BARTEC

User Manual - TRANSLATION

Mobile Computer

MC 92N0ex series

Type 17-A1A.-…./…….
Type B7-A2A.-…./…….

ATEX/IECEx Zone 1
ATEX/IECEx Zone 2 / 22
UL Class I, II, Division 1 and Class III
UL Class I, II, Division 2 and Class III

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Appendix: Declaration of Conformity

1. Basic Security Information

1.1 Information on this User Manual

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

The User Manual is directed at all individuals concerned with the assembly, installation, commissioning and servicing of the product. The applicable guidelines and standards for areas with gas and dust atmosphere (99/92/EC, EN 60079-17, EN 60079-19, IEC 60079-17, IEC 60079-19) must be observed when conducting this work.

Knowledge of the safety and warning information in this User Manual 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 figures in this User Manual serve to illustrate the information and descriptions. They are not necessarily completely transferrable and may differ slightly from the actual execution of the device.

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 user manual.

Safety and warning information is particularly emphasised in this User Manual 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.

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

ⓘ Important information on effective, economic & environmentally compliant handling.

1.1.1 Languages

The original User Manual is written in German. All other available languages are translations of the original User Manual.

The User Manual 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, the "General Terms and Conditions of Business" of the BARTEC Group also apply.

The current versions of the datasheets, operating instructions, certificates and EC declarations of conformity can be downloaded from **https://www.bartec.de/en/** under Products and Solutions in the product area "Automation & Enterprise Mobility"3 or on support&download page from **http://automation.bartec.de/indexE.htm** or may be requested directly from BARTEC GmbH.

1.2 Handling the product

The product described in this User Manual 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 MC 92N0ex is a handheld piece of electrical equipment. It serves the purpose of the mobile recording, processing and 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 Computers 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

1.5.1 General safety information

▶ Do not dry wipe or clean devices in potentially explosive atmospheres!

▶ Do not open devices 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. German Industrial Health and 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 99/92/EC, Directive 94/9/EC, BetrSichV and nationally applicable ordinances EN 60079-14, 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 user manual and environmental conditions. See Chapter "Service, inspection, repair" in this respect.

1.6.2 Inspection

According to EN 60079-17, IEC 60079-17, EN 60079-19 and 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.

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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. The applicable provisions must be observed in this respect.

1.6.4   Commissioning

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

1.7   Protection type, test certificate and standards

Labels on explosion protection and the test certificate are attached to the device. See Chapter 3 "Technical data" with respect to labelling.

The guidelines and standards applicable to the Mobile Computer for devices and protected systems for intended use in potentially explosive atmospheres are provided in Chapter 3 "Technical data".

1.8   Warranty

> ⚠ **WARNING**
>
> **No changes or conversions may be made without the manufacturer's written consent.**
>
> If components other than those specified are used, explosion protection will no longer be assured. It cannot be guaranteed that parts procured from other suppliers have been designed and manufactured in conformance to safety requirements and with the necessary stress tolerance.
>
> ▶ Contact the manufacturer and obtain his approval before performing any changes or retrofits. Use only original spare and expendable parts.

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

Our "General Terms and Conditions of Sale and Delivery" 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 Computers.

– Incorrect assembly, commissioning, operation and servicing.

– Failure to observe the information in the User Manual with respect to transport, storage, assembly, installation, 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.

We grant a warranty period of one year starting from the date of delivery from the Bad Mergentheim factory on the Mobile Computers and their accessories (exception: battery 6 months). 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. There shall be no claim to repair at the sight of erection.

The versions, components, monitors and windows shown in this User Manual are merely examples and may deviate from the actual display.

The information contained herein refers to the explosion-protected version of series MC 92N0ex.

This User Manual contains all important information on the subject of explosion protection. The original user manuals and product information of ZEBRA with information on handling and commissioning are also available. In the case of overlaps, the information in this User Manual shall take priority and shall supersede the information from ZEBRA.

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1.9 Co-applicable documents – Set of documents

BARTEC

− User Manual to the Mobile Computer series MC 92N0ex – The use of the explosion-protected version of the Mobile Computer series MC 92N0ex is described in this User Manual.

− Technical datasheet for the explosion-protected version of the Mobile Computer series MC 92N0ex – This technical datasheet contains the most important explosion-relevant technical data as well as general technical data.

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The set of documentation of the MC9200 contains information on the respective user requirements and covers the following:

− Quick Start Guide for the MC9200 – The commissioning of the Mobile Computer MC9200 is described in this User Manual.

− User Manual for the MC92N0 – The functional use of the Mobile Computer MC MC9200 is described in this User Manual.

− Integration Manual for the MC9200 – The setting up of the Mobile Computer MC9200 including accessories is described in this User Manual.

1.10 Definitions

Some abbreviations are used in the documentation.

IS =   Intrinsically Safe / Intrinsic Safety   =>
is used as an umbrella term for Zone 1 and Division 1 versions

NI =   Non-Incendive / non-sparking   =>
is used as an umbrella term for Zone 2 and Division 2 versions

MC 92N0ex =   Stands for the entire explosion-proof product series.

1.11 Configuration

This Manual refers to the following configurations:

Configuration	Version
Wireless	▪ WLAN:
	WIN CE/WEH: 802.11 a/b/g/n/d/h/i
	Android: 802.11 a/b/g/n/d/h/i/k/r
	▪ WPAN:
	WIN CE/WEH:
	Microsoft-Stack: Bluetooth 2.1 EDR
	Stonestreet-Stack: Bluetooth 4.0 plus BLE or WBA
	Android: Bluetooth 4.0 BLE
Optional RFID options	RFID-LF 125 kHz / 134 kHz
	(Low Frequency)
	RFID-HF 13,56 MHz
	(High Frequency)
	RFID-UHF (EU) 865,6 to 867,5 MHZ
	(Ultra High Frequency)
	RFID-UHF (US) 902 to 928 MHz
	(Ultra High Frequency)
Display	VGA Color Display (3.7")
Memory	1 GB RAM / 2 GB Flash Memory
Scanner options	1D-Laser Scanner Normal Range
	1D-Laser Scanner Long Range
	1D-/2D-Imager
	1D-/2D-Imager Middle Range (only NI-version)
	1D-/2D-Long Range Imager (only NI-version)
	1D-/2D-Imager DPM (Direct Part Marking)
Operating system options	Windows WEH 6.5.3
	Windows CE 7.0
	Android 4.4.4
Keypad options	28 Keypad (Numeric keys can be used direct, Alpha keys and other key functions can be used via function keys)
	43 Keypad (Numeric- and function keys can be used direct, alpha keys and other key functions can be used via function keys)
	53 Keypad (Numeric- and alpha keys cen be used direct, other key functions can be used via function keys)
	53 Keypad with layout for VT Emulation

ⓘ The Emulation software is not part of the device.

Other specific information on the keypad is provided under Technical Data or in the ZEBRA documentation.

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2. Product Description

2.1 Definition MC 92N0ex-IS Version

The **MC 92N0ex-IS Mobile Computer** is a robust mobile computer designed for industrial use and has been specially modified by BARTEC for use in hazardous (potentially explosive) areas in

– **ATEX/IECEx Zone 1**
– **UL Class I, II Division 1 and Class III**

This means that the extensive communication and data acquisition options which are already standard in other areas are available to the user in hazardous areas also.

Its ergonomic design and easy operation make it an ideal support in the attainment of fast data availability in enterprise processes. Various versions of keypad are available for manual data capture.

Other data capture options are provided by the integrated 1D or 1D/2D scan engine for capturing barcodes and various optional RFID readers.

The ergonomically mounted scan triggers on the MC 92N0ex-IS allow data to be captured easily in one-hand operation. Several technologies are available for data communication with other systems and company divisions.

– Wireless LAN (WLAN),
– Wireless PAN (WPAN) (Bluetooth)
– Ethernet or USB connection through docking station

These modules, which are integrated in the device, allow a seamless transmission of voice and data into the company's network.

Other advantages in use are its sturdy construction, easy-to-read 3.7" VGA colour display with touch technology and highly efficient lithium-ion battery.

A 1 GHz dual-core processor in the MC 92N0**ex**-IS ensures fast process execution. Easy application development is facilitated by the operating systems, Microsoft Windows WEH 6.5.3, CE 7.0 and Android 4.4.4 in conjunction with the Enterprise Mobility Developer Kits (EMDK) or the additional Mobility DNA solutions from ZEBRA.

1 GB RAM and 2 GB flash memory are integrated in the device for storing user-defined applications and data. For larger applications and volumes of data, BARTEC offers SD memory cards.

2.2   Definition MC 92N0**ex**-NI Version

The **MC 92N0ex-NI Mobile Computer** is a robust mobile computer designed for industrial use and has been specially modified by BARTEC for use in hazardous (potentially explosive) areas in

- **ATEX/IECEx Zone 2 / 22**
- **UL Class I, II Division 2 and Class III**

This means that the extensive communication and data acquisition options which are already standard in other areas are available to the user in hazardous areas also.

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Its ergonomic design and easy operation make it an ideal support in the attainment of fast data availability in enterprise processes. Various versions of keypad are available for manual data capture.

Other data capture options are provided by the integrated 1D or 1D/2D scan engine for capturing barcodes and various optional RFID readers.

The ergonomically mounted scan triggers on the MC 92N0ex-NI allow data to be captured easily in one-hand operation. Several technologies are available for data communication with other systems and company divisions.

- Wireless LAN (WLAN),
- Wireless PAN (WPAN) (Bluetooth)
- Ethernet or USB connection through docking station

These modules, which are integrated in the device, allow a seamless transmission of voice and data into the company's network.

Other advantages in use are its sturdy construction, easy-to-read 3.7" VGA colour display with touch technology and highly efficient lithium-ion battery.

A 1 GHz dual-core processor in the MC 92N0ex-IS ensures fast process execution. Easy application development is facilitated by the operating systems, Microsoft Windows WEH 6.5.3, CE 7.0 and Android 4.4.4 in conjunction with the Enterprise Mobility Developer Kits (EMDK) or the additional Mobility DNA solutions from ZEBRA.

1 GB RAM and 2 GB flash memory are integrated in the device for storing user-defined applications and data. For larger applications and volumes of data, BARTEC offers SD memory cards.

3. Technical Data

3.1 Explosion protection IS

ATEX Zone 1		
Type	17-A1A3-0…/S……. 17-A1A3-R..1/S……. 17-A1A3-R..3/S……. 17-A1A3-R..A/S……. 17-A1A3-R..B/S…….	MC 92N0ex-IS MC 92N0ex-IS RFID
Ex protection		⟨Ex⟩ II 2G Ex q [ib] IIC T4 Gb
Type	17-A1A3-R..C/S……. 17-A1A3-R..D/S…….	MC 92N0ex-IS RFID
Ex protection		⟨Ex⟩ II 2G Ex q [ib] IIB T4 Gb
Certificate		PTB 13 ATEX 2019 X
Standards		EN 60079-0:2012 EN 60079-5:2007 EN 60079-11:2012
IECEx Zone 1		
Type	17-A1A3-0…/S……. 17-A1A3-R..1/S……. 17-A1A3-R..3/S……. 17-A1A3-R..A/S……. 17-A1A3-R..B/S…….	MC 92N0ex-IS MC 92N0ex-IS RFID
Ex protection		Ex q [ib] IIC T4 Gb
Type	17-A1A3-R..C/S……. 17-A1A3-R..D/S…….	MC 92N0ex-IS RFID
Ex protection		Ex q [ib] IIB T4 Gb
Certificate		IECEx PTB 13.0043X
Standards		IEC 60079-0:2011 Edition 6 IEC 60079-5:2007 Edition 3 IEC 60079-11:2011 Edition 6
ATEX and IECEx Directives		ATEX 2014/34/EU EMV 2014/30/EU RED 2014/53/EU RoHS 2011/65/EU
Product labelling		CE 0044

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UL Class I, II, III Division 1		
Type	17-A1A2-0…/S……. 17-A1A2-R…/S…….	MC 92N0ex-IS MC 92N0ex-IS RFID
Ex protection		Class I Division 1 Groups C and D Class II Division 1 Groups F and G Class III
Certificate USA and Canada		E226123
Standards		USA Standard UL 913, 5 Edition. National Standard of Canada C22.2 No. 157-92

3.2   Explosion protection NI

ATEX Zone 2/22		
Type	B7-A2A.-0.A0/S……. B7-A2A.-0.J0/S……. B7-A2A.-0.30/S……. B7-A2A.-0.50/S……. B7-A2A.-0.90/S…….	MC 92N0ex-NI
Ex protection		⟨Ex⟩ II 3G Ex ic IIC T6 Gc ⟨Ex⟩ II 3D Ex ic IIIB T80°C Dc IP64 -20 °C ≤ Ta ≤ +50 °C
Type	B7-A2A.-0.L0/S……. B7-A2A.-0.M0/S……. B7-A2A.-R..1/S……. B7-A2A.-R..3/S……. B7-A2A.-R..A/S……. B7-A2A.-R..B/S…….	MC 92N0ex-NI MC 92N0ex-NI RFID
Ex protection		⟨Ex⟩ II 3G Ex ic IIC T4 Gc ⟨Ex⟩ II 3D Ex ic IIIB T80°C Dc IP64 -20 °C ≤ Ta ≤ +50 °C
Typ	B7-A2A.-R..C/S……. B7-A2A.-R..D/S…….	MC 92N0ex-NI RFID
Kennzeichnung		⟨Ex⟩ II 3G Ex ic IIB T4 Gc ⟨Ex⟩ II 3D Ex ic IIIB T80°C Dc IP64 -20 °C ≤ Ta ≤ +50 °C
Certificate		EPS 14 ATEX 1 782 X
Standards		EN 60079-0: 2012 + A11:2013 EN 60079-11:2012

IECEx Zone 2/22		
Type	B7-A2A.-0.A0/S……. B7-A2A.-0.J0/S……. B7-A2A.-0.30/S……. B7-A2A.-0.50/S……. B7-A2A.-0.90/S…….	MC 92N0ex-NI
Ex protection		Ex ic IIC T6 Gc Ex ic IIIB T80°C Dc IP64
Type	B7-A2A.-0.L0/S……. B7-A2A.-0.M0/S……. B7-A2A.-R..1/S……. B7-A2A.-R..3/S……. B7-A2A.-R..A/S……. B7-A2A.-R..B/S…….	MC 92N0ex-NI MC 92N0ex-NI RFID
Ex protection		Ex ic IIC T4 Gc Ex ic IIIB T80°C Dc IP64
Typ	B7-A2A.-R..C/S……. B7-A2A.-R..D/S…….	MC 92N0ex-NI RFID
Kennzeichnung		Ex ic IIB T4 Gc Ex ic IIIB T80°C Dc IP64
Certificate		IECEx EPS 14.0100X
Standards		IEC 60079-0:2011 IEC 60079-11:2011
ATEX and IECEx Directives		ATEX 94/9/EG EMV 2004/108/EG R&TTE 1999/5/EG RoHS 2002/95/EG
Product labelling		CE

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UL Class I, II, III Division 2		
Type	B7-A2A4-0…/S…….	MC 92N0ex-NI
	B7-A2A4-R…/S…….	MC 92N0ex-NI RFID
Ex protection		Class I Division 2 Groups A, B, C and D
		Class II Division 2 Groups F and G
		Class III
Certificate USA and Canada		E321557
Standards		ANSI/ISA 12.12.01, UL 60950,
		Canada National Standard
		CSA C22.2 Nr. 213-M1987
		CAN/CSA C22.2 Nr. 157-92

