

BEETLE /NetX



Modular POS System

User Guide

Edition April 2010

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Manufacturer's Certification



The device complies with the requirements of the EEC directive 89/336/EEC with regard to 'Electromagnetic compatibility' and 73/23/EEC "Low Voltage Directive".

Therefore, you will find the CE mark on the device or packaging.

Tested Safety



The POS system has been provided with the symbol for "Tested Safety".

In addition, the BEETLE has received the UL symbol and cUL symbol.

FCC-Class A Declaration

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Modifications not authorized by the manufacturer may void users authority to operate this device. This class A digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la classe A est conforme à la norme NMB-003 du Canada.

Important notes

The modular POS system BEETLE /NetX conforms to the current safety standards for data processing equipment.

- If this device is taken from a cold environment into the operating room, moisture condensation may form. The device must be absolutely dry before being put into service; an acclimatization period of at least two hours must therefore be observed.
- This device is equipped with a safety-tested power cable and may be connected only to a prescribed grounded-contact power socket.
- When setting up the device, ensure that the power socket on the device and the grounded-contact power socket are easily accessible.
- To disconnect the device from the supply voltage completely, switch off the device and disconnect the power plug of the power supply.
- Ensure that no foreign objects (e.g. office clips) find their way into the device, as this may lead to electric shocks or short-circuits.
- Never plug in or unplug data communication lines during thunderstorms.
- Protect devices from vibrations, dust, moisture and heat.
- Always dispose of used parts, such as batteries, in an environmentally safe manner.
- The ventilation slots of the power supply must remain unobstructed to ensure sufficient ventilation of the equipment. If the equipment is to be fitted, you must ensure that the specified minimum distances are maintained and constant ventilation is provided.
- In emergencies (e.g. damaged housing or damaged power cable, penetration by liquids or foreign bodies), the device must be switched off immediately, the power plug disconnected and the Customer Service of Wincor Nixdorf or your dealer must be notified.
- The lithium battery must be disposed of in accordance with local regulations for special waste. In case of an improper change of the lithium battery it exist an explosion risk.

- The device may only be repaired by authorized qualified personnel. Unauthorized opening of the device and inexpertly carried-out repairs may not only seriously jeopardize the safety of the user, but also cancel all warranty and liability agreements.
- Your BEETLE system is the result of modern technical innovation. So please see for according structural and technical surroundings to guarantee a faultless and efficient work of your BEETLE. Therefore, you should connect your BEETLE or other IT-devices only to power supply systems with separately guided protective earth conductor (PE). This kind of electricity system is known as TN-S network. Do not use PEN conductors!
Please also observe the recommendations of the norm DIN VDE 0100, Part 540, Appendix C2 as well as EN50174-2, §5.4.3. Thus you can help to avoid possible malfunctions.

Introduction

The BEETLE /NetX is the compact, powerful and economical basis for your POS system.

The BEETLE /NetX conforms to the PC/AT industry standard. Powerful Celeron- M processors ensure a quick processing of all operations.

You can connect a variety of different peripheral devices to your BEETLE /NetX and even the choice of the software is not limited to a certain product.

This provides you with a considerable degree of flexibility when arranging the configuration of your POS system.

The BEETLE can also be connected to a network once an appropriate network card has been installed.

In the event of a mains voltage failure, the version with battery and corresponding software enables you to save the data by means of a controlled program shutdown.

Whatever configuration you need: Wincor Nixdorf International GmbH offers the right solution. So, whenever you want to expand your BEETLE /NetX, please contact your Wincor Nixdorf International GmbH branch office or your dealer.

About this manual

This manual describes the modular POS system BEETLE /NetX with a Celeron- M processor.

This documentation is intended to help you to work with the POS system and to serve as a reference work. The detailed table of contents help you find the desired information quickly and easily.



Notes in the manual are marked by this symbol.



This symbol is used for warnings.

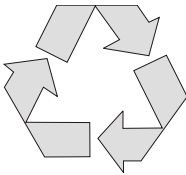
The type and scope of application programs depend on the customer's own selection; therefore, software will not be discussed further in this manual.

You will find a description of the BIOS Setup and the Central Processing Unit in a separate manual ("POS Motherboard, F2-ULV-CPU") see <http://www.wincor-nixdorf.com/internet/us/Services/Support/TechnicalSupport/POSSystems/index.html>.

Care of the BEETLE /NetX

Clean your BEETLE /NetX at regular intervals with a suitable plastic-surface cleaner which can be ordered from Wincor Nixdorf International GmbH. Make sure that the power plug is disconnected and that no liquid finds its way into the device.

Recycling the BEETLE /NetX



Environmental protection does not begin when the time has come to dispose of the BEETLE; it begins with the manufacturer. This product was designed according to our internal norm "Environmental conscious product design and development".

The modular BEETLE /NetX system is manufactured without the use of CFCs and CCHS and is produced mainly from reusable components and materials.

RECYCLING

The processed plastics can, for the most part, be recycled. Even the precious metals can be recovered, thus saving energy and costly raw materials.

Please do not stick labels onto plastic case parts. This would help us to re-use components and material.

You can protect our environment by only switching on your equipment when it is actually needed. If possible, even avoid the stand-by-mode as this wastes energy, too. Also switch your equipment off when you take a longer break or finish your work.

At this time, there are still some parts that are not reusable. Wincor Nixdorf International GmbH guarantees the environmentally safe disposal of these parts in a Recycling Center, which is certified pursuant to ISO 9001 and ISO 14001.

So don't discard your BEETLE /NetX system on the garbage when it has served its time, but take advantage of the environmentally smart, up-to-date recycling methods!

Please contact your competent branch or the Recycling Center Paderborn (for European countries) for information on how to return and re-use devices and disposable materials under the following mail address:

Email: info@wincor-nixdorf.com
or on the internet.

We look forward to your mail.

Warranty

Wincor Nixdorf guarantees generally a warranty engagement for 12 months beginning with the date of delivery. This warranty engagement covers all damages which occur despite a normal use of the product.

Damages because of

- improper or insufficient maintenance,
- improper use of the product or unauthorized modifications of the product,
- inadequate location or surroundings

will not be covered by the warranty.

For further information on the stipulation consult your contract.

All parts of the product which are subject to wear and tear are not included in the warranty engagement. For detailed warranty arrangements please consult your contract documents.

Please order spare parts at the Wincor Nixdorf customer service.

BEETLE /NetX- the individual POS System

Overview

You can connect a variety of peripherals to your modular POS system BEETLE /NetX and thus implement a wide range of expansion stages. You can connect a two or four-line alphanumeric customer display and a four line cashier display. Alternatively, you can connect flat screens.

