WINCOR NIXDORF

BEETLE /M-II plus

(I1- Motherboard)
Modular POS System

User Guide

We would like to know your opinion on this publication.
Please send us a copy of this page if you have any constructive criticism.
We would like to thank you in advance for your comments.

With kind regards,

Your opinion:

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Order No.: ***1750240395B***

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(I1- Motherboard)

User Manual

Edition March 2014

Contents

Manufacturer´s Certification

The device complies with the requirements of the EC directive 2004/108/EC with regard to 'Electro-magnetic compatibility" and 2006/95/EC "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" (**G**eprüfte **S**icherheit).

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.

Note On the Laser

If your device is equipped with a DVD / DVD-RW drive, the following condition applies:

The DVD/DVD-RW drive contains a light-emitting diode (LED), classified according to IEC 825-1:1993:LASER CLASS 1; it must not be opened.

Safety Notes

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.

Expansion cards with electrostatically sensitive devices (ESD) *may* be marked with this sticker.

Opening the device or handling boards fitted with ESDs, you must observe the following aspects under all circumstances:

- You must always discharge yourself (e. g. by touching a grounded object) before working with boards containing ESDs.
- The equipment and tools you use must be free of static charges.
- Pull out the power plug before inserting or pulling out boards containing ESDs.
- Always hold boards with ESDs by their edges.
- Never touch pins or conductors on boards fitted with ESDs.

Important Notes

The modular POS system BEETLE /M-II plus 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 fault less 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.
- You can connect or disconnect USB devices during operation of your BEETLE, provided that these devices comply with the specifications according to usb.org. Other peripheral devices (such as PoweredUSB printer) should be connected to or disconnected from your BEETLE system only after the BEETLE has been switched off.

Introduction

The BEETLE /M-II plus is the powerful, high performance POS system for multifunctional solutions. A powerful and energy-efficient processor technology ensures a quick processing of all operations.

The BEETLE /M-II plus boasts a wide range of standard PC and retail-specific powered interfaces to connect the numerous peripherals. Additional USB ports are accessible from the front to provide even more convenience. The type and number of interfaces can be customized very flexibly. Optionally there is an DVD-RW drive or a second SATA Hard Disk Drive available for your BEETLE /M-II plus.

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. Whatever configuration you need: Wincor Nixdorf International GmbH offers the right solution. So, whenever you want to expand your BEETLE /M-II plus, please contact your Wincor Nixdorf International GmbH branch office or your dealer (http://www.wincor-nixdorf.com/internet/site_EN/EN/Home/homepage_node.html)

About This Manual

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.

For the peripheral devices of the BEETLE /M-II plus you can find detailed information in the respective manuals. Also, you will find a description of the BIOS Setup and the Central Processing Unit in a separate manual ("POS Motherboard, I1-CPU"). See
http://www.wincor-nixdorf.com/internet/site_EN//EN/Support/Downloads/POSLotterySystems/Manuals/manuals_node.html

Care Of the BEETLE /M-II plus

Clean your BEETLE /M-II plus at regular intervals with a dry, lint-free cloth. If that does not suffice please use 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 /M-II plus

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 /M-II plus system is manufactured without the use of CFC and CHC and is produced mainly from reusable components and materials.
Please do not stick labels onto plastic case parts. This would help us to reuse components and material. At the moment, 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, when your BEETLE /M-II plus it has served its time 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

We look forward to your mail.

Warranty

Generally, Wincor Nixdorf guarantees 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 /M-II plus - the Modular POS System

Overview

You can connect a variety of peripherals to your modular POS system BEETLE /M-II plus and thus implement a wide range of expansion stages. You can connect a 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,
- integrate the BEETLE /M-II plus in a network and
- upgrade the BEETLE /M-II plus, since it can accommodate expansion cards (1x PCI + 1x PCI-Express x4).

This means that the BEETLE /M-II plus can meet your requirements at all times.

Before Switching On the System

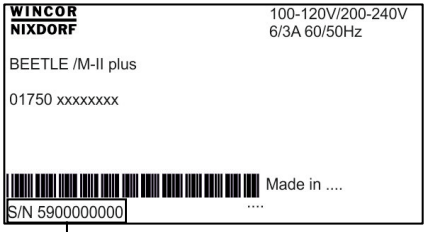
Unpacking And Checking the System

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

The carton contains the basic unit and a country-specific accessories kit. Some ordered composition may be installed.

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 numbers of the respective devices.

The serial number can be found on the label illustrated below (sample). The label is located at the bottom side of the housing.



Serial number

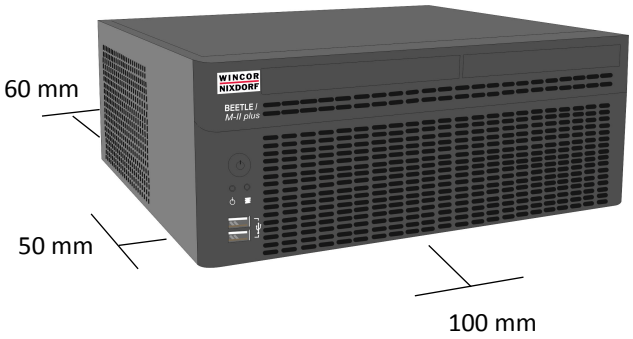
Transport the device only in its original packaging (to protect it against impact and shock).

Setting Up the Device

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

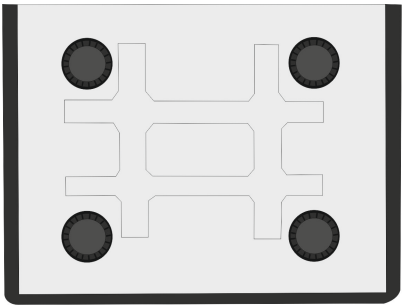
Horizontal Installation

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).

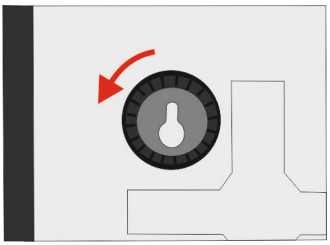


Vertical Installation Of the Equipment

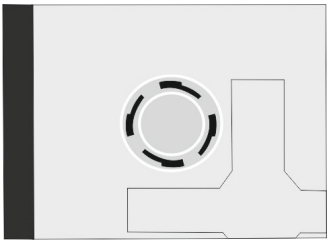
Find four feet covered by a non-skid rubber foil at the rear side of the BEETLE.



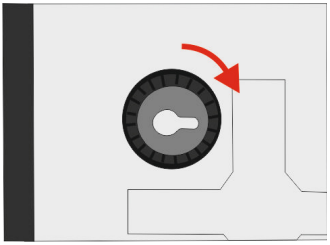
Remove these foils. You see the keyholes for installing the BEETLE /M-II plus with four screws.



By using a screwdriver remove each of the feet, if necessary.



Turn each of them in the position needed for the wall mounting, for example:



For more information (dimensions) see the appendix, chapter "Wall Mounting", page 46.

