division 2		
Type	B7-A2M3-****/****	MC93ex-NI
Labelling		Class I, Div. 2, Groups A, B, C, D; Class II, Div. 2, Groups F, G; Class III; T6
Test certificate USA + Canada		UL E321557
Standards		UL 121201 and CSA C22.2 NO. 213

X - labelling (special conditions of use for secure operation within the potentially explosive atmosphere)
The ambient temperature range is -20 °C ≤ Ta ≤ +50 °C.*
The device must be protected from impact with high impact energy, from intense UV-irradiation, and strongly charge generating processes.
It is not allowed to use connectors inside the potentially explosive atmosphere.*
It is not allowed to remove, change and/or charge the battery inside the potentially explosive atmosphere.*
The battery must be locked within the potentially explosive atmosphere.*
*See individual chapters on the items in this Quick Start Guide.

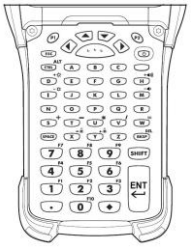
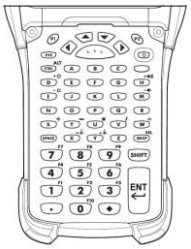
4.2 Features

4.2.1 Performance features

CPU	Qualcomm Snapdragon 660 Octa-Core, 2.2 GHz
Operating system	The MC93ex-NI is delivered by BARTEC according to the currently available Android version. (Details see data sheet) Android is a trademark of Google LLC.
Memory	4 GB RAM; 32 GB Flash
Extension slot	MicroSD card slot with SDHC support (up to 32 GB) Optionally extendable with MicroSD card: 32 GB Order number 17-A1Z0-0010
Interfaces	RS232 USB

4.2.2 Physical features

Dimensions: (Length x Width x Height)	240 x 88 x 189 mm (9.4 x 3.5 x 7.4 inch)
Weight **(including battery)**	approx. 765 g (approx. 26.9 oz)
Display	4.3" WVGA-colour display 800 x 400 pixel
Touchscreen	Dual mode capacity touch Touch function with stylus, finger or glove depending on the mode selected
Background lighting	LED technology
Network connections	Ethernet (via charge station); USB 2.0, Host or Client
Interactive sensor technology	▪ Three-axes accelerometer for motion sensor application for dynamic screen orientation ▪ power monitoring ▪ recognition of free fall ▪ Ambient light sensor to automatically adjust the backlight brightness of the color display and keyboard.

Keypad versions	▪ 29 Key Numeric/Calculation ▪ 43 Key ▪ 53 Key Alpha-Numeric STD  ▪ 53 Key for Terminal Emulation VT 

The devices are adapted to the selected keyboard layout.

The end user can later replace the keyboard himself. To replace the keyboard, follow the instructions in this Quick Start Guide.

4.2.3 User environment

Operating temperature	-20 °C to +50 °C (-4 °F to +122 °F)
Charging temperature	0 °C to +40 °C (+32 °F to +104 °F)
Storage temperature (without battery)	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity	5 % to 95 % (non-condensing)
Class of protection (IEC 60529)	IP 65

4.2.4 Barcode capture options

1D-/2D Barcodes	
SE4770	1D-/2D Omni-Direktional Imager Engine
SE4850	1D-/2D Omni-Direktional Long Range Imager

The scanning range of the different scan engines depends on the used barcode type, the print quality and the module width (in mil).

The scan engines used comply with laser class CDRH Class II / IEC 825 Class 2.

Further detailed information on the used scan engine can be found in the “MC93XX Mobile Computer Integrator Guide (EN)” from ZEBRA.

4.3 Battery

The life of the battery will depend on different use factors and the device settings, e.g.:

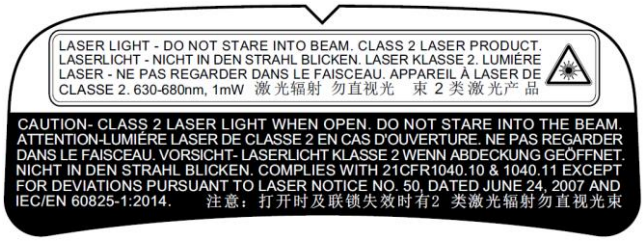
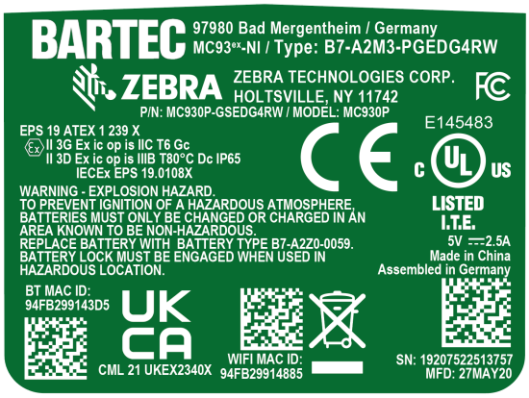
- Use and setting of WLAN/Bluetooth
- Background lighting/screensaver
- The settings in power management
- Use and setting of scanner

Battery **Type B7-A2Z0-0059**	(only change and charge in the safe area) Lithium ion battery 3.6 V/7000 mAh (25.2 Wh)
Operating temperature	
▪ During charging	0 °C to +40 °C (+32 °F to 104 °F)
▪ During discharging	-20 °C to +50 °C (-4 °F to 122 °F)
Storage temperature	-20 °C to +50 °C (-4 °F to 122 °F)
Relative humidity	20 % to 95 % (non condensing)
Backup power (when changing the battery during operation)	The Mobile Computer is equipped with a super-capacitor (supercap) to provide backup power to the device when the main battery is changed. Details see chapter: Insert/change battery
Battery performance	Up to 8 hours (depending on the device settings).
Charging times	Depends on the selected charging station. From 0% to 90% in less than 3.5 hours.
UN38.3 compliant	Yes

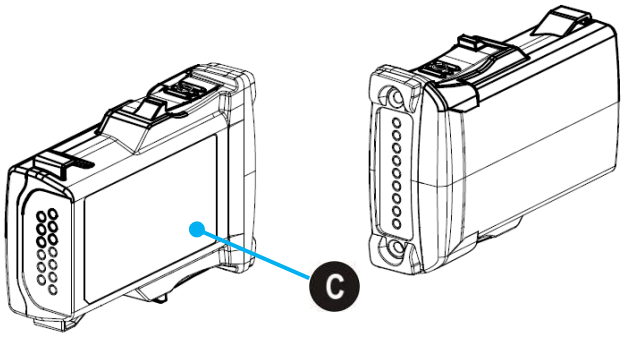
Charge the batteries at temperatures from 0°C to 40°C (32°F to 104°F). The device or charging station always performs the battery charging in a safe and intelligent way. At higher temperatures, such as about +37°C (+98°F), the device or charging station can alternately activate and deactivate battery charging for a short time to keep the battery at acceptable temperatures. The device and the charging station indicate via their LED when charging is disabled due to abnormal temperatures.

4.4 Product labelling

4.4.1 Mobile Computer

A	Laser warning	
B	Type label Type B7-A2M2-*	
	Type label Type B7-A2M3-*	

4.4.2 Battery



C	Battery label	

5 Transport and storage

5.1 Transport

Report any transport damage or incomplete deliveries immediately after receipt in writing to the forwarding company and BARTEC GmbH.

Any damage caused through incorrect storage shall not be covered by the warranty provisions of BARTEC GmbH.

Battery is UN38.3 conform.

Due to the transport guidelines for air freight, all batteries are delivered ex works charged to max. 30 %.

Further information, like MSDS, can be found at

http://automation.bartec.de/indexE.htm

- Mobile Computer MC93ex-NI
- Tab „General“

5.2 Storage

ATTENTION

Property damage through incorrect storage!

