DIEBOLD NIXDORF

BEETLE /iPOS plus XL

User Manual (Edition 2018)

We would like to know your opinion on this publication.

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

With kind regards,

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Order No.: ***01750306119 A***

Your opinion:

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Manufacturer´s Certification

The device complies with the requirements of the EEC directive 2014/30/EU with regard to 'Electro-magnetic compatibility" and 2014/35/EU "Low Voltage Directive" and RoHS directive 2011/65/EU.

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

In addition, the BEETLE /iPOS plus XL has received the UL symbol and cUL symbol.

FCC-Class A Declaration

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Modifications not authorized by the manufacturer may void users authority to operate this device.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

CAN UCES-3 (A)/NMB-3(A)

Energy Efficiency

BEETLE /iPOS plus XL is tested in an accredited test lab and can meet the Eligibility Criteria for Integrated Desktop laid down in ENERGY STAR version 6.0 for Computers. On a request basis, an application can be made to Energy Star for listing.

Wireless Declaration of Conformity

Hereby, Diebold Nixdorf declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EC.

Cěky [Czech]:	Diebold Nixdorf tímto prohlašuje, že tento zařízení je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/ES.
Dansk [Danish]:	Undertegnede Diebold Nixdorf erklærer herved, at følgende udstyr Enhed overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EF.
Deutsch [German]:	Hiermit erklärt Diebold Nixdorf, dass sich das Gerät in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/53/EG befindet.
Eesti [Estonian]:	Käesolevaga kinnitab Diebold Nixdorf seadme vastavust direktiivi 2014/53/EÜ põhinõuetele ja nimetatud dire ktiivist tulenevatele teistele asjakohastele sätetele.
English:	Hereby, Diebold Nixdorf declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EC.
Español [Spanish]:	Por medio de la presente declara que el dispositivo cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/CE.
Ελληνική [Greek]:	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Diebold Nixdorf ΔΗΛΩΝΕΙ ΟΤΙ συσκευή ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/ΕΚ.
Français [French]:	Par la présente Diebold Nixdorf déclare que l'appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/CE.

Italiano [Italian]:	Con la presente Diebold Nixdorf dichiara che questo dispositivo è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/CE.
Latviski [Latvian]:	Ar šo Diebold Nixdorf deklarē, ka ierīce atbilst Direktīvas 2014/53/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
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Nederlands [Dutch]:	Hierbij verklaart Diebold Nixdorf dat het toestel apparaat in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EG.
Malti [Maltese]:	Hawnhekk, Diebold Nixdorf jiddikjara li dan apparat jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2014/53/EC.
Magyar [Hungarian]:	Alulírott, Diebold Nixdorf nyilatkozom, hogy a eszköz megfelel a vonatkozó alapvetõ követelményeknek és az 2014/53/EC irányelv egyéb elõírásainak.
Polski [Polish]:	Niniejszym Diebold Nixdorf oświadcza, że urządzenie jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/53/EC.
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Suomi [Finnish]:	Diebold Nixdorf vakuuttaa täten että laite on direktiivin 2014/53/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden eh tojen mukainen.
Svenska [Swedish]:	Härmed intygar Diebold Nixdorf att denna enhet står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EG.
Íslenska [Icelandic]:	Hér með lýsir Diebold Nixdorf yfir því að tæki er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 2014/53/EC.

Norsk [Norwegian]:	Diebold Nixdorf erklærer herved at utstyret enhet er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EF.

The declaration of conformity may be consulted at:
http://www.dieboldnixdorf.com

Important Notes

Diebold Nixdorf is not responsible for any radio and television malfunctions which emerge from unauthorized changes in the device. Make sure that only cables and devices may be connected which are admitted by Diebold Nixdorf. The user is responsible for any malfunctions that emerge from the actions mentioned before.

The device may only be installed, or repaired by authorized qualified personnel. Unauthorized opening of the device and inexpertly carried-out repairs may not only seriously jeopardize the safety of the user, but also cancel all warranty and liability agreements.

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

When opening the device or handling modules fitted with ESD, please observe the following instructions, which pertain to all electrostatic sensitive devices (ESDs):

- Always use the antistatic kit.
- Statically discharge yourself, for example by touching an earthed object (such as a heat radiator) before beginning to work with ESD-labeled components.
- Likewise, all equipment and tools used in working with such components must be free of static charge.
- Pull the mains plug before inserting or removing such components.
- Only handle such components by their edges.
- Never touch any terminal pins of the strip conductors on such components.