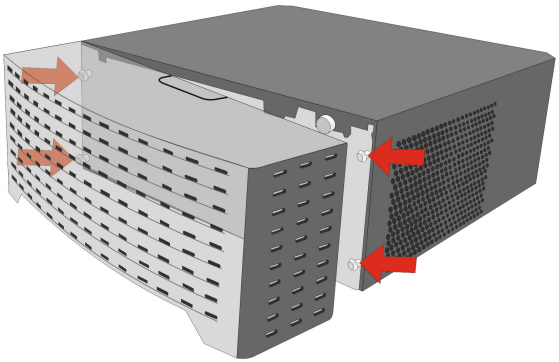
- Mind the following **minimum** clearances also for vertical mounting to ensure sufficient ventilation (see page 10):
  Forward: 100 mm,
  Backward: 60 mm
  Sideways (left): 50 mm

- A surface made of nonflammable material (e.g. concrete or metal) must be located underneath the vertically mounted power supply unit.
- **Recommendation**: Mount the device with the side of the power supply unit (= side without ventilation slots) facing upwards.

Mounting the Cable Cover

Before mounting the optional cable cover, 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.

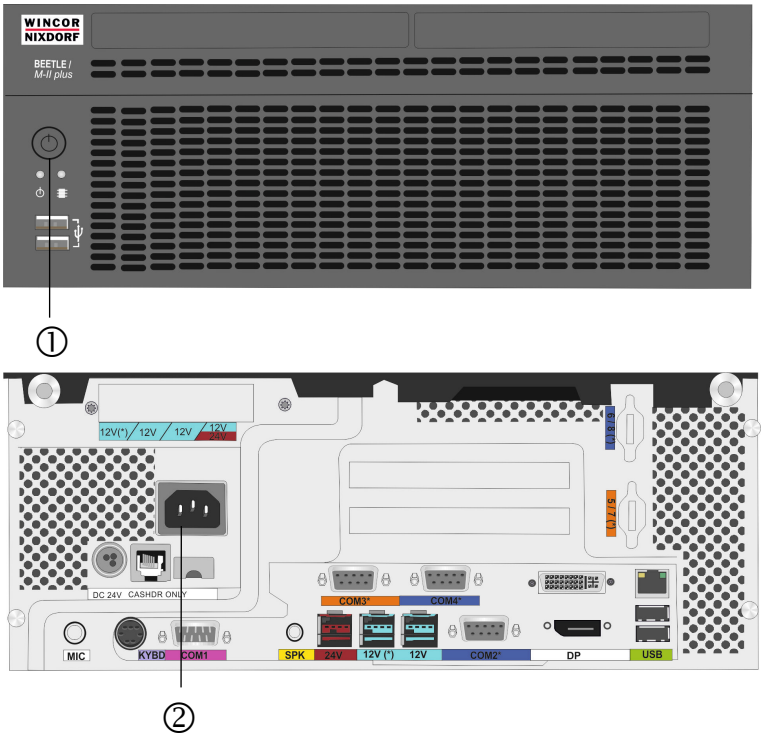


Cabling Of the BEETLE /M-II plus

All devices belonging to the modular BEETLE / M-II plus that have a separate power cable must be connected to the same electric circuit.

- Remove the cable cover, if present.
- Make sure that all data cables at the system unit and the peripherals are plugged.
- Plug one end of the DC cable into the socket of the BEETLE /M-II plus and the other end to the wall socket.

Never connect data cables when the system is switched on.



①	Power Button at the front side
②	Power Connector

At the front side of the system find the Power button which will turn ON and OFF the system. Shortly press the Power button to start the system. Switching off during operation is possible (just press the Power button again for approx. 5 sec.).

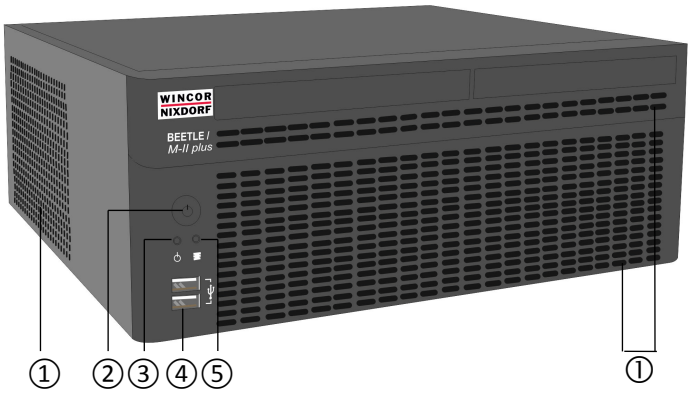
Basic Settings

Ex works, the BEETLE /M-II plus 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.

The System BEETLE /M-II plus

Front Side View



①	Ventilation Slots (Do not cover!)
②	Power Button
③	Power-LED
④	2 USB Interfaces
⑤	HDD/SSD-LED

Power Button

With a power supplied power unit you switch on the system with the power button.

Light-Emitting Diode (LED)

The LEDs are labelled with:

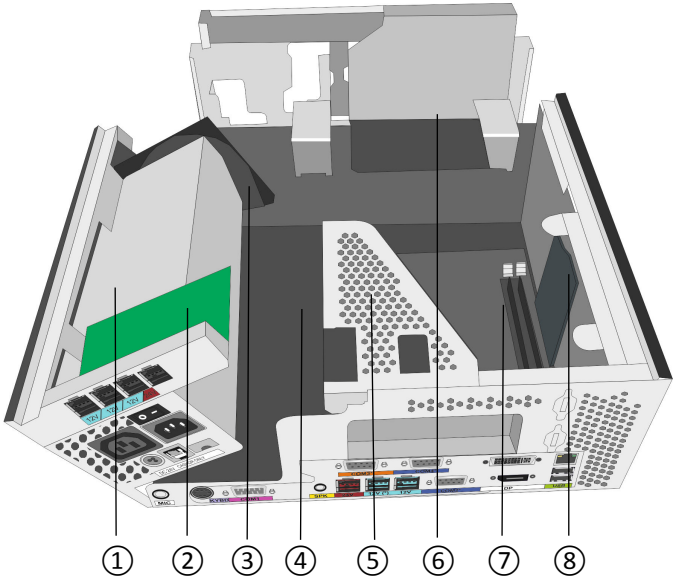
HDD/SSD	right LED flashes yellow	while the hard disk is beeing accessed (reading/writing)
POWER	left LED lights orange	Stand-by mode
	left LED lights green	Device is switched on

USB (Universal Serial Bus)- A, USB 2.0

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

Only connect devices and cables that comply with the valid USB specification.