3.3   Other applicable standards

See chapter: EU EU Certificate of Conformity

3.4 Features

3.4.1 Performance features

CPU	Dual-Core 1 GHz OMAP 4430-Processor
Operating system	Windows Embedded Handheld WEH 6.5.3 or Windows Embedded Compact 7 (CE 7.0) or Android 4.4.4
Memory	1 GB RAM; 2 GB Flash
Extension slot	SD card slot with SDHC support (up to 32 GB) Optionally extendable with SD card: 2 GB Order number 17-28BE-F006/0003 4 GB Order number 17-28BE-F006/0004 8 GB Order number 17-28BE-F006/0005 16 GB Order number 17-28BE-F006/0006 32 GB Order number 17-28BE-F006/0007
Interfaces	RS232 USB

3.4.2 Physical features

Dimensions:	Height x width x depth	
MC 92N0ex-G:	231 x 91 x 193 mm	9.1 x 3.6 x 7.6 inch
MC 92N0ex-G with internal RFID:	231 x 91 x 193 mm	9.1 x 3.6 x 7.6 inch
MC 92N0ex-G with internal RFID		
+ external antenna:	273 x 111 x 193 mm	10.7 x 4.4 x 7.6 inch
Dimensions	Height x width x depth	
MC 92N0ex-K:	231 x 91 x 56 mm	9.1 x 3.6 x 2.3 inch
MC 92N0ex-K with internal RFID:	231 x 91 x 56 mm	9.1 x 3.6 x 2.3 inch
MC 92N0ex-KG with internal RFID		
+ external antenna:	254 x 111 x 117 mm	10 x 4.4 x 4.6 inch

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Weight	Depends on version and configuration	
ATEX/IECEx		
(including battery)		
MC 92N0ex-G:	ca. 1060 g	approx. 37 oz
MC 92N0ex-G with internal RFID:	ca. 1060 g	approx. 37 oz
MC 92N0ex-G with internal RFID		
+ external antenna**:**	ca. 1140 g	approx. 40 oz
MC 92N0ex-K:	ca. 980 g	approx. 35 oz
MC 92N0ex-K with internal RFID:	ca. 980 g	approx. 35 oz
MC 92N0ex-K with internal RFID		
+ external antenna**:**	ca. 1060 g	approx. 37 oz
UL Division 1		
(including battery)		
MC 92N0ex-G:	ca. 830 g	approx. 29 oz
MC 92N0ex-G with internal RFID:	ca. 830 g	approx. 29 oz
MC 92N0ex-G with internal RFID		
+ external antenna**:**	ca. 910 g	approx. 32 oz
MC 92N0ex-K:	ca. 700 g	approx. 25 oz
MC 92N0ex-K with internal RFID:	ca. 700 g	approx. 25 oz
MC 92N0ex-K with internal RFID		
+ external antenna**:**	ca. 780 g	approx. 28 oz
UL Div 2 und ATEX Zone 2/22		
(including battery)		
MC 92N0ex-G:	ca. 780 g	approx. 28 oz
MC 92N0ex-G with internal RFID:	ca. 780 g	approx. 28 oz
MC 92N0ex-G with internal RFID		
+ external antenna**:**	ca. 830 g	approx. 30 oz
MC 92N0ex-K:	ca. 640 g	approx. 23 oz
MC 92N0ex-K with internal RFID:	ca. 640 g	approx. 23 oz
MC 92N0ex-K with internal RFID		
+ external antenna**:**	ca. 690 g	approx. 25 oz

Display	3,7"-VGA- colour display
VGA mode:	480 x 640 pixel (width x height)
QVGA mode:	240 x 320 pixel (width x height) (Windows CE only)
Touchscreen	Analogue-resistive touchscreen
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
Keypad versions	– 28 Keypad (Numeric keys can be used direct, Alpha keys and other key functions can be used via function keys) – 43 Keypad (Numeric- and Function keys can be used direct, Alpha keys and other key functions can be used via function keys) – 53 Keypad (Numeric- and Alpha keys can be used directly, other key functions can be used via function keys) – 53 Keypad with layout for VT Emulation

Numeric keypad	Numeric keypad with (F) function keys	Alpha numeric keypad	Alpha numeric keypad with printing for VT emulation
28 keys	43 keys	53 keys	53 keys
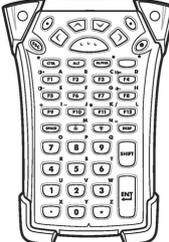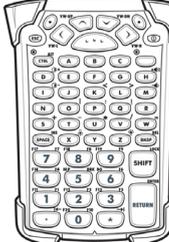
No emulation software is installed on the Mobile Computers with the emulation key version. The customer must order the emulation software separately from ZEBRA and its distributors and install it himself.

The devices are modified to suit the selected keypad version. The end user can replace the keypad later himself.

When replacing the keyboard, follow the instructions in this manual.

3.4.3 User environment

Operating temperature **only IS Version**	Type 17-A1A.-… -20 °C to +40 °C -4 °F to +104 °F
Operating temperature **only NI Version**	Type B7-A2A.-… -20 °C to +50 °C -4 °F to +122 °F
Operating temperature **during charging**	0 °C to +40 °C +32 °F to +104 °F
Storage temperature **(without battery)**	-40 °C to +70 °C -40 °F to +158 °F
Air humidity	5 % to 95 % (non-condensing)
Class of protection **(EN 60529)** **only IS Version**	IP 54 Type 17-A1A3-… (ATEX/IECEx Zone 1)
Class of protection **(EN 60529)** **only IS Version** **only NI Version**	IP 64 Type 17-A1A2-…. (UL Division 1) Type B7-A2A.-… (ATEX/IECEx Zone 2/22)

3.4.4 Application development

Software:	
No functional changes were made to the device because of the explosion protection. All tools and applications available from Zebra for the MC9200 are compatible with the MC92N0ex version.	
E.g. applications for:	
- Communication and message exchange	
- additional Mobility DNA solutions from Zebra (Enterprise Keyboard, Stage Now, Enterprise Browser, Enterprise Start Screen, SimulScan, and more)	
Software Development :	
PSDK (Platform Software Development Kit) and EMDK (Enterprise Mobility Developer Kit) is available via the ZEBRA Solutions Website.	
Available for	− C − .Net − Xamarin − MC9200 Platform SDK (PSDK) − others
Browser support:	
Enterprise Browser from ZEBRA for application development.	
Mobility DNA Solutions from Zebra	
Further applications are available from ZEBRA, e.g.	**CtLPanelWM** − for the processing of device settings. **Application Launcher** − for the classification of applications in categories and access regulation for individual applications or operating system. **Data Wedge** − Barcodes in applications can be read such as Excel or Word using. **Enterprise Home Screen for Android** − Provides administrators with an easy way to control access to apps and settings on a Zebra device without writing custom code. **others** − See the Zebra Support page for the MC9200: https://www.zebra.com/us/en/support-downloads/mobile-computers/handheld/mc9200.html

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RFID	As software for individual application development, BARTEC offers a demo version in Open Source and an SDK file. The SDK file is available for the C# programming language and contains all necessary resources for specific application development under Windows® operating systems. The open source demo serves to demonstrate the reading and writing of RFID tags. On the other hand, it provides the application developer with a good basis for customer-specific programming of the readers.
	− SDK is available for C#
	− The SDK was created in Visual Studio 2008.
	− Includes all necessary drivers and DLL files for implementation.
	− A RFID demo available in open source to show how to implement the RFID reader in an application.
	Note:
	The BARTEC RFID solution is not compatible with RFID solutions from Zebra.

3.4.5 Voice and data transmission Wireless LAN

WLAN radio module	
Radio standard	Android: IEEE 802.11 a/b/g/n/d/h/i/k/r WinCE/WEH: IEEE 802.11 a/b/g/n/d/h/i Note: IEEE802.11 a is not available in Thailand
Output power	100 mW (USA and International)
Data rate	IEEE802.11a: up to 54 Mbit/sec. IEEE802.11b: up to 11 Mbit/sec. IEEE802.11g: up to 54 Mbit/sec. IEEE802.11n: up to 72,2 Mbit/sec.
Frequency range (country-dependent)	IEEE802.11a: 5 GHz IEEE802.11b: 2.4 GHz IEEE802.11g: 2.4 GHz IEEE802.11n: 2.4 GHz and 5 GHz

Operating channels
           IEEE802.11a
           IEEE802.11b/g
	Channel 8 - 165 5040 MHz - 5825 MHz
	Channel 1 – 13 2412 MHz - 2472 MHz
	Channel 14 2484 MHz Japan only
	The actual operating channels and frequencies are subject to the applicable rules and the certification authorities

Safety	WPA2 Enterprise, 802.1x; EAP-TLS; TTLS (CHAP, MS-CHAP, MS-CHAPv2, PAP or MD5); PEAP (TLS, MSCHAPv2, EAP-GTC); LEAP, EAP-FAST (TLS, MS-CHAPv2, EAP-GTC), WPA2/AES, CCX v4, FIPS 140-2 conform and IPv6
Language support	Voice over IP Voice directed picking Tech Speech Pro approved voice-enabled applications over third-party VDP clients (Windows operating system only) Push-to-talk, workforce connect PTT express (client included) with headset and handsfree, wired headset support
Antenna	internal

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3.4.6 Voice and data transmission Wireless PAN

Bluetooth	Windows operating system: Microsoft stack: (preinstalled by default) Bluetooth Version 2.1 with EDR Stonestreet stack (can be optionally activated) Bluetooth 4.0 Plus BLE or WBA Android operating system: Bluetooth version 4.0 with low energy consumption
Maximum Output Power	2.5 mW
Maximale Datenrate	up to 2.1 Mbit/s
Antenna	Internal chip aerial

3.4.7 Headset

Headset Connector	Ex-relevant information on the use of a headset.		
Ex protection	Ex ib IIC		
	U0	=	8.6 V
	I0	=	354 mA
	P0	=	479 mW
	C0	=	930 nF
	L0	=	460 µH

3.4.8 Barcode capture options

Barcode capture		Available for the following approvals/ Ex versions		Available operating systems		Form	
1D-Barcodes		Version IS 17-A1A.-…	Version NI B7-A2A.-…	Windows CE/WEH	Android 4.4.4	MC92N0 Gun	MC92N0 Brick
SE965-SR	1D Standard Range Scan Engine	Yes	Yes	Yes	Yes	Yes	Yes
SE1524-ER	1D Extended Range Scan Engine	Yes	Yes	Yes	Yes	Yes	No
1D-/2D Barcodes							
SE4500-SR	1D-/2D Omni-Direktional Imager Engine	Ja	Yes	Yes	Yes	Yes	Yes
SE4750-SR	1D-/2D Omni-Direktional Imager Engine	No	Yes	Yes	Yes	Yes	No
SE4750-MR	1D-/2D Omni-Direktional Middle Range Imager Engine	No	Yes	Yes	Yes	Yes	No
SE4600-LR	1D-/2D Omni-Direktional Long Range Imager	No	Yes	Yes	No	Yes	No
DPM/1D-/2D Barcodes							
SE4500-HD	DPM/1D-/2D Imager Engine	Yes	Yes	Yes	No	Yes	Yes

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3.4.9   Reading distances

Barcode capture		Reading distance	
1D-Barcodes		minimum	maximum
SE965-SR	1D Standard Range Scan Engine	2,5 cm 0.98 inch	130 cm 51.18 inch
SE1524-ER	1D Extended Range Scan Engine	5 cm 1.97 inch	1370 cm 539.37 inch
1D-/2D Barcodes			
SE4500-SR	1D-/2D Omni-Direktional Imager Engine	5 cm 1.97 inch	60 cm 23.62 inch
SE4750-SR	1D-/2D Omni-Direktional Imager Engine	4,5 cm 1.77 inch	88 cm 34.65 inch
SE4750-MR	1D-/2D Omni-Direktional Middle Range Imager Engine	5,5 cm 2.17 inch	440 cm 173.23 inch
SE4600-LR	1D-/2D Omni-Direktional Long Range Imager	18 cm 7.09 inch	910 cm 358.27 inch
DPM/1D-/2D Barcodes			
SE4500-HD	DPM/1D-/2D Imager Engine	3,5 cm 1.38 inch	28 cm 11.02 inch

ⓘ

The various scan engines minimum and maximum ranges depend on the bar code symbology/type and the module width (in mil) used.

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 "User Manual" or "Integrator Guide" from ZEBRA

The decode range depends on the quality and size of the bar code and on the scan engine's software setting.

3.4.10 Decodable barcode types

All supported 1D-Barcodes		All supported 2D-Barcodes (only supported with Imager versions)		DPM Codes (only with SE4500-HD) mounted on
1D-Symbol/Codes		**2D-Symbol/Codes**		
Code 11	Code 39	Aztec	Micro PDF-417	Metal
Code 93	Code 128	Australian 4-state	Maxi Code	Plastic
Codabar	Coupon code	Canadian 4-state	PDF-417	Glass
Chinesisch 2 of 5	Discrete 2 aus 5	Composite AB	QR Code	
Interleaved 2 of 5	Trioptic 39	Composite C	TLC39	Method:
EAN-8	EAN-13	Data Matrix	UK 4-state	dot peening
UPCA	UPCE	Dutch Kix	US Planet	laser cut
UPC/EAN Supplementals	MSI	Japanese 4-state	US Postnet	cast
Webcode	RSS-14	PDF-417 Macro	USPS 4-state (US4CB)	punched
RSS Limited	RSS Expanded	(Macro) Micro PDF-417	microQR	moulded

3.4.11 RFID Option

Four different RFID options available	LF (Low Frequency)
	HF (High Frequency)
	UHF (EU) Ultra High Frequency)
	UHF (US) Ultra High Frequency)

RFID Option		Available for the following approvals/Ex versions		Available operating systems Supported with SDK v2.0.3 or higher		
RFID	**Frequency**	**Version IS 17-A1A.-…**	**Version NI B7-A2A.-…**	**Windows WEH6.5.3**	**Windows CE7.0**	**Android 4.4.4**
LF (Low Frequency)	125/134 kHz	Yes	Yes	Yes	Not supported	N Not supported
HF (High Frequency)	13,56 MHz	Yes	Yes	Yes	Not supported	Not supported
UHF (EU) (Ultra High Frequency)	865,6 to 867,5 MHz (EN 302 208)	Yes	Yes	Yes	Not supported	Not supported
UHF (US) (Ultra High Frequency)	902,0 to 928,0 MHz (FCC CFR 47 Part 15.247)	Yes	Yes	Yes	Not supported	Not supported

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ⓘ The maximum read / write ranges of the different RFID readers are dependent on various environmental and ambient conditions and refer in the following to office environment.

e.g.

Transponder (Tag), size

Mounting surface (metal, wood or different)

Environment conditions

Magnetic influence from outside

Temperature

Humidity

RFID Option with internal reader	RFID Option with internal reader + mounted antenna

3.4.11.1   LF Reader (internal module)

ⓘ **For MC 92N0ᵉˣ-G (Gun) and MC 92N0ᵉˣ-K (Brick)**
Combination with Scan Engine is not possible!