Safety Notes

The BEETLE /iPOS plus XL 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.
- Whenever work of any kind is done on the device, as well as when data cables are plugged and/or unplugged, the device must be completely disconnected from the line voltage. To do so, turn the device off and unplug the power cord.
- To disconnect the device from the supply voltage completely, switch off the device and disconnect the power plug of the system.
- 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 Diebold Nixdorf or your dealer must be notified.

- Your BEETLE /iPOS plus XL 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 /iPOS plus XL. Therefore, you should connect your BEETLE /iPOS plus XL 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.
- If you replace a storage medium, make sure that you only use the storage medium recommended or approved by Diebold Nixdorf.
- This equipment is not suitable for use in locations where children are likely to be present.
- "CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions."/“ATTENTION: Risque d’explosion si la batterie est remplacée par un type incorrect. Mettre au rebus les batteries usagées selon les instructions.“

Introduction

The BEETLE /iPOS plus XL features an 18.5” Color TFT-LCD display (projected capacitive touch) that supports the Full High Definition [1920(H) x 1080(V)] screen format and 16.7M colors and, a motherboard that supports the high performance i3, i5 and i7 processors as well as the value Celeron processor.

About this manual

This documentation is intended to help you to work with the BEETLE /iPOS plus XL system and to serve as a reference work. The detailed table of contents will help you find the desired information quickly and easily.

Notes in the manual are marked by this symbol.

This symbol is used for warnings.

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

Care of the BEETLE /iPOS plus XL

Clean your system’s housing at regular intervals with a dry, lint-free cloth. If this does not suffice please use a suitable plastic-surface cleaner which you can order from Diebold Nixdorf.

For more information about cleaning read the chapter “Projective Capacitive Touch Screen” and “Resistive Touch Screen”. When cleaning always make sure that the power plug is disconnected and that no liquid finds its way into the device.

Recycling the BEETLE /iPOS plus XL

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

The BEETLE /iPOS plus XL system is manufactured without the use of CFC and CHC and is produced mainly from reusable components and materials.

Please do not stick labels onto plastic case parts. This would help us to reuse components and material.
But there are still some parts that are not reusable. Diebold Nixdorf guarantees the environmentally safe disposal of these parts in a Recycling Center, which is certified pursuant to ISO 9001 and ISO 14001.

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.

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

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

Warranty

In general, damages due to

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

will not be covered by the warranty.

For further information on the stipulation consult your contract.

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

Please order *spare parts* at the Diebold Nixdorf customer service.

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 Diebold 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 top!

Always make sure that the system is switched off and the power cable is disconnected from the system before you replace the battery.

Unpacking And Checking the Delivery Unit

Unpack the parts and check to see whether the delivery matches the information on the delivery note. The delivery comprises the respective screen module. Data cables, necessary for operation, can be ordered separately. If damage has occurred during shipping or if the package contents do not match the delivery note, immediately inform your Diebold Nixdorf sales outlet.
Transport the device only in its original packaging (to protect it against impact and shock).

Basic settings

The BEETLE /iPOS plus XL is configured to your order. Add-on peripheral devices are delivered separately, for example the magnetic swipe card reader. The modules are to be mounted to the system.

Components

The BEETLE /iPOS plus XL configuration can consist of the following components:

Processor Type

Celeron G3900TE
Intel Core i3-6100TE
Intel Core i5-6500TE
Intel Core i3-7101TE
Intel Core i5-7500T
Intel Core i7-6700TE

RAM

2 x DDR4 SODIMM socket
DDR4 SODIMM
Maximum size is 16GB

Mass Storage Options

2.5", 7mm HDD or SSD
M.2 2280 SATA SSD

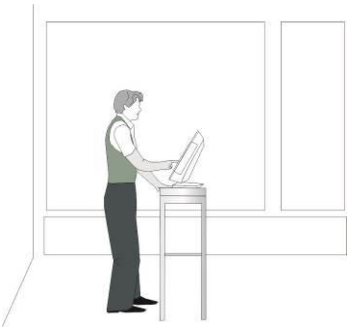
Setting Up the Device

The BEETLE /iPOS plus XL was developed for an in-house installation. The device is designed to be mounted on a stand (desktop version), or on the wall (wall mount version) or on a pole.