Interior View



①	Power Supply
②	P-USB Hub (optional)
③	Ventilator of the Power Supply Unit
④	Position of Motherboards
⑤	Carrier for Expansion Cards
⑥	DVD (optional)
⑦	RAM Socket
⑧	Hard Disk Carrier

Connector Panel

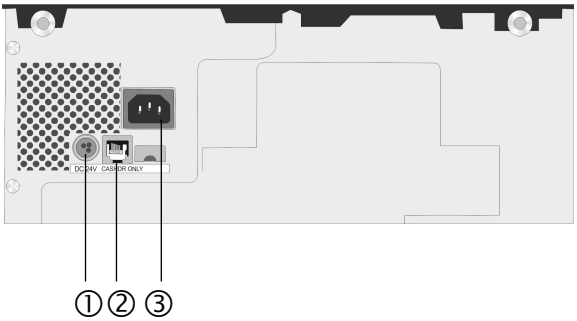
Power Supply

The power supply automatically adjusts to the particular voltage and is fan-cooled. For the specified ratings see page 44, »Technical Data«.

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.

The Power Supply Unit (PSU) carries the 80plus Bronze certificate. So, less energy is needed and less noise is generated as the fan is much lesser activated with a low revolution speed.



①	DC24V (Printer)
②	RJ12 (Cash Drawer)
③	Power Connector

DC24V (Modular Printer)

Appropriate POS printers can be connected via the low-voltage jack 24V, max. 3A. 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 automatically reboot of the system.

RJ12 (CASHDR)

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%).

Connect cash drawers only (no telephone set).

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

Power Connector

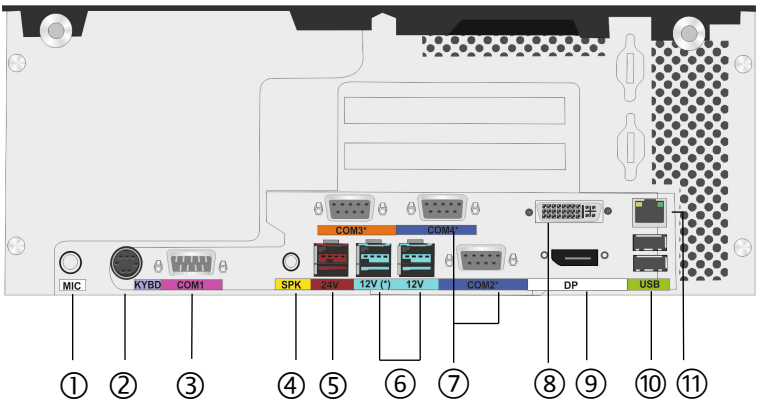
This connector provides the power. Connect the according end of the power cable to this port and the other end to the power socket.

Pull the mains plug to power-off the device.

System Unit

Always make sure that the system is switched off when you do cabling works.
Connecting peripherals with the system switched on is not allowed.

Example for a connector panel of the BEETLE /M-II plus with I1 Mother-board:



①	Jack plug, 3.5 mm (MIC), microphone
②	Mini DIN (KYBD), keyboard
③	1 x D-Sub (COM1 interface)
④	Jack plug, 3.5 mm, SPK
⑤	1 x 24V P-USB
⑥	1 x 12V (*) P-USB, 1 x 12V P-USB
⑦	D- Sub power supplied (COM2*/COM3*/COM4*)
⑧	DVI-I
⑨	DP (DisplayPort)
⑩	2 x USB- A (USB 2.0)
⑪	RJ45 socket (LAN)

Jack Plug 3.5 mm (MIC/SPK)

Physically the microphone (MIC) and the head phone (SPK) jacks are identical as both require 3.5 mm phone jack for data transfer. However, both differ concerning the assignment so that a faultless transmission is only ensured with the designated connection. Besides a microphone a headset can be used alternatively via this interface. The volume can be regulated via BIOS setup.

Mini- DIN (KYBD)

The BEETLE /M-II plus 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 an older standard PC keyboard with DIN connector, you must use a special adapter cable, obtainable from the WN branch office responsible for your area.

D- Sub Plug (COM1)

Connect e.g. scales with their own power supply to the COM1 interface. COM1 is designed as a 9-pin D-sub plug. In addition to the keyboard you can connect a PS/2 mouse via a Y connector.
If scales which are notsupplied by Wincor Nixdorf International GmbH are connected to the BEETLE /M-II plus, you must obtain a Wincor Nixdorf license for the driver software.

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

P-USB (Powered USB)

The P-USB interface is qualified for connections of peripheral devices such as printers, barcode scanners or customer displays. The power supply is either 12V or 24V (marked red, for POS printers). A mechanical code avoids the plugging of a USB 12V connector into a USB 24V jack. This interface can also be used as a USB-A socket.

Always use this onboard P-USB 12V (*) to connect a BA82 or BA83 with additional options or any other multifunctional screens.

D- Sub- Socket Power Supplied (COM2*-COM4*)

The interface connection is a 9-pin D-sub jack for scanner, operator or customer displays without own power supply. Power is supplied via this jack.

Make sure that the connector for a peripheral device is screwed firmly to the socket to prevent possible malfunctioning.

DVI-I

Via DVI interface a high-resolution LCD monitor can be connected to the BEETLE system. Video signals with a max. resolution of 1920 × 1200 pixels/60 Hz can be transmitted.

DisplayPort (DP)

DisplayPort is a standardised digital display interface with a max. resolution of up to 3840 x 2160 pixel and a frequency of 30 pictures/sec. DP uses a smaller connector than DVI.

USB (Universal Serial Bus)- A

You can connect several USB peripheral devices e.g. scanner or scales to these USB.

Only connect devices and cables that comply with the valid USB specification.

RJ45 (LAN)

Here you connect the cable for the connection to a network (LAN).

LEDs

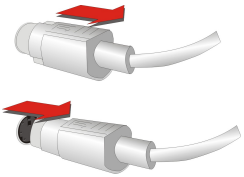
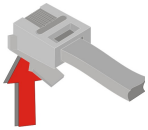
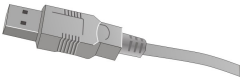
left LED	constantly green	Network connected
	flashes green	Data transfer
right LED	off	10 MBit/s
	constantly green	100 MBit/s
	constantly orange	1000 MBit/s

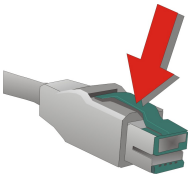
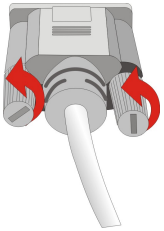
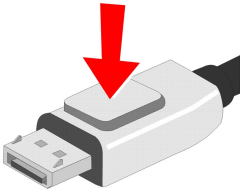
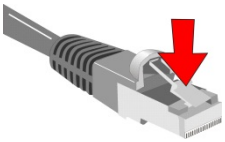
Only connect shielded LAN cables (CAT5/CAT5e for 1000 MBit) as these offer a better protection in case of interferences in a network.

Disconnecting Cables

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

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

	With MINI-DIN plugs (Wincor Nixdorf keyboards), 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.
	To release a RJ12 plug push the latch under the plug to the top.
	You loosen the USB-A- connector by pushing the *covering* of the connector.

