

BEETLE /i8 Modular POS System

Operating Manual

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BEETLE i8

Modular POS System

Operating Manual

Edition Nov 2007

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Manufacturers Certification and notes



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

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 in-stalled 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.

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 A product.

警告使用者

這是甲類的資訊產品，在居住的環境使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Note on the laser

If your device is equipped with a CD-ROM drive, the following condition applies:

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

Important notes

The Modular POS system BEETLE /i8 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.



If the display element is damaged and the liquid crystal solution leaks out onto your hands or clothing, please wash your hands or clothing immediately under running water for at least 15 minutes, using soap or alcohol. If the liquid comes into contact with your eyes, consult a medical doctor immediately.

- 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.

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.

Countries	Safety Approvals
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

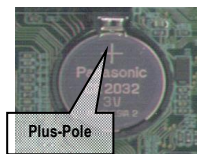


Incorrect replacement of the Lithium Battery may lead to a risk of explosion

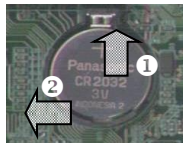
The end user must replace the lithium battery only by identical batteries or types recommended by Wincor Nixdorf.

Do not throw Lithium Batteries into the trashcan. It must be disposed of in accordance with local regulations concerning special waste.

Make sure that you insert the Battery the right way round. The plus pole must be on the top!



- 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 Modular POS system BEETLE /i8.

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 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 /i8



Clean your BEETLE /i8 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 the BEETLE /i8



Environmental protection does not begin when time comes 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 /i8 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 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 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.

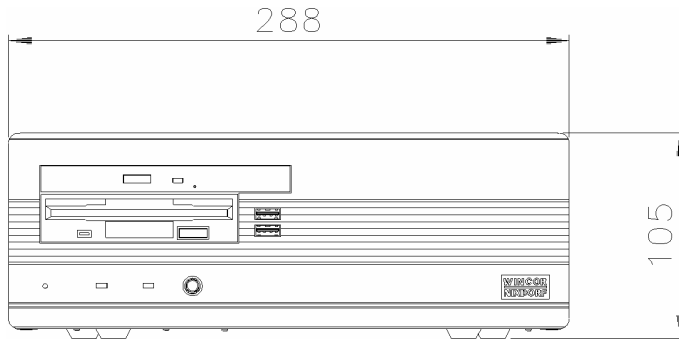
Abbreviations

AT	Advanced Technology
ATA	AT-Attachment
BIOS	Basic In put Out put Sys tem
BPP	Bits per Inch
COM	Communication Port
CPU	Central Processing Unit
CRT	Cathode Ray Tube
cUL	Canada Underwriters Laboratories
DIMM	Dual In line Memory Module
ECP	Extended Capability Port
EPP	Enhanced Parallel Port
EPROM	Erasable Programmable Read Only Memory
FDD	Floppy Disk Drive
GS	"Geprüfte Sicherheit" (Tested Safety)
HDD	Hard Disk Drive
HFT	High Frequency Table
IDE	Integrated Drive Electronic
ISA	Industrial Standard Architecture
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	Su per Video Graphics Array
TFT	Thin Film Transistor
UL	Underwriters Laboratories
USB	Universal Serial Bus
UPS	Unbreakable Power Supply
XMS	Extended Memory Specification

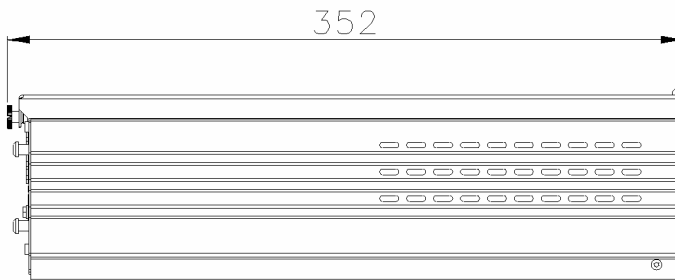
Overview

BEETLE i8 is a modular POS system that is part of the BEETLE product family.

Front view



Side View



System Setup

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.



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

Setting up the device

Set up the BEETLE 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 /i8 POS system are not obstructed in order to ensure that the device has sufficient ventilation.

Cabling of the BEETLE /i8

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

- The cable cover must be removed, if present.
- Plug one end of the power cable into the socket of the BEETLE /i8.
- Plug in and secure the data cable.
- 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.

Connecting to the Main Power Supply

All devices belonging to the modular BEETLE /i8 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 /i8 and the peripherals into the grounded-contact power sockets.