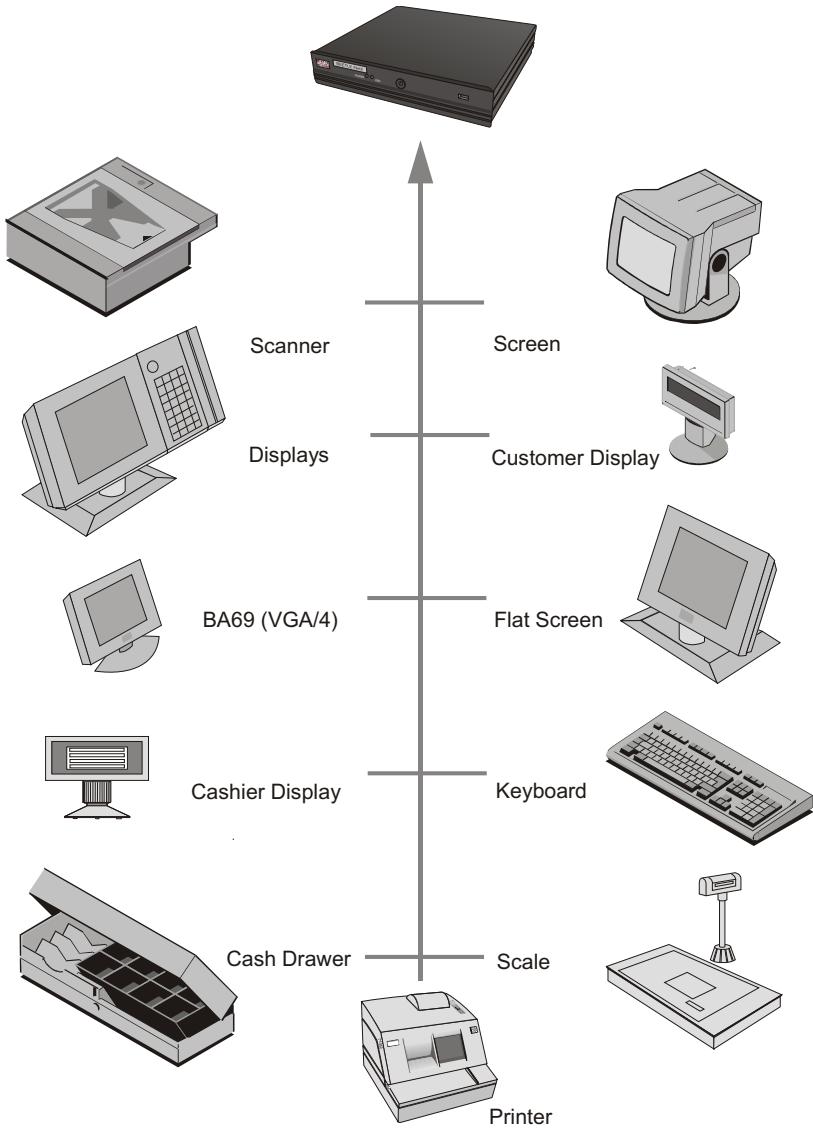
You can

- use various types of scanners such as distance, touch or stationary scanners,
- use scales and scanner scales (please take into account the official certification regulations),
- connect various printers,
- use POS keyboards,
- use different types of cash drawers,
- connect a monitor,
- integrate the BEETLE /NetX in a network

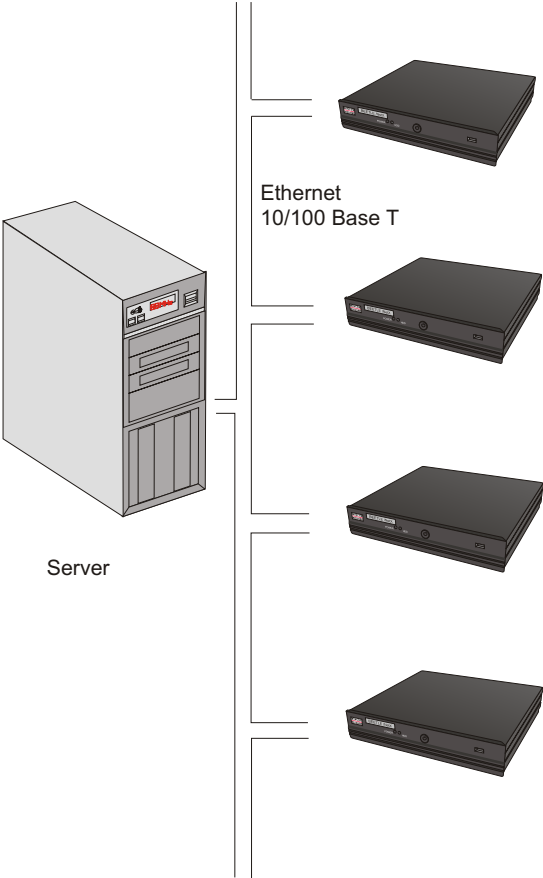
This means that the BEETLE /NetX can meet your requirements at all times, without having to exchange the complete system for a new one, thus saving you time and money.

The illustrations below show you how your modular POS system can grow - from a scanner to integration in a network.

BEETLE /NetX Peripherals



BEETLE /NetX in a network



Before switching on the System

Unpacking and checking the System

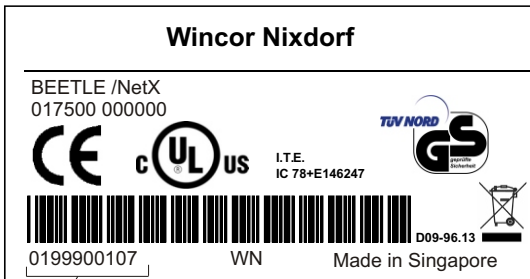
Unpack the components and verify that the scope of delivery is identical to the information on the delivery ticket.

The cardboard box contains the basic unit and a country-specific package. In addition, the basic unit may be equipped with the hard disk and VGA-card or a combination of these components.

Should you notice any

- transport damages or
- discrepancies between package contents and delivery ticket or
- functional defects,

please inform your contracting parties or the branch office of Wincor Nixdorf immediately. Please indicate the number of your delivery ticket and delivery ticket position and serial number of the respective device. The serial number can be found on the label illustrated below which is located at the rear of the housing; it may be necessary to remove the cable cover and storage battery.



The serial number is located on the label below the bar code.



It is absolutely necessary to check the function of the original equipment before you perform any changes (e.g. by installing an expansion card). Only then it is possible to accept a functional defect as a claim.

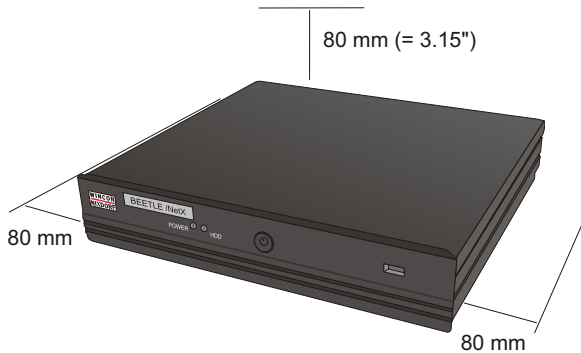


We recommend saving the original packaging for transport at a later time (protection from impact and shock).

Setting up the device

Set up the BEETLE /NetX system where it will not be exposed to extreme environmental conditions. Protect the device from vibrations, dust, moisture, heat and strong magnetic fields.

Mind the **minimum distances** indicated below! If the equipment is to be fitted, you also must ensure that the specified minimum distances are maintained and constant ventilation is provided. The immediate ambient temperature of the system must not exceed 40° C (104° F).



The fitting depth may be equal to the overall depth of the equipment including the cable cover.



Please meet these minimum distances also with the power supply pack.



If an optional I/O hub is used the minimum distances to that device are 50 mm (1.97").

Vertical installation of the equipment

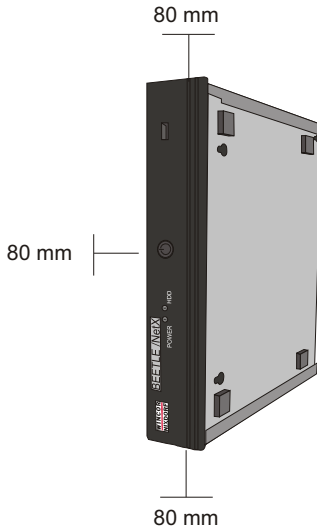
Three bore holes are located at the underside which allows the BEETLE /NetX to be suspended by means of 3 screws. The minimum distances listed in the figure must be maintained; otherwise, a sufficient ventilation of the equipment is not guaranteed.