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

Ergonomic Terminal Workplace

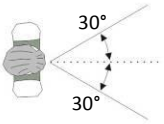
Please observe the following when setting up your terminal workplace:



Avoid direct glaring and reflective glaring. Use the screen only in a controlled luminance surounding. Install the device with a viewing direction that is parallel to the windows.

Avoid reflective glaring caused by electric light sources.

Permitted range of vision



Preferred range of vision

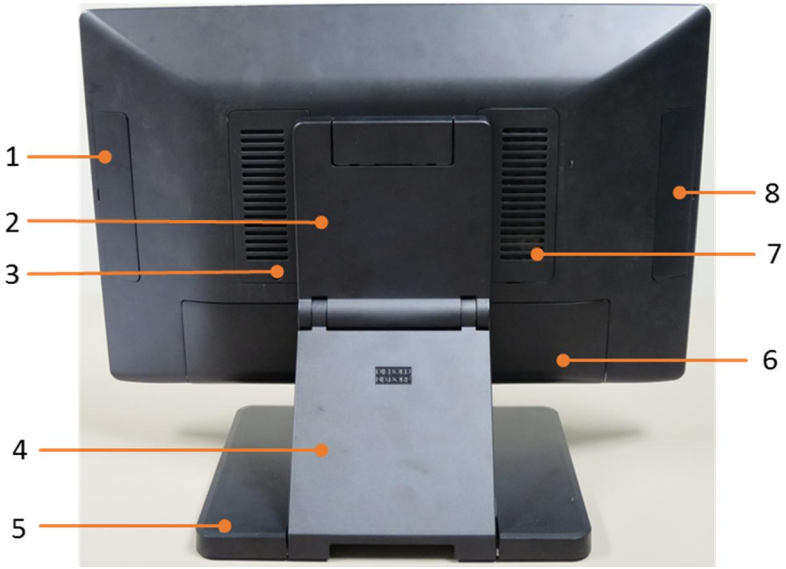
Position the screen within a preferred and permit ted range of vision, so that you can look onto the screen from above.

Overview

Front View with Stand

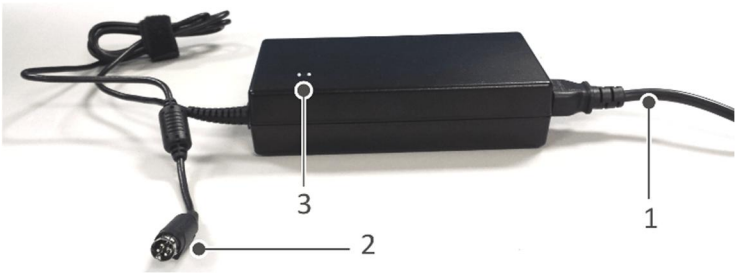
1	BEETLE /iPOS plus XL
2	Desktop Stand
3	Touch buttons and Activities Indicator
4	Power status indicator

Back View with Stand



1	Side-attach peripheral connection cover
2	VESA mount cover
3	Access cover
4	Hinge cover
5	Base cover of stand
6	Cable connection cover
7	Lint filter
8	Side-attach peripheral connection cover

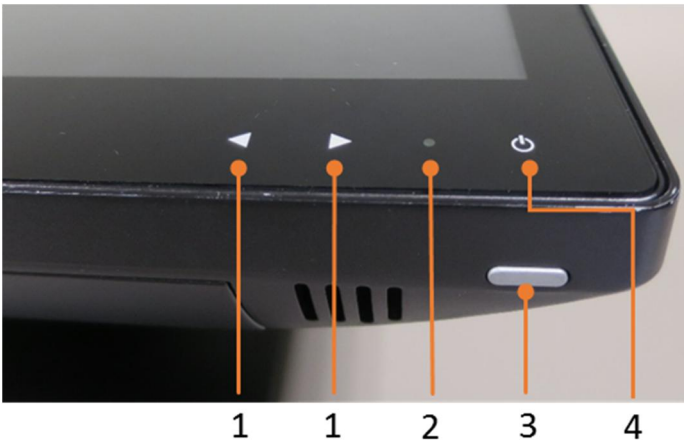
AC Power Adapter



1	AC Power Cord
2	DC Power Out
3	Power Indicator

The external power supply is applicable for common line voltage.
It automatically adjusts itself to the particular voltage.