Nominal reading distance	up to approx. 5 cm up to approx. 1.9 inches
Nominal writing distance	up to approx. 5 cm up to approx. 1.9 inches
Antenna	Integrated as ferrite antenna or air coil antenna
Frequency range	125/134 kHz (automatic switching)
Transmitting power	100 mW ± 2dB

Supported standards		
HITAG S256	HDX - RO	EM 4450/4550
HITAG S 2 kbit	HDX (Multipage)	EM4xxx (UNIQUE)
HITAG 1	EM4xxx (UNIQUE)	FDX-B
HITAG 2	FDX-B	BDE
Q5	BDE	ISO 11784/5
ATA5567	ISO 117845	ISO Animal
EM4305	ISO Animal	

3.4.11.2   HF Reader (internal module)

ⓘ **For MC 92N0ᵉˣ-G (Gun) and MC 92N0ᵉˣ-K (Brick)**
Combination with Scan Engine is not possible!

Nominal reading distance
   HF ISO 15693
   HF ISO 14443
	approx. 7 cm to 12 cm
	approx. 1 cm to 6 cm
	(with tags in check card format)
		approx. 2.8 to 4.7 inch
		approx 0.4 to 2.4 inch

Nominal writing distance
   HF ISO 15693
   HF ISO 14443
	approx. 7 cm to 12 cm
	approx. 1 cm to 6 cm
	(with tags in check card format)
		approx. 2.8 to 4.7 inch
		approx 0.4 to 2.4 inch

Antenna	Integrated	
Frequency range	13.56 MHz	
Transmitting power	100 mW ± 2dB	

Supported standards HF ISO 15693		
I-Code SLI	Tag-IT HFI	my-d vicinity
STM LRI512		
Supported standards HF ISO 15693		
mifare	mifare Ultra Light	my-d proximity
I-Code 1 (optional)		

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3.4.11.3 UHF Reader (internal module)

ⓘ **For MC 92N0ex-G (Gun) and MC 92N0ex-K (Brick)**
Combination with Scan Engine is not possible!

Nominal reading distance	approx. 30 cm to 50 cm	approx. 11.8 to 19.7 inch
Nominal writing distance	approx. 30 cm to 50 cm	approx. 11.8 to 19.7 inch
Antenna	Integrated	
Frequency range		
Europa (EU)	865.6 to 867.5 MHz (EN 302 208)	
USA (US)	902.0 to 928.0 MHz	
	(FCC CFR 47 Part 15.247)	

Supported standards		
EPC Class 1 Gen 2 tag		

3.4.11.4 UHF Reader (internal module) with mounted antenna

ⓘ **For MC 92N0ex-G (Gun) and MC 92N0ex-K (Brick)**
Combination with Scan Engine is not possible!

Nominal reading distance	approx. 150 cm	approx. 59 inch
Nominal writing distance	approx. 30 cm to 50 cm	approx. 11.8 to 19.7 inch
Antenna	Mounted external	
Frequency range		
Europa (EU)	865.6 to 867.5 MHz (EN 302 208)	
USA (US)	902.0 to 928.0 MHz	
	(FCC CFR 47 Part 15.247)	

Supported standards		
EPC Class 1 Gen 2 tag		

ⓘ Further information on the RFID Reader and the available SDK software can be found separately on the BARTEC Support Download page.
http://automation.bartec.de/indexE.htm
Category - Mobile Computers
MC92N0ex series
RFID SDK

3.5 Battery

Battery		(charge only outside of hazardous location)
	Type 17-A1Z0-0001	Lithium Ion battery 7.2 / 2800 mAh (20.16 Wh) for MC 92N0ex type 17-A1A3-…
	Type 17-A1Z0-0023	Lithium Ion battery 7.4 / 2600 mAh (19.3 Wh) for MC 92N0ex type 17-A1A2-….
	Type B7-A2Z0-0044	Lithium Ion battery 7.4 / 2600 mAh (19.3 Wh) for MC 92N0ex type B7-A2A4-...
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 air humidity		20 % - 95 % (non-condensing)
Backup battery		Ni-MH battery 2.4 V/15 mAh (rechargeable) Integrated in the device and only replaceable in the factory.
Battery performance		approx. 8 hours depending on the device settings
Charging times		Depends on the selected charging station. < 8 hours
UN38.3 compliant		Yes

ⓘ   The battery life depends on various usage factors and on the device settings such as e.g.

- Use and setting of WLAN / Bluetooth
- Backlighting
- Frequency of scanner utilisation
- Frequency of RFID utilisation

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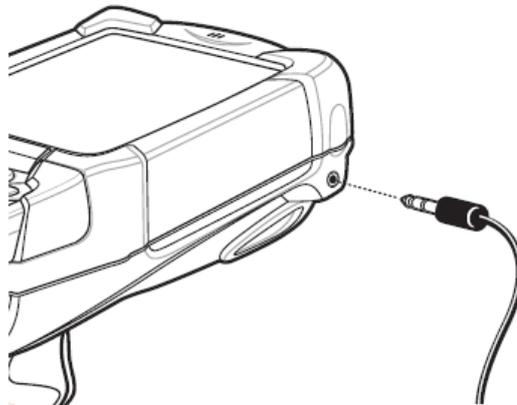
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3.6 External interfaces
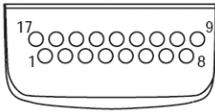
Restrictions:

− The 17-pole data interface should only be used outside the potentially explosive atmosphere and exclusively with the devices stated by the manufacturer!

PIN	Signal name	Function	PIN	Signal name	Function
1	USB_GND	USB	10	Cradle_DET	Grounded with device inside of cradle
2	USB_D_Plus	USB	11	DTR	RS232C
3	TxD	RS232C	12	Not assigned	Not assigned
4	RxD	RS232C	13	Power_IN	12 V / 2.5 A max.
5	DCD	RS232C	14	CTS	RS232C
6	RTS	RS232C	15	USB_5V_DET	USB
7	DSR	RS232C	16	USB_D_Minus	USB
8	GND	Ground, 2.5 A max.	17	EXT_Power_OUT	3.3 V / 500 mA
9	RI	RS232C			

− The headset connection should only be used outside the potentially explosive atmosphere and exclusively with the devices stated by the manufacturer!
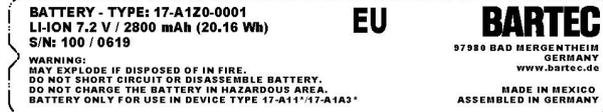
3.7 Product labelling

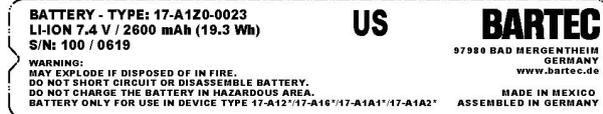|		
A	**Laser warning**	CAUTION - CLASS 3R LASER LIGHT WHEN OPEN. AVOID DIRECT EYE EXPOSURE. ATTENTION - LUMIÈRE LASER DE CLASSE 3R, EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU. VORSICHT - LASERLICHT KLASSE 3R, WENN ABDECKUNG GEÖFFNET. DIREKTE BESTRAHLUNG DER AUGEN VERMEIDEN.
B	**Laser Mark of Compliance** **Type: 17-A1A3-…./……..** **Type: 17-A1A2-…./……..** **Type: B7-A2A4-…./……..**	COMPLIES WITH 21CFR1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE No. 50, DATED JUNE 24, 2007 AND IEC/EN 60825-1:2001,2007 & IEC/EN 62471:2006 $C\epsilon_{0044}$ THIS CLASS B DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003. CET APPAREIL NUMÉRIQUE DE LA CLASSE B EST CONFORME À LA NORME NMB-003 DU CANADA. COMPLIES WITH 21CFR1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE No. 50, DATED JUNE 24, 2007, AND IEC/EN 60825-1:2001, 2007 & IEC/EN 62471:2006 WARNING: SUBSTITUTION OF PARTS MAY IMPAIR INTRINSIC SAFETY. TO PREVENT IGNITION OF FLAMMABLE OR COMBUSTABLE ATMOSPHERES, DISCONNECT POWER BEFORE SERVICING. READ, UNDERSTAND AND ADHERE TO THE OPERATIONAL MANUAL. AVOID EXPOSURE. LASER LIGHT IS EMITTED FROM THIS APERTURE. ATTENTION : TOUTE SUBSTITUTION DES COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE. POUR ÉVITER L'INFLAMMATION D'ATMOSPHÈRES INFLAMMABLES OU COMBUSTIBLES, VEUILLEZ METTRE HORS TENSION AVANT L'ENTRETIEN VEUILLEZ LIRE, PRENDRE CONNAISSANCE ET RESPECTER LES CONSIGNES DU MODE D'EMPLOI. ÉVITEZ TOUTE EXPOSITION : CET APPAREIL ÉMET UNE LUMIÈRE LASER. THIS DEVICE CONTAINS AN APPROVED RADIO MODULE. SEE REGULATORY GUIDE FOR PATENT AND RADIO INFORMATION.SEALED! DO NOT OPEN! DO NOT CHARGE IN HAZ.LOC.! SEE MANUAL FOR SPECIAL CONDITIONS!

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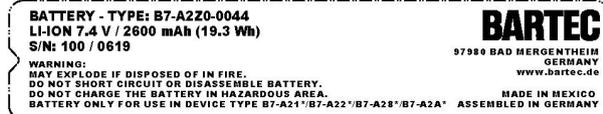|		
C Additional marking Zone 2 **Type: B7-A2A4-…./……..**	CE [Ex] II 3G Ex ic IIC T6 Gc [Ex] II 3D Ex ic IIIB T80°C Dc IP64 -20°C ≤ Ta ≤ +50°C EPS 14 ATEX 1 782 X IECEx EPS 14.0100X	
	CE [Ex] II 3G Ex ic IIC T4 Gc [Ex] II 3D Ex ic IIIB T130°C Dc IP64 -20°C ≤ Ta ≤ +50°C EPS 14 ATEX 1 782 X IECEx EPS 14.0100X	CE [Ex] II 3G Ex ic IIB T4 Gc [Ex] II 3D Ex ic IIIB T130°C Dc IP64 -20°C ≤ Ta ≤ +50°C EPS 14 ATEX 1 782 X IECEx EPS 14.0100X
D Laser warning	LASERLICHT - NICHT IN DEN STRAHL BLICKEN, LASER KLASSE 2 LUMIERE LASER - NE PAS REGARDER DANS LE FAISCEAU APPAREIL A LASER DE CLASSE 2 CAUTION: LASER LIGHT. DO NOT STARE INTO BEAM, CLASS 2 LASER PRODUCT 630-680 nM, 1 mW	
E Type label e.g. for ATEX/IRCEx Zone 1	[Ex] II 2 G Ex q [ib] IIC T4 PTB 13 ATEX 2019 X IECEx PTB 13.0043X ASSEMBLED IN GERMANY ONLY USE BATTERY PACK P/N 17-A1Z0-0001 WARNING: THIS ENCLOSURE IS FACTORY SEALED. DO NOT OPEN! DO NOT RECHARGE IN HAZ. LOC. CONTAINS APPROVED RADIO MODULE TYPE: 21-148603 / 802.11 abgn, BLUETOOTH BARTEC GmbH 97980 BAD MERGENTHEIM GERMANY	
F Laser warning	CAUTION - CLASS 2 LED LIGHT. WHEN OPEN. DO NOT STARE INTO THE BEAM. ATTENTION - LUMINERE LED DE CLASSE 2. EN CAS D'OUVERTURE. NE PAS REGARDER DANS LE FAISCEAU VORSICHT - LED LICHT KLASSE 2. WENN ABDECKUNG GEÖFFNET. NICHT IN DEN STRAHL BLICKEN.	

G **Battery marking**

Type 17-A1Z0-0001

Type 17-A1Z0-0023

Type B7-A2Z0-0044

3.8 Laser labels

In compliance with IEC 60825 and EN 60825, Clause 5 the following information is provided:

DEUTSCH	
KLASSE 1	KLASSE 1 LASER PRODUKT
KLASSE 2	LASERLICHT
	NICHT IN DEN LASERSTRAHL SEHEN
	KLASSE 2 LASER PRODUKT

ENGLISH		FRENCH / FRANÇAIS	
CLASS 1	CLASS 1 LASER PRODUCT	CLASSE 1	PRODUIT LASER DE CLASSE 1
CLASS 2	LASER LIGHT	CLASSE 2	LUMIERE LASER NE PAS REGARDER LE
	DO NOT STARE INTO BEAM		RAYON FIXEMENT
	CLASS 2 LASER PRODUCT		PRODUIT LASER DE CLASSE 2

ITALIAN / ITALIANO		PORTUGUESE / PORTUGUÊS	
CLASSE 1	PRODOTTO AL LASER DI CLASSE 1	CLASSE 1	PRODUTO LASER DA CLASSE 1
CLASSE 2	LUCE LASER	CLASSE 2	LUZ DE LASER NÃO FIXAR O RAIO
	NON FISSARE IL RAGGIOPRODOTTO	LUMINOSO	
	AL LASER DI CLASSE 2		PRODUTO LASER DA CLASSE 2

DUTCH / NEDERLANDS		DANISH / DANSK	
KLASSE 1	KLASSE-1 LASERPRODUKT	KLASSE 1	KLASSE 1 LASERPRODUKT
KLASSE 2	LASERLICHT	KLASSE 2	LASERLYF
	NIET IN STRAAL STAREN		SE IKKE IND I STRÅLEN
	KLASSE-2 LASERPRODUKT		KLASSE 2 LASERPRODUKT

NORWEGIAN / NORSK		FINNISH / SUOMI	
KLASSE 1	LASERPRODUKT, KLASSE 1	LUOKKA 1	LUOKKA 1 LASERTUOTE
KLASSE 2	LASERLYS IKKE STIRR INN I	LUOKKA 2	LASERVALO
	LYSSTRÅLEN		ÄLÄ TUIJOTA SÄDETTÄ
	LASERPRODUKT, KLASSE 2		LUOKKA 2 LASERTUOTE

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4. Transport and Storage

4.1 Transport

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

4.2 Storage

ATTENTION
Property damage through incorrect storage!
▶ Observe storage temperatures.
▶ Keep humidity away from the Mobile Computers.

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

Additional information on the batteries

The batteries of BARTEC (Type 17-A1Z0-0001, 17-A1Z0-0023 and B7-A2Z0-0044) 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 metallic parts and the escape of electrolyte.

Batteries kept for the duration of 6 months or longer should be charged and then discharged again at least every 3 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.

The standard warranty period for all BARTEC batteries is 6 months, whereby it is irrelevant whether the battery was acquired separately or was contained in the scope of delivery of the MC92N0ex.

5. Commissioning

Before you assemble the device, make sure that all components and documents exist.

⚠ **DANGER**

Avoid electrostatic charging in potentially explosive atmosphere.
There is a risk of fatal injury in an explosive atmosphere!

▶ Do not wipe or clean the devices with a dry cloth.

▶ Wear suitable clothing and shoes.

▶ Do not use rubber gloves or similar.

⚠ **DANGER**

Unintended use endangers explosion protection.
There is a risk of fatal injury in an explosive atmosphere!

▶ Do not make any changes to the Mobile Computer.