BEFORE SWITCHING ON THE SYSTEM

The BEETLE /NetX is designed for horizontal mounting. If you install the BEETLE /NetX in vertical position, you have to attend to the following:

- Three breakable bore holes are located at the underside, which allow the BEETLE /NetX to be suspended by means of the screws.
- The screws must not be stronger than 4.5 mm (0.18").
- Mind the following minimum clearances also for vertical mounting to ensure sufficient ventilation:

upwards: 80 mm,
downwards: 80 mm
sideways: 80 mm

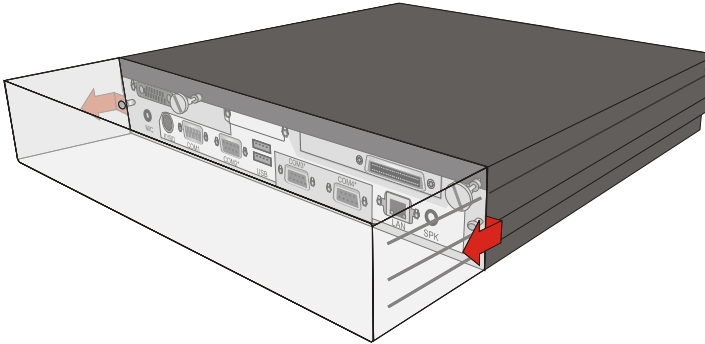


- A surface made of nonflammable material (e.g. concrete or metal) must be located underneath the vertically mounted power supply unit.

Cabling of the BEETLE /NetX

Follow the steps below in the order given when installing devices:

- Make sure that the power switch on the power supply is set to OFF.
- If present, the cable cover must be removed.



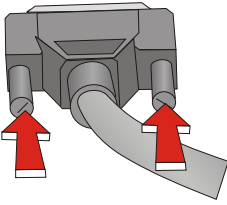
In order to remove the cable cover, push it out off the guides marked with arrows in the figure above.

- Connect the data cables and fix them.
- Connect the power supply unit via the DC cable to the BEETLE /NetX.
- Connect the power cable to the plug socket of the power supply unit.
- Connect the power cable to the socket outlet.

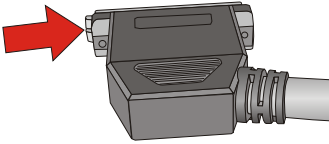


Always make sure that the system is switched off when you do cabling works.

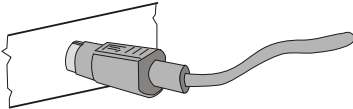
Securing the data cable



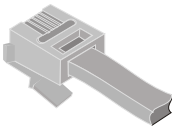
Secure interface connectors with knurled screws manually.



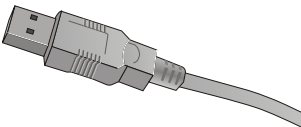
To secure the DC plug push the metal locking to the right.



Mini-DIN plugs latch in when you insert them. Check the lock by slightly pulling the cable. Maybe you will have to lock the plug by slightly pushing the cable.

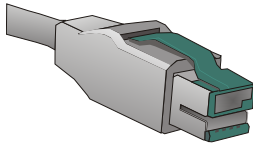


RJ12 plugs latch in when you insert them.

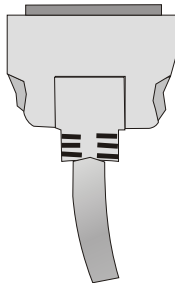


Standard USB connectors do not latch in place when plugged in and can be unplugged with a gentle pull.

MOUNTING THE CABLE COVER



USB Plus Power connectors lock in place when plugged in.



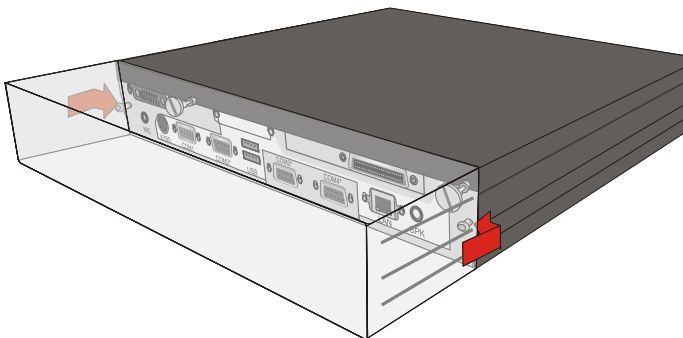
TFT connectors lock in place when plugged in.

Mount the cable cover after the cables have been plugged.

Mounting the cable cover

The scope of supply of your BEETLE /NetX includes a cable cover. Before mounting the device, you should first remove the cable openings where necessary. This depends on the cables which you wish to lay.

Tools are not required as the plastic parts can be removed by hand.



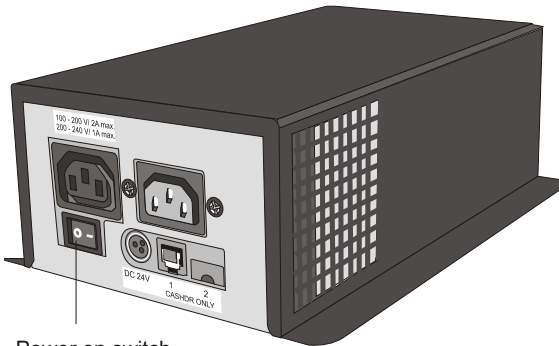
In order to mount the cable cover, insert it in the bolts at the backside of the BEETLE (see arrows).

Connecting to the Mains Power Supply

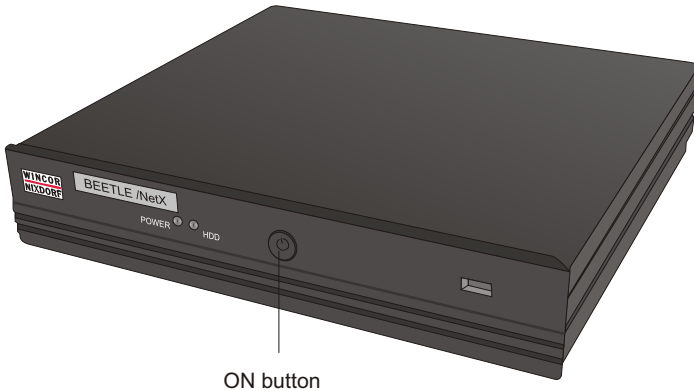
All devices belonging to the modular BEETLE /NetX system that have a separate power cable must be connected to the same electric circuit.

- Ensure that the power switch at the backside of the power supply is switched off.
- Make sure that all data cables on the system unit and peripherals are connected correctly.
- Plug the power cable into the socket at the rearside of the power supply unit.
- Connect the power supply unit to the power outlet.
- Connect the power supply unit via DC cable to the BEETLE /NetX.

Start the system by switching on the power supply unit (Power on switch at the backside) and the BEETLE /NetX (Power on button at the front side).



Power on switch



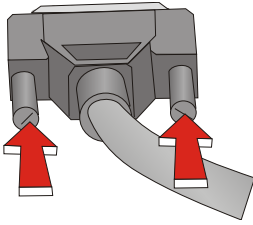
The power pack can be connected to all standard power supply networks. The unit adjusts automatically to the respective voltage. A fan provides the required ventilation. The maximum output of the power pack is 245 W.

Disconnecting cables

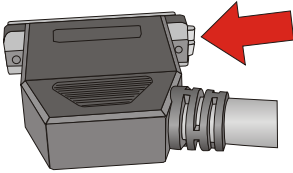
Never unplug a cable by pulling on the cable; always take hold direct of the plug itself. Follow the procedure below when disconnecting cables:

- Turn off all power and equipment switches.
- Remove the cable cover.
- Unplug all data communication cables from the sockets of the data networks.
- Unplug all power plugs from the grounded-contact power sockets.
- Unplug all cables from the devices.