- ▶ Observe storage temperatures.
- ▶ Keep humidity away from the Mobile Computer.

Additional information on the batteries

The batteries from BARTEC (Type B7-A2Z0-0059) are developed and manufactured in accordance with the highest industrial standards. The operating time or storage period of a battery is restricted, however. The actual life of a battery is influenced by different factors, e.g. hot, cold, rough operating environment and falling from a great height. If a battery is kept longer than six months, the performance may be impaired on a permanent basis. Keep the batteries in a dry, cool place. For longer periods of storage, remove the batteries from the device to prevent self-discharge, rusting of the metallic and the escape of electrolyte.

Batteries kept for a duration of six months or longer should be charged and discharged again at least every three months. If electrolyte has escaped, do not touch the areas affected and dispose of the batteries as prescribed. Replace the battery if the operating time has shortened considerably.

6 Commissioning

DANGER

Avoid electrostatic charging in potentially explosive atmosphere.
Danger to life in explosive atmosphere!

- ▶ Do not dry wipe or clean the devices.
- ▶ Wear suitable clothing and shoes.
- ▶ Do not use rubber gloves or similar.

DANGER

Unintended use endangers explosion protection.
Danger to life in explosive atmosphere!

- ▶ Do not make any changes to the Mobile Computer.
- ▶ In the case of function disturbances or damage to the enclosure, the device should be removed immediately from the potentially explosive atmosphere to a safe place. Remove battery to decommission the device!
- ▶ Do not use any battery replicas or batteries from other manufacturers.

6.1 Requirements in potentially explosive atmosphere

Mobile Computer

- The Mobile Computer may not be opened.
- Do not use, swap or replace any non-specified components.
- Do not retrofit any components to the internal plugs or slots.
  Exception: SD-card
- Protect the Mobile Computer from impact!
- Do not expose the Mobile Computer to caustic/aggressive liquids, vapours, mists!
- Avoid the impact of moisture outside the specifications.
- Avoid thermal impact outside the specified temperature range.
- Use the 9-pole data interface only outside the potentially explosive atmosphere and exclusively with the devices specified by the manufacturer!

Battery

- The battery may not be opened.
- Only charge the battery (Type B7-A2Z0-0059) outside the potentially explosive atmosphere.
- To charge the battery, the charging temperature must be between 0°C and 40°C (32°F and 104°F).
- Only use the battery for the purpose listed in this Quick Start Guide. Is only suitable for the Mobile Computer Type B7-A2M*-****/****
- The battery must be locked within the potentially explosive atmosphere.
- There is a danger of burning if used incorrectly. Do not expose the battery to temperatures of more than +50 °C (+122 °F).
- Defective batteries must be disposed of immediately, whereby the provisions on battery disposal applicable in the respective region must be observed.
- The battery may explode if it catches fire!
- Do not short circuit the battery!

Accessories

- Only install or replace accessories outside the potentially explosive atmosphere.
- User accessories exclusively which have been tested or certified by BARTEC for this purpose.
- The end user can replace the Micro SD card, screen protector, keypad, leather holster and handstrap himself.

6.2 First steps

- ▶ Unpack the Mobile Computer.
- ▶ Insert and charge the battery into the Mobile Computer.

  or

  charge the battery and then insert it into the Mobile Computer.

  Use one of the following accessories to charge:

Description	Charging process	
	Battery (in Mobile Computer)	Spare battery
Base station Type: G7-A0Z0-0041	Yes	Yes
4-slot battery charging station Type: G7-A0Z0-0042	No	Yes
Charging adapter for older docking station Type: G7-A0Z0-0043	Yes	No
4-slot Ethernet base station Type: G7-A0Z0-0044	Yes	No

- ▶ Switch on the Mobile Computer.

Optional:

- ▶ Insert a MicroSD card.
- ▶ Remove/replace screen protector.

7 Operation

7.1 Handling accessories

DANGER

Non certified accessories endanger explosion protection.
Danger to life exists in potentially explosive atmospheres!

- ▶ Only use original accessories from BARTEC.

Only permitted outside the potentially explosive atmosphere:

- ▶ Insert/charge battery.
- ▶ Insert/replace microSD card.
- ▶ Attach/remove accessories such as Micro SD card, screen protector, keypad, leather holster and handstrap.

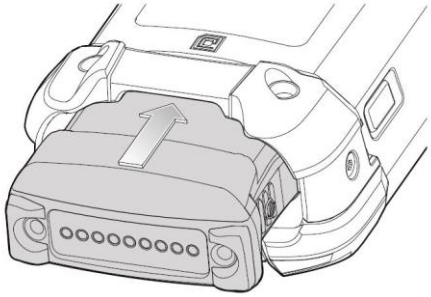
7.1.1 Insert/change battery

The MC93ex–NI is supplied with a battery:

Type	Order number
Battery for **UL Division 2 and ATEX / IECEx Zone 2/22** Lithium-ion battery 3.6 V/7000 mAh	B7-A2Z0-0059

Insert battery - work steps:

1. Charge the battery only outside hazardous areas.
2. The battery (Type B7-A2Z0-0059) may only be inserted/changed outside the hazardous area.
3. Use only batteries which have been tested or certified by BARTEC for this purpose.
4. Insert the battery with the battery contacts facing forwards into the battery compartment under the keypad.
5. Make sure that the battery's charging contacts agree with the charging contacts in the battery compartment.
6. Push the battery into the battery compartment until it locks into place.



Change battery - work steps:

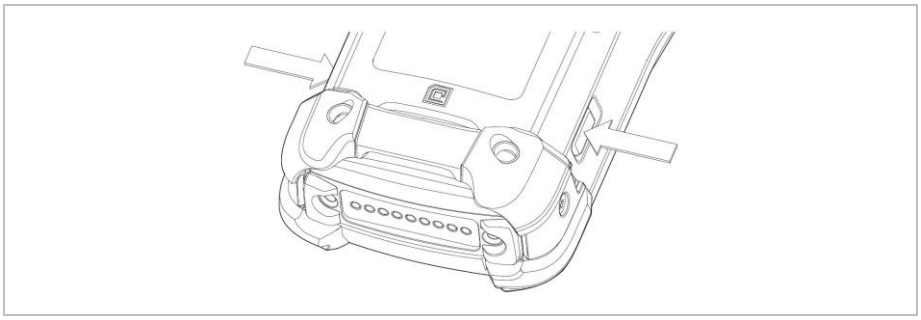
The device provides a Hot Swap mode where you can replace the battery without powering off the device. When you remove the battery, the display turns off and the devices enters the Hot Swap mode. WLAN and Bluetooth connectivity are retained for the first 30 seconds (indicated by a flashing amber LED). After 30 seconds, the device enters a critical suspend mode with RAM data persistence for approximately 5 minutes. In the critical suspend mode, WLAN and Bluetooth radios are disabled and will only resume if you insert a battery with sufficient charge into the device.

ATTENTION

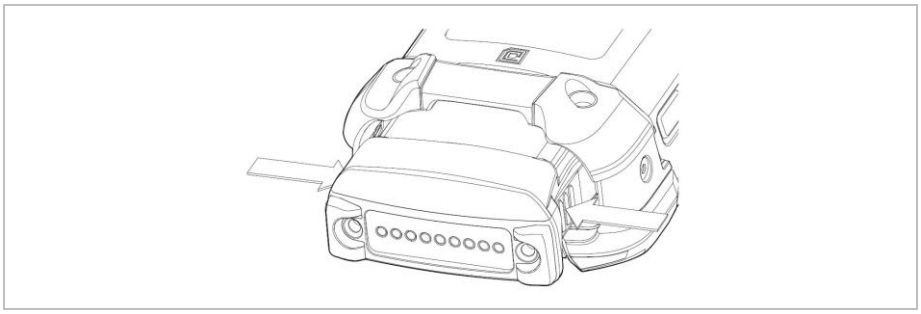
Incorrect handling may cause damage to property!