▶ In the case of functional 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.

5.1 Scope of delivery

1 x MC 92N0ex

1 x Lithium-ion battery

1 x Stylus

1 x Hand strap

1 x User Manual

5.1.1 Accessories optional

Authorised accessories from BARTEC:

– SD card

– Replacement stylus

– Battery

– Docking station for communication and charging

– Charging station

– Screen protector

– Leather holster

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5.2 Requirements in potentially explosive atmosphere

Mobile Computer

1. The Mobile Computer may not be opened.
2. Do not use, swap or replace any non-specified components.
3. Do not retrofit any components to the internal plugs or slots.
   Exception: SD-card
4. Protect the Mobile Computer from impact!
5. Do not expose the Mobile Computer to caustic/aggressive liquids, vapours, mists!
6. Avoid the impact of moisture outside the specifications.
7. Avoid thermal impact outside the specified temperature range.
8. Use the 17-pole data interface only outside the potentially explosive atmosphere and exclusively with the devices specified by the manufacturer!
9. Use the headset connection only outside the potentially explosive atmosphere and exclusively with the devices specified by the manufacturer!

Battery

1. The battery may not be opened.
2. Charge battery (type 17-A1Z0-0001, 17-A1Z0-0023 and B7-A2Z0-0044) only outside of hazardous area.
3. The battery (type 17-A1Z0-0001 and 17-A1Z0-0023) may be changed in hazardous areas.
4. The battery (type B7-A2Z0-0044) may only be changed outside the hazardous area.
5. Only use the battery for the purpose listed in this User Manual. Is only suitable for the Mobile Computer MC 92N0ex.

Battery type 17-A1Z0-0001 is only suitable for MC 92N0ex-IS
type 17-A1A3-…./……..
Battery type 17-A1Z0-0023 is only suitable for MC 92N0ex-IS
type 17-A1A2-…./……..
Battery type B7-A2Z0-0044 is only suitable for MC 92N0ex-NI
type B7-A2A4-…./……..

6. There is a danger of burning if used incorrectly. Do not expose the battery to temperatures of more than +50 °C (122 °F).
7. Battery acid may escape from the cells and cause burning in the case of damage.
8. Defective batteries must be disposed of immediately, whereby the provisions on battery disposal applicable in the respective region must be observed.
9. The battery may explode if it catches fire!
10. Do not short circuit the battery!

Accessories

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

5.3 First steps

▶ Unpack the Mobile Computer.
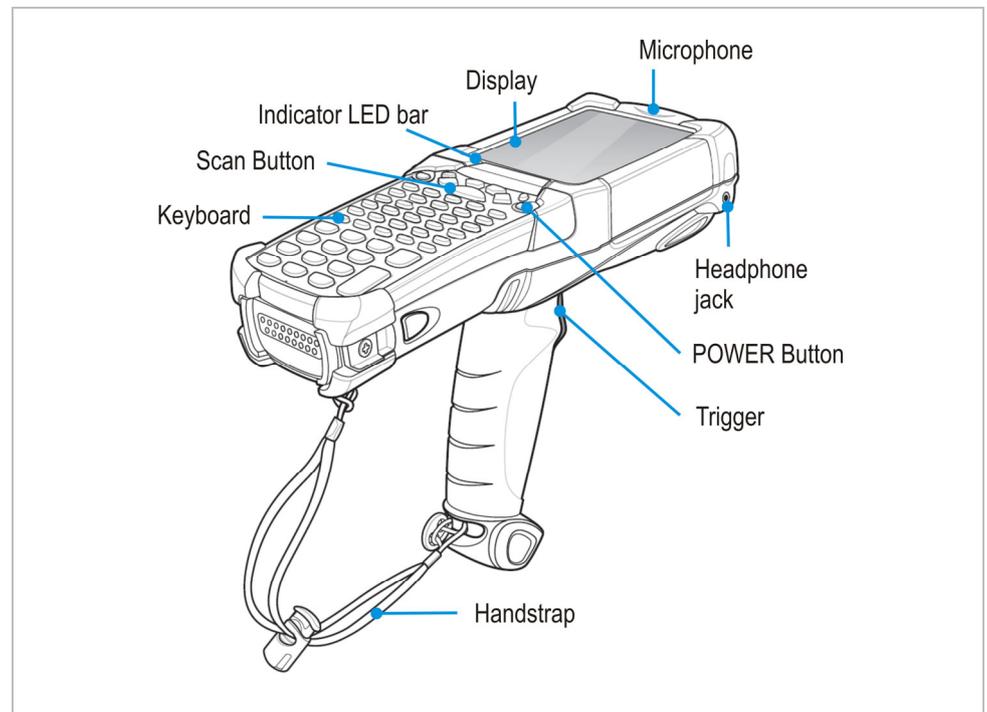
▶ Insert the battery into the Mobile Computer.

▶ Charge the battery on the cradle.

▶ Switch on the Mobile Computer.

Optional:

▶ Charge the battery in a charger.

▶ Insert a SD card.

▶ Remove/replace screen protector.

The individual steps are explained on the following pages.

5.4 Structure

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5.5 Handling accessories

> ⚠ **DANGER**
>
> **Non-certified accessories endanger explosion protection.**
> **There is a risk of fatal injury in an explosive atmosphere!**
> ▶ Only use original accessories from BARTEC/ZEBRA.
>
> **Only permitted outside the potentially explosive atmosphere:**
> ▶ Charge battery.
> ▶ Insert/replace SD card.
> ▶ Remove/replace screen protector.

ⓘ Further information is also provided by the ZEBRA documentation.

5.5.1 Insert/change battery

> ⚠ **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 battery are used in safety-oriented operation.
>
> **Only permitted outside the potentially explosive atmosphere:**
> ▶ The battery may only be charged outside the hazardous area!
> ▶ The battery type B7-A2Z0-0044 may only be changed outside the hazardous area.

> **ATTENTION**
>
> **Incorrect battery replacement may cause damage to property!**
> ▶ Change the battery of the MC 92N0ex only in the designated areas.
> ▶ Put the MC 92N0ex into suspend mode before you remove the battery. Failure to properly remove the battery may cause the MC 92N0ex to cold boot and potential loss of data.

Depending on configuration, the MC 92N0ᵉˣ is supplied with a battery.

Type	Order number	Accu replacement in haz.loc.	Charging in safe area
Battery (EU) for ATEX/IECEx Lithium-ion battery 7.2 V / 2800 mAh	17-A1Z0-0001	Yes	Yes
Battery (US) fo UL Division 1 Lithium-ion battery 7.4 V / 2600 mAh	17-A1Z0-0023	Yes	Yes
Battery for UL Division 2 and ATEX Zone 2/22 Lithium-ion battery 7.4 V / 2600 mAh	B7-A2Z0-0044	Yes	Yes

Work steps: (insert)

1. Charge the battery only outside hazardous areas.
2. The battery (type B7-A2Z0-0044) may only be inserted/changed outside the hazardous area.
   The battery (type 17-A1Z0-0001 and 17-A1Z0-0023) may be inserted/changed in hazardous areas.
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.

Work steps: (change)

1. Turn off the MC 92N0ᵉˣ with function mode "Safe Battery Swap".
2. The battery (type B7-A2Z0-0044) may only be inserted/changed outside the hazardous area.
   The battery (type 17-A1Z0-0001 and 17-A1Z0-0023) may be inserted/changed in hazardous areas.
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, then unlock the battery lock.
5. Remove the battery from the Mobile Computer and insert a new one..

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5.5.2 Change keypad

The MC 92N0ex 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 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 SD card. 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 MC 92N0ex before start of change parts.

▶ Put the MC 92N0ex into suspend mode before you remove the battery. Failure to properly remove the battery may cause the MC 92N0ex to cold boot and potential loss of data.

Work steps:

1. Turn off the MC 92N0ex
2. Remove the battery (see chapter 5.5.1 "Insert/change battery").
3. Take out the screws at the top edge of the keypad.
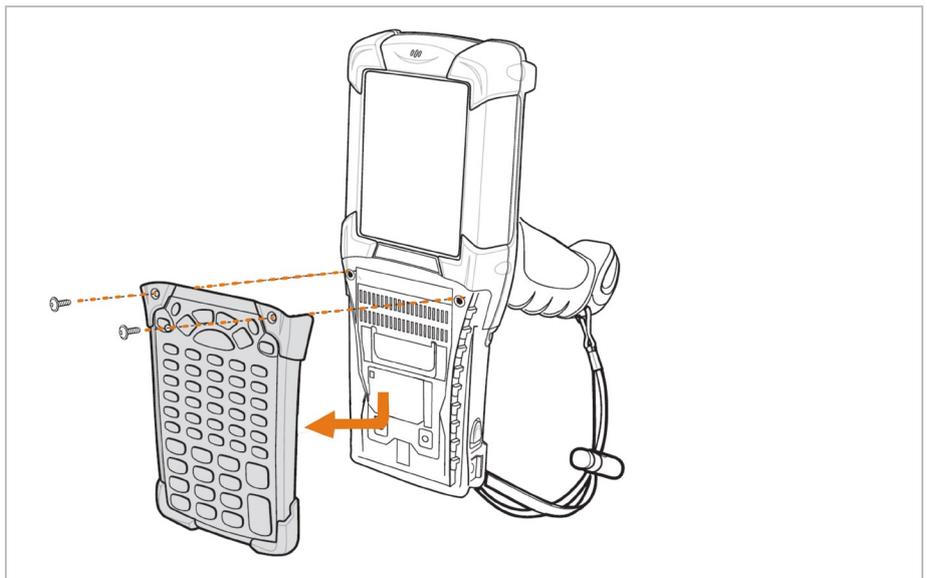
4. Pull the keypad downwards in the direction of the arrow and then forwards to take it out of the MC 92N0ex.
5. Check that the contacts and seals are clean and in good condition.
6. Insert both of the keyboard's guide pins into the guide grooves (see illustration) on the mobile computer housing.

Guide groove
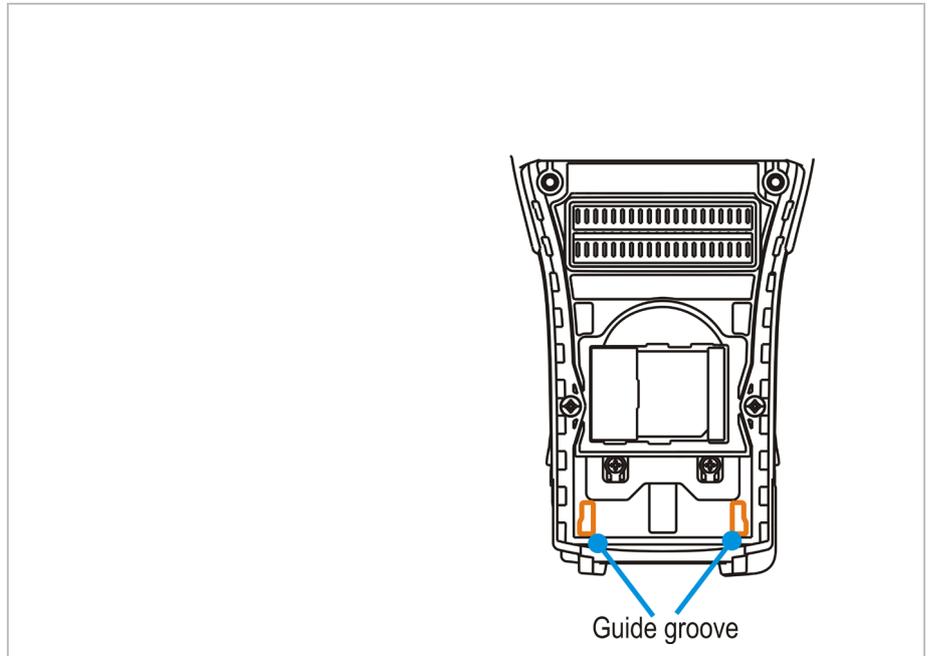
7. Snap on the keypad in the direction (see following illustration) of the arrow and push it upwards until the boreholes for the screws are over the threaded sleeves.

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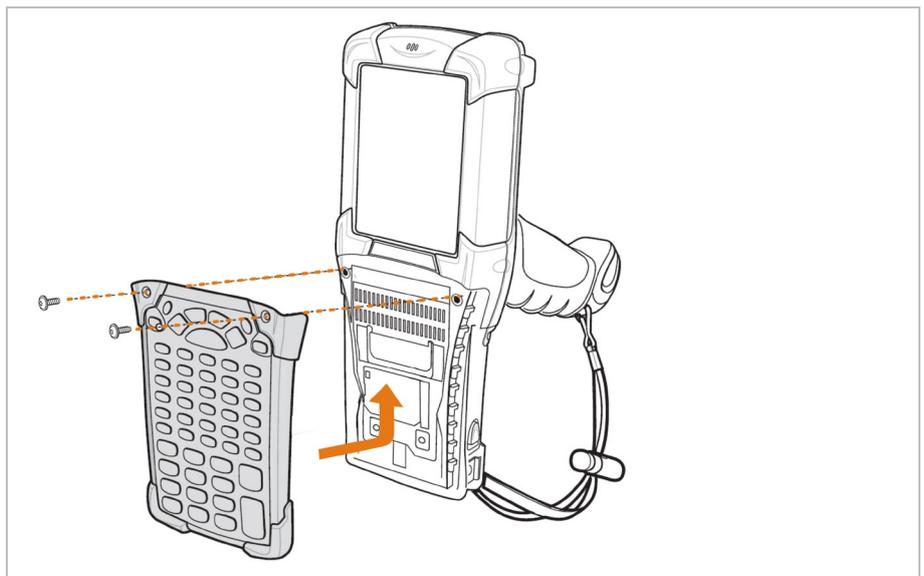
8. Check that the keypad is mounted correctly.
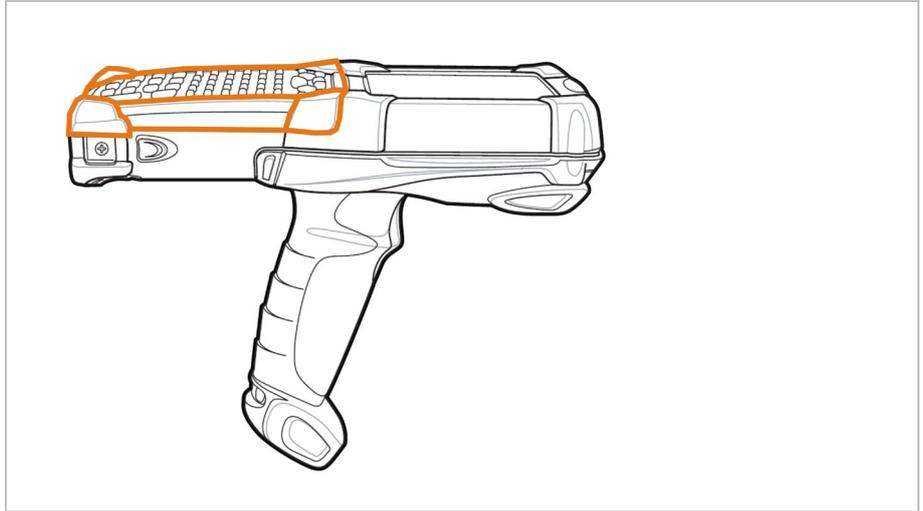
9. Tighten the screws (torque = 0.452 Nm / torque = 4.0 in-lbs); 0.5 Nm is advisable.
   Attention: Always use the correct torque.