	The P- USB connector is disengaged by pressing the spring that is marked by an arrow.
	Manually loosen the knurled screws of the COM or DVI interface connector.
	The DisplayPort connector is disengaged by pressing the button that is marked by an arrow.
	To release a RJ45 plug push down the latch (see arrow).

DVD- RW Drive (optional)

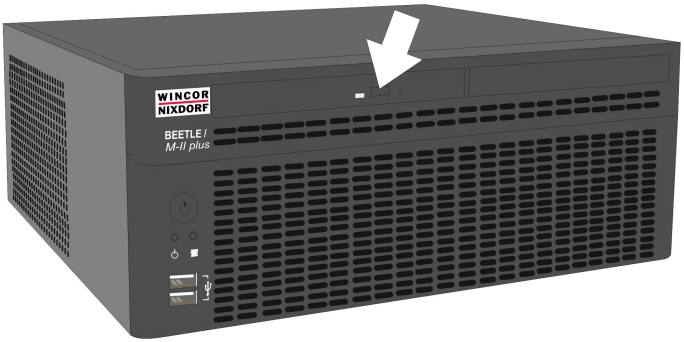
General

Optionally, the BEETLE /M-II plus can be equipped with a DVD-RW drive. The LED at the drive lights up whenever the system accesses the drive.

Operating the Drive

To start the drive, follow the procedure below:

- Plug the power connector.
- Push the power button of the system.
- Press the ejection button (see arrow).



- The drawer is ejected from the drive.
- Place the disk into the drawer with the disks label facing up.
- Then push the drawer softly until it is locked in the drive.

Notes About Discs

- Do not touch the surface of the disk. Always handle it at the edges.
- Never write on a disk with a hard object, like a ball-point pen or pencil and never fix a label directly on the disk.
- Do not expose disks to direct sunlight and avoid storing them in areas subject to high temperatures or humidity.
- For best results, periodically wipe each disk with a soft, dry and lint-free cloth, gently rubbing outward from center.

Storage Media

Following storage media are available

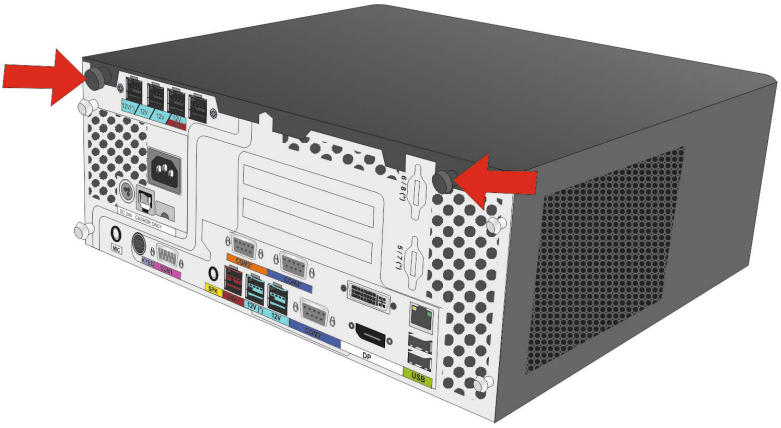
- one 3.5" SATA- hard disk or
- two 2.5" SATA- hard disks or
- one or two 2.5" solid state disk drives.

A solid state disk drive is a data storage drive that uses memory elements in place of a rotating disk to store data. The SSD can substitute the hard disk and emulates a hard disk drive interface. The most SSDs are flash memory based.

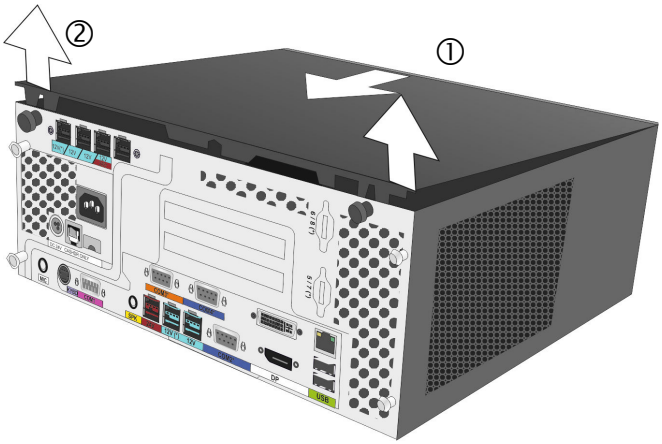
Change of the Data Store

First ensure that the device is **switched off** and that the power connector is disconnected.

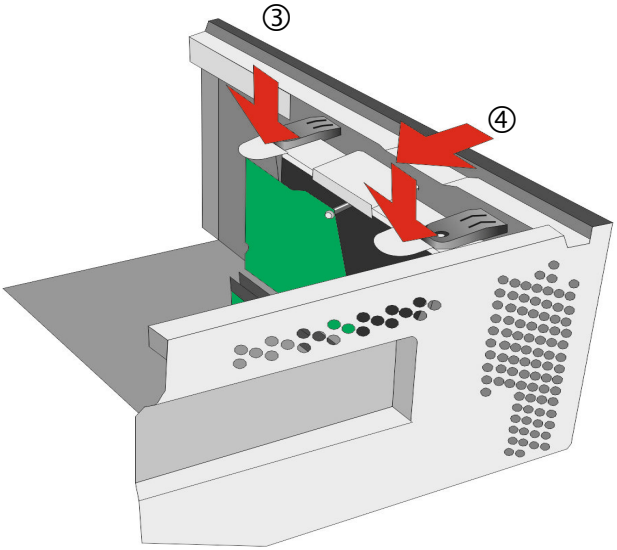
Open your BEETLE /M-II plus by removing the housing cover.
Loosen the two screws at the back side (see arrows).



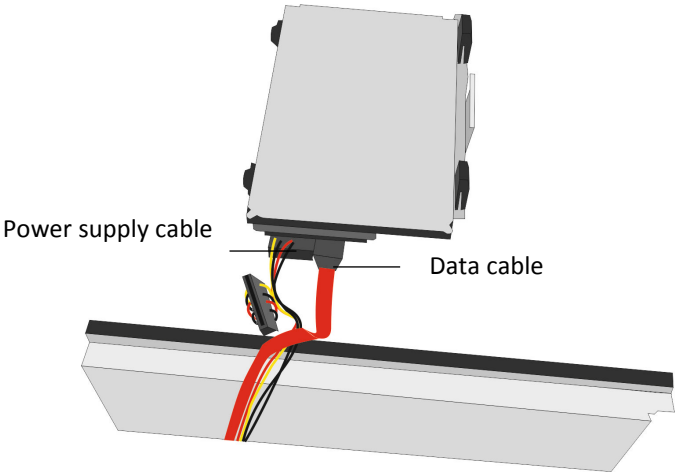
Lift the top cover at the back side (1) and pull it out of the front guide (2).



