BEETLE /S

Modular POS System

User Guide

Edition April 2010

Contents

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.

Le présent appareil numérique ne génère pas de bruits radioélectriques dépassant les limites applicable aux appareils numériques de la "Class A" prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Important notes

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

The CD-ROM drive features a light emitting diode (LED), classification according to IEC 825-1:1993: LASER CLASS 1, and may not be opened.

- 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.
- 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.
- 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 POS 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 /S is the compact, powerful and economical basis for your POS system.

The BEETLE conforms to the PC standard. Powerful processors ensure a quick processing of all operations.

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

Optional the BEETLE /S can be equipped with a floppy disk drive or a CD-ROM drive, a hard disk or a compact flash.

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.

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

About this manual

This manual describes the modular POS system BEETLE /S.

This documentation is intended to help you 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.

The first section describes
- everything you need to do before switching on the POS system and how to connect peripherals to the BEETLE /S.

The second section contains
- a brief overview of the components of your BEETLE POS system. Here, you will also find a detailed description of recurring actions, for example, how to use the disks.

The third selection describes
- the possible configuration variants of your BEETLE /S.

The fourth section provides
- a genaral overview of the Wincor Nixdorf Retail Software.

Section five
- explains the start and runup behaviour of the BEETLE /S.

The Appendix
- contains the most important technical data, a glossary and a list of abbreviations.

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.

Separate manuals are included in the scope of the connectable peripherals. For this reason, a more detailed description of these devices will not be provided here. For more information, see the relevant manuals.

Care of the BEETLE /S

Clean your BEETLE /S at regular intervals with a suitable plastic-surface cleaner. Make sure that the power plug is disconnected, connector cables are unplugged and that no liquid finds its way into the device.

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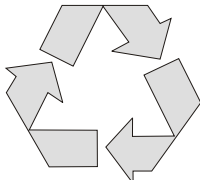
Environmental protection does not begin when it comes time to dispose of the BEETLE; it begins with the manufacturer. This product was designed according to our internal norm "Environmental conscious product design and development"

RECYCLING THE BEETLE /S

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

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 disposes of old devices in an environmentally sensitive way using a recycling center that is ISO 9001 and ISO 14001 certified, as is the rest of the company.

So don't simply throw your BEETLE POS system on the scrap heap 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.

info@wincor-nixdorf.com   We look forward to your email.

Warranty

Wincor Nixdorf generally guarantees a limited warranty engagement for 12 months beginning with the date of delivery. This warranty engagement covers all those 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.

All parts of the product which are subject to wear and tear are not included in the warranty engagement. Please order spare parts at the Wincor Nixdorf customer service.

BEETLE /S

Overview

You can connect a variety of peripherals to your modular POS system BEETLE /S 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, such as BA69 (VGA/4), BA70 (b/w) or BA71 and BA72 (colour), 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 with or without a swipecard reader, use different types of cash drawers, connect a monitor, install the POS workplace SNIkey, integrate the BEETLE /S in a network after installing a LAN board and upgrade the BEETLE /S, since it can accommodate onboard extension card, such as VGA/TFT/LAN.

This means that the BEETLE /S 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 following illustrations show you how your modular POS system can grow - from a scanner to integration into a network.

