

**BEETLE /mini**

**Operating Manual**

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# **BEETLE /mini**

**Operating Manual**

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## Manufacturers Certification and notes



The device complies with the requirements of the EEC directive 2004/108/EC with regard to "Electromagnetic compatibility" and 2006/95/EC "Low Voltage Directive".

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

## Tested Safety



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

## BSMI (EMC for Taiwan)



The device complies with the requirements of the BSMI (Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs) directive CNS14348 with regard to "Electromagnetic compatibility" with the limits for a Class B product.

## Important notes

The BEETLE /MINI 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.
- 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 lithium battery must be disposed of in accordance with local regulations for special waste.
- 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 (WN) or your dealer must be notified.
- 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.

## Power Cord Selection

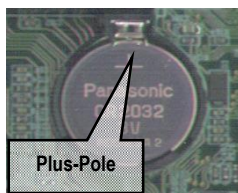
If power cord is not provided with the display, user has to ensure that a certified power cord is used as required by the Safety Regulation of the country.

<b>Countries</b>	<b>Safety Approvals</b>
USA	UL
Canada	CSA
Germany	VDE
Japan	PSE
Taiwan	BSMI
China	CCC

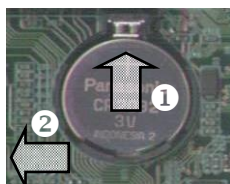
For other countries not mentioned in the above list, please check with the local authority.



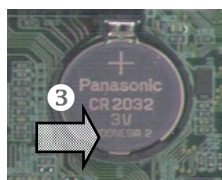
## Replacing the Lithium Battery



Push the Latch **1** and remove the Lithium Battery from its Socket **2**



Insert and press a new Lithium Battery of same type in the Socket **3**



# Introduction

## About this manual

This manual describes the BEETLE /mini system.

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



Notes call attention to important information.



Cautions are included to help you avoid damaging hardware or losing data.



Warnings indicate conditions that, if not observed, can cause personal injury.

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 /mini



Clean your BEETLE /mini 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. The glass surface of your Touch Screen should be cleaned with a mild, commercially available glass cleaning product. All pH neutral materials (pH 6 to 8) are to be used for cleaning purposes.

## Recycling



Environmental protection does not begin when time comes to dispose of the BEETLE /mini-2; it begins with the manufacturer. This product was designed according to our internal norm “Environmental conscious product design and development”

The BEETLE /mini 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 switching on your equipment only 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.

There are still some parts that are not reusable. Wincor Nixdorf guarantees the environmentally safe disposal of these parts in a Recycling Center, which is certified pursuant to ISO 9001.

So don't simply throw your BEETLE /mini 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 office for information on how to return and re-use devices and disposable materials.

Wincor Nixdorf is always ready to answer any questions you may have about our environmental protection policies. We look forward to your message.

## Warranty

Wincor Nixdorf 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.

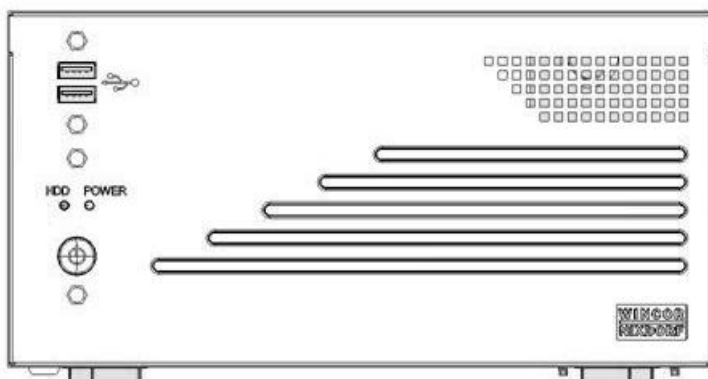
All parts of the product which are subject to wear and tear are not included in the warranty engagement.

Please order spare parts at the Wincor Nixdorf customer service.

# Overview

BEETLE /mini is a second generation modular POS terminal of the BEETLE /mini family featuring a higher performance Intel ATOM processor.

## Front view



# Basic Operation

## 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.

In case of damage during shipping or if the package content do not match the delivery note, promptly inform your Wincor Nixdorf sales outlet.