Front Panel



1 - Brightness Buttons • LED White Off : Off/AC applied • LED White On : Upon 1st touch and subsequent touch for normal brightness control	2 - Activity Indicator • LED Off : No activity • LED Green Blinking : Activity as configured in CMOS • LED Red: System error detected
3 - Power Button • Single Press : On/Off	4 - Power Status Indicator • LED White Off : Off/AC not applied • LED White Dim: Off/AC applied • LED White Blinking: Suspend to RAM

Projected Capacitive Touch Screen

General Information

The use of projected-capacitive touch screens has all the benefits a normal capacitive touch screen has:

- fast processing of touch information
- high sensitivity (use with hands, conductive pencils and also with thin gloves)
- high resolution
- improved legibility and display brightness due to optimal light transmission
- Anti-glare-surface

In addition the technology of projected-capacitive touch screens is characterized by significant higher robustness and stability, because the active touch surface – different from common capacitive touch screens which were used until now - is located on the back side of the touch screen. Thus the active touch surface is not touched directly anymore and therefore will not wear off by normal use. As most of the surface contaminations do not cause an interference of the touch screen, this technology can be used in public or under severe environmental conditions.

Instructions for Using the Touch Screen

The touch screen responds to the lightest touches. The touch with only one finger is like the use of the left mouse button. The use of the touch screen with two fingers generates a zoom if the fingers are brought together or pulled apart. With a circular motion of the fingers the element on the display can be rotated. This function must be supported by either the operating system or by the application.

Cleaning Instructions

Always turn off the system before cleaning.

The glass surface of your Touch Screen should be cleaned with a mild, abrasive free, commercially available glass cleaning product. All pH neutral materials (pH 6 to 8) are good for cleaning. Cleaners with pH values 9 to 10 are not recommended. Cleaning with water and isopropyl alcohol is possible as well. Do not use solvents containing acetic acid. Use a soft, fine-meshed cloth to clean the surface. Dampen the cloth slightly and then clean the screen.

A wrong maintenance may cause damages to the screen, which are not covered by warranty.

Planning the installation

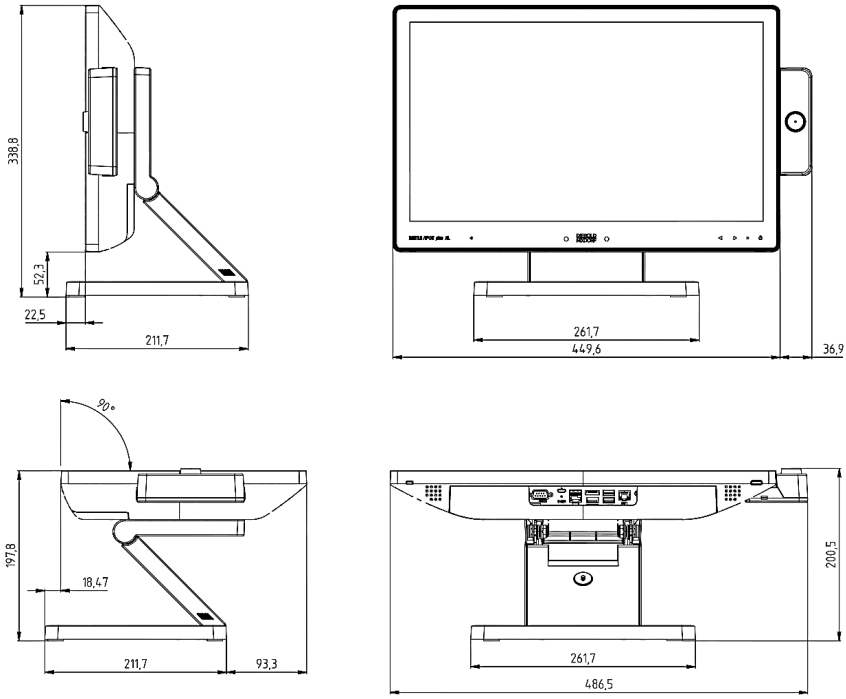
This chapter provides you with the information you need to prepare for the installation of the system.