10. After the exchange of the keyboard a cold boot (see chapter 7.1 "Resetting the MC 92N0ex") must be performed.

11. The current drivers are installed on the unit and initialized automatically by the cold boot.

ATTENTION
Incorrect handling may cause damage to property!
▶   Do not apply more than 0.5 NM or 4 in-lbs of torque when tightening the keypad screws.

5.5.3   Insert SD card

ATTENTION		
Damage to the SD card through electrostatic discharges! ▶ Use an antistatic base. ▶ Ensure that the operator is correctly earthed. ▶ Use only specified SD cards	MC92N0ex-IS specified	MC92N0ex-NI freely selectable
2 GB **Order number 17-28BE-F006/0003** **4 GB** **Order number 17-28BE-F006/0004** **8 GB** **Order number 17-28BE-F006/0005** **16 GB** **Order number 17-28BE-F006/0006** **32 GB** **Order number 17-28BE-F006/0007**	**Yes**	**Yes**

ⓘ For MC92N0ex-IS version:

The listed SD cards are listed in the certificate. No other SD cards may be used.

For MC92N0ex-NI version:

The SD cards are not specified in the certificate. The customer can freely choose which SD cards to be used.

Work steps:

1.   Only install or replace the SD card outside the potentially explosive atmosphere.
2.   Only use SD cards which have been tested and certified by BARTEC for this purpose.
3.   Press the red button "ON/OFF" to suspend the MC 92N0ex.
4.   Remove the battery (see chapter 5.5.1 "Insert/change battery")
5.   Remove the two keypad screws and slide the keypad down and lift off
       (see chapter 5.5.2 "Change keypad").
6.   Lift the SD card retaining door and position the SD card, with the contacts down, into
       the SD card holder (shown in the illustration).
7.   Snap the retaining door closed.
8.   Replace the keypad and re-attach using the two screws
       (see chapter 5.5.2 "Change keypad")
9.   Perform a warm boot that the keypad is recognized by the system
       (see chapter 7.1 "Resetting the MC 92N0ex").
10.   Check in the File Explorer or the settings, if the SD card has been recognized.

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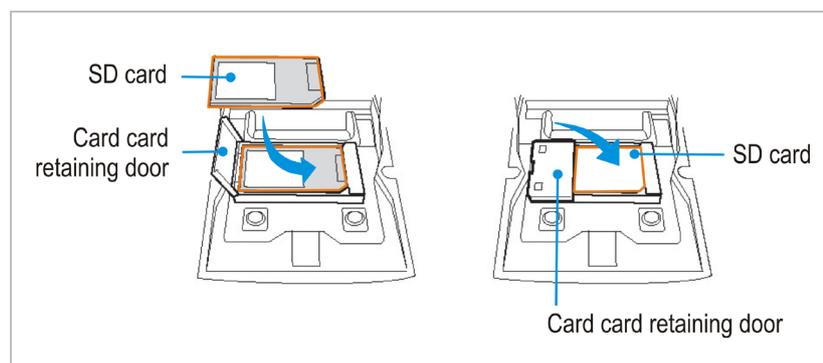
5.5.4 Remove/replace screen protector

The screen protector protects the touch screen and improves the user friendliness of the device. With its relatively hard surface, the screen protector offers a mechanical protection against scratches for example and reduces disturbing light reflections.

⚠ DANGER

Use of a screen protector changes the Ex protection type of the MC 92N0ex to IIB. There is a risk of explosion when you use the MC 92N0ex in combination with screen protector in hazardous area with gas group IIC.

▶ Use of screen protector change the Ex protection type of the MC 92N0 from IIC to IIB.

ATTENTION

Incorrect handling may cause damage to property!

▶ Use a screen protector so as not to impair the device warranty.

▶ Only use screen protector (Type 17-A1Z0-0004) from BARTEC.

▶ Observe the installation instructions for the screen protector.

▶ Do not use any sharp objects to remove the screen protector!

Work steps

1. Only remove or replace the screen protector outside the potentially explosive atmosphere.
2. Lift a corner of the screen protector and remove it from the display.
3. Attach the screen protector in accordance with the "Screen protector installation instructions".
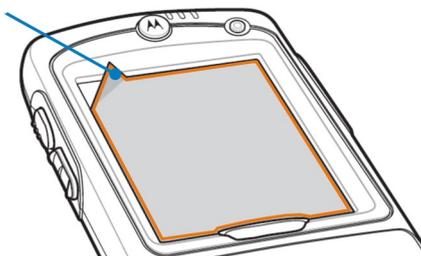
ⓘ You can order screen protector from your customer consultant or from BARTEC. Installation instructions for the screen protector are part of the delivery scope. Part number: 17-A1Z0-0004 screen protector, pack of 5.

5.5.5 Leather holster

BARTEC offers holsters to protect the MC 92N0ex series.

> ⚠ **DANGER**
>
> **Non-certified accessories endanger explosion protection. There is a risk of fatal injury in an explosive atmosphere!**
>
> ▶ Use only the original leather holsters.

Leather holster

− for MC 92N0ex-G and MC 92N0ex-K with belt clip/turned part	03-9809-0026
− Turned part for holster	03-9809-0027
− Shoulder strap	03-9829-0091

5.5.6 Headset

> ⚠ **DANGER**
>
> **Headset what are not compliant to the safety data of the headset connector endanger a risk of explosion. There is a risk of fatal injury in an explosive atmosphere!**
>
> ▶ Use only headsets which observe the safety data in the EC Type Examination Certificate.

Safety data of headset connector:

Ex protection	Ex ib IIC		
	U_0	=	8.6 V
	I_0	=	354 mA
	P_0	=	479 mW
	C_0	=	930 nF
	L_0	=	460 µH

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5.6   Connection to a PC

The MC 92N0ex-IS series is supplied with the Operating system Microsoft Windows Embedded Handheld 6.5.3 (WEH 6.5.3), Windows Embedded Compact 7 (CE 7.0) or Android 4.4.4.

For WEH6.5.3 and CE7.0:

Microsoft provides software free of charge for connection to a PC for synchronisation, installation and data exchange.

- Active Sync

  or

- Windows Mobile Device Center

For Android:

Android devices can be connected to a PC via USB and data can be exchanged via the File Explorer. 3rd party providers also offer synchronization tools.

5.6.1   Active Sync

ⓘ It is recommended to install ActiveSync (Version 4.5 or higher) on the host computer for communication with different computers installed under Windows XP or earlier operating systems.
ActiveSync synchronises the information from the Mobile Computer with the host computer. Changes made on the Mobile Computer or the host computer exist on both devices after synchronisation.

ActiveSync is available for download as freeware at **www.microsoft.com**.

Supporting operating system: Windows XP or earlier operating systems

More information on ActiveSync is available in the ZEBRA Integration Manual or on the Microsoft website.

5.6.2   Windows Mobile Device Center

ⓘ It is recommended to install the Windows Mobile Device Center on the host computer for the communication with different host computers installed under Windows Vista, Windows 7 or Windows 8.
The Windows Mobile Device Center synchronises the data from the Mobile Computer with the host computer. Changes made on the Mobile Computer or the host computer exist on both devices after synchronisation.

The Windows Mobile Device Center is available for download as freeware at **www.microsoft.com**.

Supporting operating systems: Windows Vista, Windows 7 or Windows 8

More information on Windows Mobile Device Center is available in the ZEBRA Integration Manual or on the Microsoft website.

5.6.3   Android

There are several ways to exchange or synchronize data from Android devices with a Windows PC.

1. Manually via USB.

When an Android device is connected to a Windows PC via USB, it appears as a drive on the PC that can be selected.

2. Using a Cloud

Many users now use the cloud as an exchange platform for their data. The large providers Google, Microsoft or Dropbox offer solutions for storing your data. This way is particularly suitable for the automated comparison of even data of all kinds.

3. About the network

If cloud providers are out of the question or the devices are not integrated in the Internet, the network is the right choice. In this case, install the appropriate application on your Windows computer as well as on your mobile device. After you have activated both, they will try an automatic pairing. You can then synchronize your data between the paired devices either manually or automatically.

A variety of solutions for this type of pairing and synchronization can be found on the Internet.

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6. Operation

The operator using an electric system in an potentially explosive environment must keep the accompanying operation equipment in a good condition, operate and monitor it correctly and conduct the requisite services and repairs. Before commissioning the devices, it must be checked that all components and documents are available.

6.1 Final inspection

The following aspects must be checked before putting the device into operation:

▶ Is there any damage to the display, scanner window or enclosure?

▶ Is the battery used certified?

▶ Is the battery compartment cover closed?

▶ Does the screen protector (if used) have the requisite certification?

▶ Is the SD card specified for the MC 92N0ex-IS?

6.2 Handling

Optimum standby position

Right:

The Mobile Computer is protected from damage.

Wrong:

The Mobile Computer can be damaged by objects on the surface or may fall down.

6.3 Care and cleaning

We recommend that the devices be cleaned regularly depending on use and also treated with care to ensure smooth and trouble-free operation.

6.3.1 Care

Display	− Only use with supplied stylus for the touchscreen
	− Use screen protector
	− Use a soft cloth to clean and do not use aggressive cleaners
Enclosure	− Protect device from impacts
	− Do not expose to extreme load, e.g. strong knocks and falling from great heights
Environment	− Do not expose to extreme temperatures and
	− Do not leave in dirty, moist or wet environment
Battery	− Change regularly
	− Discharge and charge regularly (every 3 months)
	− If storing for a lengthy time, take the batteries out of the Mobile Computer and keep them in a cool environment at about 0°C to +10°C and at a state of charge of approximately 40-50 %.
	− It is recommendable to charge the battery again once the state of charge drops to approximately 5 %. It is not necessary to discharge the battery completely. Charging the battery every day doesn't do any damage either. Batteries nowadays do not have a "memory effect".
	− If the battery state of charge drops from 100 % to half of that too quickly, it is time to replace the battery. The battery's expected service life is approx. 500 charges with standard usage.

6.3.2 Cleaning

> ⚠ **DANGER**
>
> **There is a risk of fatal injury in an explosive atmosphere!**
>
> ▶ Only clean the devices and the accessories outside the potentially explosive atmosphere.

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The following precautionary measures should be taken for your own safety and to ensure the operational safety of the device:

ATTENTION
Devices and accessories can be destroyed if handled incorrectly.
▶ Generally separate the charger from the power supply.
▶ Only clean the cradle contacts if the battery has been removed.
▶ There should be no residue, e.g. fluff on the contacts.
▶ There should be no moisture residue on the contacts.
▶ Heed the safety precautions when drying with compressed air.

6.3.3 Suitable materials

- Alcohol cleaning cloths
- Lens cleaning cloths
- Cotton swabs
- Isopropanol
- Compressed air spray with tube

Enclosure	– With alcohol cleaning cloths
Keys and intermediate spaces	– With alcohol cleaning cloths
Screen	– With alcohol cleaning cloths Avoid collections of fluid and rub with smooth cloths
Scanner window	– Cleaning agent for optical devices
Battery contacts in the Mobile Computer	Remove the battery from the device to clean. – Soak the cotton swabs in an alcohol solution to remove all grease and dirt deposits on the contacts. – Repeat cleaning several times Before replacing the battery, the contacts must be completely dry and no fluff should remain.
Contacts at the battery	To clean the contacts at the battery remove the battery from the device. – Soak the cotton swabs in an alcohol solution to remove all grease and dirt deposits on the contacts. – Repeat cleaning several times Before the battery is replaced in the device or the charging station or the docking-station, the contacts at the battery must be completely dry and no fluff should remain.

Contacts in charging station or docking-station	Separate the charging station or the docking-station from the power supply to clean the charger contacts.
	− Soak the cotton swabs in an alcohol solution to remove all grease and dirt deposits on the contacts.
	− Repeat cleaning several times
	Before the charging station or the docking-station is reconnected to the power supply, the contacts must be completely dry and no fluff should remain.

6.4 Operation recommendations and requirements

6.4.1 Basic safety and health protection requirements

Consult your local health and safety officer to ensure that you are acquainted with the safety regulations in your company which serve to protect employees at the work place.

6.4.1.1 Ergonomic recommendation

The following recommendations should be considered for everyday work at the workplace:

− Avoid one-sided, constantly repetitive movements.

− Body posture should be as neutral as possible.

− Avoid exercising great force.

− Keep objects which are used frequently within a functional distance.

− Adjust the working height to the body height and type of work.

− Erect objects without vibration.

− Avoid the exercise of direct pressure.

− Ensure that tables and chairs are adjustable.

− There must be sufficient room for body movements.

− Ensure that the working environment is suitable.

− Optimise workflows.

− Alternate between the left and right hand as frequently as possible when conducting repetitive tasks.

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6.4.1.2 Vehicle installation

RF signals may impair incorrectly installed or inadequately shielded electronic systems in vehicles (including safety systems). If you have any questions on your vehicle, get in touch with the manufacturer or a sales person. You can also learn from the manufacturer whether additional equipment has been fitted to the vehicle. An airbag has a strong impact. Do NOT place objects, such as installed or portable radio equipment, in the area above the airbag or in the area of deployment of the airbag. If the radio equipment was not correctly installed in the vehicle, severe injuries may result if the airbag is triggered. Position the device within good range. Ensure that you have access to the device without having to take your eye off the road.

ⓘ It is not permitted to connect a warning device which leads to horn sounds or light signals when receiving a call in road traffic.

Road traffic safety

Do not take any notes and do not use the device when driving. Making a list of to-do's or browsing through the address book when driving has a negative influence on safe driving. When driving on the roads, you must primarily think of your safety and that of the other road users. You should therefore concentrate completely on the road. Check the legal provisions on the use of wireless devices in road traffic of the respective region. Always observe these. If you use a wireless device during driving, rely on your good judgment and remember the following:

1. Become acquainted with the wireless device and its functions such as the shortcut dialing or dial repetition. These functions may prove to be useful if you would like to make a call without taking your eye off the road.
2. Where possible, use hands-free equipment.
3. Let your dialogue partner know that you are behind the steering wheel. Where necessary, discontinue the call in dense traffic or poor weather conditions. Rain, sleet, snow, ice and even very dense traffic represent dangers.
4. Dial the required numbers carefully and estimate the traffic situation. Make your calls when you have brought your car to a stop or before you leave. Plan your calls such that they can be made when the car is parked. If you really must make a call during the trip, only dial a part of the number, check the road and look in the rear view mirror and then dial the rest of the number.
5. Do not surccumb to stressful and emotional telephone conversations which could take your attention from the road. Let your dialogue partner know that you are in a car and refrain from conversations which could take your attention away from the road.

6. Call for help using your mobile device if necessary. Dial the emergency services (9-1-1 in the USA and 1-1-2 in Europe) or other local emergency service numbers in the event of fire, accidents or medical emergences. Remember that these calls are free of charge on the wireless device! The call can be made independently of security code or networks with or without the SIM card.

7. Help your fellow humans in emergency situations with your mobile device. If you witness a serious accident, crime or other emergency, call the emergency service (9-1-1 in the USA and 1-1-2 in Europe) or another local emergency service number because you could be the one who needs help next time.