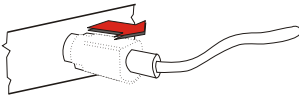
DISCONNECTING CABLES



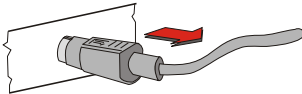
Manually loosen the knurled screws of the DC connector at the power supply.



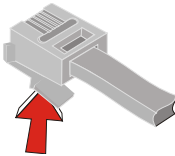
To release the DC plug push the metal locking to the left.



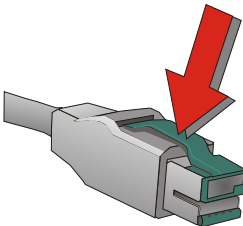
With MINI-DIN plugs, the plug remains inserted until released.



Pull the plastic covering from the connecting socket with your thumb. The lock is released. The metal of the plug is visible.

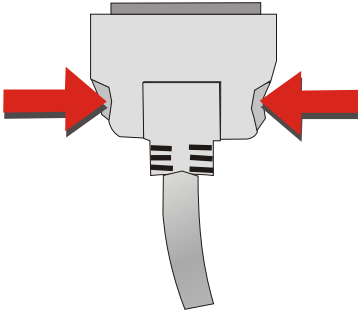


RJ12 plugs lock in when you insert them. To release them push the latch under the plug to the top.



The powered USB connector is disengaged by pressing the spring that is marked by an arrow.

BASIC SETTINGS



To release TFT (LCD) connectors, press the interlocks on the left and right side.

Basic settings

Ex works, the BEETLE /NetX is configured to your order. Your configuration must be subsequently adapted to support supplementary devices such as scanners. For more information, contact the Wincor Nixdorf International GmbH branch office responsible for your area.

Adjusting the loudspeaker

You can set the volume as desired by means of a menu in the BIOS Setup (see chapter "BIOS setup" in the manual "POS Motherboard, F2-ULV-CPU").

Light emitting diode (LED)

The LEDs are labelled with HDD for the left LED and with POWER for the right LED. The left LED (yellow) lights while the hard disk is being accessed. The right LED (green) lights when the BEETLE /NetX is switched on. The LED on the right side will light yellow, when the system is in Stand-by-mode.

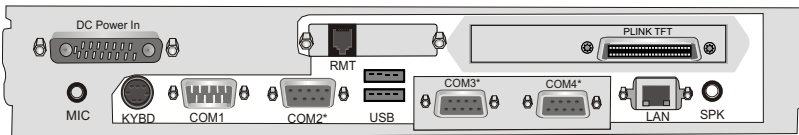
Connecting Peripherals

The peripherals mentioned here are available as options and are not part of the basic configuration. A separate manual is provided for each of the connectable components. For more detailed information, please consult the relevant documentation.

The figure shows the back panel of the BEETLE /NetX (F2 ULV CPU), standard version, with the locations of the connecting sockets and connecting plugs. If you wish to connect a monitor, however, you must also have a video board.



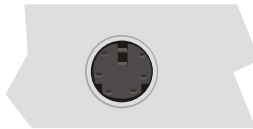
Connecting peripherals with the system switched on is not allowed (exception: USB devices).



Rear panel of the BEETLE /NetX (Standard)

Keyboard (KYBD)

The BEETLE /NetX has a 6-pin mini-DIN jack for connecting a keyboard. Make sure that the connector is plugged firmly into the socket to prevent malfunctioning. Power is supplied to the keyboard via this socket. If you wish to connect a standard PC keyboard with DIN connector, you must use a special adapter cable, obtainable from the Wincor Nixdorf International GmbH branch office responsible for your area.



In addition to the keyboard it is possible to connect a PS/2 mouse via y-adapter, activation via BIOS setup.

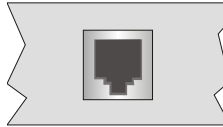
CONNECTING PERIPHERALS



When removing cables with locks, please pull the cable at the connector housing.

Cash drawer

The power supply unit has one RJ12 socket for connecting a cash drawer. Make sure that the connector is plugged firmly into the socket to prevent malfunctioning. RJ12 plugs lock in when you insert them. Power is supplied to the cash drawer via this socket, P24V +5% / -15%.



Connecting daisy chained cash drawers and 12V OEM-drawers is prohibited!



Connect cash drawers only (no telephon).

Scanners and scales (COM1 - COM4*)

Depending on the systems configuration, scanners not supplied with power are connected to the COM2*, COM3* or COM4* serial interface (standard setting COM3). Connect scales with their own power supply to the COM1 interface. COM1 is designed as a 9-pin D-sub plug, whereas COM2* - COM4* are 9-pin D-sub jacks.

Make sure that the scanner connector is plugged securely into the socket to prevent possible malfunctioning.



If scales which are not supplied by Wincor Nixdorf International GmbH are connected to the BEETLE /NetX, you must obtain a Wincor Nixdorf licence for the driver software.



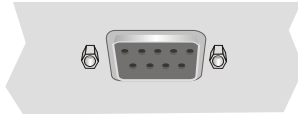
If COM2 is equipped with a connector, the interface does not carry a current.



The COM1 or COM2 interface is without effect if a TFT adapter with touchscreen function is installed (adjustment necessary in the BIOS setup).

Customer or Cashier display (COM2* - COM4*)

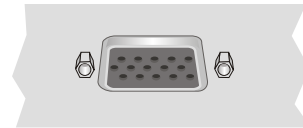
Depending on how the system is configured, the customer display is connected to either the COM2*, COM3* or COM4* serial interface. The interface connection is a 9-pin D-sub jack. Make sure that the connector for the customer display is screwed firmly to the socket to prevent possible malfunctioning. Power is supplied via this jack.



If COM2 is equipped with a connector, this interface does not carry a current.

Monitor

If a CRT adapter is installed, you can connect a monitor to the BEETLE /NetX via the 15-pin D-sub jack on the CRT adapter. Power is supplied to the monitor via the AC-outlet on the BEETLE /NetX, located on the back of the housing.



A LCD screen can be connected alternatively if a TFT adapter is installed.

TFT - LCD Display

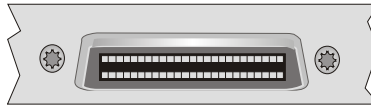
If a TFT adapter is installed you can connect a Panellink-TFT to the BEETLE /NetX. Connect the 40-pin data cable of the LCD to the system. The signals for the touch screen function and the power supply is also made via this cable. To implement the touch screen functionality for the COM2* or

CONNECTING PERIPHERALS

COM1* interface you have to change some system settings in the BIOS setup.



The COM2* or COM1* interface is without effect if the onboard TFT adapter with touch screen function is installed. In this case the interface is not available for other peripherals.

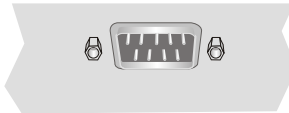


Connecting standard PC peripherals (COM1)

You can connect additional standard peripherals to the BEETLE /NetX via the COM1 serial interface.



Make sure that all additional devices are provided with the CE mark.



Network

The system can be connected to a network (LAN) from the POS terminal back panel.

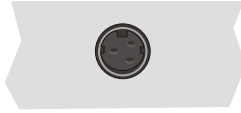


Only connect shielded LAN cables (CAT5) as these offer a better protection in case of interferences in a network.



Modular printers

Appropriate POS printers can be connected via the low-voltage jack 24V, max. 3A via non-UPS. A connecting cable with a HOSIDEN plug is required for this.