BEETLE /S Peripherals

Customer or cashier display
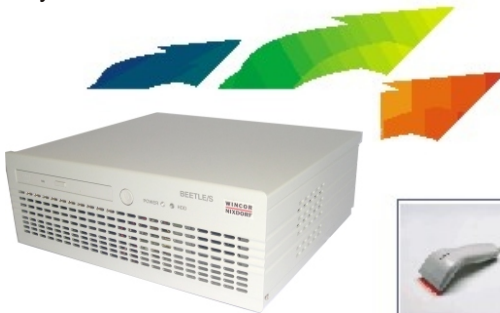
BA69

Flatscreen display

Monitor
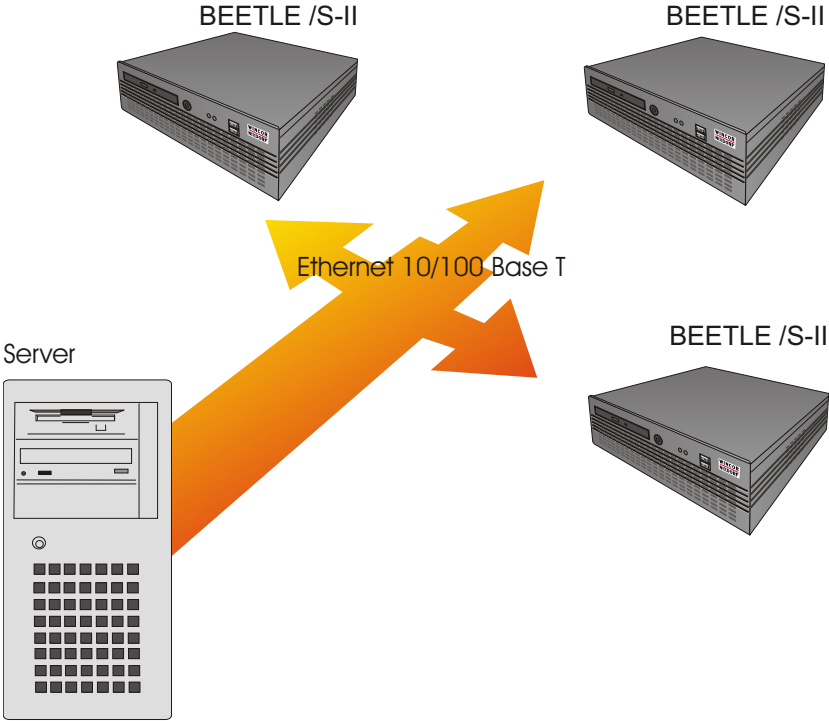
Scales

Keyboard

SNIkey

Cash drawer

Scanner

Printer

BEETLE /S in a network

BEETLE /S-II

BEETLE /S-II

Ethernet 10/100 Base T

BEETLE /S-II

Server

Before switching on the System

Unpacking and checking the System

Unpack the parts and check to see whether the delivery matches the information on the delivery note.

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

If damage has occurred during shipping or if the package contents do not match the delivery note, promptly inform your Wincor Nixdorf sales outlet. 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.
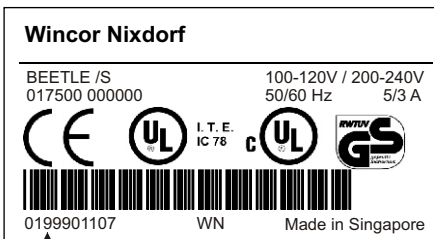
The serial number is located on the label below the bar code.

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 is it possible to accept a functional defect as a claim.

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

Setting up the device

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

Make sure that the side ventilation slots on the BEETLE /S POS system are not obstructed in order to ensure that the device has sufficient ventilation. Mind the **minimum clearances** indicated below! If the equipment is to be fitted, you must also 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. These requirements are best met, when the equipment is not built into a completely enclosed piece of furniture.

The fitting depth may be equal to the overall depth of the equipment including the cable cover, that is, 337 mm.

Cabling of the BEETLE /S

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

- Plug one end of the power cable into the socket of the BEETLE /S

- The cable cover must be removed, if present.

- Plug in and secure the data cable.

- Install the cable cober.

- Plug the other end of the power cable into the main power supply.

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

Disconnecting cables

Never unplug a cable by pulling on the cable itself; always take hold of the actual plug. 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.
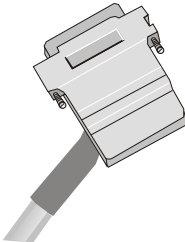- Unplug all cables from the devices.
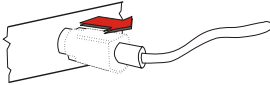
With MINI-DIN plugs, the plug remains inserted until released.
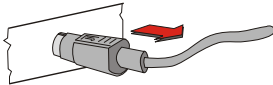
Pull the plastic covering from the connecting socket with your thumb. The lock is released. The metal of the plug is visible.
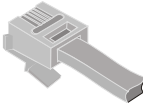
RJ12 plugs lock in when you insert them. To release them push the latch under the plug to the top.
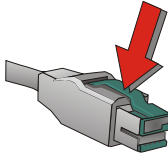

The D-sub typ connector or CRT (VGA) connector is used for parallel or serial interfaces. Release the connector by loosen the two screws.
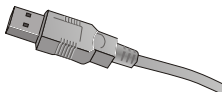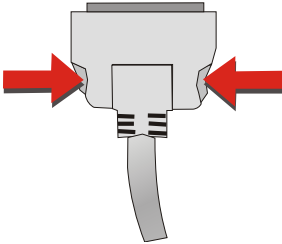

Take hold of the USB connector housing and release the connection.

Loosen the plug of the USB powered connector by pressing the plastic latch.

Release the TFT connector by pressing the latches on the left and right inwards.

Mounting the cable cover

The scope of supply of your BEETLE /S includes a cable cover. Before mounting the device, you should first remove the cable opening if necessary (1). This depends on the cables which you wish to lay.
Tools are not required as the plastic part can be removed by hand.
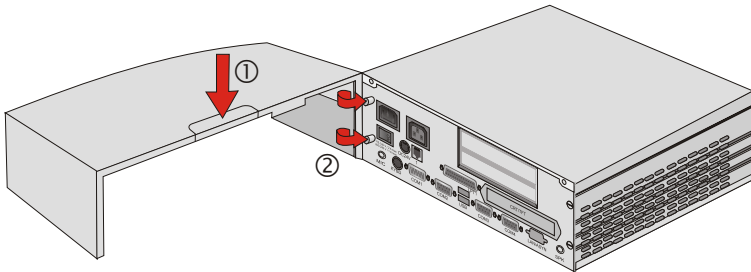
In order to mount the cable cover, push it on the left pre-mounted screws on the back of the BEETLE /S (see arrows (2)).

Close the cable cover by
by shifting the cable cover
from the inside (3) onto
the right screws (4).

Tools are not required for mounting the cover.