Switching on the system

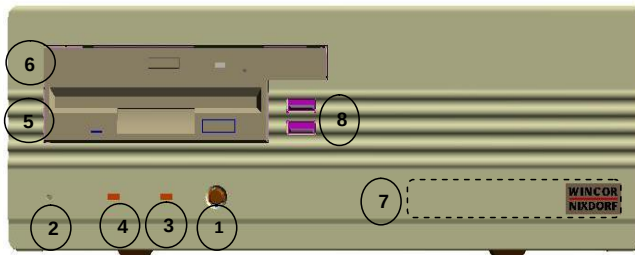
To switch on the BEETLE i8 system,

- Switch on the power supply at the rear side.
- Push the ON button at the front of the box.

BEETLE /i8 – The Components

Functions & Indicators on the BEETLE /i8

The illustration below shows the possible components of the BEETLE /i8 system.

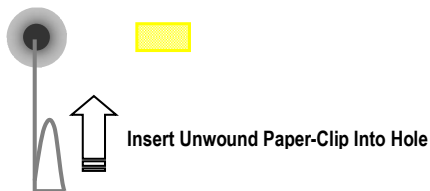


1 – ON/OFF Button

In an ATX based system, the new soft touch power button replaces the main power switch that turns your system on and off. 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 – RESET Switch

Insert a small, metal rod (an unwound paperclip for example) into this hole to perform System Reset.



3 – POWER-ON Indicator (LED)

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



4 – HARD-DISK DRIVE Indicator (LED)

The indicator (LED) lights up **Yellow** when the Hard-Disk Drive of the system unit is accessed.



Drives on the Beetle i8

The Beetle i8 has two drive slots for externally accessible drives. One further 3.5" drive slot is available for the installation of Hard-Disk Drive. The following drives been used in the Beetle i8:

- 3½" drive slot for Floppy-Disk Drive
- 5¼" drive slot for Supper-Slim CD-ROM Drive
- 3½" Hard-Disk Drive

5 – Floppy-Disk Drive

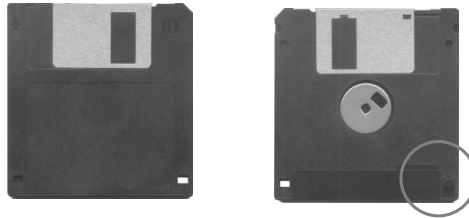
The 3½" Floppy Drive supports capacities of up to 1.44 MB. The LED at the drive lights up **Green** whenever the system accesses the drive.



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.



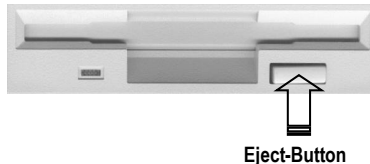
Writing is Possible



Writing is Not Possible



Press the Eject-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.

⑥ – Supper-Slim CD-ROM Drive

The BEETLE /i8 is equipped with a 5¼" Supper-Slim CD-ROM (currently 24X as default) Drive. This drive supports the use of CD-ROM media as inexpensive, non-alterable data media for software distribution or as permanent data storage for graphics, videos or other application data.

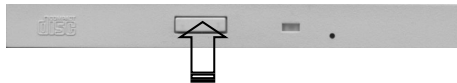
The LED at the drive lights up **Green** whenever the system accesses the drive.



Operating the Supper-Slim CD-ROM Drive

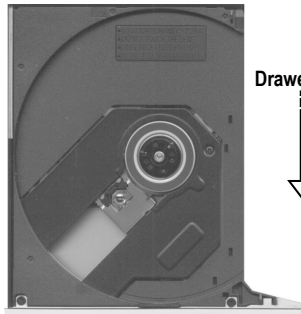
To start the drive, follow the procedure below:

- Switch ON the BEETLE /i8 system power supply.
- Press the Eject-Button.

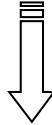


Eject-Button

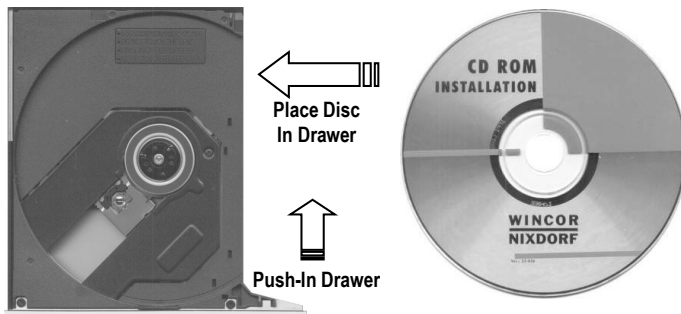
- The drawer is ejected from the drive.



Drawer Eject



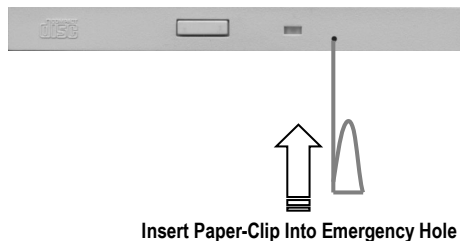
- Place the disc into the drawer with the disc's label facing up. Then push-in the drawer softly until it is locked in the drive.