- If the battery change takes longer than 5 minutes, switch off the MC93ex-NI with function "Power Off" before removing the battery. Mistakes when removing the battery can cause data loss.
- To prevent damage to the device, DO NOT perform a hot swap during a device boot up session.
- The supercap requires time to recharge after performing a Hot Swap or after the main battery is fully depleted. It can take up to 15 minutes to fully charge the supercap. Hot Swap mode will not retain data

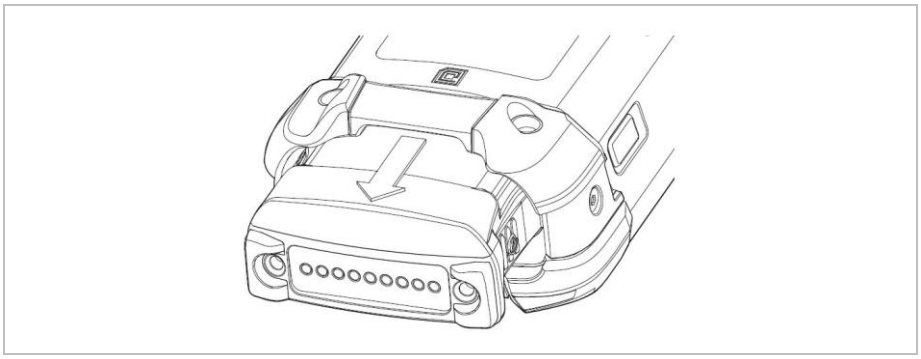
1. If the change does not take longer than 5 minutes, the battery can be changed during operation (hot swap). Otherwise switch off the Mobile Computer MC93ex-NI with function "Power Off".
2. The battery (type B7-A2Z0-0059) may only be inserted/changed outside the hazardous area.
3. Use only batteries which have been tested or certified by BARTEC for this purpose.
4. To remove the battery, first unlock the side battery lock.



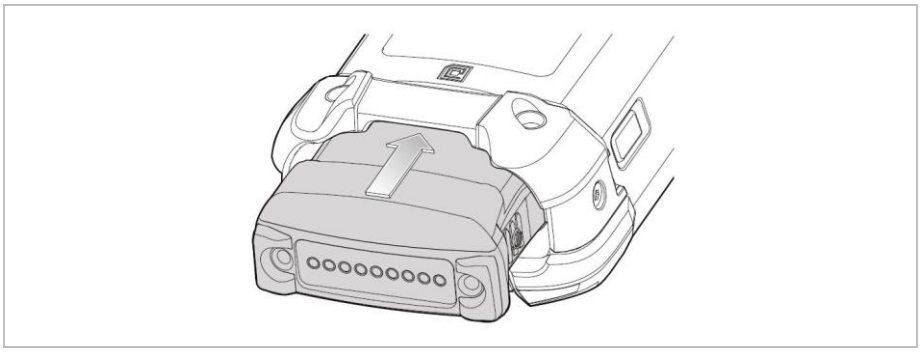
5. Then unlock the battery lock.



6. Remove the battery from the Mobile Computer.



7. Insert a new battery.



7.1.2 Change keypad

The Mobile Computer MC93ex–NI has interchangeable modular keypads.

DANGER

Non-certified accessories endanger explosion protection.
There is a risk of fatal injury in an explosive atmosphere!

- ▶ It must be ensured that only original keypads from BARTEC with green overlay are used in safety-oriented operation.
- ▶ The use of imitation keypads from other manufacturers will render the type of ignition protection ineffective and there will then be a risk of fire or explosion.

Only permitted outside the potentially explosive atmosphere:

- ▶ The keypad may only be changed outside the hazardous area!
- ▶ Follow proper ESD precautions to avoid damaging the Mobile Computer. Proper ESD precautions include, but are not limited to, working on an ESD mat and ensuring that the operator is property grounded.

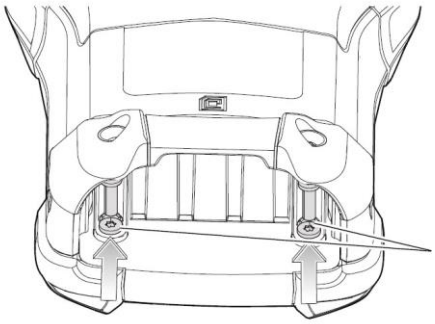
ATTENTION

Incorrect handling may cause damage to property!

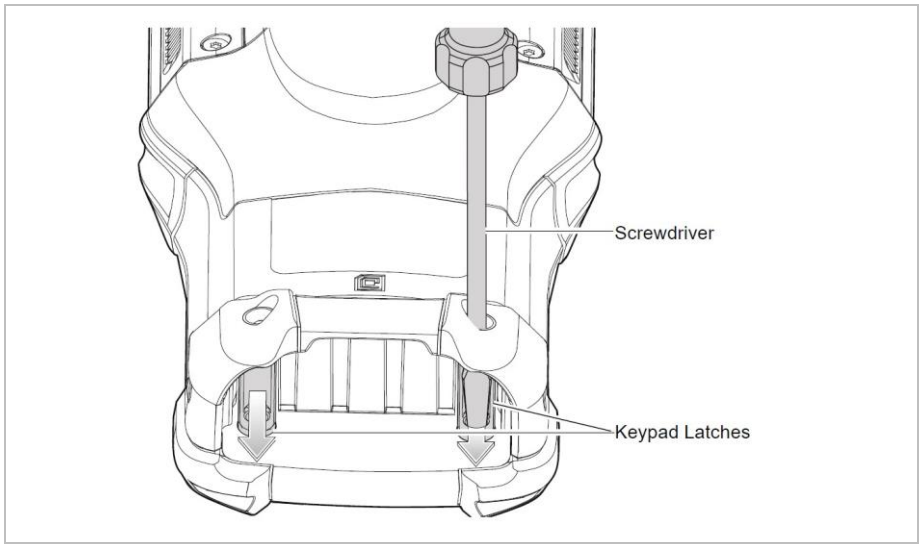
- ▶ Power off the Mobile Computer MC93ex-NI before start of change parts.
- ▶ Power off the Mobile Computer MC93ex-NI before removing the battery with the function "Power Off". Mistakes when removing the battery can result in data loss.

Work steps:

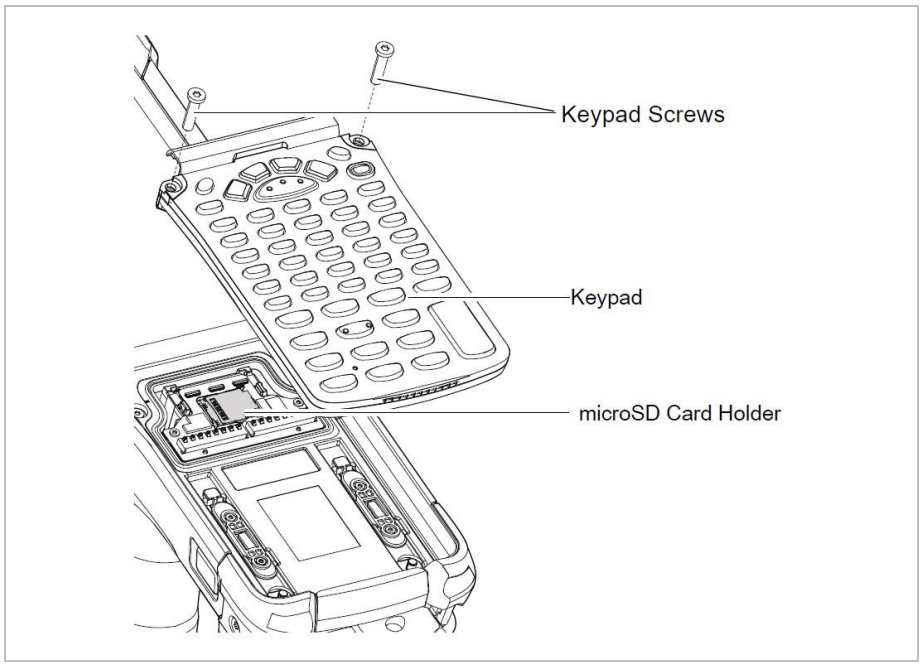
1. Turn off the Mobile Computer.
2. Remove the battery (see chapter "Insert/change battery").
3. Take out the keypad latch screws in the battery compartment.