#### NOTE

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

### Setting up the device

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



#### CAUTION

Make sure that the ventilation holes on the BEETLE /mini system are not obstructed in order to ensure that the device has sufficient ventilation.

## Connecting to the Main Power Supply

All devices belonging to the POS 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 the power cables belonging to the BEETLE /mini and the peripherals into the grounded-contact power sockets.



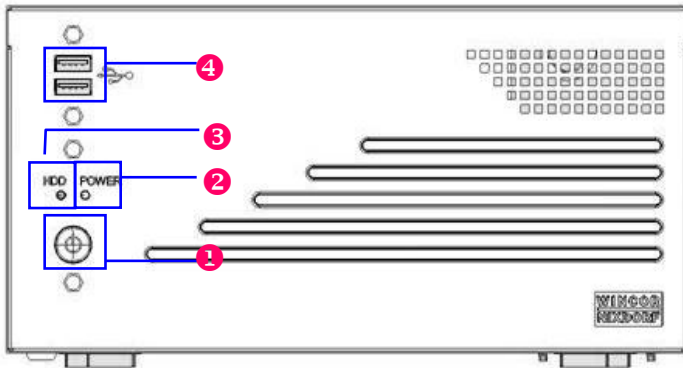
Always make sure that the system is switched off when you do cabling works.

## Switching on the system

- Switch on AC wall outlet where the BEETLE /mini I is connected to.
- Switch on the main switch located at the rear of the BEETLE /mini.
- Push the ON button at the front of the box.

# DESCRIPTION

## Functions & Indicators



### 1 – ON/OFF Button

From an OFF state, you can switch the system ON by simply pressing the power button. From an ON state, pressing and holding the power button for four (4) seconds can turn OFF the system. The functions of the power button can also be altered in the Power Management section of the CMOS setup.

### 2 – POWER-ON Indicator (LED)

The indicator (LED) lights up **Green** when the system unit is switched on.

### 3 – HARD-DISK DRIVE Indicator (LED)

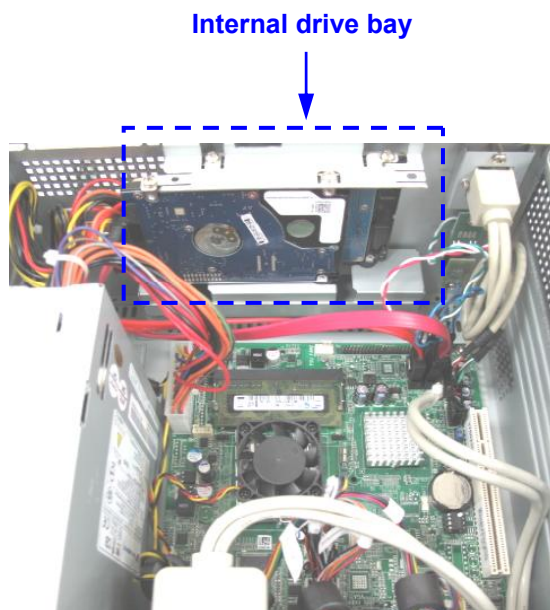
The indicator (LED) lights up **Amber** when the system unit is switched on.