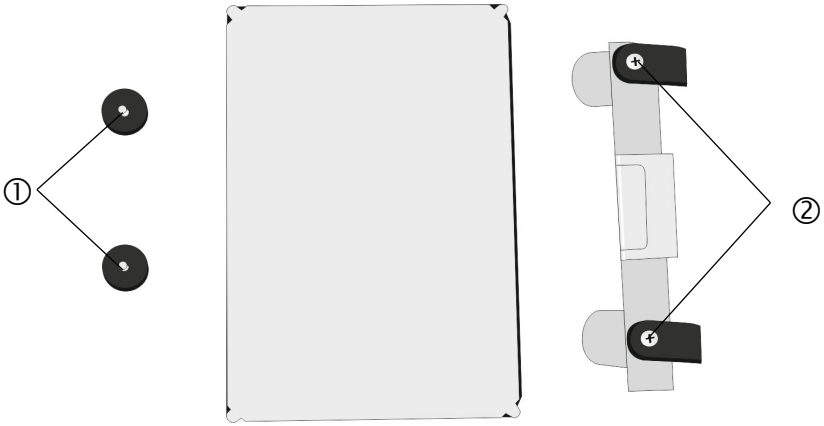
Lift up the DVD drive.
Push the metal plates (3). Tilt the hard disk holder in direction of arrow (4).



Lift up the drive and remove it. Loosen the connecting cables.

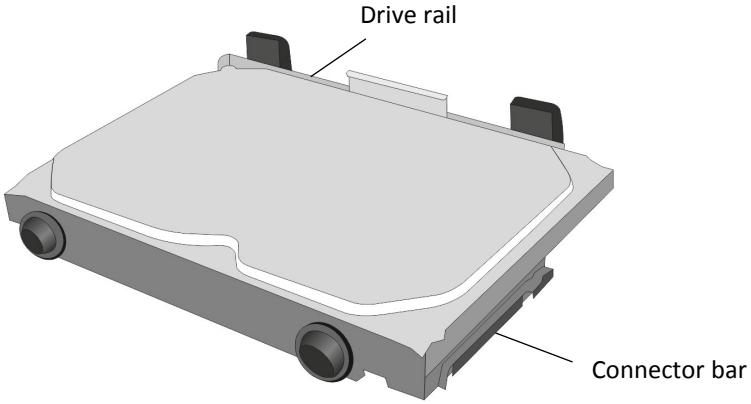


Loosen by hand the buffer screws (1) and remove the two Phillips head screws at the holder (2) with a screwdriver.

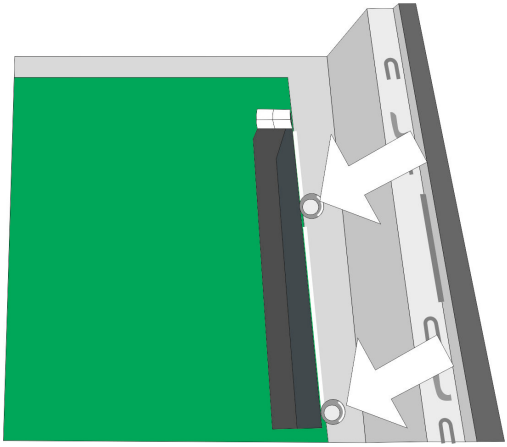


Handle the hard disk with care when installing it and never touch bare electronics.

Change the hard disk.
Fix the drive rail with the two screws and the buffer screws to the hard disk. Please pay regard to the correct fitting position.



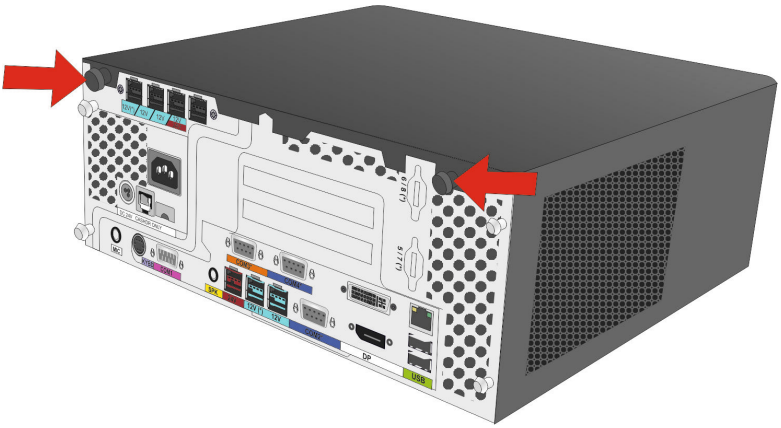
Insert the hard disk in reverse order.
Make sure that the buffer screws are corresponding to the stampings in the base plate (see arrows).



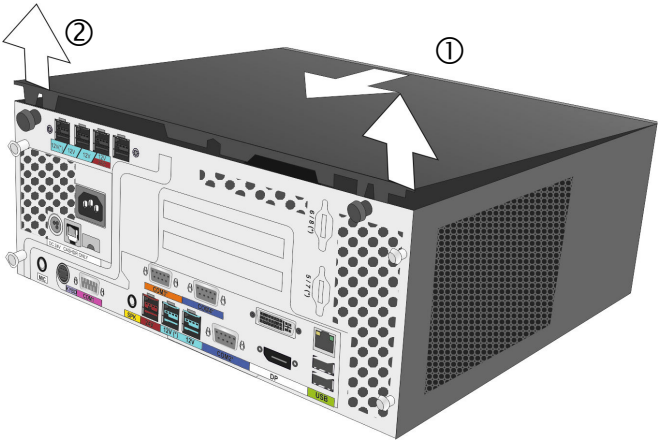
Change of two Data Stores

First ensure that the device is **switched off** and that the power connector is disconnected.

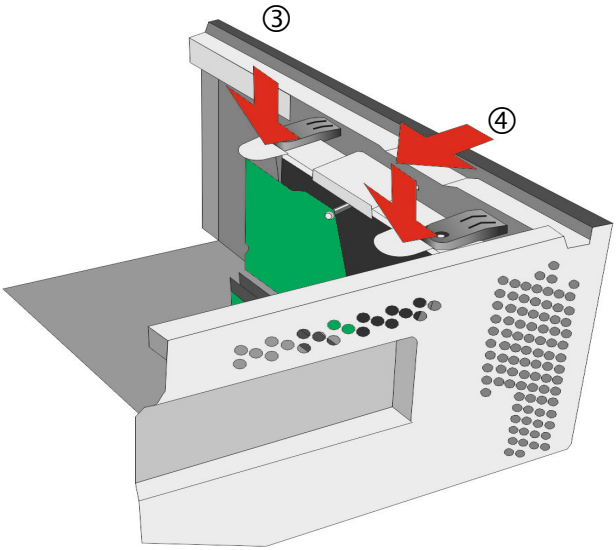
Open your BEETLE /M-II plus by removing the housing cover.
Loosen the two screws at the back side (see arrows).