8. Call the breakdown service or a special mobile radio number for support if you encounter problems on the road. If you pass a car with a breakdown, which does not represent a serious impediment to traffic, pass traffic lights which do not function, a traffic accident with slight damage and without injured people or a possibly stolen car, please get in touch with the road police or another special mobile radio number for support.

"The mobile communication industry requests you to give safety priority when using your device/telephone."

6.4.2 Instructions on the use of Wireless Devices

Observe all warnings relating to the use of wireless devices.

6.4.2.1 Safety in aircraft

Switch off the wireless device when asked to do so by the ground staff and by employees of the airline. If your device has a flight mode or a similar function, find out about its correct use from the aircraft staff.

6.4.2.2 Safety in hospitals

Wireless devices emit radio frequencies and can cause disturbances to medical technical electrical devices. Wireless devices should be switched off on request when you are in hospitals, clinics or health establishments. This is intended to avoid any possible interference with sensitive medical equipment.

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6.4.2.3 Heart pacemakers

Manufacturers recommend that a minimum distance of 15 cm be observed between a wireless handheld device and a pacemaker to avoid potential interference. This guideline is in line with independent research results and recommendations of Wireless Technology Research.

– Wearers of heart pacemakers

– Persons with heart pacemakers should ALWAYS keep at least 15 cm away from the activated device.

– The device may not be worn by these persons in the breast pocket.

– The device should be held to the ear which is furthest away from the heart pacemaker.

– If you have reason to assume that interference has arisen, you should SWITCH OFF the device immediately.

6.4.2.4 Hearing aids

The wireless device may cause disturbances to hearing devices. Get in contact with the manufacturer of your hearing device in the case of disturbances to ask about possible solutions.

– The device may not be worn in the breast pocket of these persons.

– The device should be held to the ear which is furthest away from the heart pacemaker.

– If you have reason to assume that interference has arisen, you should SWITCH OFF the device immediately.

6.4.2.5 Other medical equipment

Ask your doctor or the manufacturer of the medical device to determine whether putting the wireless product into operation impairs the medical device.

6.4.3 Equipment of the laser devices

Devices from BARTEC/ZEBRA equipped with lasers comply with the Guidelines 21CFR1040.10 and 1040.11. (with the exception of the deviations set out in the Laser Notice No. 50 dated 24 June 2007) and EN 60825-1:2001,2007 und EN 62471:2006. The classification of the laser device is stated on a plate attached to the device.

Class 1 Laser devices are not considered to be hazardous when used for their intended purpose.

⚠ **CAUTION**
Laser radiation! Risk of damage to eyesight!
▶ Do not look into the laser beam.

Laser devices of Class 2 work with a visible low volt light emitting diode. As for every bright light source, for example the sun, you should not look directly into the light beam. There is no information about the hazards of being briefly exposed to the laser light of a laser scanner of Class 2.

The use of control elements, adjustments or the application of procedures which do not comply with the instructions described here may lead to hazardous exposure to beams.

6.4.4 LED Devices

Complies with EN60825-1:2001 and EN 62471:2006.

6.4.5 Restrictions to wireless devices

The use of wireless devices is possibly forbidden or restricted. This applies primarily on board aircraft, in hospitals, in the vicinity of explosive substances or under other hazardous conditions. If you are not sure which regulations apply to the use of the device, ask permission before switching it on.

Radio Modules

The device contain approved radio module(s). These module(s) are identified below.

BARTEC/ZEBRA radio module supporting WLAN 802.11 a/b/g/n and Bluetooth.

Type(s): 21-148603-0B

Bluetooth® Wireless Technology

This is an approved Bluetooth® product. For more information or to view End Product Listing, please visit **https://www.bluetooth.org/tpg/listings,cfm**

Country-specific roaming

This device has the International Roaming function (IEEE802.11d) which ensures that the device is used on the channels prescribed for the respective country.

Ad-hoc operation

The ad-hoc operation is restricted to the channels 36–48 (5150–5250 MHz). The use of this bandwidth is restricted to indoor areas; use outdoors is not permitted.

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6.5   Frequency of Operation – FCC and IC

5 GHz Only

The use in the UNII (Unlicensed National Information Infrastructure) band 1 5150 -5250 MHz band is restricted to Indoor Use Only; any other use will make the operation of this device illegal.

Industry Canada Statement

Caution: The device for the band 5150-5250 MHz is only for indoor usage to reduce potential for harmful interference to co-Channel mobile satellite systems. High power radars are allocated as primary users (meaning they have priority) of 5250-5350 MHz and 5650-5850 MHz and these radars could cause interference and/or damage to LE-LAN devices.

Avertissement: Le dispositive fonctionnant dans la bande 5150-5250 MHz est réservé uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les memes canaux.

Les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bands 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

2.4 GHz Only

The available channels for 802.11 b/g operation in the US are Channels 1 to 11. The range of channels is limited by firmware.

Radio Frequency Interference Requirements - FCC

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.

FCC Note according to 15.21

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

Radio Transmitters (Part 15)

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1)   this device may not cause harmful interference, and

(2)   this device must accept any interference received, including interference that may cause undesired operation.

Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Radio Transmitters

This device complies with RSS 210 of Industry & Science Canada. 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.

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, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Label Marking: The Term "IC:" before the radio certification only signifies that "Industry Canada" technical specifications were met.

Country approvals

Regulatory markings, subject to certification, are applied to the device signifying the radio(s) is/are approved for use in the following countries: United States, Canada, Japan, China, S. Korea, Australia, and Europe.

Detailed information on the test symbol for other countries is provided in the EU declaration of conformity.

–   **Note:** For 2.4-GHz-products: Europe covers, Belgium, Bulgaria, Denmark, Germany, Estonia, Finland, France, Greece, Great Britain, Ireland, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, ~~Austria~~, Poland, Portugal, Romania, Sweden, Switzerland, Slovakia, Slovenia, Spain, Czech Republic, Hungary and Cyprus.

USA

In the USA, channels 1 to 11 are available for 802.11 b/g operation. The range of the channels is limited by the firmware.

> ⚠ **WARNING**
>
> **Operation of the device without regulatory approval is illegal.**

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Radio Transmitters for RLAN Devices:

The use of 5 GHz RLAN's, for use in Canada, have the following restrictions:

– Restricted Band 5.60 – 5.65 GHz

This device complies with RSS 210 of Industry Canada. 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.

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes:

(1) le dispositif ne doit pas produire de brouillage préjudiciable, et

(2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Label Marking: The Term "IC:" before the radio certification only signifies that Industry Canada technical specifications were met.

6.6 Electromagnetic fields

6.6.1 International

Reducing RF Exposure – Use Properly

Only operate the device in accordance with the instructions supplied.

International

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. For information on "International" human exposure to electromagnetic fields refer to the BARTEC and ZEBRA Declaration of Conformity (DoC) at

https://www.zebra.com/us/en/about-zebra/company-information/compliance.html

Europe

Handheld Devices

This device was tested for typical body-worn operation. Use only BARTEC tested and approved belt-clips, holsters, and similar accessories to ensure EU Compliance.

US and Canada

Co-located statement

To comply with FCC RF exposure compliance requirement, the antenna used for this transmitter must not be co-located or operating in conjunction with any other transmitter/antenna except those already approved in this filling.

Handheld Devices

This device was tested for typical body-worn operation. Use only BARTEC tested and approved belt-clips, holsters, and similar accessories to ensure FCC Compliance. The use of third-party belt-clips, holsters, and similar accessories may not comply with FCC RF exposure compliance requirements, and should be avoided.

The MC 92N0ex should only be worn on the body when switched off.

6.6.2 Handheld devices

To comply with the FCC guidelines for high frequency devices, the aerial of the transmitter should be used in the direct vicinity of, or in an operation unit with, other transmitters/aerials with the exception of those approved in this document.

SD card

The SD card slot provides a secondary, non-volatile memory. The slot is under the keypad of the MC 92N0ex. Further information is provided in the documentation supplied with the card. Observe the manufacturer's recommendations on use.

Technical data subject to change without notice.
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6.7 Optimise operating times/change energy settings

Factory settings of the MC 92N0ex-IS for the WWAN and WLAN radio devices: ON.

Instructions and notes for optimizing or changing settings for operating systems

- Windows Embedded Handheld 6.5.3 (WEH6.5.3)
- Windows Embedded Compact 7 (CE7.0)
- Android 4.4.4

can be found in detail in the ZEBRA Operating Instructions or the ZEBRA Integration Manual.

6.7.1 Automatic shutdown in the case of lengthy standby periods

For Windows Embedded Handheld 6.5.3 (WEH6.5.3)

Symbols

In the start menu under:

> **Settings** symbol

> **System** symbol

> **Power** symbol

> **Advanced** tab

> Activate "**Turn off device if not used for**" box and select a value from the dropdown list.

> Confirm selection with "**OK**".

For Windows Embedded Compact 7 (CE7.0)

Path specification:

Start => Settings => Control Panel => Power

For Android 4.4.4

Path specification:

Settings => Display => Sleep

6.7.2 **Change display backlight (increases the operating time of the battery)**

For Windows Embedded Handheld 6.5.3 (WEH6.5.3)

Symbols

In the start menu under:

> **Settings** symbol

> **System** symbol

> **Backlight** symbol

> **Battery Power** tab

> Activate **"Disable backlight if device is not used for"** box and select a value from the dropdown list.

> **Brightness** tab

> Select **Disable backlight** option. The brightness of the backlight can be regulated with a controller.

> Confirm selection with "**OK**".

For Windows Embedded Compact 7 (CE7.0)

Path specification:

Start => **Settings** => **Control Panel** => **Backlight**

For Android 4.4.4

Path specification:

Settings => **Display** => **Brightness**

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6.7.3   Change keypad background lighting (increases the operating time of the battery)

For Windows Embedded Handheld 6.5.3 (WEH6.5.3)

Symbols

In the start menu under:

> **Settings** symbol

> **System** symbol

> Key**light s**ymbol

> **Battery Power** tab

Activate **"Disable keylight if device if not used for"** option and select a value from the dropdown list.

> **Advanced** tab

Select "**Disable keylight**" option. The brightness of the backlight can be regulated with a controller or switched off.

> Confirm selection with "**OK**".
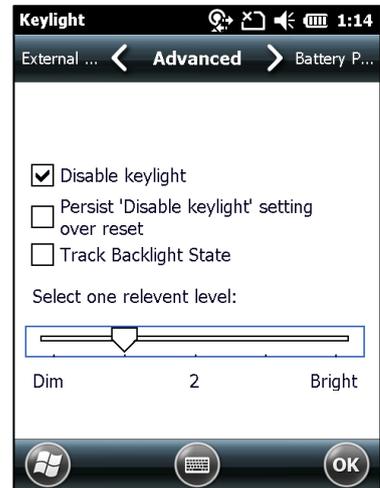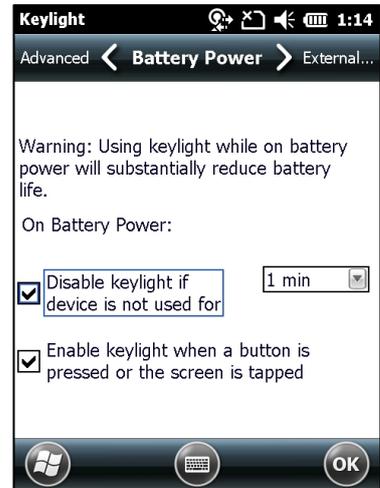
For Windows Embedded Compact 7 (CE7.0)

Path specification:

Start => **Settings** => **Control Panel** => **Keylight**

For Android 4.4.4

Path specification:

Settings => **Display** => **Keylight**

6.7.4 Switch off radio connections

<table>
<tr>
<td>ⓘ</td>
<td>Products with Bluetooth® Wireless technology:
This device is an approved Bluetooth® product. Further information is available at
http://www.bluetooth.org/tpg/listings.cfm Manufacturer: ZEBRA</td>
</tr>
</table>

For Windows Embedded Handheld 6.5.3 (WEH6.5.3)

Symbols

Windows Embedded Handheld 6.5.3 devices have a simple and central possibility in the form of the **Wireless Manager** to deactivate and configure all wireless functions of the device.

In the start menu under:

> **Settings** symbol

> **Connections** symbol

> **Wireless Manager** symbol

Activate/deactivate wireless connection:

> activate respective button.

> **All** button
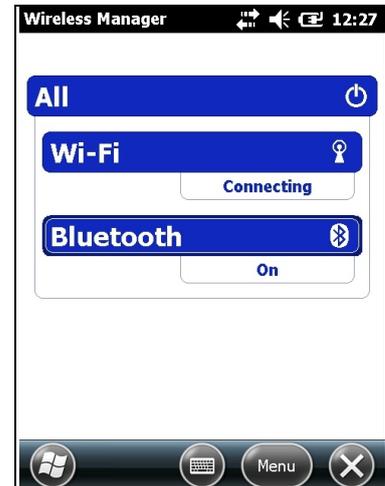
For Windows Embedded Compact 7 (CE7.0)

Path specification:

1. Select the Fusion Driver icon on the start screen.
2. Use the drop-down menu to switch the WLAN (radio) on/off and settings can be made.

For Android 4.4.4

Path specification:

Settings => **Wi-Fi**

<table>
<tr>
<td>ⓘ</td>
<td>Wireless connections depend on the configuration.</td>
</tr>
</table>

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6.8 Software versions

Existing software versions and operating systems in the MC92N0ex–IS:

ⓘ The software is not relevant to the explosion protection of the device.
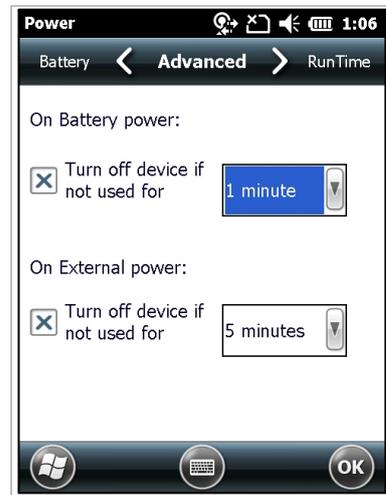See the ZEBRA documentation for further information.
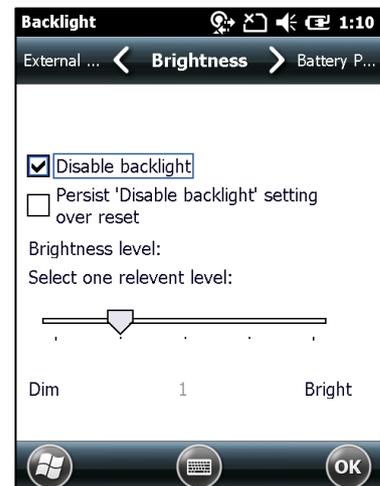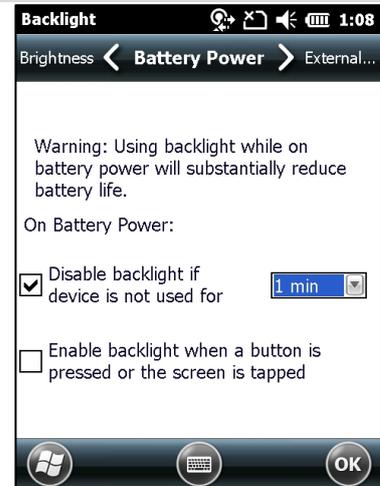
6.8.1 OEM

For Windows Embedded Handheld 6.5.3 (WEH6.5.3)

Symbols

In the start menu under:

> **Settings** symbol

> **System** symbol

> **System Info** symbol

> **System** tab

OS Version:	05.02.29128
OEM Name:	Motorola MC92N0G
OEM Version:	00.29.01
OS Cert:	SymbolCert

System Info · 12:31

ConfigInfo ‹ **System** › HW Version

UUID Part 1:	73E65B7606490108
UUID Part 2:	010D1A8004590600
ESN:	1314100505470
OS Version:	05.02.29128
OEM Name:	Motorola MC92N0G
OEM Version:	00.29.01
OS Cert:	SymbolCert

For Windows Embedded Compact 7 (CE7.0)

Path specification:

Start => **Settings** => **Control Panel** => **System Info** => **System** =>
OEM Version

For Android 4.4.4

Path specification:

Settings => **About device**

- Build number
- Android security patch level

6.8.2   AKU

For Windows Embedded Handheld 6.5.3 (WEH6.5.3)

Symbols

In the start menu under:

> **Settings** symbol

> **System** symbol

> **About** symbol

> **Version** tab

Settings

System

About

Windows® Embedded Handheld 6.5 Classic

CE OS 5.2.29128 (Build 29128.5.3.12.16)
© 2009 Microsoft Corporation.
All rights reserved.