4. Slide the keypad latches toward the bottom of the device.

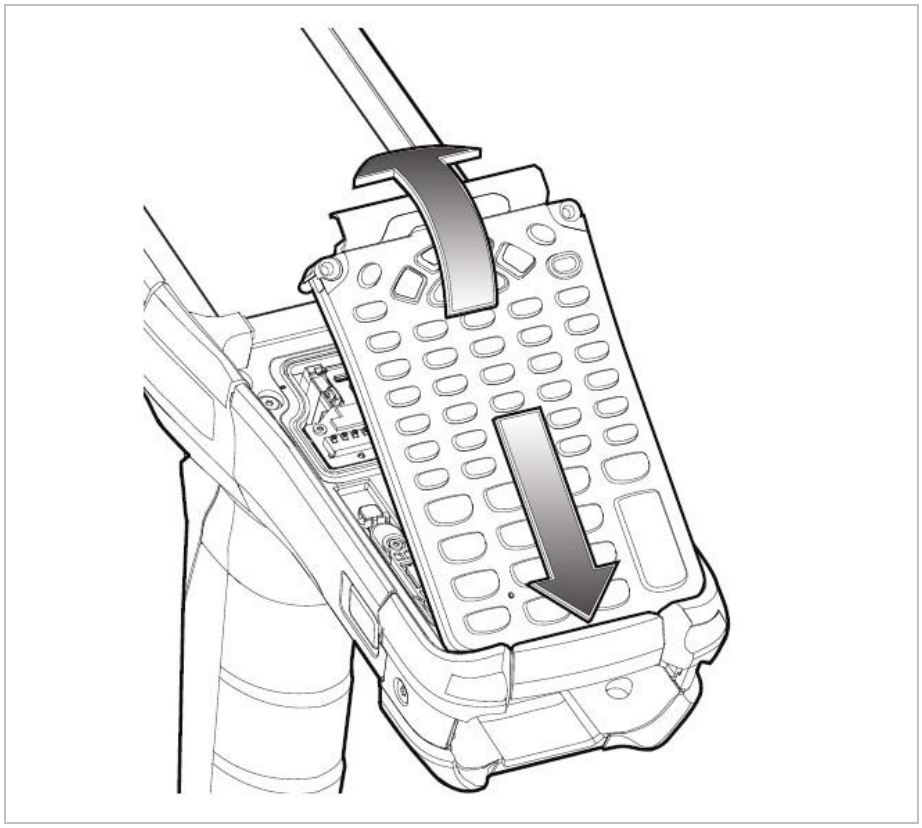


5. Turn the device over so that the keypad is visible.
6. Remove the two keypad assembly screws from the top of the keypad.

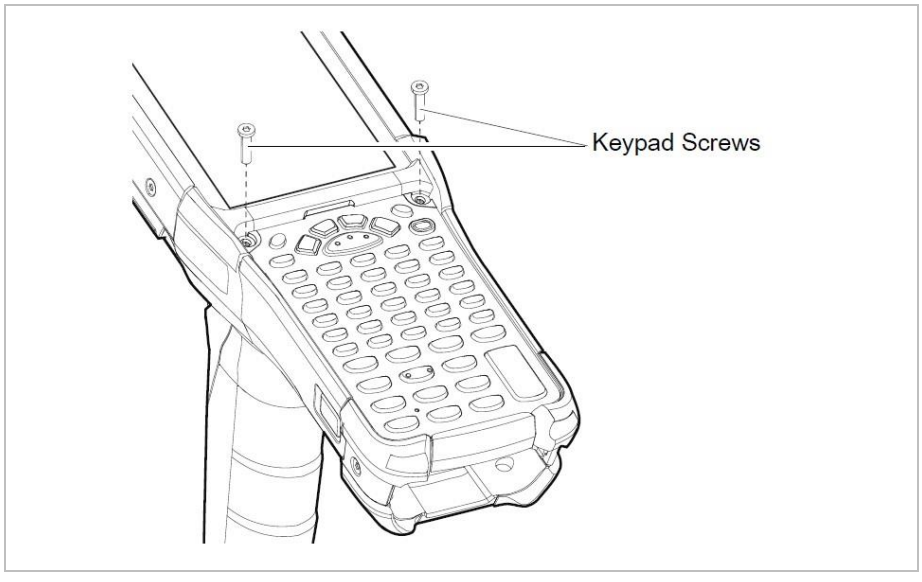


7. Lift the keypad from the Mobile Computer.

8. Take the new keypad and align it along the bottom ridge of the device, and then lay it flat.

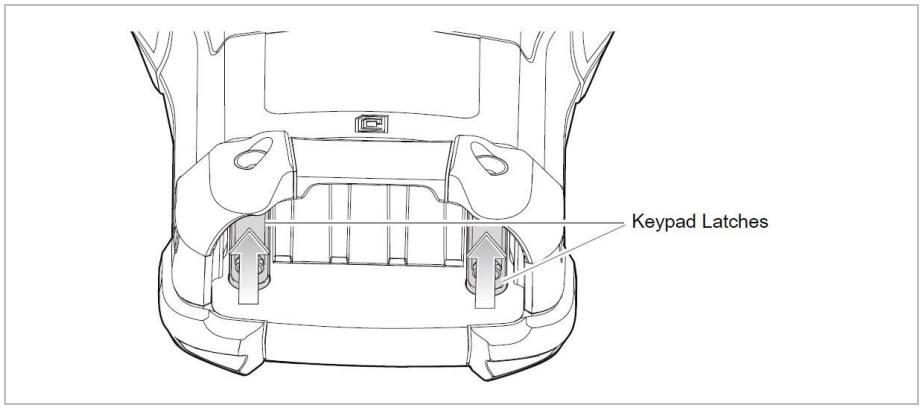


9. Secure the keypad to the device using the two screws.
(torque = 0.56 Nm / torque = 5.0 lbf in)

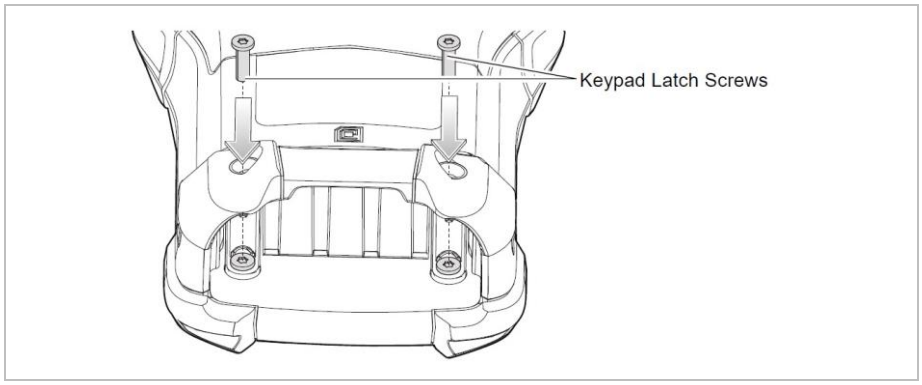


10. Turn the device over so that the keypad latches are visible.

11. Slide both the keypad latches toward the top of the device.



12. Replace the two keypad latch screws inside the battery slot.
(torque = 0.56 Nm / torque = 5.0 lbf in)



13. Insert the battery.
14. Press and hold the Power key to power on the device.

ATTENTION

Incorrect handling may cause damage to property!