### 4 – USB Ports



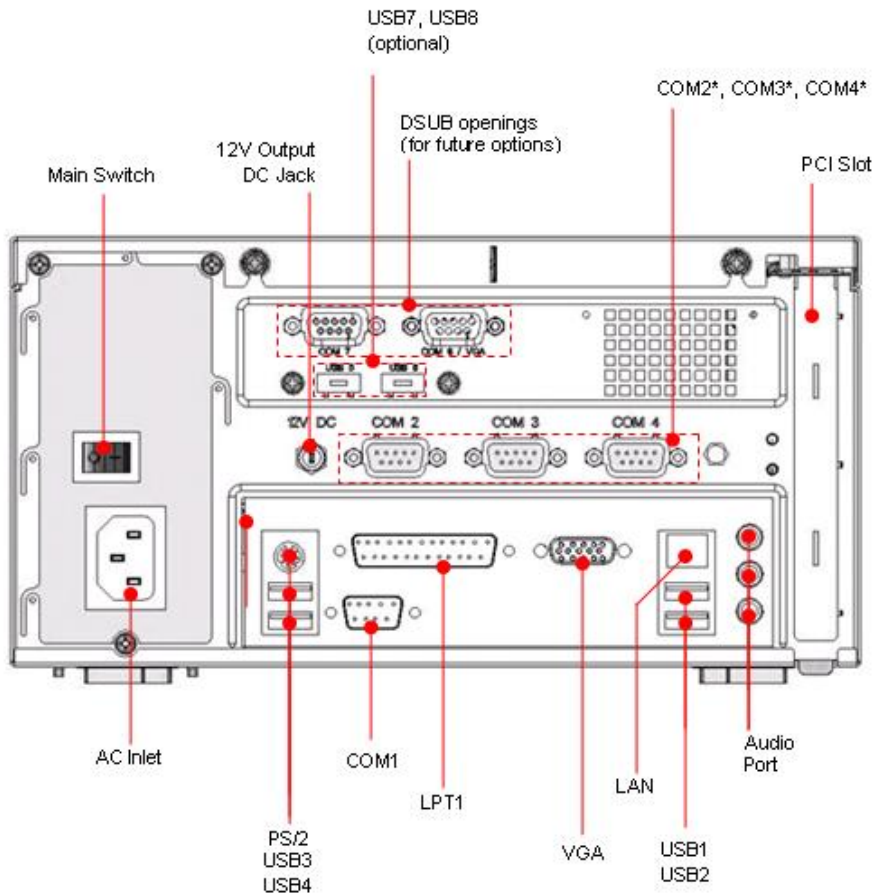
## Mass Storage Device

The internal drive bay can support up to two 2½" form-factor hard disks.



## Rear Panel Connectors

The illustration below shows the rear panel of the BEETLE /mini identifying the supported external I/O connectors.



## DC 12V (Power Output Port)

Appropriate LCD monitors can be connected via the low voltage jack 12V, max. 3A via non-LPS. A connecting cable with a DC plug is required for this.



### WARNING

Connect only cables to the 12V connector which are marked with DP-1 or DP-2.

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

### Approved LCD Monitor List:

The following are the approved LCD monitors that are allowed to be connected to the BEETLE /mini's **12V Powered Output port**:

	Model	Manufacturer
1	BA72R, BA72R /n, BA72R /cTouch, BA72R /rTouch	Wincor Nixdorf
2	BA72R-2, BA72R-2 /n, BA72R-2 /cTouch, BA72R-2 /rTouch	Wincor Nixdorf
3	BA72R-3, BA72R-3 /n, BA72R-3 /cTouch, BA72R-3 /rTouch	Wincor Nixdorf
4	BA73R-1, BA73R-1 /n, BA73R-1 /cTouch, BA73R-1 /rTouch	Wincor Nixdorf
5	BA73R-2, BA73R-2 /n, BA73R-2 /cTouch, BA73R-2 /rTouch	Wincor Nixdorf
6	BA73R-3, BA73R-3 /n, BA73R-3 /cTouch, BA73R-3 /rTouch	Wincor Nixdorf
7	KTC 5005	KTC

Or alternately, the connecting LCD monitor includes its enclosure as fire hazard protection must be certified to relevant safety standards if it is not in the above approved list.



Connecting LCD monitor that is not in the above approved list to the **12V Powered Output port** may cause safety hazard and also endanger the user and nearby people. Please consult Wincor Nixdorf if in doubt.

## Expansion Slots

There is one PCI Bus Master slot (rev. 2.2) on-board.

## Power Supply Unit

The power supply unit automatically adjusts itself to the particular voltage. The power output of the power supply unit is maximum 220W.

## VGA Connector for Monitor or LCD-Display



You can connect a Monitor or LCD-Display to the BEETLE /mini via the **Blue** 15-Pin D-Sub Jack on the VGA Connector.

## Keyboard/Mouse Connector (PS/2)



The BEETLE /mini has a **Purple** 6-pin Mini-DIN Jack for connecting a keyboard. You can also connect a mouse with a PS/2 splitter (Y-cable).

### NOTE

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

## Parallel Interface LPT1 for Modular Printer



The BEETLE /mini D425 standard **Burgundy** Parallel Interface LPT1 is intended for connecting a printer.

## Four COM ports for Standard PC Peripherals

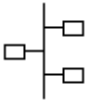


You can connect supplementary standard peripherals to the BEETLE /mini D425 Via COM1 (**Turquoise**)/ COM2 (black)/ COM3 (black)/ COM4 (black).