Dimensions

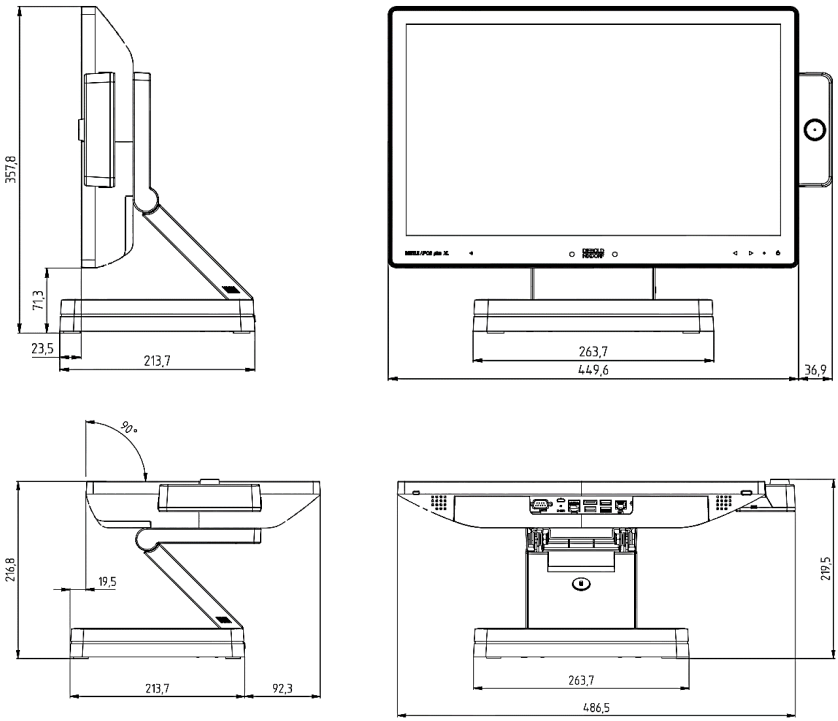
Please refer to the drawings below for dimensions of the desktop and wall mount versions. All dimensions are specified in millimetres. The views of the systems are not drawn to scale.

Desktop version

Desktop Stand Standard

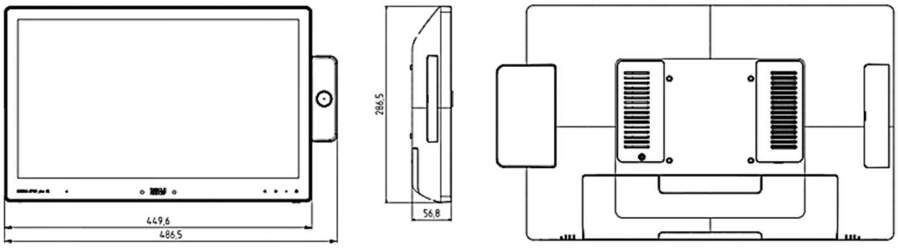


Desktop Stand Enhanced

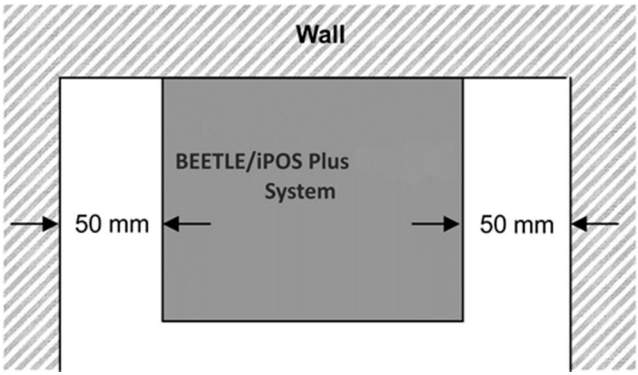


- For more information about the Desktop Stand, its different versions and features, and its installation method, please refer to the 'Desktop Stand Installation Manual' (01750293377).

Wall mount version



Required operation space



Maintain at least 50 mm from the side of the system to ensure proper ventilation during the operation of the system.

Installation site requirements

Desktop version

When selecting the installation site, ensure that:

- The area is flat leveled.
- The system to be installed on a table surface and not on a floor.

Wall mount version

- To reduce the risk that someone may accidentally walk into the system, location such as walkway areas, hallways areas or crowded areas are not recommended.
- Make sure that all applicable building and electric codes and accessibility requirements are followed.
- The mounting area must have adequate viewing area and ventilation, as well as access to an AC power outlet.
- The mounting method must be able to support the combined weight of the system and the suspended weight of all cables attached to the system.
- The system must be mounted to a solid concrete or brick wall with flat smooth surface.