Connecting to the mains power supply

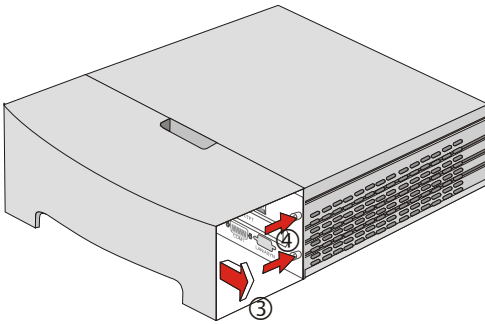All devices belonging to the modular BEETLE /S system that have a
separate power cable must be connected to the same electric circuit. Make
sure that all data cables on the system unit and peripherals are connected
correctly.

- Plug all power cables belonging to the BEETLE and the peripherals into
  the grounded-contact power sockets.
- You can now switch on the BEETLE /S by means of the switch on the
  power supply at the rear side. Push the ON/OFF button at the front of
  the box (approx. 4 seconds).

The power supply can be connected to all standard power supply networks.
The unit adjusts automatically to the respective voltage. The exhaust of the
power pack provides for the necessary cooling. The maximum output of the
power pack is 150 W.

Basic settings

Ex works, the BEETLE /S 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 branch office
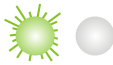responsible for your area.

Adjusting the loudspeaker

You can set the volume as desired by means of a menu in the BIOS Setup
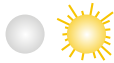(see BEETLE POS motherboard manual).

Light emitting diode (LED)

You will find the LEDs at the front side of the BEETLE next to the ON/OFF button.

The left LED (green) lights when the BEETLE /S is switched on.

The right LED (yellow) lights up while the hard disk is being accessed.

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 /S 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. You can connect the system to a network via an onboard expansion board.

CRT and TFT interfaces are used alternatively for a monitor or a LCD display.

Connecting peripherals with the system switched on is not allowed, except USB connector.
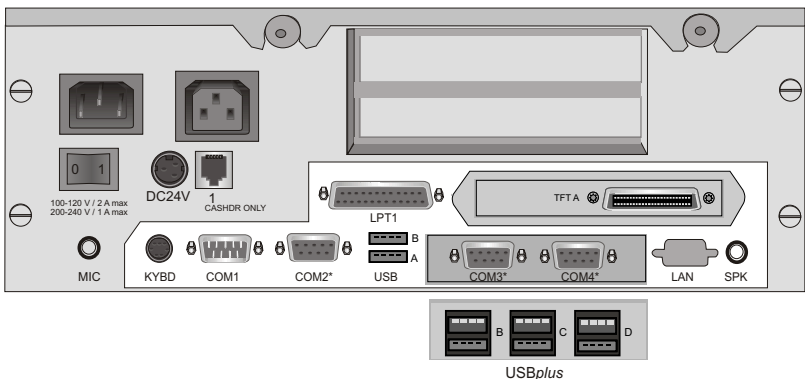
Rear panel of the BEETLE /S (optional USB*plus*)

Keyboard (KYBD)

The BEETLE /S 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 branch office responsible for your area.

In addition to the keyboard it is possible to connect a PS/2 mouse via y-adapter.
When removing cables with locks, please grip the cable at the connector housing.

Scanners and scales (COM1 - COM4*)

Depending on the systems configuration, scanners without an independent power supply 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 are connected to the BEETLE /S, you must obtain a licence for the driver software.

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

Customer display (COM2* or COM4*)

With the BEETLE /S, and depending on the system´s configuration, the customer display is connected to either the COM2* 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.
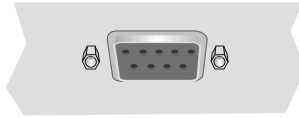
Cashier display (COM3*)

Connect the cashier display to the serial interface COM3*. This port is a 9-pin D-sub jack.

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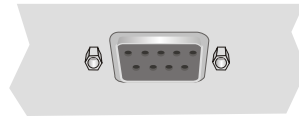
Monitor

If a CRT adapter is installed, you can connect a monitor to the BEETLE /S via the 15-pin D-sub jack on the CRT adapter.

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 SNIkeyTFT, BA71, BA72, BA73 to the BEETLE /S without using an extension board slot. Connect the 50-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 interface you have to change some system settings (see manual BEETLE POS motherboard).

If the display is equipped with a keyboard cable connect this with the KYBD terminal. You can only connect one keyboard cable to the BEETLE /S at one time - either that of the LCD or that of the free standing keyboard (e.g. PC keyboard, TA57, TA61)

To find out how to connect a second keyboard, refer to the user guide of the display.

Connecting standard PC peripherals (COM1)

You can connect supplementary standard peripherals to the BEETLE /S via the COM1 serial interface.
Make sure that all supplementary devices have been tested for RFI suppression pursuant to the legal requirements of your country.
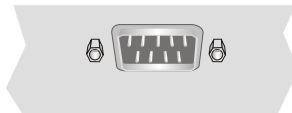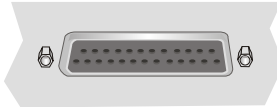
Network

If a network board is installed, the system can be connected to a network (LAN) from the POS terminal back panel. If a LAN board is not installed, this location on the back panel is closed by a dummy cover (see also chapter Configuration variants).
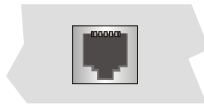
Modular printers

The standard parallel interface LPT1 is intended for connecting a printer.