▶ Do not apply more than 0.6 Nm or 5.3 lbf in of torque when tightening the keypad screws.

7.1.3 Insert microSD card

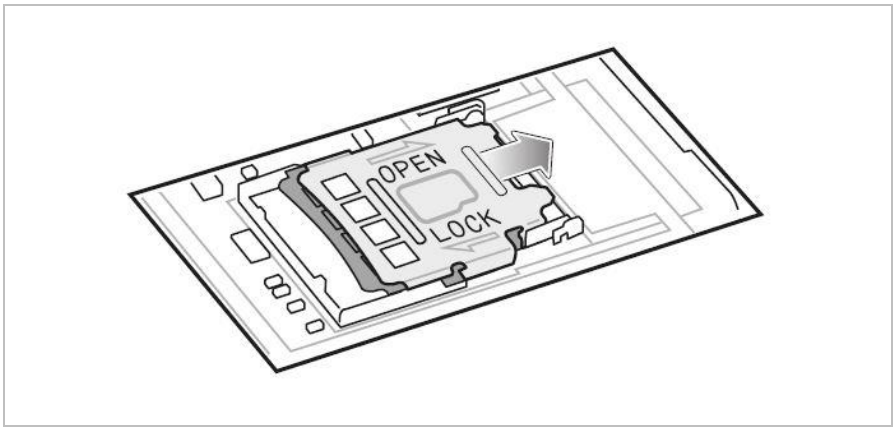
ATTENTION

Damage to the microSD card through electrostatic discharges!

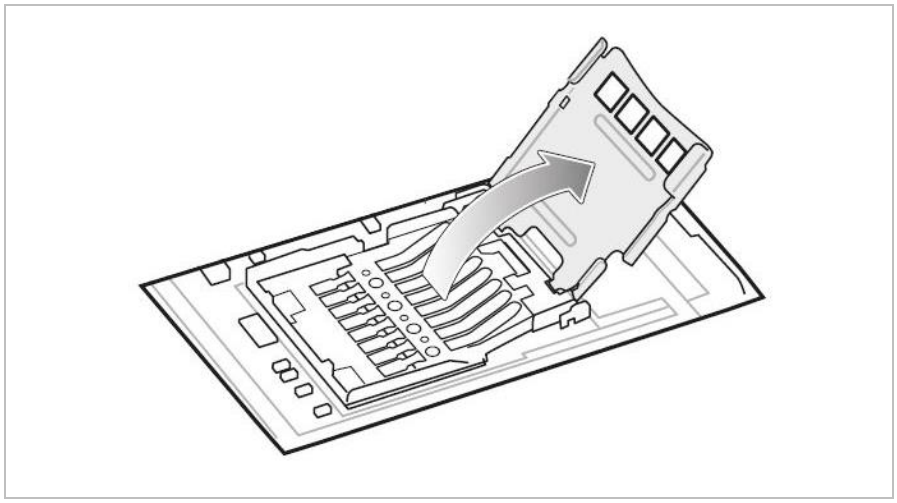
- ▶ Use an antistatic base.
- ▶ Ensure that the operator is correctly earthed.
- ▶ Use only specified microSD card:
  microSD card with 32 GB - Order number 17-A1Z0-0010

Work steps:

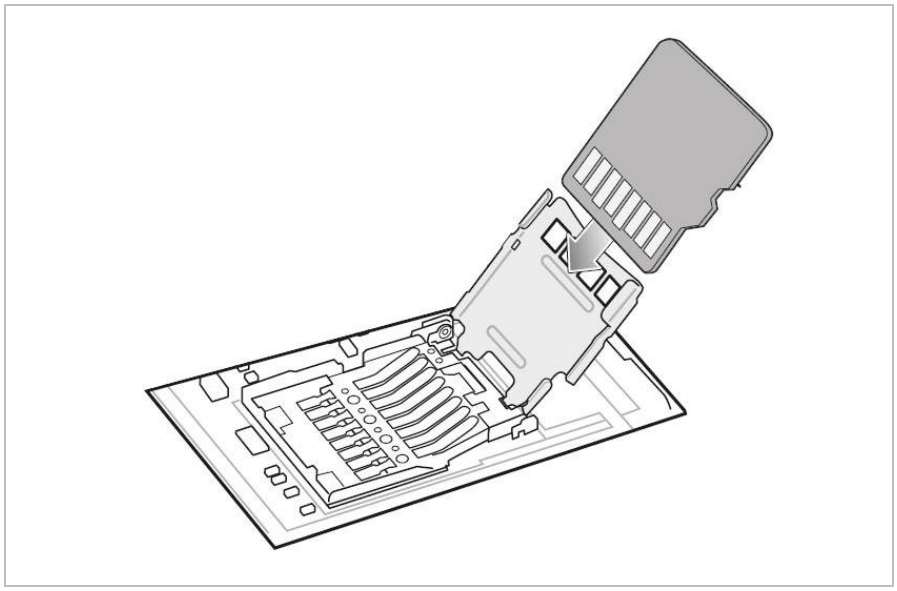
1. Only install or replace the microSD card outside the potentially explosive atmosphere.
2. Only use microSD cards which have been tested and specified by BARTEC for this purpose.
3. Press the red button "ON/OFF" to suspend the Mobile Computer.
4. Remove the battery (see chapter "Insert/change battery")
5. Remove the keypad screws and slide the keypad down and lift off (see chapter "Change keypad").
6. Slide the microSD card holder to the Open position.



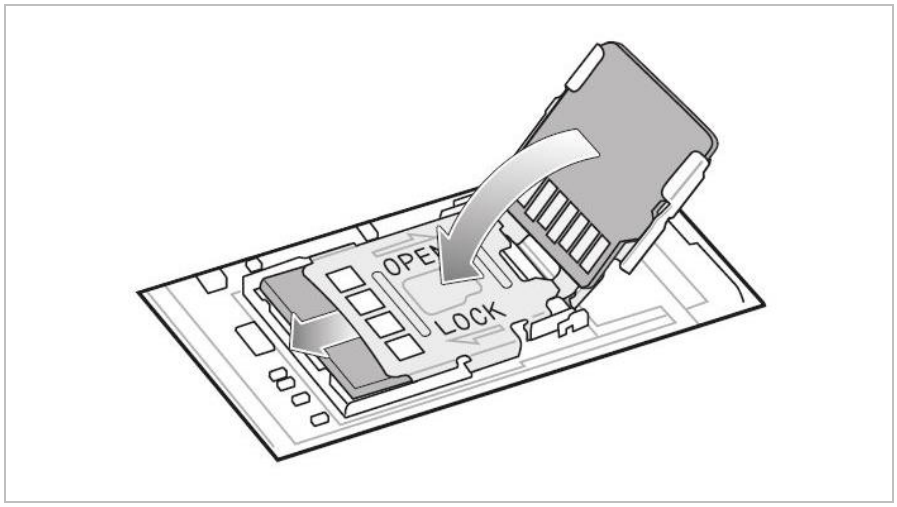
7. Lift the microSD card holder.