Installing to a stand

Take the stand and the monitor out of the packaging. For installation you will need a Torx screwdriver to loosen and tighten the Torx screws.

Preparing the display

Loosen the 4 Torx screws halfway out.

Remove the cable connection cover at the bottom of the display.

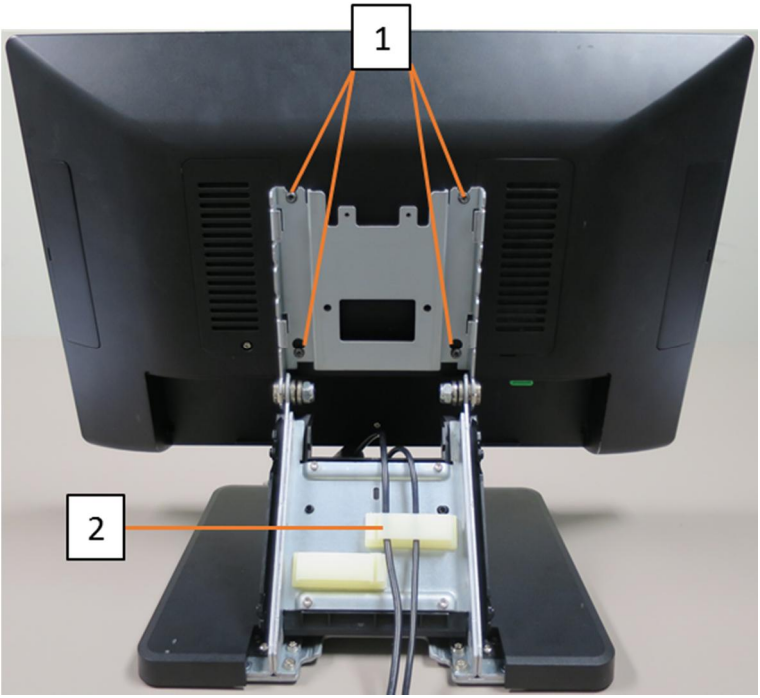
Preparing the stand

The stand as seen.

Remove the hinge cover from its bottom.

Remove the VESA mount cover from its bottom.

Installing display to the stand



Fit the display to the stand: by hooking the display with the 4 loosened Torx screws onto the 4 U-shaped grooves found on the frame of the stand (1). Then, tighten the screws.

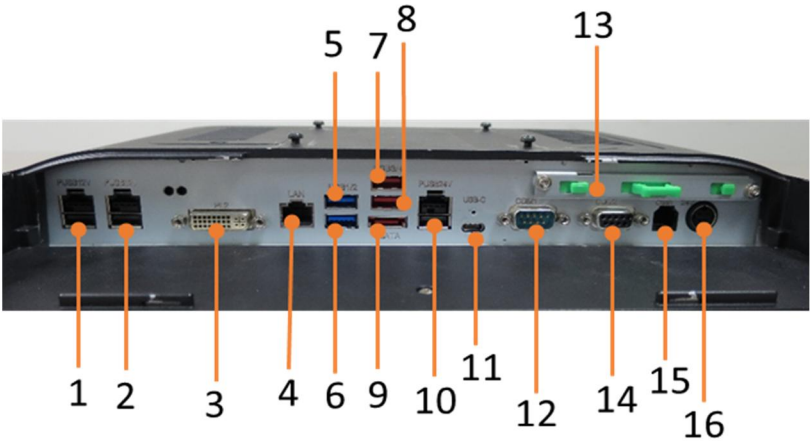
Stick on the cable clamps and route cables through these clamps (2).

Re-attach the hinge cover.

And re-attach the VESA mount cover.

Connector panel

The following sockets are located under the cable connection cover of the display:



1, 2	PUSB12V
3	PLINK2/DVI-D
4	LAN (RJ45)
5, 6	USB 3.0 (USB1/2)
7, 8	USB 2.0 (USB3/4)
9	eSATA
10	PUSB24V
11	* USB-C with DP
12	Standard RS232C (COM1, DB9 male)
13	Mass storage (HDD/SSD)
14	Powered RS232C (COM2, DB9 female)
15	RJ12 (Cash drawer)
16	Connection to power (24V DC Input)

Make sure that all additional devices have a **CE certificate**.