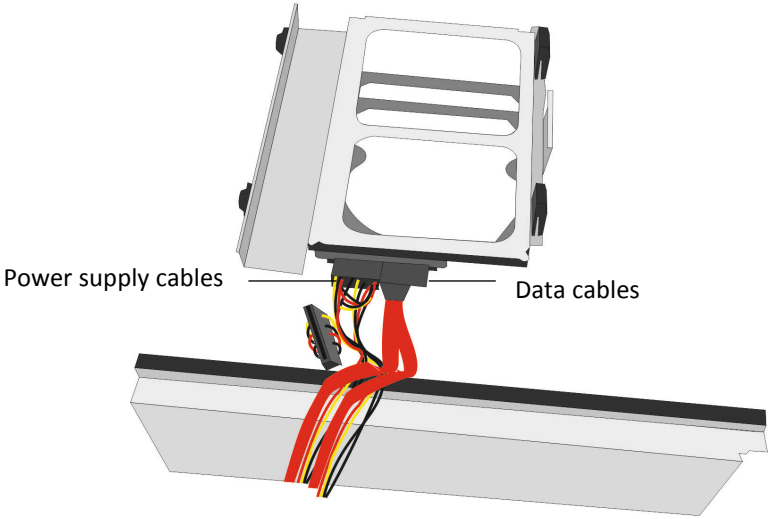
Lift the top cover at the back side (1) and pull it out of the front guide (2).



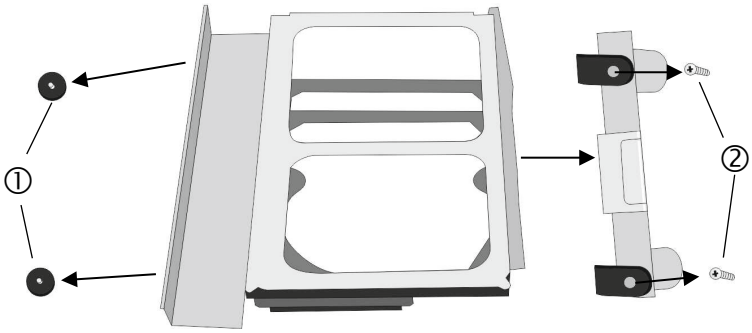
Lift up the DVD drive.
Push the metal plates (3). Tilt the hard disks holder in direction of arrow (4).



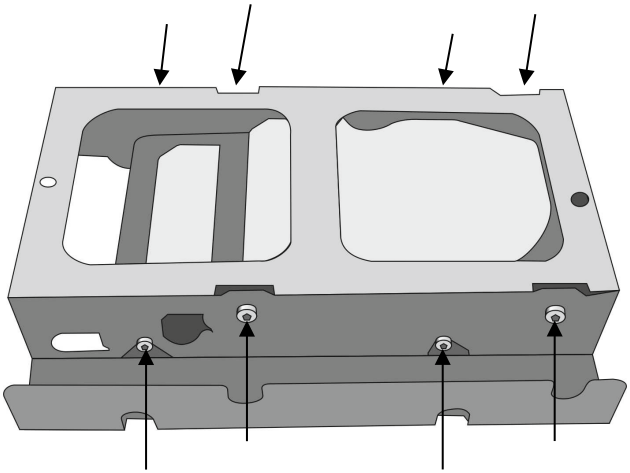
Lift up the drive and remove it. Loosen the connecting cables.



Loosen by hand the buffer screws (1) and remove the two Phillips head screws at the holder (2) with a screwdriver.



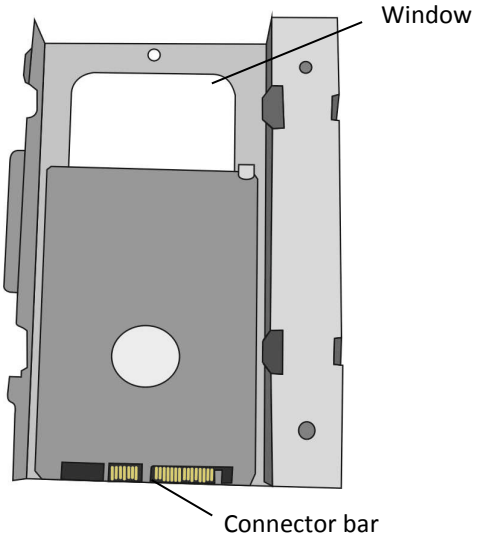
Remove the four screws of each 2.5“ hard disk (total 8).



Handle the hard disks with care when installing it and never touch bare electronics.

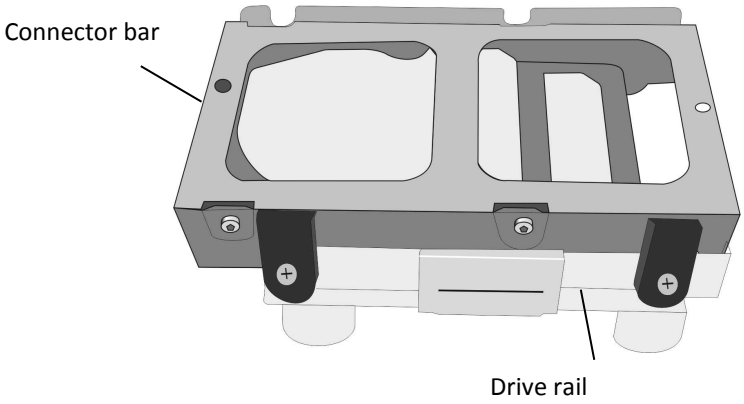
Change the hard disks.

Insert one of the hard disk into the housing and fix it with the four screws. Please pay regard to the correct fitting position (the label side shows to the window and the connector bar to the bottom).

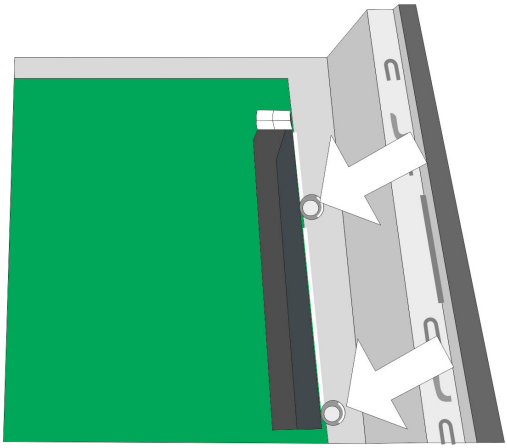


Insert the second hard disk and fix it with the four screws.

Fix the drive rail with the two screws and the buffer screws to the hard disks. Please pay regard to the correct fitting position.