Opening the Super-Slim CD-ROM Drawer by Hand

In the event of a power failure or damage to the drive it may be necessary to manually remove the CD.

- Switch OFF the BEETLE i8 system power supply.
- Insert a small, metal rod (an unwound paper-clip for example) firmly into the Emergency Hole



 NOTE

- *Never bend a disc.*
- *Never write on a disc with the a hard object, like a ball-point pen or pencil and never fix a label directly on the disc.*
- *Do not expose discs to direct sunlight and avoid storing them in areas subject to high temperatures or humidity.*
- *Never touch the surface of the disc. Always handle by their edges.*
- *For best results, periodically wipe each disc with a soft, dry cloth, gently rubbing outward from center. Never use fluids such as petrol, record cleaning or anti-static fluid. Use of such fluids can damage the disc.*

7 – Hard-Disk Drive

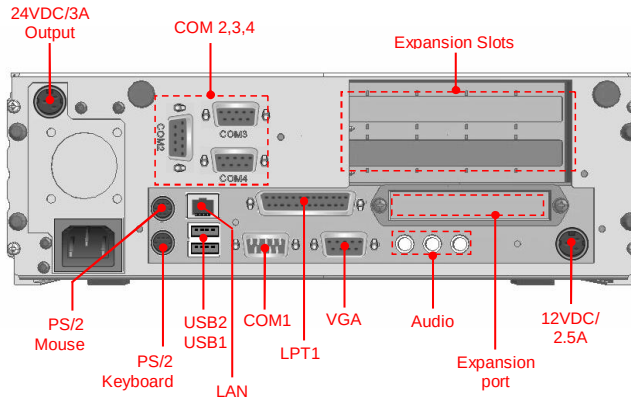
BEETLE /i8 systems can be equipped with one 3½" E-IDE hard disks. The storage capacity is changed in line with market demand, but is currently at least 40 GB.

8 – USB Front Access

BEETLE /i8 system provides two USB ports for connections of USB devices from the front side.

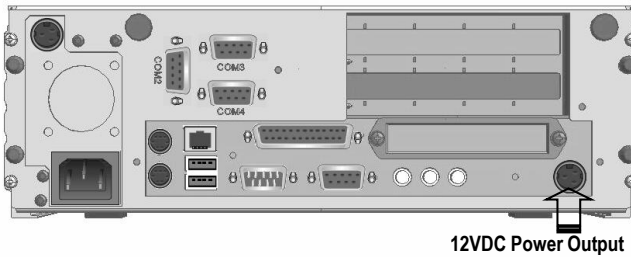
Rear Panel Connectors on the BEETLE /i8

The illustration below shows the rear panel of the BEETLE /i8 with the basic I/O ports.



12V Power Output

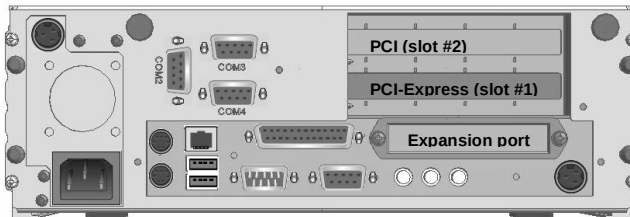
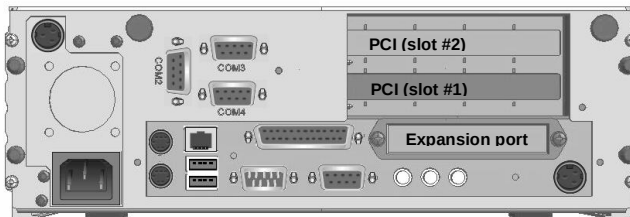
12VDC output can supply a maximum of 2.5 A for powering a LCD Display.



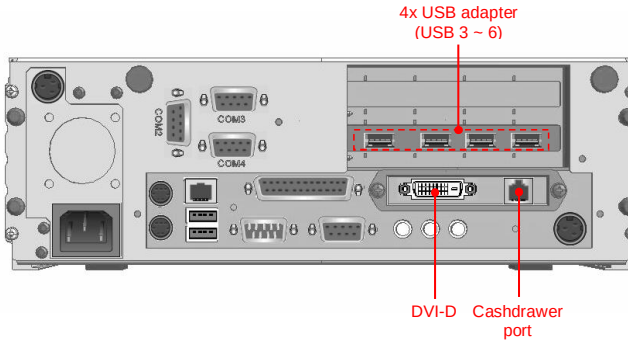
Connect only cable to the 12VDC Power Output, which are label with "12V-LCD".