Please note that MAX 70W load is allowed for any combination of the interface connectors.

* The BEETLE /iPOS plus XL has 2 variants of motherboard. The Q170 variant supports USB-C, but the H110 does not.

Connecting cables

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

Connect the system as described below.

Tilt the display to the back, and remove the cable connection cover to uncover the connector panel.

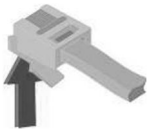
Connect the cables to their assigned ports.

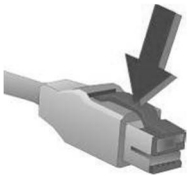
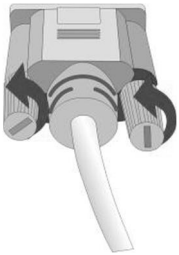
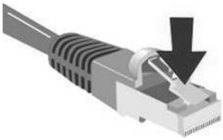
Re-attach the cable connection cover.

Disconnecting cables

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

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

	With MINI-DIN plugs (Diebold Nixdorf keyboards), the plug remains inserted until released. Pull the plastic covering from the connecting socket with your thumb. The lock is released. The metal of the plug is visible.
	To release a RJ12 plug push the latch under the plug to the top.
	You loosen the USB-A- connector by pushing the *covering* of the connector.

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

Storage Media

Following storage media are available

- 1x 2.5” format-factor docking drive bay for 7mm thick hard disk or
- Solid State Disk (SSD)

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

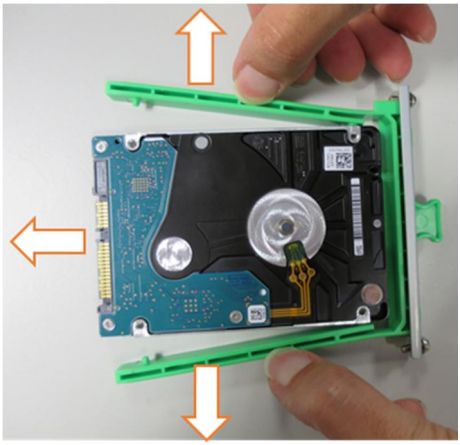
Replacement of the Hard Disk Drive

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

Tilt the display to the back, and remove the cable connection cover to uncover the connector panel.

The HDD or SSD is in the drive carrier located on the left.

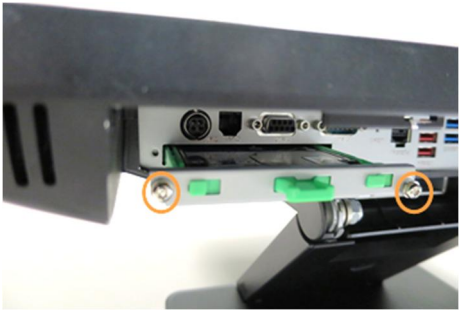
Remove both the screws that fixed the drive carrier to the connector panel and pull out the drive carrier.



Release the catches on the drive carrier and pull out the hard disk.

Handle the hard disk with care while removing or installing it. Do not touch the exposed electronics.

Fit the new hard disk into the drive carrier.



Fully insert the drive carrier into the connector panel.

Then tighten the 2 screws on the drive carrier which were previously removed.

The replacement steps are completed.

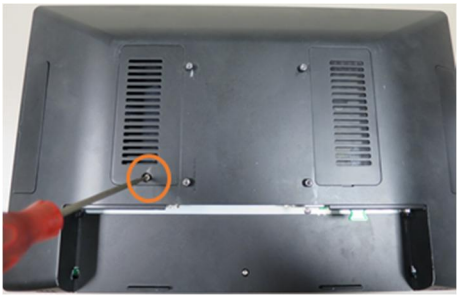
Second Hard Disk Drive

There is an option to install a second hard disk drive in the BEETLE /iPOS plus XL. This is available in a kit. Please contact your local representatives for details.

- For information on how to install the second hard disk drive, please refer to the 'Desktop Stand Installation Manual' (01750293377), section: 'Additional features of the Desktop Stand Enhanced'.

Replacement of the RAM

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



Remove the display from the stand.