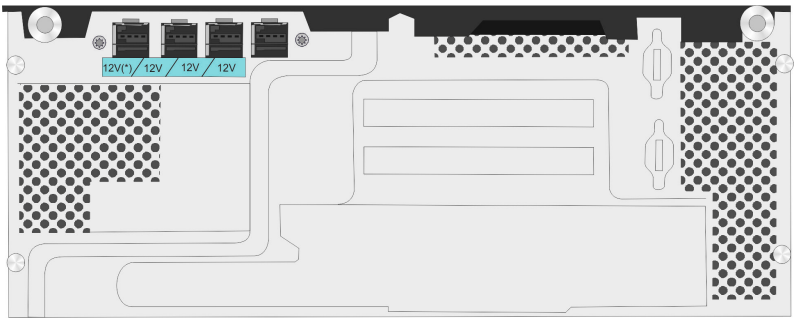


Insert the hard disks in reverse order.
Make sure that the buffer screws are corresponding to the stampings in the base plate (see arrows).



P-USB- Hub (optional)

There are four 12V P-USB interfaces on an optional available board. They allow the connection of peripherals such as printers and scanners. Devices like Hard Disks may also be connected via a USB interface. This interface can also be used as a USB-A socket.



Always use this onboard P-USB 12V (*) to connect a BA82 or BA83 with additional options or any other multifunctional screens.

COM5*-COM8*- Interfaces (optional)

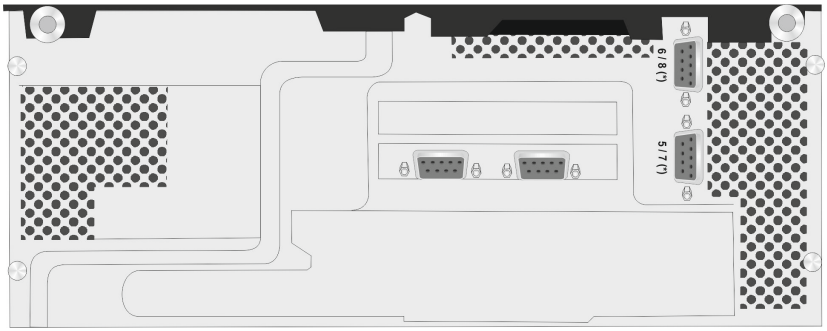
The standard system is configured with four COM* interfaces, COM1 connector (not power supplied) and COM2*-COM4* sockets (power supplied). In addition expansions are possible via a motherboard connector.

COM5*/COM6* (onboard) interfaces are available optionally.

The maximum expansion stage offers four more powered COM* interfaces together with a PCI COM card.

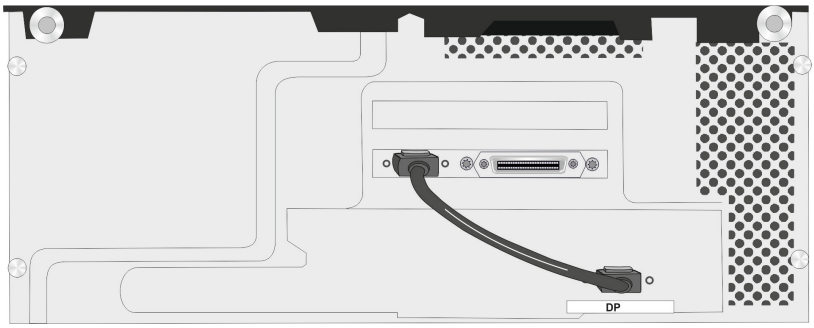
Scanners, customer and operator displays without power supply of their own are connected to these serial interfaces. The interface connection is a 9-pin D-sub jack. Power (5V or 12V) is supplied via this jack.

Make sure that the connector for the customer display is screwed firmly to the socket to prevent possible malfunctioning.



PLINK TFT- Adapter (optional)

If you want to use your already existing display equipment, you can connect your screen to the PLINK TFT interface via a DP connector.

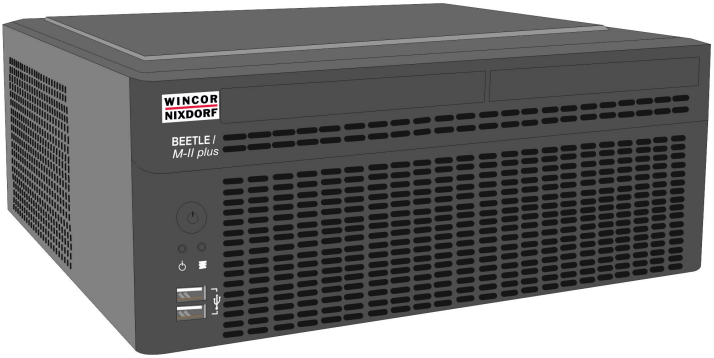


For connecting a display with touch function COM6* would be the default position on the motherboard. The COM8* interface can be used alternatively on the PCI card.

Battery (optional)

The battery bridges any power failures (up to 15 minutes) and allows a controlled shutdown of the POS program by the appropriate software (see next chapter).

For operating a battery the BEETLE /M-II plus must be equipped with a special UPS power supply unit.



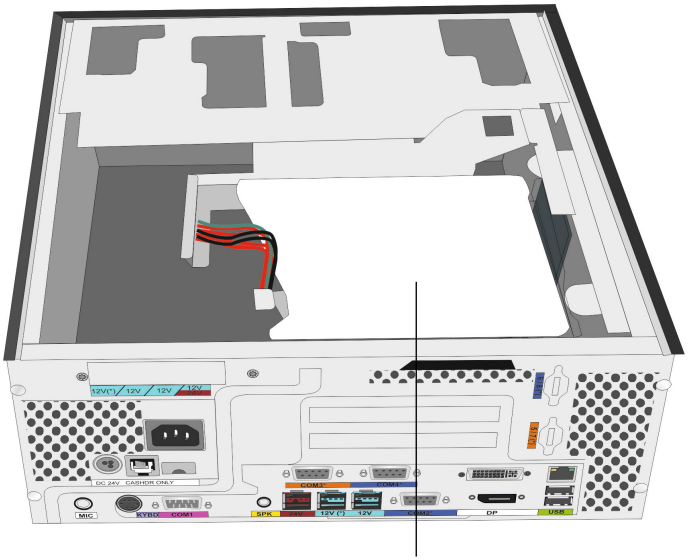
BEETLE /M-II plus with battery

Security In the Event Of a Power Outage

It takes approximately 6 hours to fully charge the battery after the unit has been switched on for the first time. The system only charges the battery when it is switched on and the system software (Wincor UPS software with WinXP/Linux) has been configured and loaded.

If a power outage occurs, the system remains fully functional for a short period of time. In such cases, the battery supplies the system with power for continued operation. This allows the unit to bridge power outages for a certain, software-dependent, period of time.

Peripheral devices with separate power supply units (such as VGA monitors) are not supplied with battery power during a power outage. This is also true if the peripheral devices are connected to the power outlet sockets of the POS system.



Battery

The optional battery is delivered with a power switch and a power output socket on the power supply (see also page 18).

Before operating you have to switch on the BEETLE /M-II plus with the power button on the device's front side.

Starting Up the System

After installing the BEETLE /M-II plus, switch on the POS system using the ON/OFF button on the front panel.