Expansion Slots & Port

- Two Expansion Slots. Options of either 2x PCI Bus master slot or, 1x PCI and 1x PCI-Express (X4).
- One Expansion Port. This port is for optional expansion board for supporting additional I/O ports. Currently available expansion board are listed below:
 - SDVO to DVI/Cashdrawer bridge

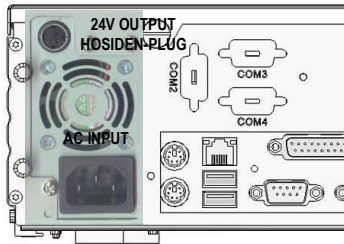


The illustration below shows rear panel of the BEETLE /i8 with the optional I/O ports. Note that the 4x USB Adapter will occupy one PCI slot.



Power Supply Unit

The auto-ranging power supply unit of the Beetle /i8 has a total output power of 216W. Besides supplying power to the motherboard and the internal peripherals, it also has a 24VDC output capable of delivering a maximum current of 3A. The 24VDC output is to provide power to POS printer.



WARNING

Connect only cable to the 24V connector, which are marked with DP-1 or DP-2 (label with "24V-LPT").

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

Do not connect the HOSIDEN plug that label with "12V-LCD". This can lead to damage of the LCD Display.

VGA Connector for Monitor or LCD-Display



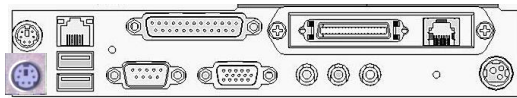
You can connect a Monitor or LCD-Display to the BEETLE /i8 via the **Blue** 15-Pin D-Sub Jack on the VGA Connector.



Keyboard Connector (PS/2)



The BEETLE /i8 has a **Purple** 6-pin Mini-DIN Jack for connecting a keyboard.



Keyboard Connector

NOTE

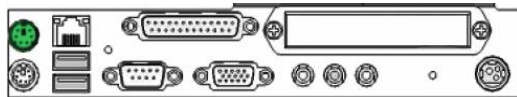
Make sure that the connector is plugged firmly into the socket to prevent malfunctioning.

Mouse Connector (PS/2)



The BEETLE /i8 has a **Light-Green** 6-pin Mini-DIN Jack for connecting a Standard Mouse using a PS/2 plug.

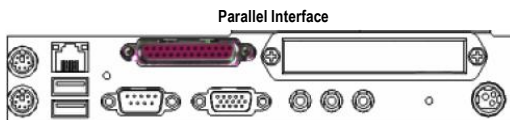
Mouse Connector



Parallel Interface LPT1 for Modular Printer



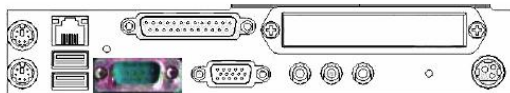
The BEETLE /i8 standard **Burgundy** Parallel Interface LPT1 is intended for connecting a printer.



COM1 Serial Interface for Standard PC Peripherals



You can connect supplementary standard peripherals to the BEETLE /i8 Via the **Turquoise** COM1 Serial Interface.



COM1 Serial Interface

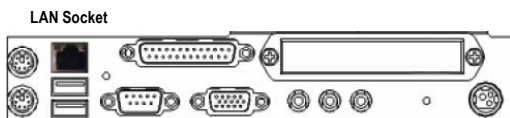


Make sure that all supplementary devices have been tested for RFI suppression pursuant to the legal requirements of your country.

LAN (RJ45) Socket for Network

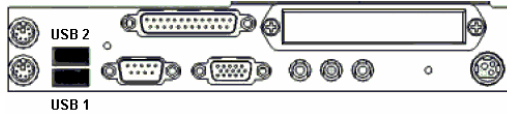


The BEETLE /i8 system can be connected to a network (LAN) from the POS terminal rear panel.



USB (Universal Serial Bus) Port 1 and 2

- Two USB ports are available at the rear panel of BEETLE /i8 system for connecting USB Devices.



Audio Port Sockets



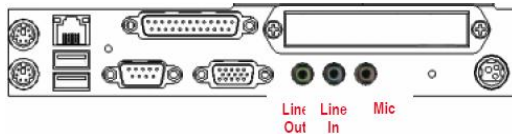
The BEETLE /i8 has a **Lime** Line-out socket can be connected to Headphones or preferably Powered Speakers.



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.



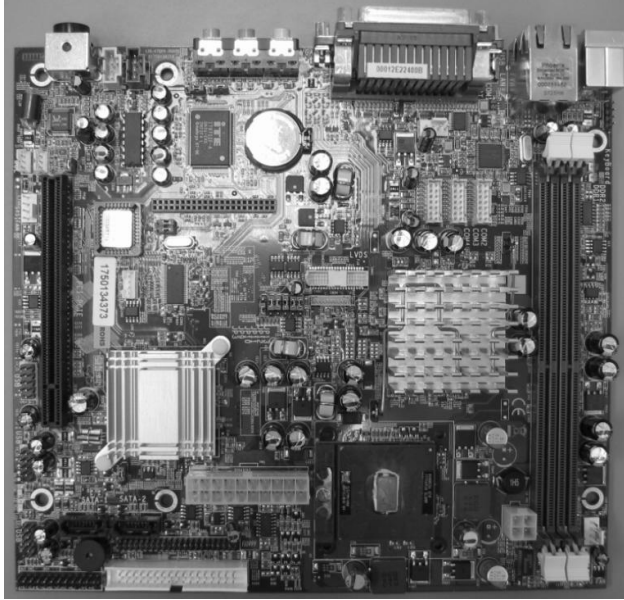
A **Pink** MIC socket allows microphones to be connected for inputting voice.