Connect only cables to the 24V connector which are marked with DP-1 or DP-2.



Do not connect the HOSIDEN plug when the system is turned on, this can lead to an automatic reboot of the system.

USB (Universal Serial Bus)

You can connect several USB peripheral devices to the USB or powered USB interface (12V or 24V).



12V



24V



Only connect devices equipped with a shielded cable to the USB-interface.

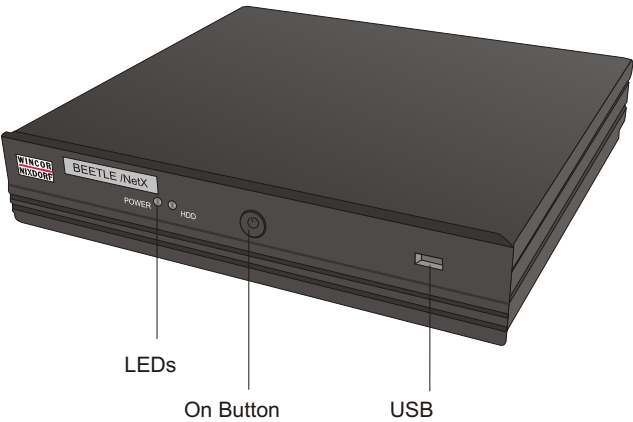
RJ10/RMT jack (optional)

You connect the remote (RMT) interface of your POS system via a cable to the RMT interface of the display (BA8X). You use the RMT function by pushing the ON/OFF button of the display. The Remote On/Off function (RMT) enables you to wake up a BEETLE system out of either standby/ hibernation or soft-off mode. It also puts a running system into standby / hibernation mode. The activated mode is depending on the settings of the operating system.

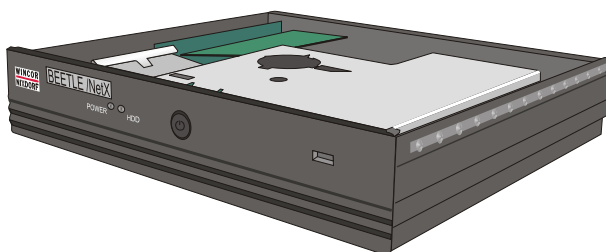
BEETLE /NetX- the Components

Overview

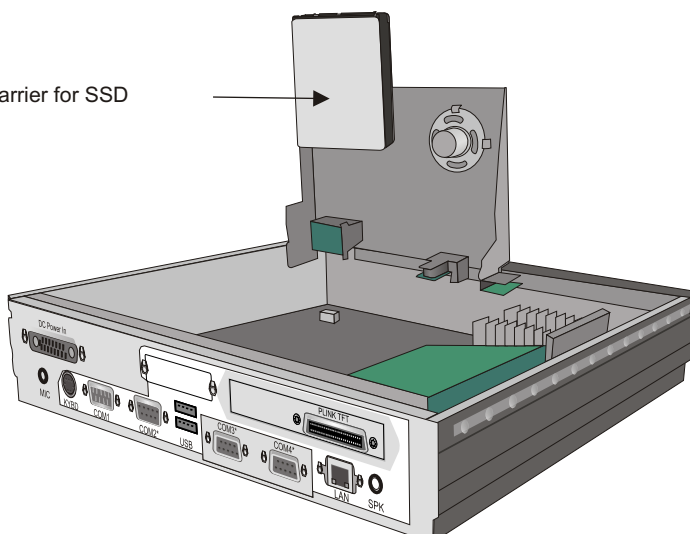
BEETLE /NetX: Exterior view.



BEETLE /NetX: Interior view.



Carrier for SSD



Power pack

The external power pack can be connected to all conventional power supply networks. It automatically adjusts itself to the particular voltage and is fan-cooled. The power output of the power pack is maximum 245 W.

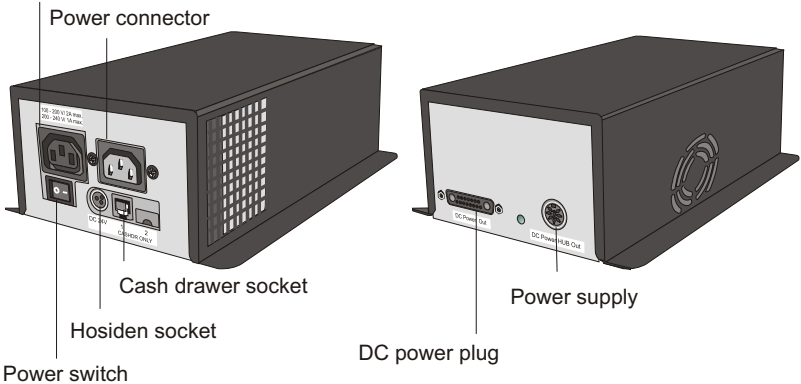
Interfaces at the rear side:

- Power connector
- Power output for a monitor
- Power switch
- Cashdrawer socket
- Power supply for the printer (DC24V, HOSIDEN socket)

Frontside:

- Power supply for BEETLE /NetX (DC)
- Power supply for I/O hub

Power output socket



The power pack must be removed or replaced by authorized qualified personnel only. Only replace power packs released by Wincor Nixdorf.



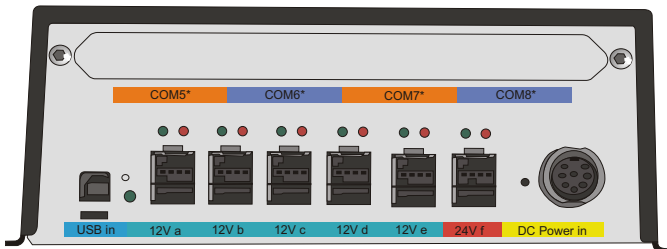
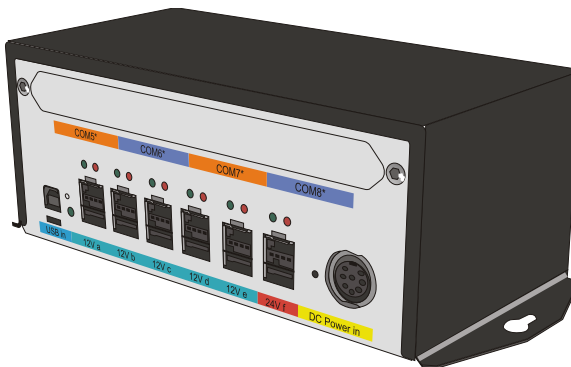
To disconnect the device from the supply voltage completely, switch off the device and disconnect the power plug.

I/O Hub (Option)

A USB cable connects the (optionally available) I/O hub to the BEETLE system and carries out the data exchange. Power is supplied via connection to the power supply unit (DC power-in). Besides the power distribution the hubs make sure that always but one USB device can send it's data to the host controller.

The hubs can be connected arbitrarily, thus resulting in a tree structure

There are five 12V and one 24V USB interfaces available. A USB cable (connected to the «USB- in» socket) carries out the data exchange between BEETLE system and peripheral devices.



The LEDs report the following:

Blue LED: Lights when the hub is operable *and* a USB device is connected to «USB in».

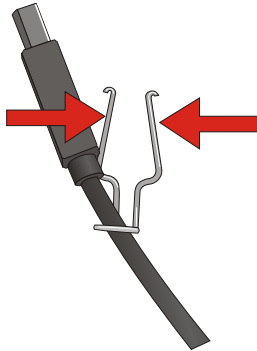
I/O HUB (OPTION)

Green LEDs: Light when a USB device is recognized as connected and operable.