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

For example, you may see the following message on the monitor:

`WN „ID xx/xx Date“`

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 /M-II plus.

A drive can be assigned to the following media:

- Network
- Hard disk/ SSD
- DVD
- USB drive

The logical drives are designated C: and D.

The network is always assigned to the C: drive during the run-up procedure. The hard disk 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 C: drive.

Corresponding to the Setup configuration the modular BEETLE /M-II plus system can be booted from the following drives:

- Hard disk drive C:
- DVD
- LAN module with BOOTPROM
- USB drive

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

If the POS system does not find a DVD it automatically continues the loading process from drive C:.

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

A message is displayed as soon as the BEETLE /M-II plus is ready for operation. For more detailed information see the description of your application program.

Appendix

Technical Data BEETLE /M-II plus

Dimensions	
Width	310 mm
Depth	280 mm (w/o cable cover) 369 mm (with cable cover)
Height	126 mm
Weight	approx. 6.5 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 up to + 40 °C
Transport (2K2)	- 25 °C up to + 60 °C
Storage (1K2)	+ 5 °C up to + 40 °C
Processor	INTEL Sandy Bridge 2nd generation i3, i5, i7 Processor family
Input Voltage	100- 120 V, 200- 240 V
Max. power consumption	6A/ 3A
Frequency of the system voltage	50/ 60 Hz
Mains power outlet	100 -120 V/ 2A max. 200 -240 V/ 1A max.

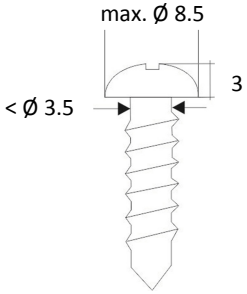
Interfaces

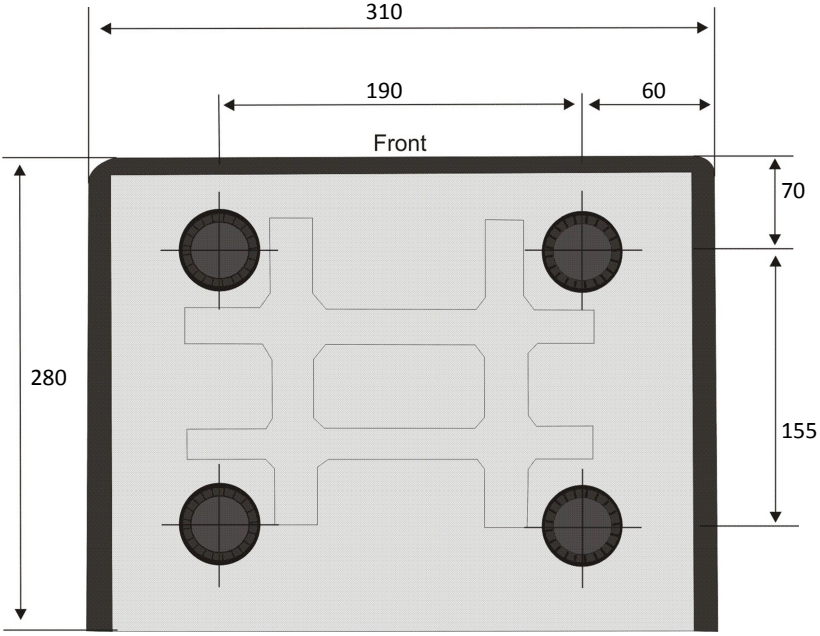
COM	COM1 (w/o power supply), COM2*- COM4* (with power supply), **Option** COM5*- COM8* (with power supply)
USB	2 Standard USB + 2 Standard USB at the front side 1x 12V (*), 1x 12V and 1x 24V PoweredUSB **Option** 4x 12V via PoweredUSB Hub
Graphics-Adapter	Onboard-Adapter for DVI-I displays Resolution: VGA up to 2048 x 1536 pixel, a DisplayPort for monitors with high resolution up to 2560 x 1600 pixel and DVI-D with a resolution of max. 1920 x 1200 **Option** PLINK, resolution 1600x 1200 pixel (24 Bit colours)
Spk, Mic	Ports for microphone and loudspeaker
PS/2	1 (keyboard and mouse)
RJ12	Cash drawer
DC24V	POS- printer with low voltage on the integrated power supply
RJ45/ LAN	10/100 and 1000 Mbit/s
PCI-Bus/PCIe	1 x PCI 2.1, 32 Bit, 33MHz + 1 x PCIe x4
Serial ATA	2 x SATA II/ 3.0 Gbit/s + 2 x SATA III/ 6 Gbit/s

Wall Mounting

The diameter of the screw shank cannot be larger than 3.5 mm and the diameter of screw head not more than 8.5 mm and the height of max. 3 mm.

Dimensions in mm





Total Current Consumption of Interfaces

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

Each COM* = 300mA, in total 1000mA
Each USB = 500mA, in total 2A
Each USB (HUB) = 500mA, in total 2A
TFT/LCD-Display
Max. 5A @ 5V

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

Each COM* = 600 mA, in total 900mA
Each USB = 1.5A, in total 2A
Each USB (HUB) = 1.5A, in total 2A
TFT/LCD-Display
Max. 5A @ 12V

The total current consumption at 24V interfaces must not exceed 3A.
each PUSB 24V = 3A
24VDC power supply (BEETLE /M-II plus with UPS)
Max. 3A @ 24V

Power loss of additionally implemented PCI- and PCIe- Controllers is – for thermic reasons - limited to 10W for each slot and all together to 20W.

Abbreviations

CAT5/CAT5e	Computer assisted testing system 5
CE	European Symbol of Conformity
CFC	Chlorofluorocarbon
CHC	Chlorinated hydrocarbon
COM	RS 232 Interface
COMn*	Powered COM Interface (Asterisk denotes Power)
CPU	Central Processor Unit
cUL	Canadian Registration (Recognized by UL)
DIN	Deutsches Institut für Normung (German Institute for Standardisation)
DP	DisplayPort
D-Sub	D- Shaped Sub miniature
DVD	Digital Video Disc
DVD-RW	Digital Video Disc Rewritable
DVI-I	Digital Visual Interface integrated
EC	European Commission
ESD	Electronically Sensitive Devices
HDD	Hard Disk Drive
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization,
LAN	Local Area Network
LED	Light Emitting Diode
PCI	Peripheral Component Interconnect
PCIe	Peripheral Component Interconnect express
PEN	Protective Earth Neutral Conductor
PLINK	Panel-Link
POS	Point Of Sales

RAM	Random Access Memory
SATA	Serial Advanced Technology Attachment
SSD	Solid State Disk (flash medium)
TFT	Thin Film Transistor
TN-S	Terre Neutre- Separé
UL	Underwriters Laboratory
USB	Universal Serial Bus
VGA	Video Graphics Adapter
WN	Wincor Nixdorf International GmbH

Wincor Nixdorf International GmbH
D-33094 Paderborn

Order No.: ***1750240395B***