Appropriate POS printers can also be connected via the low-voltage jack 24V, max. 3A at the external power supply. A connecting cable with a HOSIDEN (EPSON compatible) plug is required for this.
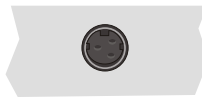
Do not connect the HOSIDEN plug when the system is turned on, this can lead to an automatic reboot of the system.

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

Cash drawer (1,2)

The BEETLE /S has two RJ12 sockets at the power supply for connecting cash drawers. 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% / -10%.

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

The two RJ12 sockets are only for cash drawers.

USB (Universal Serial Bus)

To this USB interface you can connect a variety of USB-peripherals, e.g. scanners and scales.
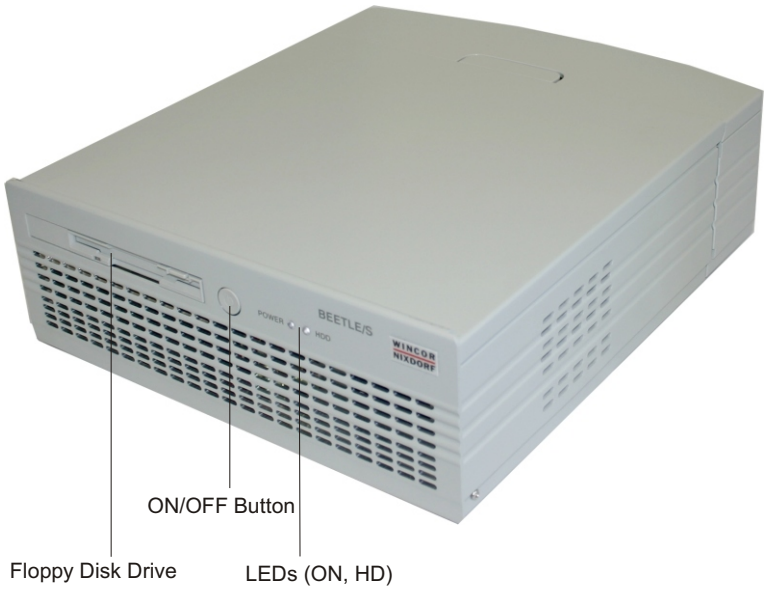
Only connect devices equipped with a shielded cable to the USB interface.

BEETLE /S - the Components

Overview

The following figure shows the outside of the BEETLE /S.

ON/OFF Button

Floppy Disk Drive

LEDs (ON, HD)

The figure below shows the inside of the BEETLE /S.

Carrier for
Hard Disk Drive/
Floppy Disk Drive/
CD-ROM Drive/
Memory Card

Power Supply Unit
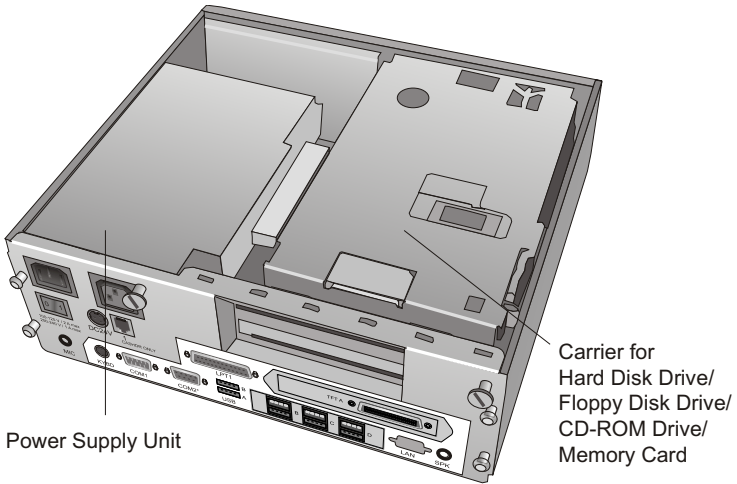
Floppy disk drive

General

The BEETLE /S is equipped with a floppy disk drive for 3.5" disks. The LED at the drive lights up whenever the system accesses the drive.

The disks can be used for a variety of applications, such as:

- Loading programs
- Saving data (e.g. daily sales figures)
- Access control (electronic key)

The disk can be write protected to protect your data from accidentally being overwritten. The slide is located at the bottom left of the diskette.
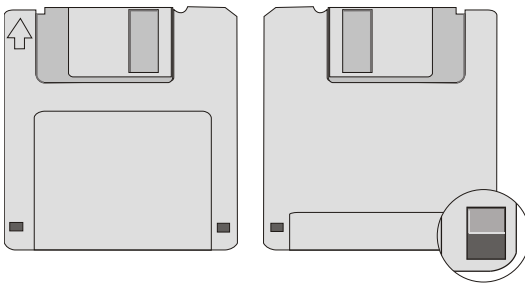
Writing is possible
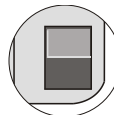
Writing is not possible
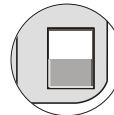
Inserting a disk

Hold the disk so that the arrow symbol is at the top and points away from you. Now insert the disk in the drive slot provided. The disk has been correctly inserted if the gray ejection button has popped out.