Motherboard

Beetle i8 motherboard is based on INTEL 910GML chipset supporting Celeron-M and Pentium-M 400MHz FSB Processors.

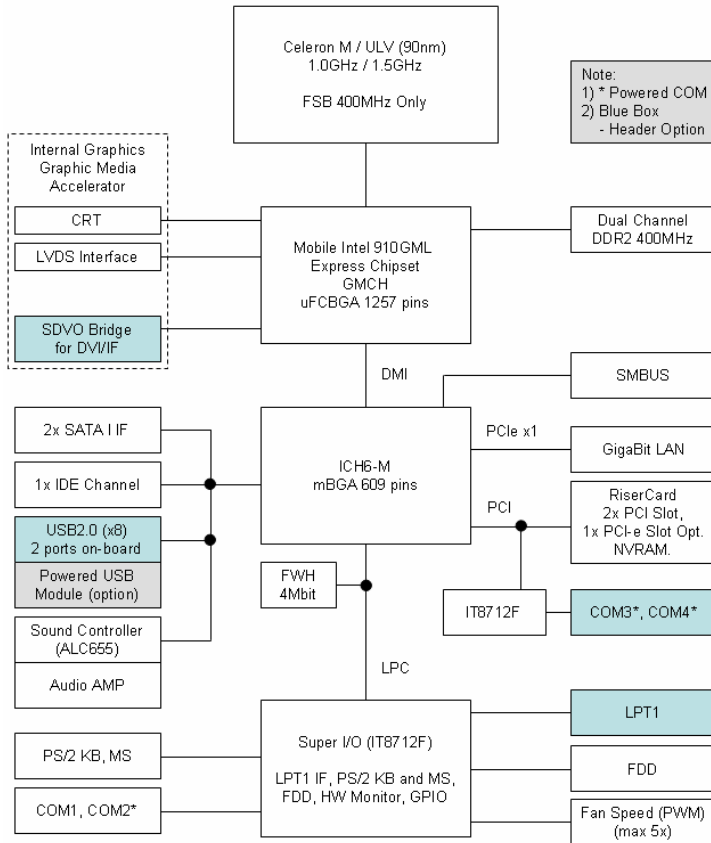
- Dimensions: 220 x 200mm



CAUTION

Static electricity can harm delicate components of the Main-Board. To prevent damage caused by static electricity, discharge the static electricity from your body before you touch any of the computers electronic components.

Motherboard Block Diagram



Processor Supports

- Supports INTEL Celeron M and Pentium M 400 MHz FSB Processors.
- Support bus speed 400 MHz.

Processor	Processor Speed	Bus Speed	L2 Cache Size
Celeron M	1 GHz	400MHz	Zero-cache
Celeron M Processor 370	1.5 GHz	400MHz	1MB

Voltage regulator for CPU Core

IMVP IV (Intel Mobile Voltage Positioning) compliance DC-DC converter provides a smart voltage regulation technology that dynamically reduces core voltage with increases in current, thereby maintaining high performance while lowering power consumption.

Chipset

Intel® 910GML Chipset consisting of:

- Intel® 910GML GMCH (QG82910GML)
- Intel® ICH6-M (NH82801FBM)

System Memory

- Two DDR2 DIMM sockets
- Supports dual-channel non-ECC DDR2 400MHz and single-channel DDR 333 memory modules.
- Memory size up to 2 GB

Graphics Subsystem

- Integrated graphics controller using in Intel Dynamic Video Memory Technology (DVMT 3.0) that dynamically allocate up to 128MB of system memory for graphic usage.
- Display core frequency up to 200MHz and Render core frequency up to 166MHz.
- Analog display support
- Dual display support – independent or simultaneous
- Dual SDVO ports each capable of pixel rates to 200MP/s (600MB/s)
- Dedicated Local Flat Panel (LFP) LVDS interface

Below is a list of display resolutions that are certified to meet the EMC requirements:

Resolution	Colors	60 Hz	70 Hz	72 Hz	75 Hz
640x480	16	X	X	X	X
	256	X	X	X	X
	64 K	X	X	X	X
	16 M	X	X	X	X
800x600	256	X	X	X	X
	64 K	X	X	X	X
	16 M	X	X	X	X



Some of the system memory is reserved for video.