The last part of the build number contains **storage battery number.**

About ⇄ ◀ ⛭ 12:31

Copyrights ❮ **Version** ❯ Device ID

Windows® Embedded Handheld 6.5 Classic

CE OS 5.2.29128 (Build 29128.5.3.12.16)
© 2009 Microsoft Corporation.
All rights reserved.

This computer program is protected by U.S.
and international copyright laws.
Processor: TI Cortex-A9 OMAP4430
Memory: 312.19 MB
Expansion slot: Not in use

For Windows Embedded Compact 7 (CE7.0)

No AKU number specified. OEM version according to chapter 6.8.1 required.

For Android 4.4.4

No AKU number specified. OEM version according to chapter 6.8.1 required.

Technical data subject to change without notice.
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6.8.3 Bluetooth

ⓘ The "BTExplorer" application is only available if the "StoneStreet One Bluetooth Stack" function is activated. Further information is provided in the ZEBRA "User Manual on Integration".

For Windows Embedded Handheld 6.5.3 (WEH6.5.3)

Symbols

In the start menu under:

> **Moto BT UI** Information symbol

> **My Device Information** symbol
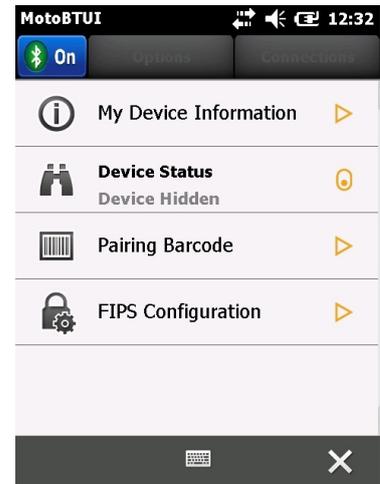
For Windows Embedded Compact 7 (CE7.0)

Path specification:

Start => **Programs** => **MotoBTUI** => **My Device Information**

For Android 4.4.4

No Bluetooth information specified. OEM version according to chapter 6.8.1 required.

ⓘ **For Windows operating systems:**

The MC92N0 with Bluetooth technology uses either the StoneStreet Bluetooth stack or the Microsoft Bluetooth stack. To write an application that uses the StoneStreet One Bluetooth stack APIs refer to the ZEBRA Solutions Enterprise Mobility Developer Kit (EMDK) Help. Further information is provided in the ZEBRA "User Manual on Integration".

6.8.4 "Fusion"software

For Windows Embedded Handheld 6.5.3 (WEH6.5.3)

Symbols

In the start menu under:

> **Wireless Companion** symbol

> **Wireless Status** symbol

> Point 7 **"Versions"**

Wireless Status	⇄ ◀× 🔋 12:33

Wireless Status
1) Signal Strength
2) Current Profile
3) IPv4 Status
4) IPv6 Status
5) Wireless Log
6) Logos & Certifications
7) Versions
8) Quit

─ Wireless Fusion

　　Copyright (C) - Motorola Solutions 2003-

　　Version - X_2.00.0.0.072R

　　P/N - 31-FUSION-X2.00

　　Device(s) - ALL

　　Customer(s) - ALL

Wireless Status	⇄ ◀× 🔋 12:34

7) Versions

Export | Export FusionPublicAPI.h

─ Wireless Fusion

　　Copyright (C) - Motorola Solutions 2003-

　　Version - X_2.00.0.0.072R

　　P/N - 31-FUSION-X2.00

　　Device(s) - ALL

　　Customer(s) - ALL

＋ Applications

＋ Middleware

＋ WLAN Adapters

For Windows Embedded Compact 7 (CE7.0)

Path specification:

1. Select the Fusion Driver icon on the start screen.
2. Select **Wireless Status** in the drop-down menu
3. Select menu item **7) Versions**

For Android 4.4.4

Path specification:

Settings => **Wi-Fi**

1. Open menu with tab on icon und select **Advanced**.
2. Version Fusion…

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7. Faults and Troubleshooting

> ⚠ **DANGER**
>
> **There is a risk of fatal injury in an explosive atmosphere!**
>
> ▶ Examine defective devices and any accessories only outside the potentially explosive atmosphere.

ⓘ Information on fault rectification is provided in the User Manual or the Integration Manual on the ZEBRA website.

https://www.zebra.com/us/en/support-downloads.html

ZEBRA website for the MC9200 manuals for the non-Ex protected version

– Support and Downloads

– Mobile Computers

– Handheld Computer > MC9200

7.1 Resetting the MC 92N0ex

7.1.1 Windows Embedded Handheld and Windows Compact Devices

If the applications stop working while the MC 92N0ex is used, it is recommendable to reboot the device.

There are two re-booting functions: warm boot and cold boot. If these types of rebooting don't help, the MC 92N0ex operating system can be reset to the factory defaults by a „CleanBoot".

7.1.1.1 On a Windows Compact (CE 7.0) device

– A warm boot starts the MC 92N0ex again and shuts down all running programs.

– A cold boot also restarts the MC 92N0ex, but erases all stored records and entries in RAM. Data saved in flash memory or a memory card is not lost. In addition it returns formats, preferences and other settings to the factory default settings.

> **ATTENTION**
>
> **Incorrect handling may cause damage to property!**
> ▶ Data stored in the flash memory or on a memory card is not lost. First perform a warm boot. The MC 92N0^{ex} is re-started and all stored data records and entries are preserved. If the MC 92N0^{ex} still does not respond after a warm boot, perform a cold boot.

ⓘ Any data previously synchronized with a computer can be restored during the next ActiveSync operation.

7.1.1.1.1 Warm boot

To perform a warm boot

1. Hold down the Power button for approximately five seconds. As soon as the MC 92N0^{ex} starts to perform a warm boot release the Power button.

7.1.1.1.2 Cold Boot

> **ATTENTION**
>
> **Incorrect handling may cause damage to property!**
> ▶ Performing a cold boot restores formats, preferences and other settings to the default settings.
> ▶ Performing a hard reset with an SD card installed in the MC9200 may cause damage or data corruption to the data on SD card or the SD card itself.

To perform a cold boot:

1. Press the red **Power** button. The **PowerKey Action** window appears.
2. Tap **Safe Battery Swap**.
3. Press the primary battery release on the MC 92N0^{ex} to partially eject the battery from the MC 92N0^{ex} (see chapter 5.5.1 Insert/change battery)
4. While the battery is partially released, simultaneously press and release the handle trigger and the Power button.
5. Push the battery to fully re-insert it in the MC 92N0^{ex}. One audible click can be heard as the battery is fully inserted.
6. The MC 92N0^{ex} reboots.
7. Calibrate the screen. See Calibrating the Screen in the ZEBRA User Guide to calibrate the MC 92N0^{ex} screen.

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7.1.1.2 On a Windows Embedded Handheld (WEH) 6.5.3 device

- A warm boot starts the MC92N0ex again and shuts down all running programs.
- A cold boot also restarts the MC92N0ex, but erases all stored records and entries in RAM. In addition, some new drivers are installed

---

ATTENTION

Incorrect handling may cause damage to property!

▶ Data stored in the flash memory or on a memory card is not lost. First perform a warm boot. The MC 92N0ex is re-started and all stored data records and entries are preserved. If the MC 92N0ex still does not respond after a warm boot, perform a cold boot.

ⓘ Any data previously synchronized with a computer can be restored during the next ActiveSync operation.

7.1.1.2.1 Warm boot

To perform a warm boot

1. Hold down the Power button for approximately five seconds. As soon as the MC 92N0ex starts to perform a warm boot release the Power button.

7.1.1.2.2 Cold boot

ATTENTION

Incorrect handling may cause damage to property!

▶ Performing a cold boot restores formats, preferences and other settings to the default settings.

▶ Performing a hard reset with an SD card installed in the MC9200 may cause damage or data corruption to the data on SD card or the SD card itself.

To perform a cold boot:

2. Press the red **Power** button. The **PowerKey Action** window appears.
3. Tap **Safe Battery Swap**.
4. Press the primary battery release on the MC92N0ex to partially eject the battery from the MC92N0ex. (described in chapter 5.4.1 Insert battery)
5. While the battery is partially released, simultaneously press and release the handle trigger and the Power button.
6. Push the battery to fully re-insert it in the MC92N0ex. One audible click can be heard as the battery is fully inserted.
7. The MC92N0ex reboots.

7.1.1.3   Clean Boot

ATTENTION
Incorrect handling may cause damage to property!
▶ Performing a clean boot restores formats, preferences and other settings to the factory settings.

Perform Clean Boot:

1.   Download the File: "Clean Boot Package" from the Zebra website "Support und Downloads". Follow the instructions in the file to install the Clean Boot Package on the MC 92N0ex..

There are two versions of the Clean Boot File:
1. Clean Boot
   Resets the device to the factory setting.
   The folder "Application" is not deleted/reset.
2. Clean Boot And Blank
   Resets the complete device to the factory setting.
   Also the folder "Application" is deleted/reset

7.1.2   On an Android device

There are two re-booting functions: soft reset and hard reset.

ATTENTION
Incorrect handling may cause damage to property!
▶ Data stored in the flash memory or on a memory card is not lost. First, perform a soft reset. The MC 92N0ex is re-started and all stored data records and entries are preserved. If the MC 92N0ex still does not respond after a soft reset, perform a hardreset.

ⓘ   Any data previously synchronized with a computer can be restored at the next connection.

7.1.2.1   Warm boot

To perform a soft reset

Perform a soft reset if applications stop responding.

1. Press and hold the On/Off button until the menu appears.
2. Touch Reset.
3. The device shuts down and restarts.

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7.1.2.1.1   Cold boot

ATTENTION
Incorrect handling may cause damage to property!
▶ Performing a hard reset with an SD card installed in the MC9200 may cause damage or data corruption to the data on SD card or the SD card itself.

To perform a hard reset (if the device is completely non-responsive, skip steps 1 and 2):

1. Press the red **Power** button.
2. Tab **Safe Battery Swap**. The indicator LED bar lights red.
3. Press the primary battery release on the MC92N0 to partially eject the battery from the MC92N0.
4. While the battery is partially released, simultaneously press and release the trigger and the Power button.
5. Push the battery to fully re-insert it in the MC92N0. One audible click can be heard as the battery is fully inserted.
6. The MC92N0 reboots.
7. When the screen turns off, release the buttons.
8. The MC92N0 reboots.

7.2   USB connection does not work

Problem:

Active Sync or Microsoft Mobile Device Center connection is not working.

Root cause:

Combination of several things.

- The Ex conversion also includes limiting the external circuits. This includes the USB interface.
- Problem occurs especially on Dell and HP computers. However, it can also affect other PC's.

Note:

Due to the modification for Ex i, the USB interface is at the lower limit of the interface specification.
When connecting to computers, the manufacturers use interfaces that are also in the lower part of the specification may lead to connection problems.

Solution:

Use of an external USB hub with external power supply.

Important note:

- The USB interface used must be a maximum of USB 2.0
- USB 3.0 is not supported

Further solution if it does not work:

- Clean Boot to reset device.
  => In rare cases log files in the system additionally prevent a connection.
- If the devices are built before February 2015, then a technical change is required since February 2015, the state of the art.
  To check is necessary
  Type number
  Serial number

Affected devices:

Device	Ex-certification	Type	Affected
MC92N0ex series Zone 1	Zone 1: PTB 13 ATEX 2019X IECEx PTB 13 0043 X	17-A1A3-xxxx/xxxxxxxx	**Yes**
MC92N0ex series Division 1	Division 1: UL File E226123	17-A1A1-xxxx/xxxxxxxx 17-A1A2-xxxx/xxxxxxxx	**No**
MC92N0ex series Division 2/ Zone 2/22	Division 2: UL 20151222-E321557 Zone 2/22 EPS 14 ATEX 1 782 X IECEx EPS 14.0100X	B7-A2A1-xxxx/xxxxxxxx B7-A2A3-xxxx/xxxxxxxx B7-A2A4-xxxx/xxxxxxxx	**No**

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8.   Service, Inspection, Repair

Commissioning and service of Mobile Computers may be conducted exclusively by trained and qualified staff! The staff is familiar with the installation, assembly, commissioning and operation of the Mobile Computers, has been informed about the risks and has the qualifications necessary for this work.

8.1   Service intervals

The mechanical state of the device should be regularly checked. The service intervals will depend on the ambient conditions. We recommend that a service be conducted at least once a year. Regular servicing is not necessary if the device is correctly operated in accordance with the installation instructions and under appropriate consideration of the ambient conditions.

> ⚠ **DANGER**
>
> **Prevent electrostatic charging in potentially explosive atmospheres.**
> **There is a risk of fatal injury in an explosive atmosphere!**
>
> ▶   Do not dry wipe or clean devices.

8.2   Inspection

According to EN 60079-17, IEC 60079-17, EN 60079-19 and IEC 60079-19, the owner/operator of electrical plants in potentially explosive atmospheres is obliged to have these plants checked by an electrician to ensure that they are in a correct condition.

8.3   Service and repair work

In addition to Directive 99/92/EC, standards EN 60079-17, IEC 60079-17, EN 60079-19 and IEC 60079-19 also apply to the servicing and repair as well as the testing of accompanying operating devices.

Work connected with assembly/dismantling, operation and servicing may only be conducted by trained specialists. All statutory requirements and other binding guidelines on occupational health and safety, accident prevention and environmental protection must be observed.

8.3.1 Information on sending in for repairs

The following information is required for the repair.

- − Series number of the device (see manufacturer's label)
- − Model number or product name (see manufacturer's label)
- − Software type and version number (see Chapter 6.8)

Manufacturer's label

Please read through the handling guidelines for the RMA process before you send in a defective device for repair. Then complete the RMA form (Return Merchandise Authorization), sign it and send it to our "Returns Centre".