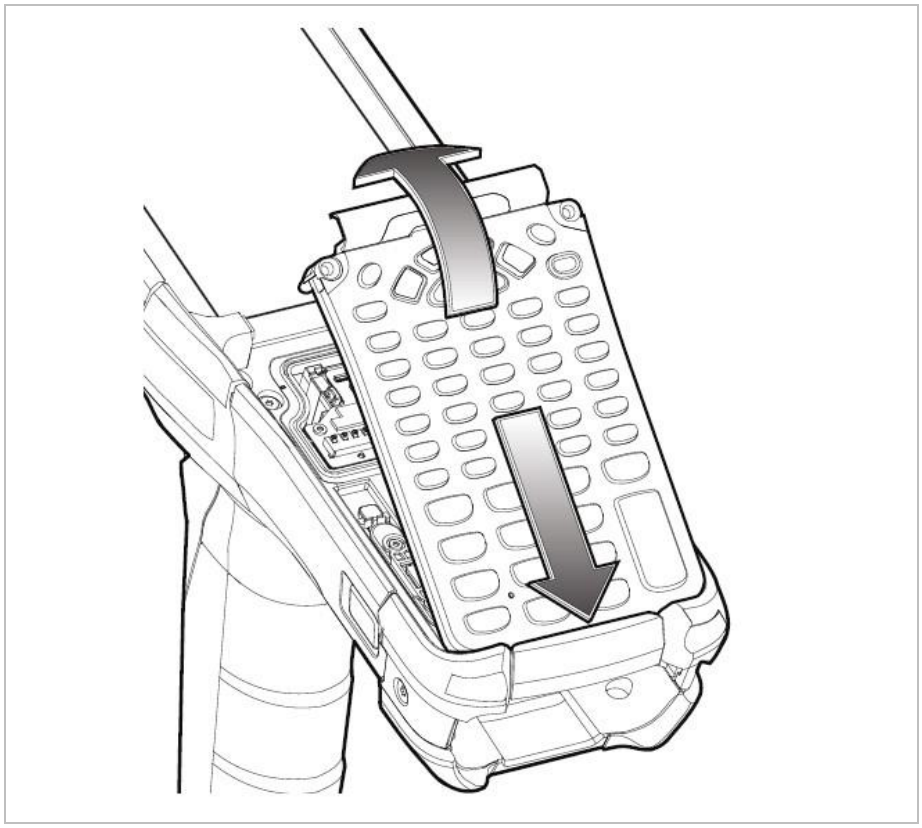
8. Insert the microSD card into the card holder door ensuring that the card slides into the holding tabs on each side of the door.



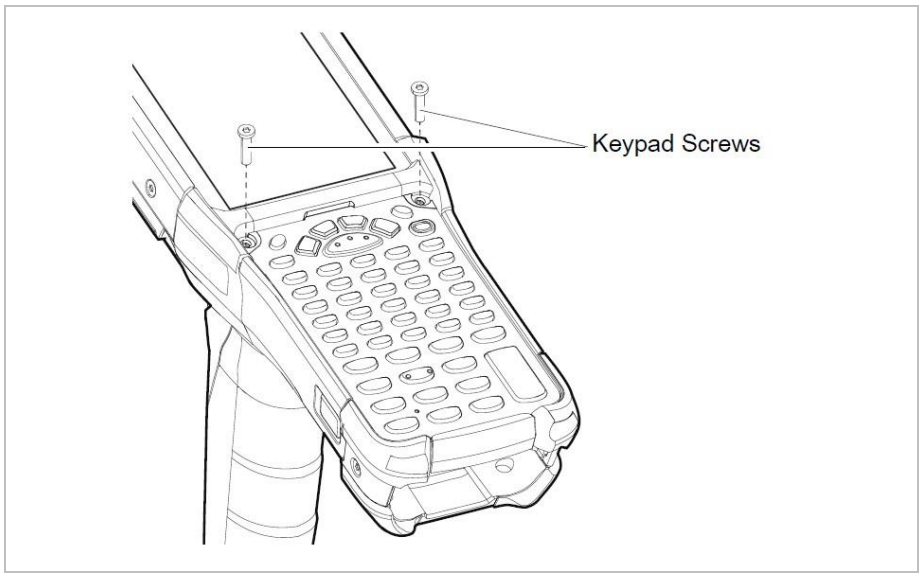
9. Close the microSD card holder door and slide the door to the Lock position.



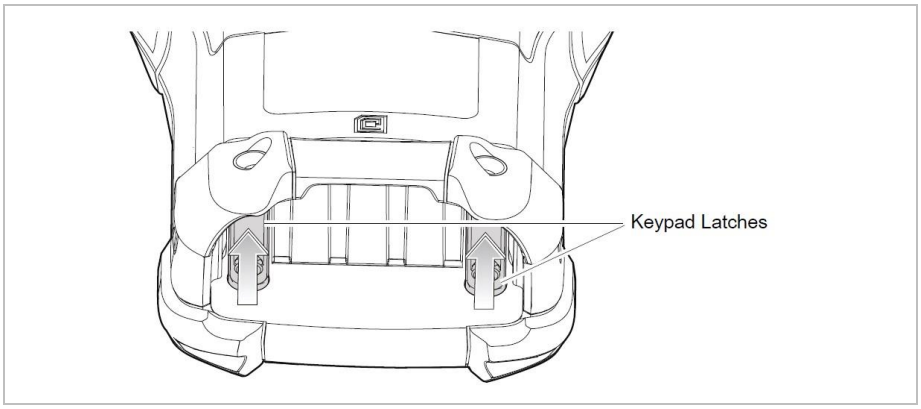
10. Take the keypad and align it along the bottom ridge of the device, and then lay it flat.



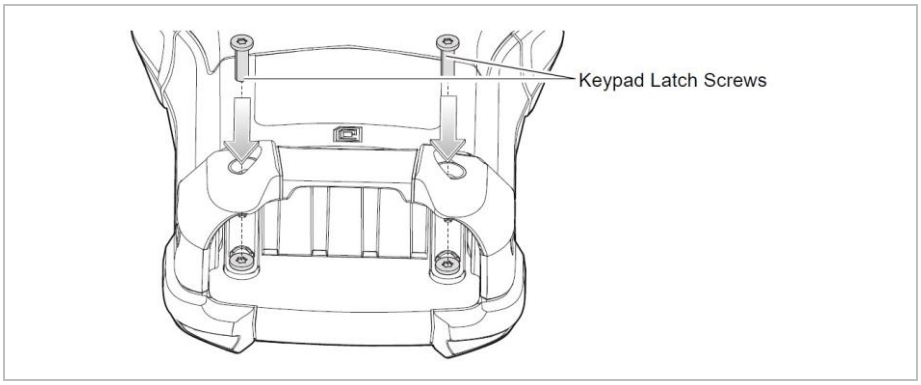
11. Secure the keypad to the device using the two screws.
(torque = 0.56 Nm / torque = 5.0 lbf in)



12. Turn the device over so that the keypad latches are visible.
13. Slide both keypad latches toward the top of the device.



14. Replace the two keypad latch screws inside the battery slot.
(torque = 0.56 Nm / torque = 5.0 lbf in)



15. Insert the battery.
16. Press and hold the Power key to power on the device.

ATTENTION

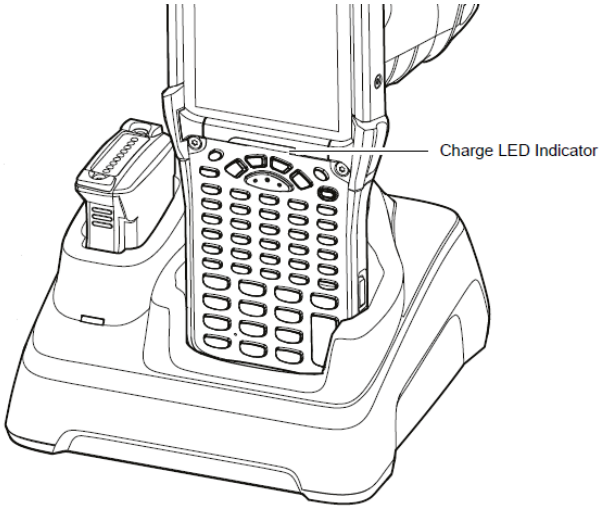
Incorrect handling may cause damage to property!