Removing a disk

Press the ejection button next to the drive slot. You can now remove the disk.

Never remove the disk while the drive is being accessed, i.e. when the LED indicator for the drive is illuminated. Otherwise, you could damage the drive and the disk.

Ejection button

CD-ROM drive (optional)

The BEETLE /S can be equipped with a CD-ROM drive, if you wish so. Open the drive by pressing the ejection button in the middle of the loading box (see arrow). You lock it by sliding in the loading box.

Power Supply

The power supply automatically adjusts itself to the particular voltage. The power output of the power supply is maximum 150 W.

The power cord receptacle, and the ON/OFF switch are located on the back of the power supply. At the front side of the box you will find the ON/OFF button which will turn on the system if the ON/OFF switch at the rear side of the external power supply is in the position ON. Pushing the ON/OFF button (approx. 4 sec.) again will turn the system into the stand by mode.
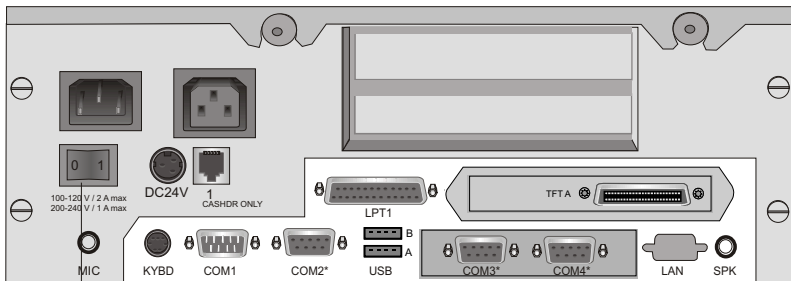
ON/OFF switch

Change of the hard disk drive

To change the hard disk drive open your BEETLE /S as described above.
First ensure that the system is switched off and that the power connector is disconnected.
Loosen the two knurled screws at the rear side (see arrows).
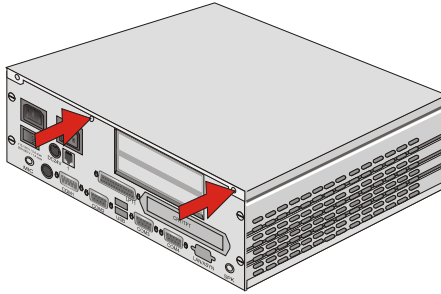
Then lift off the top cover out of the front guide.

Swing the housing cover upward and detach it in direction of the backside of the housing. This prevents it from tilting.
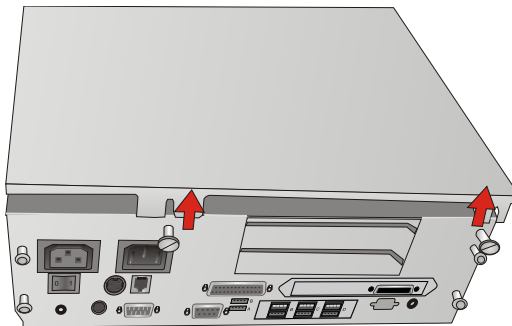
CHANGE OF THE HARD DISK DRIVE