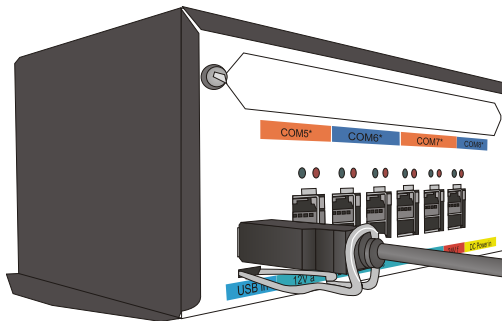
Red LEDs: Over-current at one of the 5V standard USB connections.

Securing the USB Cable

To protect the USB cable against accidental removing it is fixed by a clamp. Mind the following:



Plug the connector into the socket and push the clamp inwards. When the clamp is fixed, release it and the USB connector will be secured.

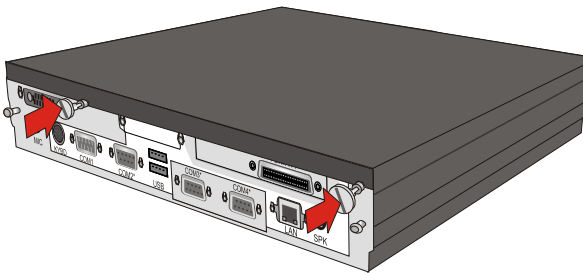


2.5" SSD (Option)

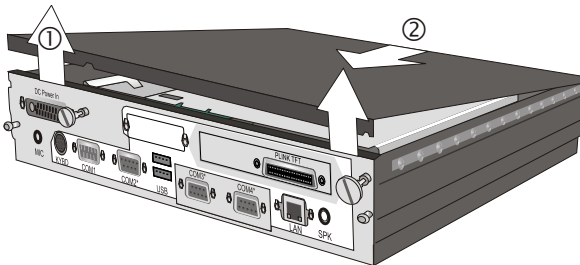
Optionally the BEETLE can be equipped with a 2.5" SSD (Solid State Drive) storage medium. The SSD is to be installed like a usual Hard Disk Drive and is connected via a SATA interface. The storage is done on semiconductor modules and not on rotating disks as with hard disks.

Changing a Solid State Drive (SSD)

Make sure that the device is switched off and that the power connector is disconnected.

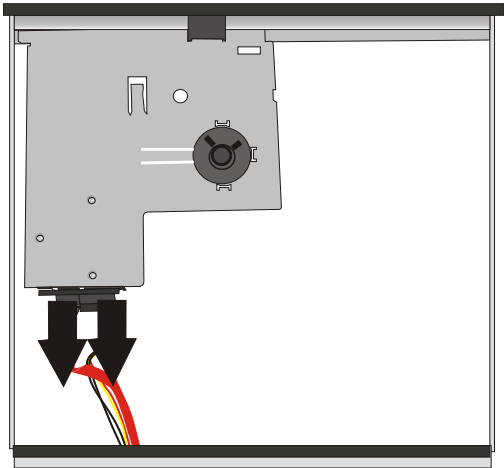


Loosen the two knurled screws at the rear side (see arrows).

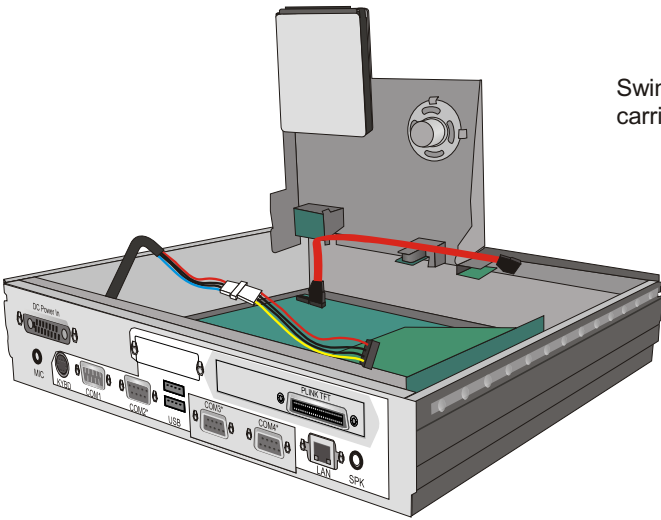


Lift the top cover at the back side (1) and then shift it out of the front guide (2).

2.5" SSD (OPTION)

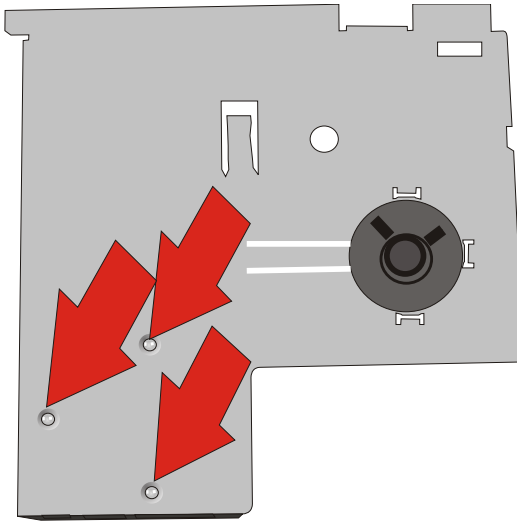


Pull the connector.

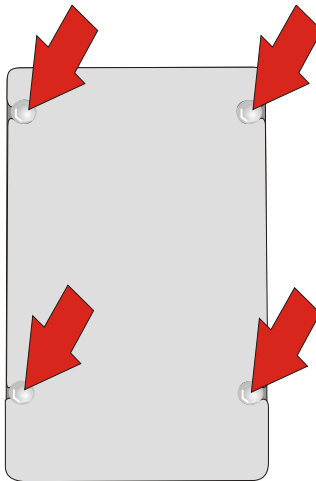


Swing the memory carrier upwards

2.5" SSD (OPTION)



Remove the carrier and loosen the 3 screws that hold the rack and the carrier together.



Loosen the 4 screws that fix the SSD to the rack and exchange the drive.

Screw the drive to the rack and the rack to the carrier. Then insert the carrier into the system. Connect the cables (Data and power) and tilt the carrier down.

Tilt the carrier to the bottom. Close the cover and connect the mains plug. Now you can switch on the system.

Configuration variants

Submodules for the CPU

Various controllers and adapters can be connected to the CPU. The following is a brief description of the available options:

CRT- or TFT-adapter

Both adapters may be installed in parallel. You can connect a CRT monitor or/and a TFT-LCD module with optional touch screen functionality.

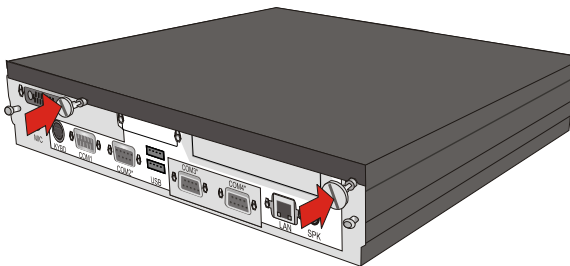
When installing a TFT adapter with touchscreen functionality the cable for the internal loudspeaker must be removed to activate the loudspeaker in the screen display.

The touch functionality must be activated via BIOS setup.

The COM2 interface will be covered and is no longer valid for external use.

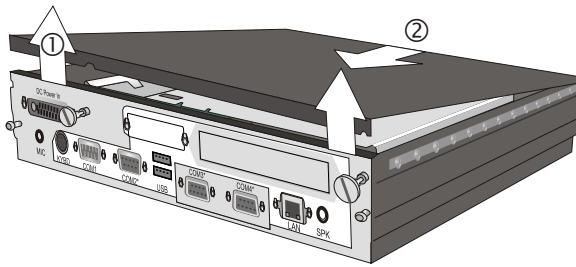
Installing the submodules and adapters

First ensure that the device is switched off. Remove the cable cover and disconnect the power connector or turn it to position "0". Pull the power plug.