▶ Do not apply more than 0.6 Nm or 5.3 lbf in of torque when tightening the keypad screws.

7.1.4 Charging the main battery

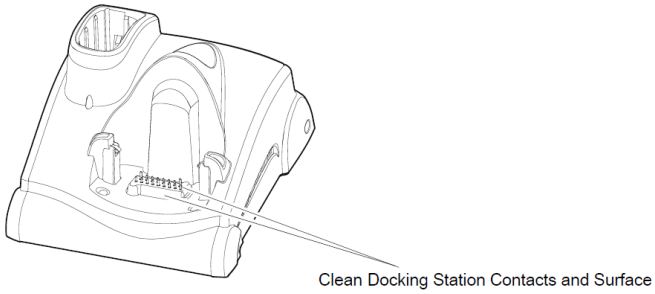
7.1.4.1 In Base station

1. Connect the Base station to the appropriate power source.
2. Insert the Mobile Computer into the Base station.
3. The Mobile Computer starts to charge automatically. The Charge LED Indicator indicates the charge status.



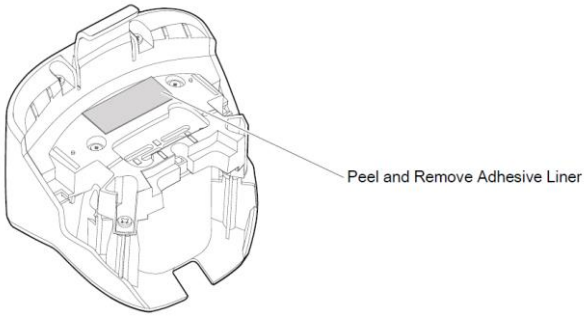
7.1.4.2 In Charging adapter for older Docking Station

1. Clean the contacts and surfaces of the Docking station with an alcohol wipe.

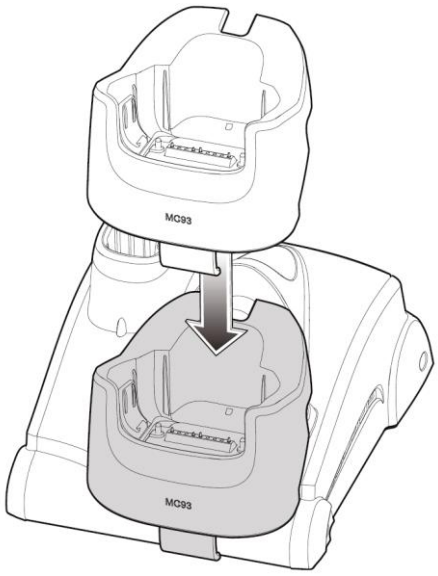


For more information about cleaning, refer to the MC93XX Mobile Computer User Guide at www.zebra.com.

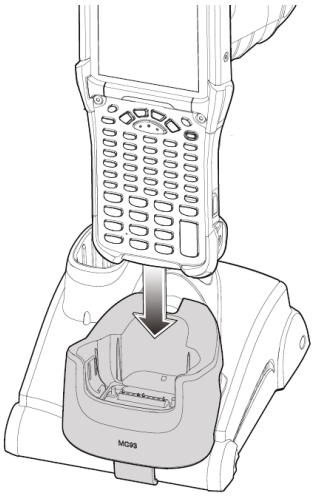
2. Peel and remove the adhesive liner from the back of the adapter.



3. Insert the adapter into the MC9XXX Docking station and adhere to the bottom of the Docking station.



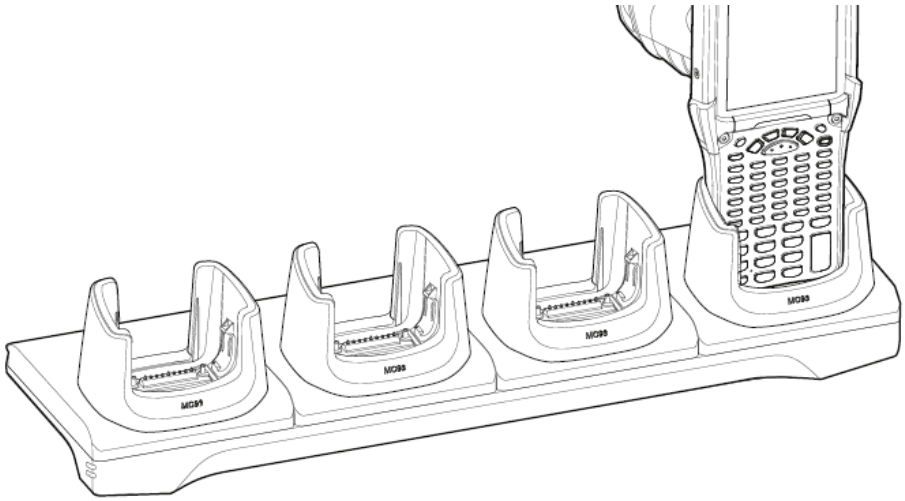
4. Insert the Mobile Computer into the Docking station.



5. Connect the Docking station to the appropriate power source.
6. The Mobile Computer starts to charge automatically. The Charge LED Indicator indicates the charge status.

7.1.4.3 In 4-slot Ethernet base station

1. Connect the Ethernet base station to the appropriate power source.
2. Insert up to 4 Mobile Computer into the Ethernet base station.
3. The Mobile Computer starts to charge automatically. The Charge LED Indicator indicates the charge status.



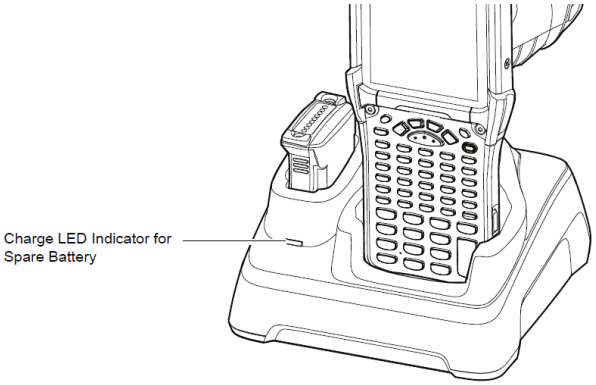
7.1.4.4 Charge LED Indicator

Status	Indications
Off	• The battery is not charging. • The Mobile Computer is not inserted correctly in the Base station/Docking station or connected to a power source. • Base station/Docking station is not powered.
Slow Blinking Amber Every 3 seconds	• Battery is charging, but the battery is fully depleted and does not yet have sufficient charge to power the device.
Solid Amber	Battery is charging.
Solid Green	Battery charging is complete.
Fast Blinking Red 2 blinks/second	Charging error. For example: • Temperature is too low or too high. • Charging has gone on too long without completion (typically eight hours).
Solid Red	• Battery is charging and battery is at the end of useful life. • Charging complete and battery is at the end of useful life.