Audio Subsystem

- AC97 2.3 Codec
- 16-bit stereo full duplex
- 48KHz sampling rate
- On-board 2 watts per channel amplifier

BIOS

- AWARD BIOS 6.0
- 4Mb flash memory
- Support for DMI, Advanced Configuration and Power Management Interface (ACPI), Advanced Power Management (APM), and Plug-and-Play (PnP).

Plug-and-Play

- Supports Plug and Play specification 1.1
- Fully steerable PCI interrupts.

Power Management

- Supports SMM, APM, ACPI
- Break switch for instant suspend / resume on system operations.
- Energy star "Green PC" compliant.
- Hardware monitoring circuit is supported, provide voltage, temperature, fan speed monitoring.
- WOL (Wake-On-LAN) Header support.
- External Modem Ring-in Wake-Up support.

On-Board I/O Ports

- On-board one IDE port (44-pin) supporting up to two ATA devices (HDD, CD-ROMs, ZIP drives and LS-120 drives) as boot drive. Support Bus Master IDE, PIO mode 4 (up to 16.6M bytes/sec), Ultra DMA33 (up to 33M bytes/sec) Ultra DMA66 (up to 66M byte/sec) transfer.
- Two SATA interface, 1.5 Gb/s.
- One ECP/EPP parallel port.
- Four 16550 Compatible UART serial ports (one standard, three powered).
- One floppy port, Supports two FDD of 360KB, 720KB, 1.2MB , 1.44MB and 2.88MB capacity.
- Two USB ports (PCB mounted on the rear panel).
- Six USB ports via headers.
- PS/2 keyboard connector.
- PS/2 mouse is supported.

LAN on-board

- Realtek RTL8111B LAN controller over PCI-Express.
- 10 Mb/s, 100 Mb/s and 1 Gb/s operations.
- Supports Wake-On-LAN function and Remote wake-up.
- Supports digital and analog loop-back capability on both ports.
- Half/Full duplex capability.

Expansion Slots

- The Riser slot for Riser card is capable of supporting three PCI Bus master and three PCI-Express x1.
- There are two available options of Riser Card: 2-slot PCI or single-slot PCI/PCI-E.

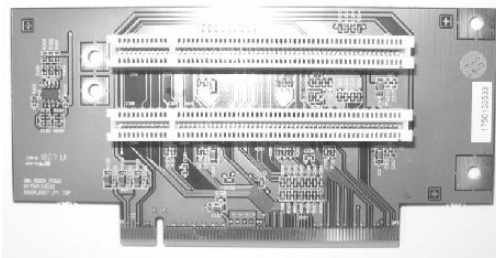
DC Power Output

- 12 VDC output supplying up to a maximum of 2.5A for powering a LCD display.

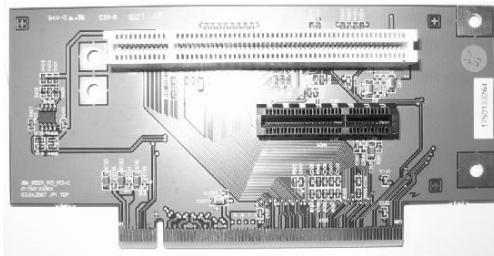
RISER CARD OPTIONS

Two options of Riser Card are available: 2-slot PCI or, single-slot PCI/PCI-E.

2-slot PCI Riser Card



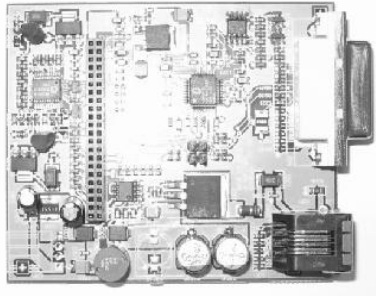
PCI + PCI-E Riser Card



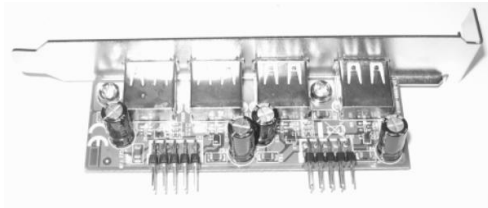
OPTIONAL I/O EXPANSION BOARD

The Expansion Port enables addition of second display port, cashdrawer port or other I/O ports. Currently available expansion board is a DVI/Cashdrawer combo bridge.

SDVO to DVI/Cashdrawer Bridge



4X USB Adapter



System BIOS

Setup Menu

The main menu includes the following main setup categories.