Swing the carrier for the hard disk drive upward and pull out the connectors (also the connector for the ventilator).
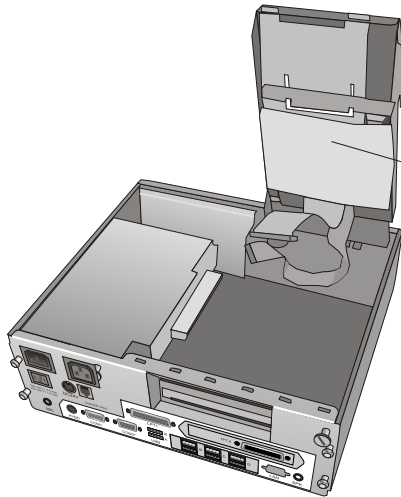
Carrier for
Hard Disk Drive/
Floppy Disk Drive/
CD-ROM Drive/
Memory Card
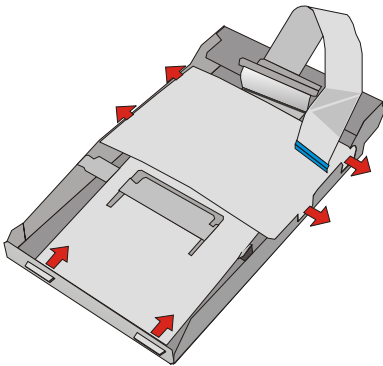
Take the carrier
out of the guide.
Loosen the plastic
covers and put
these aside.
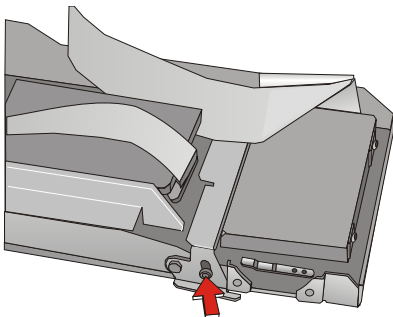
Loosen the screw
on the metal bar
(see arrow).
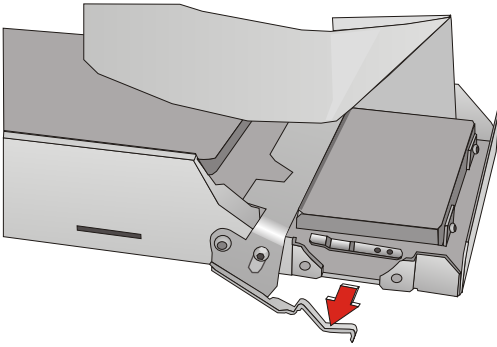
Swing the metal bar downward.
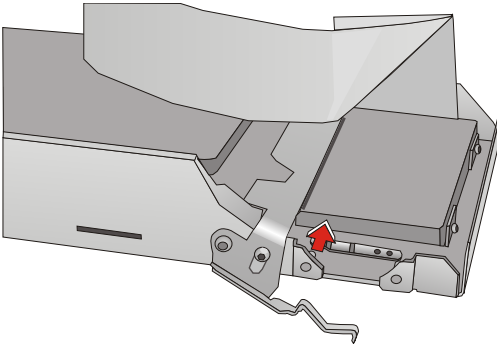
Pull out the metal clamp until the hard disk is unlocked. Push the hard disk drive from the bottom out of the carrier.
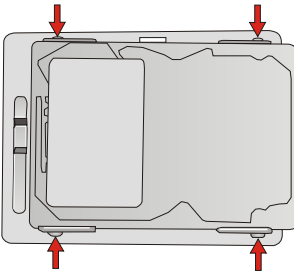
Loosen the four screws and change the hard disk.

Tighten the hard disk with the screws. Plug the hard disk on the holder until the metal clamp is locked. Press the metal bar upward. Fix the position with the screw. Plug the plastic covers above the hard disk and then the CD/floppy disk driver. Insert the carrier into the guide. Reconnect the cables.
Close the cover and tighten it with the knurled screws. Reconnect the mains connector. Now you can switch on the system.

Configuration variants

Submodules for the CPU

Various controllers can be plugged in on the CPU. The following is a brief description of the available options:

LAN Adapter 10/100 MBit/ LAN Controller 10/100 MBit

Ex works the BEETLE /S is equipped with the LAN adapter 10/100 MBit for the incorporation in an Ethernet Network. Alternatively a LAN-Controller 10/100 MBit can be plugged.

CRT- or TFT-adapter

Both adapters must be installed alternatively. You can connect either a CRT monitor or a TFT-LCD display with optional touch screen functionality. When installing a TFT adapter with touch screen functionality make sure that the internal loudspeaker will be taken off to activate the loudspeaker in the screen display (see capital installation in the manual of the screen display) and the touch functionality will be activated via BIOS setting (see jumper settings in the user guide "BEETLE POS Motherboard").
The according COM interface is no longer valid for external use. If the BEETLE system is pre-installed ex works, COM2 will delivered with a cover.

Installing the submodules when using a TFT/CRT adapter

First ensure that the system is switched off and that the power connector is disconnected.
Loosen the two knurled screws at the rear side (see arrows).
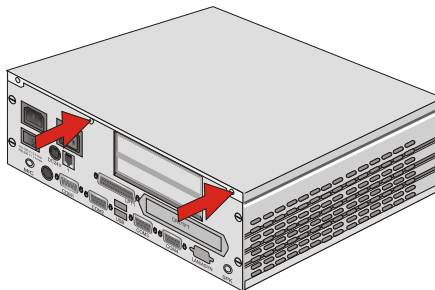
Then lift off the top cover out of the front guide.
Swing the housing cover upward and detach it in direction of the backside of the housing. This prevents it from tilting.
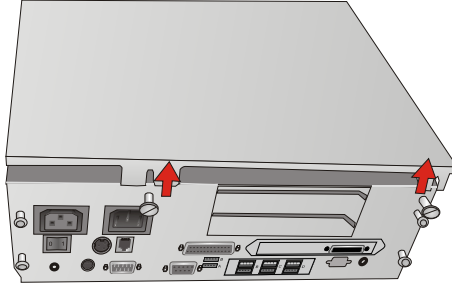