Loosen the two knurled screws at the rear side (see arrows).

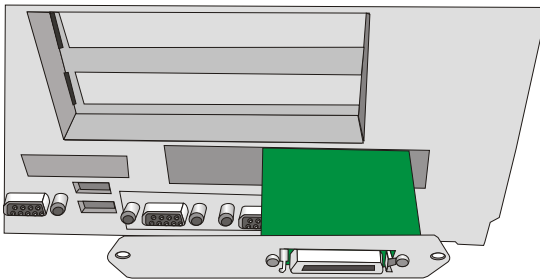
INSTALLING THE SUBMODULES AND ADAPTERS



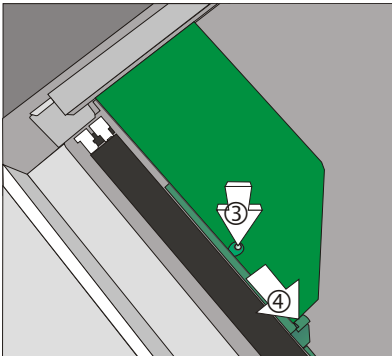
Lift the top cover at the back side (1) and then shift it upwards out of the front guide (2).



Remove the metal cover from the rear side.

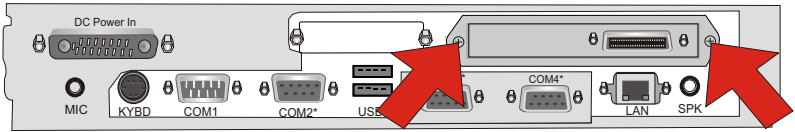


Push the sub-module through the recess of the housing.



Bend the clamp (3) carefully in direction of the illustrated arrow. Stick the submodule to the motherboard and release the clamp thus to fix the sub-module. It has to be plugged correctly on the pin of the motherboard (4).

INSTALLING THE SUBMODULES AND ADAPTERS



Attach the bezel of the submodule using the screws that you removed before. Close the cover.

Switch on the device and mount the cable cover. Connect the mains plug. Now you may switch on the system with the ON button.


Attach the top cover and switch on the system (power switch) at the rearside. Install the cable cover and connect the power plug. Now you can switch on the device with the on/off push button.

Starting up the system

After installing the BEETLE /NetX, switch on the POS system using the ON/OFF button on the front panel and the power switch on the power supply.

The system first performs an automatic self-test to test its basic functions.

For example, you may see the following message (irrespective of processor type) on the monitor:



WN ID xx/xx Datum

xx/xx is the placeholder of the BIOS version number.

The system then determines the medium from which the operating system and POS application are to be booted. Each medium is assigned a logical drive according to the configuration of your BEETLE /NetX.

The following media can be assigned a drive:

- Network
- uDOC
- USB drive

The logical drives are designated C: and D:.

The network is always assigned to the C: drive during the runup procedure. The uDOC can be assigned to the C: or D: drive. The system can only be started from the hard disk if the disk has been configured as the C: drive.

Corresponding to the Setup configuration the modular BEETLE /NetX system can be booted from the following drives:

INSTALLING THE SUBMODULES AND ADAPTERS

- uDOC in drive C:
- LAN module with BOOTPROM
- USB drive

Please mind that the storage medium must be system-boot-capable.

The POS system automatically continues the loading process from drive C:.

If the operating system has started up without error, the POS application software is automatically booted if necessary.

A message is displayed as soon as the BEETLE /NetX is ready for operation. For more detailed information, see the description of your application program.

Appendix

Technical data for the BEETLE /NetX

Dimensions		
Width	288 mm	11.34"
Depth	256 mm	10.08"
Height	58 mm	2.28"
Weight	approx. 3.5 kg	
Climatic category		
Class 3K3	DIN IEC 721-3-3	
Class 2K2	DIN IEC 721-3-2	
Class 1K2	DIN IEC 721-3-1	
Temperature		
Operating (3K3)	+5°C bis +40°C	
Transport (2K2)	-25 C bis +60 C	
Storage (1K2)	+5 C bis +40 C	
Input voltage	100 - 120 V 200 - 240 V .	
Max. power consumption	4A / 7A	
Frequency of the system voltage	50/60 Hz	
Noise development	< 47 dB (A)	
Mains power outlet	100 - 120 V / 2 A max. 200 - 240 V / 1 A max	

Interfaces

COM	COM 1 (w/o power supply), COM2*- 4* (power supplied),
USB (Universal Serial Bus) with COM Module	2 USB + 1 front USB or 1 USB + 1 front USB + 6 with external USB-Hub
USB (Universal Serial Bus) w/o COM Module	5 USB + 1 front USB or 1 USB + 1 front USB + 6 with external USB-Hub
PS/2 Tastatur	PC compatible (6pin Mini DIN connector)
PS/2 Mouse	via keyboard Y- cable
On Board Graphic (Display)	supports Onboard adapter for CRT screens and panellink) Resolution: CRT up to 2048x1536 (32Bit Colours) Panellink 1024x768, 800x600 or DVI or a new BA69W
MIC, Speaker	Ports for microphone and loudspeaker
Volume	Adjustable in 3 steps by the BIOS Setup
LAN	RJ45 socket, 10/100 Mbit/s
SATA	for internal ssd

Power Supply

Height	82.6 mm	3.25"
Width	170.6 mm	6.72"
Depth	242.6 mm	9.55"
Weight	2.8 kg	

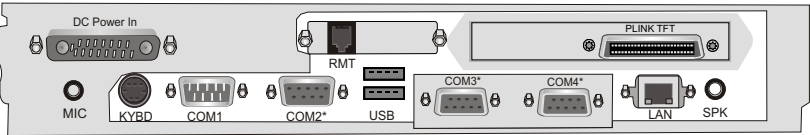
I/O- Hub

Height	73.7 mm	2.9"
Width	223 mm	8.78"
Depth	90.5 mm	3.56"
Weight	0.8 kg	

Connections

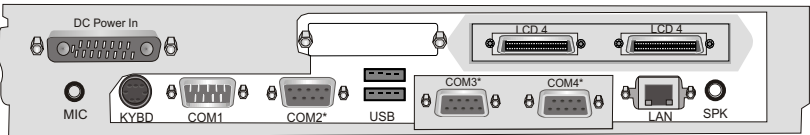
Standard

This is the standard version w/o other options.

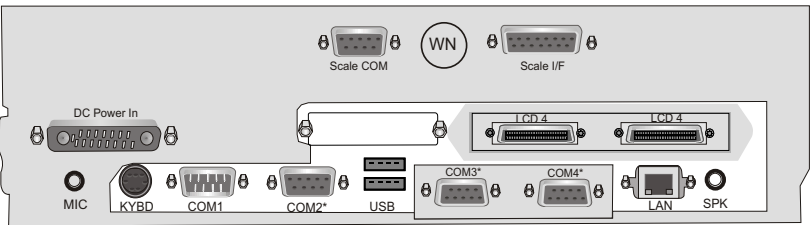


Options

with 2 LCD4 connections



with scale controller



Total Current Consumption of Interfaces

The total current consumption at **5V interfaces** must not exceed **5A**.