Make sure that all supplementary devices have been tested for RFI suppression pursuant to the legal requirements of your country.

## LAN (RJ45) Socket for Network



The BEETLE /MINI D425 system can be connected to a network (LAN) from the POS terminal rear panel.

## USB (Universal Serial Bus)



Four USB ports are available at the rear panel of BEETLE /MINI D425 system for connecting USB Devices. Two USB ports are available at the front panel of the system.

## Audio Port Sockets



The BEETLE /MINI D425 has a **Lime** Line-out socket can be connected to Headphones or preferably Powered Speakers.



A Light-Blue Line-in socket allows Tape-Players or other Audio Sources to be records by your POS system or played through the **Lime** Line-out.



A **Pink** MIC socket allows microphones to be connected for inputting voice.

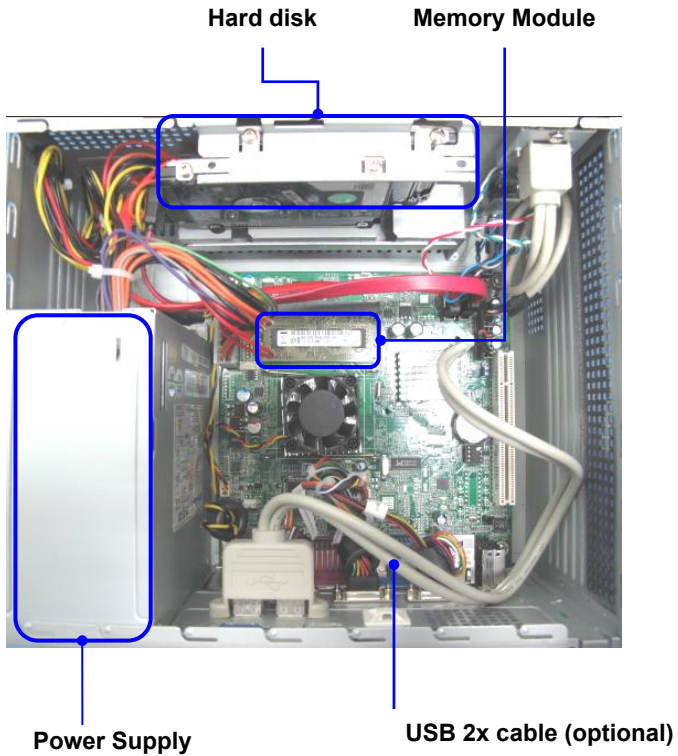
## How to slide open the top cover of the case

Please see the picture as below:



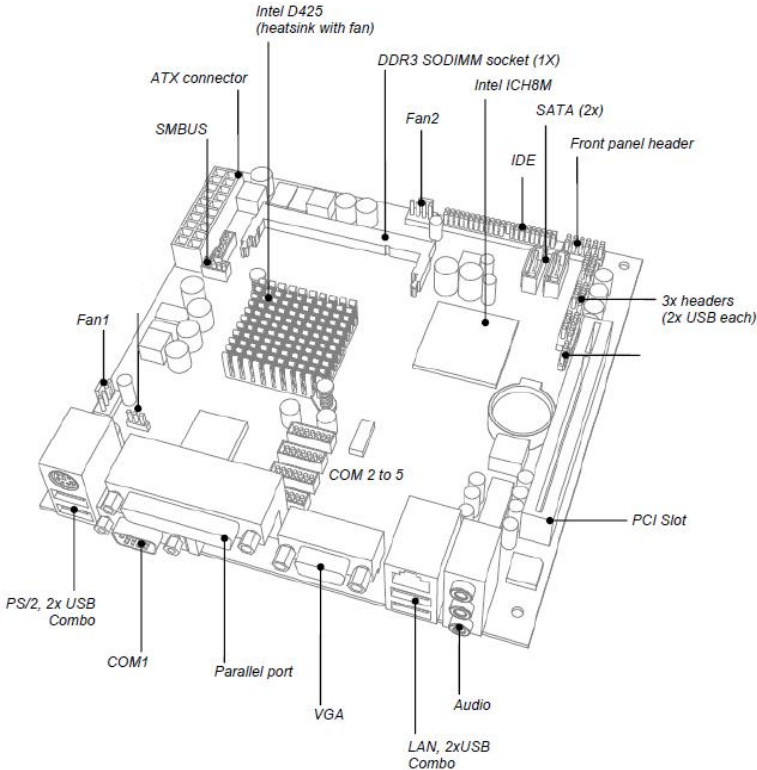
## System configuration

Please see the picture as below:





# Motherboard



## Motherboard Details

<b>Processor</b>	Intel Atom D425 1.8GHz
<b>Chipset</b>	ICH8M
<b>Main Memory</b>	Maximum 2GB on 1x SODIMM socket <ul style="list-style-type: none"><li>▪ DDR3 SDRAM, 1066/800MHz, non-ECC</li><li>▪ Support 1 GB / 2 GB RAM modules</li><li>▪ Support 1GB / 2 GB DDR3 technologies 667 or 800 MHz</li></ul>
<b>Video</b>	Integrated Graphic Controller, 2D & 3D graphics, video overlay, 3D render engine Analog Display <ul style="list-style-type: none"><li>▪ 350MHz, 24-bit RAMDAC</li><li>▪ Up to 1280 x 1024 @ 75Hz</li><li>▪ DDC2B Compliance</li></ul>
<b>Expansion Slots</b>	PCI 2.2 <ul style="list-style-type: none"><li>▪ 1 slot</li><li>▪ 32-bit, 33MHz</li></ul>
<b>Onboard IDE</b>	2x SATA
<b>LAN</b>	PCI Express Ethernet controller RTL8111E 10/100 Mb, PXE
<b>Onboard Audio</b>	HD audio Codec
<b>Onboard I/O Connectors</b>	<ul style="list-style-type: none"><li>▪ 1x PCI slot</li><li>▪ 2x SATA connector</li><li>▪ 3x USB header, 2 x 5 pin header, 2.54mm pitch</li><li>▪ (used for 2x Front USB &amp; 2x Rear USB)</li><li>▪ 1x Wake-on-LAN</li><li>▪ 2x Fan</li><li>▪ 1x Front Panel Interface</li><li>▪ 1x SMBUS</li><li>▪ 3x COM port header (used for COM2,3,4)</li></ul>

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**Back Panel Connectors**

- 1x Keyboard + mouse, P/S2
- 1x VGA
- 4x USB (on-board)
- 2x USB (via cable)
- 1x Ethernet (LAN)
- 1x Standard Serial, COM1
- 1x MIC/Line In, Line/Speaker Out
- 3x powered Serial, COM2,3,4 (via cables)
- 1x LPT1
- 1x 12V output (DC-Jack 2.5mm)

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**BIOS**

SPI Flash, 8Mbit, AMI BIOS  
Plug-and-play 1.1, ACPI, DMI

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## System BIOS

This section describes AMI BIOS™ Setup program built into the ROM BIOS. The Setup program allows users to modify the basic system configuration. This special information is then stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

The BIOS reads the system information contained in the CMOS and begins the process of checking out the system and configuring it. When it finishes, the BIOS will seek an operating system on one of the disks and then launch and turn control over to the operating system.

The Setup program can be activated by pressing the <Del> key when the following message appears briefly at the bottom of the screen during the POST (Power On Self-Test).

Press DEL to enter SETUP.

Below is the menu displayed on entering the Setup program.

BIOS SETUP UTILITY							
Main	Advanced	PCI/PnP	Chipset	ACPI	Boot	Security	Exit
AMIBIOS Version :			08.00.03				
BIOS Build Date :			10/01/01				
BIOS ID :			0AAXT004				
Processor Type :			Pentium(R) III Proce				
Processor Speed :			933MHz				
System Memory :			127MB				
System Time			[00:07:39]				
System Date			[Mon 01/01/2001]				
						←→	Select Screen
						F4	Select Item
						+/-	Change Field
						Tab	Select Field
						F1	General Help
						F10	Save and Exit
						ESC	Exit

## BEETLE /mini Technical Data

<b>Dimension</b>			
Width	254 mm		
Depth	216 mm		
Height	128 mm		
<b>Weight</b>		approx. 3.7 kg	
<b>Climatic category</b>			
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
<b>Input voltage</b>	100 - 120 VAC	200 - 240 VAC	
<b>Max. power consumption</b>	3A	1.5A	
<b>Frequency of system voltage</b>	60Hz	50 Hz	

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