When using a TFT or CRT adapter, loosen the screws on the rear side of the adapter (see arrows).
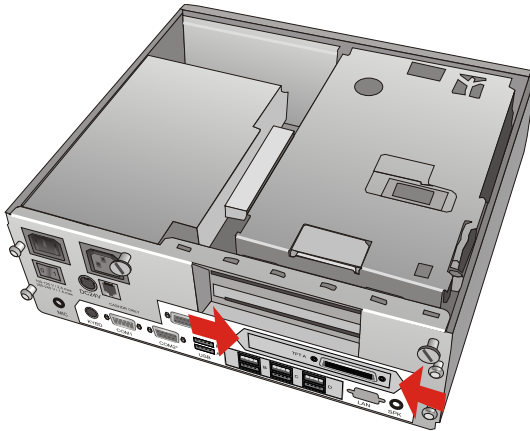
Swing the housing cover upward. Loose the connector of the adapter from the motherboard and shift the adapter through the open slot (1). Remove the metal cover of the LAN interface (2).
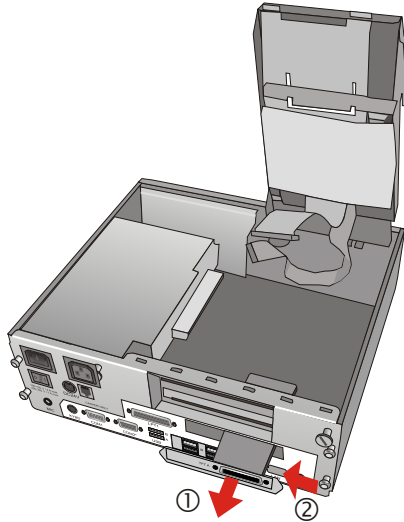
Plug in the submodule (see drawing).
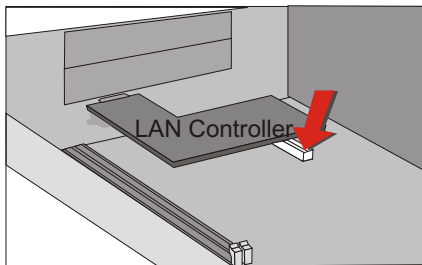
Fix the submodule (here LAN controller) with two screws at the rear side of the BEETLE system and push the TFT adapter or CRT adapter through the slide back in the right position. After connecting it with the motherboard fix the adapter with the two screws.

Installing the submodules

Proceed according to the description in the section before, however without installation of the TFT or CRT adapter.

Installing an expansion card

First ensure that the device is switched off and that the power connector is disconnected.
Loosen the two knurled screws (see arrows) at the back of the BEETLE.
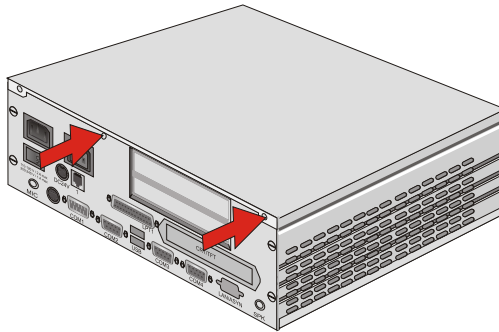
Then lift off the top cover out of the front guide.
There is an easy access to the PCI slot now. Remove the lower metal cover at the housing by squeezing out the clamp (see picture).

clamp
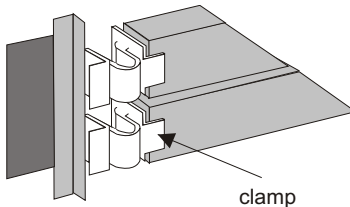
Always use the lower slot. This slot is reserved for a PCI-Card.

First check whether the jumpers (if present) of the card are set correctly.
The correct setting for the jumpers can be found in the documentation for the plug-in card. Then slide the expansion card into the slot provided.
Ensure that the card establishes contact with the terminal strip.

Secure the card by tightening it with the clamp that you have removed before (The pin of the clamp has to be put into the boring of the card).
Following this, mount the top cover again. Tighten the cover with the srews.
The mains connector can now be reconnected and the device switched on.

INSTALLING AN EXPANSION CARD

Expansion cards with electrostatic sensitive devices (ESD) can be marked with this sticker.

When you handle boards fitted with ESDs (electronic components), 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.

Retail Software

Wincor Nixdorf has a worldwide portfolio of standard products to meet the complex business and technology demands placed on retail store solutions, such as:

- Long product lifecycles

- International deployabilit

- Flexible customizing and expansion options

- Excellent integrability

- Convenient features for central store control

The portfolio of store solutions covers all this – with broad support for leading operating systems, such as Microsoft and Linux, and a variety of functions geared to different requirements. But simply providing products that will remain viable in the future is no longer enough. Nowadays, retailers also expect extra services such as project management, customizing and integration as well as advice on choosing basic core technologies.

Wincor Nixdorf store solutions

As an international product provider, we are oriented to market developments and standards that are available worldwide, allowing us to offer our customers open solutions and services with guaranteed viability into the future.

Software must of course meet the customers' needs, and these can often vary greatly. But for the software to be a long-term success, its design and implementation must also take into account the fundamental trends and standards that are emerging in the market. Only if you stay open to the dynamics of retail, it can be ensured that new commercial trends will be reflected within the scope of the solutions provided. To accommodate these dynamics, Wincor Nixdorf must have the appropriate technical expertise. When working on product development, projects or consulting, this expertise is essential to effectively meet current as well as future requirements.