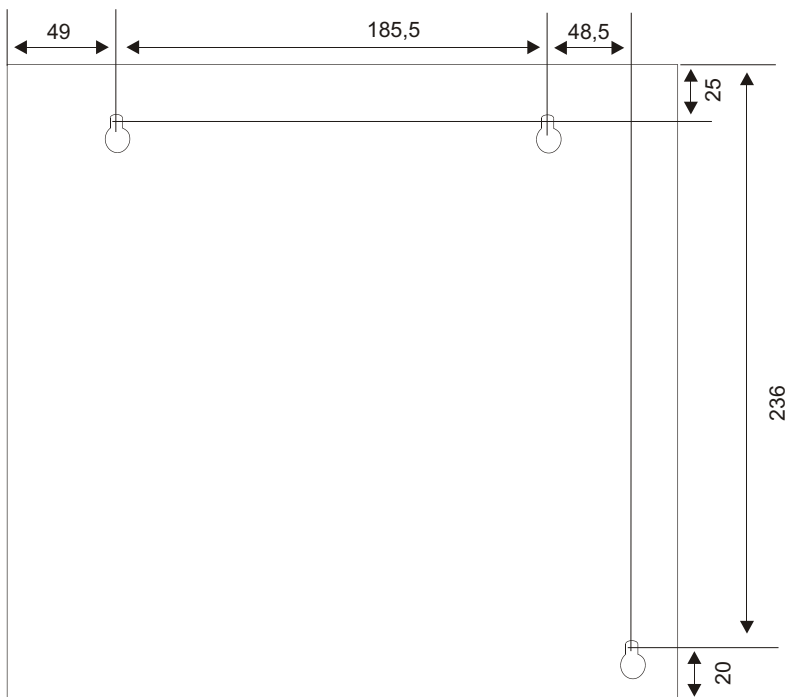
each COM*	= 300mA, in total 500mA
each USB	= 500mA, in total 2A
each USB (HUB)	= 500mA, in total 2A
<u>TFT/LCD-Display</u>	
Max. 5A @ 5V	

The total current consumption at **12V interfaces** must not exceed **5A**.

each COM*	= 600mA, in total 900mA
each USB	= 1,5A, in total 2A
each USB (HUB)	= 1,5A, in total 2A
<u>TFT/LCD-Display</u>	
Max. 5A @ 12V	

Wall Mounting

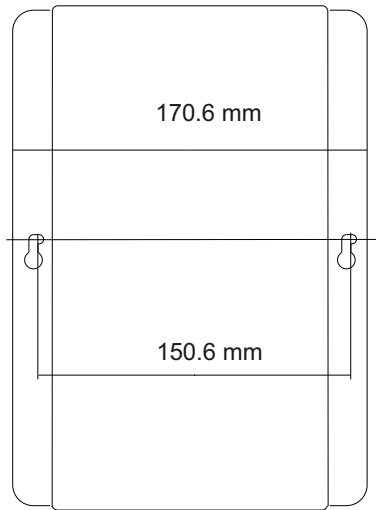
BEETLE /NetX



Dimensions in mm

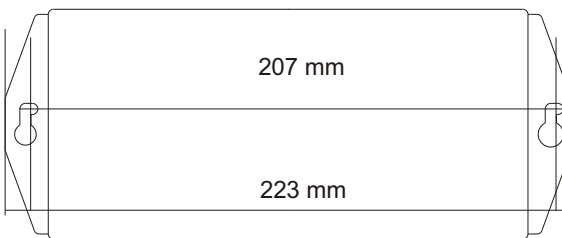
Please mind that the screws used have to carry a weight of 3.5 kg. The diameter of the four screws must be between 4 mm (min.) and 4.5 mm (max.). The length of the screws depends on the material of the surface you are going to mount the device. When mounting the device to a stone or concrete wall use corresponding dowels.

Power Supply



The diameter of the two shoulder screws must be 4 mm and the diameter of the screw heads must be 8 mm. The length of the screws depends on the material of the surface you are going to mount the device. When mounting the device to a stone or concrete wall use corresponding dowels.

I/O Hub



The diameter of the two shoulder screws must be 4 mm and the diameter of the screw heads must be 8 mm. The length of the screws depends on the material of the surface you are going to mount the device. When mounting the device to a stone or concrete wall use corresponding dowels.

Glossary

Bit

A bit is a binary digit (0 or 1). It is the smallest unit used in data processing.

Controller

Serves to control data input and output in a data processing system or between a computer and the connected peripherals.

CPU

Abbreviation of central processing unit. It includes the main components of a data processing system. The CPU monitors all operations and provides data and programs. It comprises the control unit for input and output, the computer and the main memory, divided into ROM and immediate access storage.

DVI

It is a new standard for digital data transfer. A DVI connection transfers a digital signal to the monitor without converting it to analog, thereby making sure that no information is lost or garbled in the digital-to-analog conversion and following analog-to-digital conversion that can occur in current digital display devices. DVI has three subsets: DVI-A, for analog signals, DVI-D, for digital signals, and DVI-I (*integrated*), for both analog and digital signals. In the future PCs and laptops are not only equipped with DVI, but also video devices as DVD.

Interface

Designates the transition point between different hardware units and software units or between hardware and software units of computers or their peripherals.

JEIDA

Abbreviation of Japan Electronic Industry Development Association. Industry standard for memory cards.

Operating system

Refers to all programs that are a component of a computer and are required for operating the system and executing application programs.

PCIe

Abbreviation of Peripheral Component Interconnect Express. The basis for the „classical“ bus structure is a parallel architecture, i.e. all connected terminals share an available bandwidth. With the new technology - PCI

Express - the transfer rates are increased by switched point-to-point connections. A switch connects two PCIe components at a time with full bandwidth and speed.

PCMCIA

Abbreviation for Personal Computer Memory Card International Association. Industry standard for memory cards.

Plug and PLayer (PnP)

PnP means the automatic recognition of hardware components by the system. Thus the installation, integration and configuration of new components is made substantially easier.

Peripherals

Devices serving as an input/output device or storage for a computer. This includes, for example, document readers, keyboards, printers and disk storage.

SATA

Abbreviation for "Serial Advanced Technology Attachments", a serial interface. By using the serial transmission SATA will do with a thin four-wired conductor and a small plug. ATA so far was known for the broad ribbon cable.

Server

This is a computer connected to a local network and whose services are available to all of the network subscribers, e.g. a print server for printing the data from all of the network subscribers on the printer connected to the server.

Solid State Drive (SSD)

SSD emulates a hard disk drive and uses SRAM or DRAM. It is often calling a RAM drive.

VGA

Stands for Video Graphics Array and is the interface for connecting colour monitors.

Abbreviations

BIOS	Basic Input Output System
BPP	Bits per Pixel (Farbtiefe)
CE	European Symbol of Conformity
COM	RS 232 interface
CPU	Central Processor Unit (for example INTEL Celeron-M)
CRT	Cathode Ray Tube
cUL	Canadian Registration (Recognized by UL)
DIMM	Dual Inline Memory Module
DOC	Disk-On-Chip
ESC	Embedded Scale Controller
ESD	Electrostatic Discharge
HDD	Hard disk drive
FDD	Floppy disk drive
IEC	International Electrotechnical Commission
LAN	Local Area Network
MTBF	Mean Time Between Failure
MTTR	Mean Time To Repair
NV RAM	non volatile RAM
OS	Operating System
P-M	Pentium M (INTEL)
POS	Point Of Sales
PnP	Plug and Play, Plug & Play
PS	Power Supply
SSD	Solid State Disk (flash medium)
TCO	Total Cost of Ownership
TDP	Thermal Design Power (INTEL specification)
UL	Underwriters Laboratory (standards)
UPS	Uninterruptable Power Supply
USB	Universal Serial Bus
WAN	Wide Area Network
W LAN	Wireless Local Area Network
WN	Wincor Nixdorf International GmbH
ZC	Zero Cache (technical detail for CPU)