Standard CMOS Features	Use this menu to set date/time, basic configuration of Hard disk drive and Floppy drive.
Advanced BIOS Features	Use this menu to configure the boot device and set the boot priority, set CPU features, keyboard, APIC mode, security option.
Advanced Chipset Features	Use this menu to configure DRAM timing, enabling or disabling BIOS caching, PCI-Express ports and configuring the video setting to optimize video performance.
Integrated Peripherals	Use this menu to configure the IDE/SATA device mode, enabling or disabling on-board USB controller, USB keyboard support, LAN controller, USB2.0 boot and audio amplifier, and the configure the serial and parallel ports.
Power Management Setup	Use this menu to configure the power management mode of the integrated devices such as video, hard disk, suspend mode and wake-up events.
PnP / PCI Configurations	Use this menu to set the primary display and for manual assignment of system resources such as IRQ and INT pin.
PC Health Status	Use this menu display system health status such as fan speed, temperature, voltages, etc. User can also change the CPU and system fan speed control method.
Frequency/Voltage Control	This menu is for configuring the CPU frequency and setting the spread spectrum. Note: Do not change the factory default setting as it might cause the system fault if done incorrectly.
Load Fail-Safe Defaults	Use this menu to load the BIOS default values for the minimal/stable performance for your system to operate.
Load Optimized	Use this menu to load the BIOS default values

Defaults	that are factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the right to change these defaults to meet their needs.
-----------------	--

Supervisor / User Password	Use this menu to set User and Supervisor Passwords.
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Save & Exit Setup	Save CMOS value changes to CMOS and exit setup.
------------------------------	---

Exit Without Save	Abandon all CMOS value changes and exit setup.
--------------------------	--

POST Messages

During the Power On Self-Test (POST), if the BIOS detects an error requiring you to do something to fix, it will either sound a beep code or display a message.

If a message is displayed, it will be accompanied by:

PRESS F1 TO CONTINUE, CTRL-ALT-ESC OR DEL TO ENTER SETUP

POST Beep

Currently there are two kinds of beep codes in BIOS. This code indicates that a video error has occurred and the BIOS cannot initialize the video screen to display any additional information. This beep code consists of a single long beep followed by two short beeps. The other code indicates that your DRAM error has occurred. This beep code consists of a single long beep repeatedly.

Error Messages

One or more of the following messages may be displayed if the BIOS detects an error during the POST. This list includes messages for both the ISA and the EISA BIOS.

CMOS BATTERY HAS FAILED

CMOS battery is no longer functional. It should be replaced.

CMOS CHECKSUM ERROR

Checksum of CMOS is incorrect. This can indicate that CMOS has become corrupt. This error may have been caused by a weak battery. Check the battery and replace if necessary.

DISK BOOT FAILURE, INSERT SYSTEM DISK AND PRESS ENTER

No boot device was found. This could mean that either a boot drive was not detected or the drive does not contain proper system boot files. Insert a system disk into Drive A: and press <Enter>. If you assumed the system would boot from the hard drive, make sure the controller is inserted correctly and all cables are properly attached. Also be sure the disk is formatted as a boot device. Then reboot the system.

DISKETTE DRIVES OR TYPES MISMATCH ERROR - RUN SETUP

Type of diskette drive installed in the system is different from the CMOS definition. Run Setup to reconfigure the drive type correctly.

DISPLAY SWITCH IS SET INCORRECTLY

Display switch on the motherboard can be set to either monochrome or color. This indicates the switch is set to a different setting than indicated in Setup. Determine which setting is correct, and then either turn off the system and change the jumper, or enter Setup and change the VIDEO selection.

DISPLAY TYPE HAS CHANGED SINCE LAST BOOT

Since last powering off the system, the display adapter has been changed. You must configure the system for the new display type.

**EISA Configuration Checksum Error
PLEASE RUN EISA CONFIGURATION UTILITY**

The EISA non-volatile RAM checksum is incorrect or cannot correctly read the EISA slot. This can indicate either the EISA non-volatile memory has become corrupt or the slot has been configured incorrectly. Also be sure the card is installed firmly in the slot.

**EISA Configuration Is Not Complete
PLEASE RUN EISA CONFIGURATION UTILITY**

The slot configuration information stored in the EISA non-volatile memory is incomplete.

Note: When either of these errors appear, the system will boot in ISA mode, which allows you to run the EISA Configuration Utility.

ERROR ENCOUNTERED INITIALIZING HARD DRIVE

Hard drive cannot be initialized. Be sure the adapter is installed correctly and all cables are correctly and firmly attached. Also be sure the correct hard drive type is selected in Setup.

ERROR INITIALIZING HARD DISK CONTROLLER

Cannot initialize controller. Make sure the cord is correctly and firmly installed in the bus. Be sure the correct hard drive type is selected in Setup. Also check to see if any jumper needs to be set correctly on the hard drive.

FLOPPY DISK CNTRLR ERROR OR NO CNTRLR PRESENT

Cannot find or initialize the floppy drive controller. make sure the controller is installed correctly and firmly. If there are no floppy drives installed, be sure the Diskette Drive selection in Setup is set to NONE.

**Invalid EISA Configuration
PLEASE RUN EISA CONFIGURATION UTILITY**

The non-volatile memory containing EISA configuration information was programmed incorrectly or has become corrupt. Re-run EISA configuration utility to correctly program the memory.