Platforms and products

Solution platforms today are expected to use advanced, standard operating systems. Some of the decisive factors in choosing an operating system include:

- User-friendly administration mechanisms to optimize total cost of ownership (TCO)

- Flexible deployability of the operating system with different hardware and peripherals

- Global availability to ensure blanket coverage

- Scalability to meet changing requirements

Microsoft operating systems fulfill these criteria and have become established on the market. In addition, Linux has set a trend under aspects of scalability and optimizing TCO, and is an interesting supplement to the Microsoft world for users in any line of business. Wincor Nixdorf's solution portfolio covers both Microsoft and Linux platforms, allowing users to take their pick.

Microsoft based solution: TP.net

TP.net is a store solution that enables IT to be organized flexibly at stores. Its international availability, ease of customizing and expansion, variety of application options based on an innovative software concept, outstanding integrability and low TCO make TP.net the ideal solution platform for all checkout processes at modern stores. Using TP.net, it is possible to implement diverse checkout concepts – ranging from conventional points of sale to self-checkout and mobile shopping assistants – without increasing the complexity of store IT or having to duplicate the development of functions.

With TP.net Enterprise, TP.net provides additional convenient facilities for central monitoring and control of your entire store landscape.

Linux - based solution: TPLinux

TPLinux is one of the most flexible Linux-based store solutions available on the global market. With its versatility of use, outstanding integration mechanisms and the experience gained from over 50,000 TPLinux installations worldwide, TPLinux is ideal both for modernizing store IT and for migrating and using established POS hardware platforms.

The Web architecture of the Back Store module provides access to all the administrative applications and data for a store from any workstation on the network, whether at that or another store or at the head office.

Technology evaluation
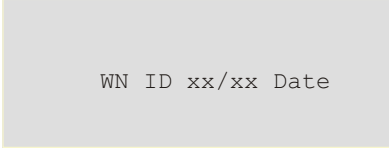
Wincor Nixdorf always involves its customers when designing and developing its retail solutions. Before being included in existing products, new trends and technologies are carefully examined to make sure they are ready for the market. Evaluation projects conducted with customers and partners place technology decisions on a sound market footing and significantly reduce technological risks.

Starting up the system

After installing the BEETLE /S, switch on the POS system on the rear side and then press 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 (irrespective of processor type) on the monitor:

```
            WN ID xx/xx Date
```

xx/xx is the place holder 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 /S.

The following media can be assigned a drive:

- Network
- Hard disk
- Flash disk
- DVD-ROM
- USB drive

The logical drives are designated A:, B:, C: and D:.

If the system is to be booted from disk, this medium must always be assigned drive A:. The network is always assigned to the C: drive during the runup procedure. The hard disk or the flash 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 the C: drive.

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

- Hard disk or flash disk in drive C:
- DVD-ROM
- 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-ROM, it automatically continues the loading process from drive C:.

The operating system responds with additional messages on the cashier display or monitor, as shown in the illustration below.

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 /S is ready for operation. For more detailed information, see the description of your application program.

Appendix

Technical Data for the BEETLE /S

Box

Width	288 mm	11.34 in
Depth	255 mm	10.04 in
Height	105 mm	4,13 in
Cable cover	82 mm	3.23 in

Weight   approx. 4 kg

Climatic category

Operating	IEC 721-3-3 Class 3K3 +5°C to +40°C
Transport	IEC 721-3-2 Class 2K2 -25 C to +60 C
Storage	IEC 721-3-1 Class 1K2 +5 C to +40 C

Input voltage   100 - 120 VAC
                        200 - 240 VAC

Max. power consumption   3A / 5A

Frequency of system voltage   50 - 60 Hz

Ac-Outlet

100 - 120V	max. 2A
200 - 240V	max. 1A

Glossary

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

BPP
Bits per Pixel, depth of colour.

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.

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

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

Plug and Play (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.

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.

GLOSSARY

VGA

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

Abbreviations

AT	Advanced Technology
ATA	AT-Attachment
BIOS	Basic Input Output System
BPP	Bits per Inch
COM	Communication Port
CPU	Central Processing Unit
CRT	Cathode Ray Tube
cUL	canada Underwriters Laboratories
DIMM	Dual Inline Memory Module
ECP	Extended Capability Port
EPP	Enhanced Parallel Port
EPROM	Erasable Programmable Read Only Memory
FD	Floppy Disk
GS	"Geprüfte Sicherheit" (Tested Safety)
HDD	Hard Disk Drive
HFT	High Frequency Table
IDE	Integrated Drive Electronic
ISO	International Standardization Organization
JEIDA	Japan Electronic Industry Development Association
LAN	Local Area Network
LBA	Logical Block Addressing
LED	Light Emitting Diode
LPT	Line Printer
MO	Magneto Optical
PCI	Peripheral Component Interconnect
PCMCIA	Personal Computer Memory Card Intern. Association
PnP	Plug and Play
RAM	Random Access Memory
ROM	Read Only Memory
SCSI	Small Computer Systems Interface
SIMM	Single In Line Memory Module
SRAM	Static Random Access Memory
SVGA	Super Video Graphics Array
TFT	Thin Film Transistor
UL	Underwriters Laboratories
USB	Universal Serial Bus
UPS	Unbreakable Power Supply
XMS	Extended Memory Specification