E-Mail: **services@bartec.de**
Fax: +49 7931 597-119

We cannot guarantee the processing within the contractually agreed period for any returns received by us without RMA number.

The handling guidelines and the RMA form are available for download from our website:

http://www.bartec.de

- > Service
- > Automation & Enterprise Mobility
- > RMA form

If you have any questions, please send us an e-mail or give us a call.

E-Mail: **services@bartec.de**
Telephone: +49 7931 597-444

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9.   Disposal

The Mobile Computers contain metallic and plastic parts and electronic components.

ⓘ Our devices are intended as professional electric devices for business use only, referred to as B2B devices under the WEEE-Directive. The WEEE directive sets the framework for waste electric and electronic equipment handling procedures which are to apply throughout the EU. This means that you are not permitted to dispose of this equipment in normal household refuse. It should not be given to the collection sites set up by the public waste management authorities either but instead it should be disposed of in a separate collection in an environmentally sound manner.

Any product we supply can be returned by our customers to us when the time has come to dispose of it. We will ensure that it is disposed of in accordance with the respective applicable statutory regulations.

The sender pays the costs of the dispatch/packaging.

10.   Dispatch and Packaging Information

ATTENTION
Sensitive devices! Damage may be caused by incorrect packaging!
▶   Use original packaging for transport.

11.   Accessories, Spare Parts

Mobile Computer MC 92N0ex-IS

Description	Order number
Spare battery	
7.2 V/2800 mAh, Li-Ion Battery ATEX/IECEx	17-A1Z0-0001
7.4 V/2600 mAh, Li-Ion Battery UL	17-A1Z0-0023
Spare keypad with blue overlay for ATEX / IECEx / UL - ATEX and Division 1	
with 28 keys	05-0080-0438
with 43 keys	05-0080-0440
with 53 keys	05-0080-0441
with 53 keys for VT Emulation	05-0080-0442

Mobile Computer MC 92N0ex-NI

Description	Order number
Spare battery	
7.4 V/2600 mAh, Li-Ion Battery ATEX/IECEx/UL	B7-A2Z0-0044
Spare keypad with green overlay for ATEX Zone 2 and Zone 22 / UL Division 2	
with 28 keys	05-0080-0577
with 43 keys	05-0080-0578
with 53 keys	05-0080-0579
with 53 keys for VT Emulation	05-0080-0580

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General

Description	Order number
SD cards	
with 2 GB	17-28BE-F006/0003
with 4 GB	17-28BE-F006/0004
with 8 GB	17-28BE-F006/0005
with 16 GB	17-28BE-F006/0006
with 32 GB	17-28BE-F006/0007
Screen protector	
5 pieces per package	17-A1Z0-0004
Leather Holster	
for MC 92N0ex-G und MC 92N0ex-K with belt clip and turned part	03-9809-0026
turned part for holster	03-9809-0027
Shoulder strap	03-9829-0091
Docking Station and accessories	
Docking-Station	03-9915-0003
RS232 Connecting cable (Docking station <-> PC)	03-9919-0004
USB- Connecting cable (Docking station <-> PC)	03-9919-0008
Power supply	03-9911-0042
DC-power cable (Power supply <-> Docking station)	03-9919-0028
AC Line cord - 3 wired - EU	03-9609-0011
AC Line cord - 3 wired - US	03-9609-0021
4 slot Ethernet docking station and accessories	
4-fach Ethernet docking station	03-9911-0026
Power supply	03-9911-0043
DC-power cable (Power supply <-> Docking station)	03-9919-0029
AC Line cord - 3 wired - EU	03-9609-0011
AC Line cord - 3 wired - US	03-9609-0021
4 slot Docking-Station and accessories	
4-fach Docking-Station	03-9849-0052
Power supply	03-9911-0043
DC-power cable (Power supply <-> Docking station)	03-9919-0029
AC Line cord - 3 wired - EU	03-9609-0011
AC Line cord - 3 wired - US	03-9609-0021
4 slot Battery charger and accessories	
4 slot Battery charger	03-9849-0062
Power supply	03-9911-0043
DC-power cable (Power supply <-> battery charger)	03-9919-0030
AC Line cord - 3 wired - EU	03-9609-0011
AC Line cord - 3 wired - US	03-9609-0021

12. Additional Information

12.1 Links

https://www.bartec.de/en/

BARTEC website

http://www.bartec.de/automation-download/

BARTEC Downoad website

https://www.zebra.com/de/de.htmlS

ZEBRA website

The ZEBRA page for the MC9200 User Manuals and software of the non-explosion protected version

− Support and Downloads

− Mobile Computers

− Handheld Computer > MC9200

The ZEBRA product information page for the MC9200 of the non-explosion protected version

− Products
− Mobile Computers
− Handheld Computers
− MC9200

http://www.Microsoft.com

Microsoft page for Active Sync or Windows Mobile Device Center

Technical data subject to change without notice.
Revision B / 03/2019

79/79

Declaration of Conformity

Mobile Computer MC92N0ex-IS – Zone 1

Left Certificate (Page 1 of 2)

EU Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de conformité

BARTEC
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

N°   11-A1A3-7C0001_B

Wir	We	Nous
	BARTEC GmbH,	
erklären in alleiniger Verantwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le produit
MC92N0ex-IS	**MC92N0ex-IS**	**MC92N0ex-IS**

Typ 17-A1A3-00/SY******; 17-A1A3-R***/SY******

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**	**ATEX-Directive 2014/34/UE**
EMV-Richtlinie 2014/30/EU	**EMC-Directive 2014/30/EU**	**CEM-Directive 2014/30/UE**
RED-Richtlinie 2014/53/EU	**RED-Directive 2014/53/EU**	**RED-Directive 2014/53/UE**
RoHS-Richtlinie 2011/65/EU	**RoHS-Directive 2011/65/EU**	**RoHS-Directive 2011/65/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 60079-0:2012 + A11:2013
EN 60079-5:2007
EN 60079-11:2012
EN 62368-1:2016
EN 60825-1:2007 (Laser)
EN 62471:2008 (LED)
EN 50364:2010
EN 62479:2010
EN 62311:2008

EN 61000-3-3:2013
EN 300 328 V1.8.1
EN 301 893 V1.7.1
EN 300 330-2 V1.5.1
EN 302 208-2 V1.4.1
EN 301 489-1 V1.9.2
EN 301 489-3 V1.6.1
EN 301 489-17 V2.2.1
EN 55022:2010 +AC:2011
(Class B)
EN 55024:2010
EN 61000-3-2:2014 (Class A)

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EU Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de conformité

BARTEC
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

N°   11-A1A3-7C0001_B

Kennzeichnung	Marking	Marquage
	Ⓔx II 2G Ex q [ib] IIC T4 Gb	
Verfahren der EU-Baumuster-prüfung / Benannte Stelle	Procedure of EU-Type Examina-tion / Notified Body	Procédure d'examen UE de type / Organisme Notifié

PTB 13 ATEX 2019 X

0102 PTB, Bundesallee 100, 38116 Braunschweig, D

CE 0044

Bad Mergentheim, den 10.10.2016

i.V. Nader Halmuschi
BU Leiter ACS

i.V. Michael Schulte
Leiter GW PZ

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EU Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de conformité

BARTEC
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

N°   11-A1A3-7C0002_B

Wir	We	Nous
	BARTEC GmbH,	
erklären in alleiniger Verantwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le produit
MC92N0ex-IS	**MC92N0ex-IS**	**MC92N0ex-IS**

Typ 17-A1A3-R7/SY******; 17-A1A3-R**8/SY******
17-A1A3-R**C/SY******; 17-A1A3-R**D/SY******

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**	**ATEX-Directive 2014/34/UE**
EMV-Richtlinie 2014/30/EU	**EMC-Directive 2014/30/EU**	**CEM-Directive 2014/30/UE**
RED-Richtlinie 2014/53/EU	**RED-Directive 2014/53/EU**	**RED-Directive 2014/53/UE**
RoHS-Richtlinie 2011/65/EU	**RoHS-Directive 2011/65/EU**	**RoHS-Directive 2011/65/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 60079-0:2012 + A11:2013
EN 60079-5:2007
EN 60079-11:2012
EN 62368-1:2016
EN 60825-1:2007 (Laser)
EN 62471:2008 (LED)
EN 50364:2010
EN 62479:2010
EN 62311:2008

EN 61000-3-3:2013
EN 300 328 V1.8.1
EN 301 893 V1.7.1
EN 300 330-2 V1.5.1
EN 302 208-2 V1.4.1
EN 301 489-1 V1.9.2
EN 301 489-3 V1.6.1
EN 301 489-17 V2.2.1
EN 55022:2010 +AC:2011
(Class B)
EN 55024:2010
EN 61000-3-2:2014 (Class A)

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EU Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de conformité

BARTEC
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

N°   11-A1A3-7C0002_B

Kennzeichnung	Marking	Marquage
	Ⓔx II 2G Ex q [ib] IIB T4 Gb	
Verfahren der EU-Baumuster-prüfung / Benannte Stelle	Procedure of EU-Type Examina-tion / Notified Body	Procédure d'examen UE de type / Organisme Notifié

PTB 13 ATEX 2019 X

0102 PTB, Bundesallee 100, 38116 Braunschweig, D

If the sign "X" is placed after the declaration of conformity number, it indicates that the equipment is subject to special conditions for safe use specified in the user manual.

CE 0044

Bad Mergentheim, den 10.10.2016

i.V. Nader Halmuschi
BU Leiter ACS

i.V. Michael Schulte
Leiter GW PZ

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Mobile Computer MC 92N0ex-NI – Zone 2/22

Erklärung der Konformität
Declaration of Conformity
Attestation de conformité

BARTEC
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Nº **B1-A2A3-7C0001**

Wir	We	Nous

BARTEC GmbH,

erklären in alleiniger Ver-antwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le pro-duit
MC92N0ex-NI Zone 2 / 22	**MC92N0ex-NI Zone 2 / 22**	**MC92N0ex-NI Zone 2 / 22**

Typenbezeichnung : **B7-A2A3-0**0/SY**A6**
B7-A2A4-0**0/SY**A6**
B7-A2A3-R***/SY**A6**
B7-A2A4-R***/SY**A6****

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 attesta-tion correspond aux dispo-sitions des **directives (D)** suivantes
ATEX-Richtlinie 94/9/EG	**ATEX-Directive 94/9/EC**	**ATEX-Directive 94/9/CE**
EMV-Richtlinie 2004/108/EG	**EMC-Directive 2004/108/EC**	**CEM-Directive 2004/108/CE.**
R&TTE- Richtlinie 1999/5/EG	**R&TTE- Directive 1999/5/EC**	**R&TTE Directive 1999/5/CE**
RoHS-Richtlinie 2002/95/EG	**RoHS Directive 2002/95/EC**	**Directive Européenne de RoHS 2002/95/CE**
und mit folgenden Normen oder normativen Dokumen-ten übereinstimmt	and is in conformity with the following standards or other normative doc-uments	et est conforme aux normes ou documents normatifs ci-dessous
EN 60079-0:2009	EN 60950-1:2006 +A11:2009; +A1:2010	EN 301 489-1 V1.8.1, EN 301 489-17 V2.1.1
EN 60079-15:2010	EN55022/AC:2011	EN55024: 2010
EN 60079-31:2009	EN 61000-3-2:2006 + A2:2009	EN 61000-3-3: 2008
	47 CFR Part 15, Subpart B, Class B	ICES 003 Issue4, ClassB

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Erklärung der Konformität
Declaration of Conformity
Attestation de conformité

BARTEC
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Nº **B1-A2A3-7C0001**

EN 301 489-3 1.4.1 :2008	EN 300 330-1 1.3.1:2006	EN 300 330-2 1.3.1:2006
IEC 60825-1: (Ed 2.0) Laser	IEC Class2 Laser/2 LED Product	EN 60825-1:2007 LED
IEC 60825-1 (Ed.1) LED	21CFR1040.10 Laser	EN 60825-1: 2007 (Laser)

Kennzeichnung	Marking	Marquage

Ⓔ **II 3G Ex nA IIC T6 Gc**
Ⓔ **II 3D Ex tc IIIC T80°C Dc**
-20°C ≤ Ta ≤ +50°C

Verfahren der internen Fertigungs-kontrolle	Procedure of internal control of Production	Procédure de contrôle interne de fabrication

CE

Bad Mergentheim, den 16.07.2013

ppa. Ewald Warmuth
Geschäftsleitung / General Manager

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Mobile Computer MC 92N0ex-NI – Zone 2/22

Erklärung der Konformität
Declaration of Conformity
Attestation de conformité

BARTEC
BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Nº **B1-A2A3-7C0002**

Wir	We	Nous

BARTEC GmbH,

erklären in alleiniger Ver-antwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le pro-duit
MC92N0ex-NI Zone 2 / 22	**MC92N0ex-NI Zone 2 / 22**	**MC92N0ex-NI Zone 2 / 22**

Typenbezeichnung : **B7-A2A3-R**7/SY**A6**
B7-A2A4-R**7/SY**A6**
B7-A2A3-R**8/SY**A6**
B7-A2A4-R**8/SY**A6****

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 attesta-tion correspond aux dispo-sitions des **directives (D)** suivantes
ATEX-Richtlinie 94/9/EG	**ATEX-Directive 94/9/EC**	**ATEX-Directive 94/9/CE**
EMV-Richtlinie 2004/108/EG	**EMC-Directive 2004/108/EC**	**CEM-Directive 2004/108/CE.**
R&TTE- Richtlinie 1999/5/EG	**R&TTE- Directive 1999/5/EC**	**R&TTE Directive 1999/5/CE**
RoHS-Richtlinie 2002/95/EG	**RoHS Directive 2002/95/EC**	**Directive Européenne de RoHS 2002/95/CE**
und mit folgenden Normen oder normativen Dokumen-ten übereinstimmt	and is in conformity with the following standards or other normative doc-uments	et est conforme aux normes ou documents normatifs ci-dessous
EN 60079-0:2009	EN 60950-1:2006 +A11:2009; +A1:2010	EN 301 489-1 V1.8.1, EN 301 489-17 V2.1.1
EN 60079-15:2010	EN55022/AC:2011	EN55024: 2010
EN 60079-31:2009	EN 61000-3-2:2006 + A2:2009	EN 61000-3-3: 2008
	47 CFR Part 15, Subpart B, Class B	ICES 003 Issue4, ClassB

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Germany

Nº **B1-A2A3-7C0002**

EN 301 489-3 1.4.1 :2008	EN 300 330-1 1.3.1:2006	EN 300 330-2 1.3.1:2006
IEC 60825-1: (Ed 2.0) Laser	IEC Class2 Laser/2 LED Product	EN 60825-1:2007 LED
IEC 60825-1 (Ed.1) LED	21CFR1040.10 Laser	EN 60825-1: 2007 (Laser)

Kennzeichnung	Marking	Marquage

Ⓔ **II 3G Ex nA IIB T6 Gc**
Ⓔ **II 3D Ex tc IIIB T80°C Dc**
-20°C ≤ Ta ≤ +50°C

Verfahren der internen Fertigungs-kontrolle	Procedure of internal control of Production	Procédure de contrôle interne de fabrication

CE

Bad Mergentheim, den 16.07.2013

ppa. Ewald Warmuth
Geschäftsleitung / General Manager

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▶ All certification see **https://www.bartec.de/en/**