NOTE: When this error appears, the system will boot in ISA mode, which allows you to run the EISA Configuration Utility.

KEYBOARD ERROR OR NO KEYBOARD PRESENT

Cannot initialize the keyboard. Make sure the keyboard is attached correctly and no keys are being pressed during the boot. If you are purposely configuring the system without a keyboard, set the error halt condition in Setup to HALT ON ALL, BUT KEYBOARD. This will cause the BIOS to ignore the missing keyboard and continue the boot.

Memory Address Error at ...

Indicates a memory address error at a specific location. You can use this location along with the memory map for your system to find and replace the bad memory chips.

Memory parity Error at ...

Indicates a memory parity error at a specific location. You can use this location along with the memory map for your system to find and replace the bad memory chips.

MEMORY SIZE HAS CHANGED SINCE LAST BOOT

Memory has been added or removed since the last boot. In EISA mode use Configuration Utility to reconfigure the memory configuration. In ISA mode enter Setup and enter the new memory size in the memory fields.

Memory Verify Error at ...

Indicates an error verifying a value already written to memory. Use the location along with your system's memory map to locate the bad chip.

OFFENDING ADDRESS NOT FOUND

This message is used in conjunction with the I/O CHANNEL CHECK and RAM PARITY ERROR messages when the segment that has caused the problem cannot be isolated.

OFFENDING SEGMENT:

This message is used in conjunction with the I/O CHANNEL CHECK and RAM PARITY ERROR messages when the segment that has caused the problem has been isolated.

PRESS A KEY TO REBOOT

This will be displayed at the bottom screen when an error occurs that requires you to reboot. Press any key and the system will reboot.

PRESS F1 TO DISABLE NMI, F2 TO REBOOT

When BIOS detects a Non-maskable Interrupt condition during boot, this will allow you to disable the NMI and continue to boot, or you can reboot the system with the NMI enabled.

RAM PARITY ERROR - CHECKING FOR SEGMENT ...

Indicates a parity error in Random Access Memory.

**Should Be Empty But EISA Board Found
PLEASE RUN EISA CONFIGURATION UTILITY**

A valid board ID was found in a slot that was configured as having no board ID.

NOTE: When this error appears, the system will boot in ISA mode, which allows you to run the EISA Configuration Utility.
--

**Should Have EISA Board But Not Found
PLEASE RUN EISA CONFIGURATION UTILITY**

The board installed is not responding to the ID request, or no board ID has been found in the indicated slot.

NOTE: When this error appears, the system will boot in ISA mode, which allows you to run the EISA Configuration Utility.
--

Slot Not Empty

Indicates that a slot designated as empty by the EISA Configuration Utility actually contains a board.

NOTE: When this error appears, the system will boot in ISA mode, which allows you to run the EISA Configuration Utility.

SYSTEM HALTED, (CTRL-ALT-DEL) TO REBOOT ...

Indicates the present boot attempt has been aborted and the system must be rebooted. Press and hold down the CTRL and ALT keys and press DEL.

Wrong Board In Slot**PLEASE RUN EISA CONFIGURATION UTILITY**

The board ID does not match the ID stored in the EISA non-volatile memory.

NOTE: When this error appears, the system will boot in ISA mode, which allows you to run the EISA Configuration Utility.

FLOPPY DISK(S) fail (80) → Unable to reset floppy subsystem.

FLOPPY DISK(S) fail (40) → Floppy Type mismatch.

Hard Disk(s) fail (80) → HDD reset failed

Hard Disk(s) fail (40) → HDD controller diagnostics failed.

Hard Disk(s) fail (20) → HDD initialization error.

Hard Disk(s) fail (10) → Unable to recalibrate fixed disk.

Hard Disk(s) fail (08) → Sector Verify failed.

Keyboard is locked out - Unlock the key.

BIOS detect the keyboard is locked. P17 of keyboard controller is pulled low.

Keyboard error or no keyboard present.

Cannot initialize the keyboard. Make sure the keyboard is attached correctly and no keys are being pressed during the boot.

Manufacturing POST loop.

System will repeat POST procedure infinitely while the P15 of keyboard controller is pull low. This is also used for M/B burn in test.

BIOS ROM checksum error - System halted.

The checksum of ROM address F0000H-FFFFFH is bad.

Memory test fail.

BIOS reports the memory test fail if the onboard memory is tested error.

Appendix

Technical Data for the BEETLE /i8 Modular

Modular POS System

Width	288 mm
Depth (without cable-cover)	352 mm
Height	105 mm

Weight	approx. 16 kg
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Climatic category

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

Input voltage	100 - 120 VAC
	200 - 240 VAC

Max. power consumption	6A	100 – 120 VAC
	3A	200 – 240 VAC

Frequency of system voltage	50 -60 Hz
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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.

PCMCIA

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

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.

VGA

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

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