7.1.5 Charging the spare battery

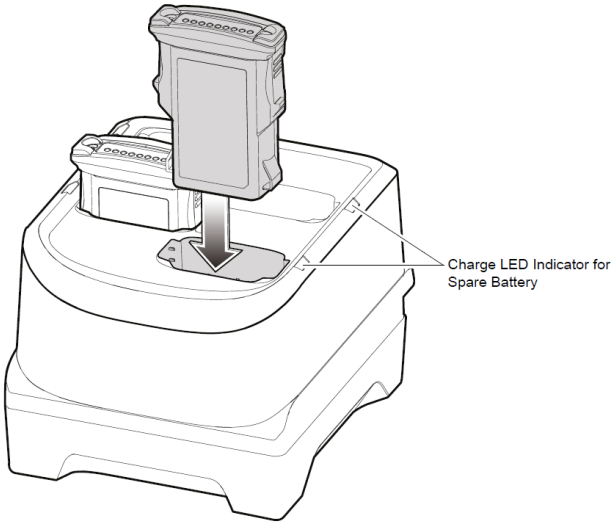
7.1.5.1 In Base station

1. Ensure that the Base station is connected to power.
2. Insert the spare battery into the charging well, small end first, onto the contact pins.
3. Gently press down on the battery to ensure proper contact.



7.1.5.2 In 4-slot battery charging station

1. Ensure that the battery charging station is connected to power.
2. Insert up to 4 spare batteries into the charging well, small end first, onto the contact pins.
3. Gently press down on the battery to ensure proper contact.



7.1.5.3 Charge LED Indicator

Status	Indications
Off	• The battery is not charging. • The battery is not inserted correctly in the Base station/Battery charging station. • Base station/Battery charging station is not powered.
Solid Amber	Battery is charging.
Solid Green	Battery charging is complete.
Fast Blinking Red 2 blinks/second	Charging error. For example: • Temperature is too low or too high. • Charging has gone on too long without completion (typically eight hours).
Solid Red	• Battery is charging and battery is at the end of useful life. • Charging complete and battery is at the end of useful life.

7.2 Scanning

1. Ensure that an application is open on the device and a text field is in focus (text cursor in text field).
2. Point the top of the device at a barcode.
3. Press and hold the Scan button or trigger.
   The red laser aiming pattern turns on to assist in aiming.
4. Ensure the barcode is within the area formed by the cross-hairs in the aiming pattern.
   The aiming dot is used for increased visibility in bright lighting conditions.
   The Scan LEDs light green and a beep sounds, by default, to indicate the barcode was decoded successfully.

8 Disposal

Mobile Computer and accessories contains metallic and plastic parts and electronic components.

WEEE registration number of the BARTEC GmbH:
DE 95940350

TAs professional electrical devices, our devices are intended exclusively for commercial use, so-called B2B devices, in accordance with the WEEE Directive. The WEEE Directive provides the framework for the treatment of old electrical equipment throughout Europe. This means that you may not dispose of these devices in usual household waste but must dispose of them separately in an environmentally compatible manner and can also bring them to the collection points of public disposal companies. All products purchased from us can be returned to us by our customers for disposal. We will ensure disposal in accordance with the applicable laws. The sender shall bear the costs of postage and packaging.

9 EU-Declaration of Conformity

EU Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de conformité

BARTEC

Nº B1-A2M0-7C0001

Wir	We	Nous
	BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim Germany	
erklären in alleiniger Verantwortung, dass das Produkt **MC93ex-NI**	declare under our sole responsibility that the product **MC93ex-NI**	attestons sous notre seule responsabilité que le produit **MC93ex-NI**
	Type B7-A2M*-**/****	
auf das sich diese Erklärung bezieht den Anforderungen der folgenden **Richtlinien (RL)** entspricht	to which this declaration relates is in accordance with the provision of the following **directives (D)**	se référant à cette attestation correspond aux dispositions des **directives (D)** suivantes
ATEX-Richtlinie 2014/34/EU	**ATEX-Directive 2014/34/EU**	**Directive ATEX 2014/34/UE**
EMV-Richtlinie 2014/30/EU	**EMC-Directive 2014/30/EU**	**Directive CEM 2014/30/UE**
RED-Richtlinie 2014/53/EU	**RED-Directive 2014/53/EU**	**Directive RED 2014/53/UE**
RoHS-Richtlinie 2011/65/EU	**RoHS-Directive 2011/65/EU**	**Directive RoHS 2011/65/UE**
WEEE-Richtlinie 2012/19/EU	**WEEE-Directive 2012/19/EU**	**Directive WEEE 2012/19/UE**
und mit folgenden Normen oder normativen Dokumenten übereinstimmt	and is in conformity with the following standards or other normative documents	et est conforme aux normes ou documents normatifs ci-dessous

EN IEC 60079-0: 2018
EN 60079-11: 2012
EN 60079-28: 2015
EN 300 328 V2.1.1
EN 301 893 V2.1.1
EN 300 330 V2.1.1
EN 50581:2012
EN IEC 63000:2018
EN 62311:2008
EN 60825-1:2014 (Laser)
EN 62471:2008 (LED)
EN 55032:2015/AC:2016 (Class B)
EN 55024:2010
EN 55024:2010/A1:2015
EN 55035:2017
EN 61000-3-2:2014 (Class A)
EN 61000-3-3:2013
EN 50665:2017
EN 50121-4:2016
EN 62479:2010
EN 50566:2017
EN 50364:2010
EN 50663:2017
Draft EN 301 489-1 V2.2.0, Draft EN 301 489-17 V3.2.0
Draft EN 301 489-1 V2.2.0, Final Draft EN 301 489-3 V2.1.1
EN 60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013/AC:2011
EN 50121-3-2:2016

Verfahren der internen Fertigungskontrolle	Procedure of internal control of production	Procédure de contrôle interne de fabrication
	EPS 19 ATEX 1 239 X **2004, Bureau Veritas CPS Germany GmbH, Businesspark A96, 86842 Türkheim**	

CE

Bad Mergentheim, 06.08.2020

i.V. Michael Krüger
VP Quality & Control

i.V. Cristian Olareanu
Team Leader Certification Center

FB-0172d

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EU Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de conformité

Nº B1-A2Z0-7C0007

BARTEC

Wir	We	Nous
	BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim Germany	
erklären in alleiniger Verantwortung, dass das Produkt **MC93ex-NI Batterie**	declare under our sole responsibility that the product **MC93ex-NI Battery**	attestons sous notre seule responsabilité que le produit **MC93ex-NI Batterie**
	Type B7-A2Z0-0059	
auf das sich diese Erklärung bezieht den Anforderungen der folgenden **Richtlinien (RL)** entspricht **ATEX-Richtlinie 2014/34/EU** **RoHS-Richtlinie 2011/65/EU** **WEEE-Richtlinie 2012/19/EU** und mit folgenden Normen oder normativen Dokumenten übereinstimmt	to which this declaration relates is in accordance with the provision of the following **directives (D)** **ATEX-Directive 2014/34/EU** **RoHS-Directive 2011/65/EU** **WEEE-Directive 2012/19/EU** and is in conformity with the following standards or other normative documents	se référant à cette attestation correspond aux dispositions des **directives (D)** suivantes **Directive ATEX 2014/34/UE** **Directive RoHS 2011/65/UE** **Directive WEEE 2012/19/UE** et est conforme aux normes ou documents normatifs ci-dessous
	EN IEC 60079-0:2018 **EN 60079-11:2012** **EN 62133:2012**	
Verfahren der internen Fertigungskontrolle	**Procedure of internal control of production**	**Procédure de contrôle interne de fabrication**
	EPS 19 ATEX 1 239 X **2004, Bureau Veritas CPS Germany GmbH, Businesspark A96, 86842 Türkheim**	

CE

Bad Mergentheim, 04.08.2020

i.V. Michael Krüger
VP Quality & Control

i.V. Cristian Olareanu
Team Leader Certification Center

FB-0172d

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info@bartec.com

bartec.com

B1-A2M0-7E0001/A-12/2023-EN-441389