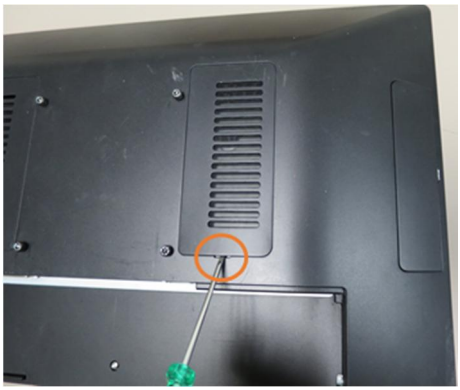
Remove the screw on the RAM cover, then remove the RAM cover.

To unhook the RAM, locate the 2 latches by its sides (illustrated with circles), and press them in an outwards direction (illustrated with arrows).

The RAM is now unhooked and can be removed and replaced.

When fitting in the new RAM, push it downwards until it latches on and a “click” sound is heard.

Removing Lint Filter to clean



As illustrated, the Lint Filter is found on the back of the display, located on the right.

To remove, use a flat tip screw driver to lift up the lint filter before removing it by hand.

The Lint Filter as seen removed.

Cleaning and Maintenance

Clean the lint filter at least once a week. In case the system is in an environment that has high lint and dust exposure, clean it more often. But, as soon as a thin lint film has become visible on the filter's surface, clean the lint filter immediately.

During cleaning, the system must be **switched off** to prevent the removed lint and dust from entering the system by the air flow. Also, make sure that **no moisture or liquid** penetrates the system.

There are two ways to clean the lint filter:

(1) For a quick and simple cleaning, remove the filter from the system, then clean it with the palm of your hand or by using a damp microfiber cloth.

(2) For a more thorough cleaning, remove the filter from the system, and carefully rinse it under a gentle stream of water. Then **dry out the filter completely**, before mounting it back onto the system.

Take note that if the filter mesh were to be subjected to excessive pressure, then it can come looser or become separated from the plastic frame of the filter. If this were to happen, then do not continue to use the filter. The filter must therefore be replaced. In any case where the filter cannot continue to be cleaned, it must be replaced.

Liability and Warranty

The system can become damaged if liquid or moisture finds its way past the lint filter and into the system during the cleaning.

Diebold Nixdorf will not be liable or responsible for these damages!

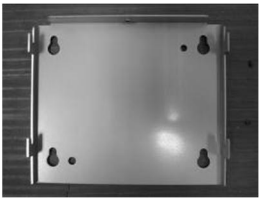
Do note that the lint filter is a supplementary part. There is no warranty claim for inadequate operation or malfunctions of the filter due to wear and tear.

Installing system to a wall

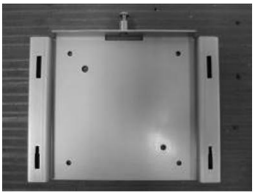
Unpack the parts from the wall mount kit and check whether the delivery matches the details of the delivery note.

Things you need

The kit contains:



Wall mount back plate
Quantity: 1 piece



Wall mount front plate
Quantity: 1 piece

M4x8 Torx screws
Quantity: 4 pieces

For installation you will need the following (not supplied):
- a drill set
- a Torx screwdriver
- a marker
- 4 pieces of fasteners*

***Fastener types**
Fasteners are not included in the wall mount kit. The recommended fastener types to wall mount the system are:

Fischer universal plug (UX 6 x 50) (http://www.fischer.de)
Recommended Screw for wall is Pan head self-tapping M5 x 55.
Drill Diameter: 6 mm
Min Hole Depth: 60 mm
Load per anchor for concrete: 60 kg (Safety factor accounted for)
Load per anchor for Solid brick: 30 kg (Safety factor accounted for)

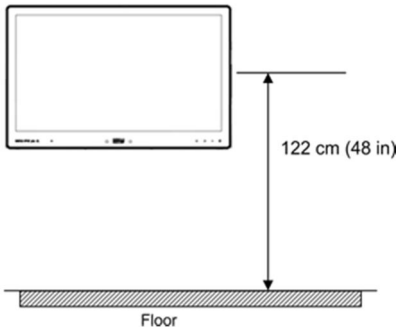
Thorsman wall plug (TP 6 x 30) (http://www.thorsman.com)
Recommended Screw for wall is Pan head Wood Screw TGS-C3- 4.8 x 38L
Drill Diameter: 6 mm
Min Hole Depth: 40 mm
Load per anchor for concrete: 40 kg
Load per anchor for Solid brick: 30 kg
Safety factor: 6

Mounting height

The mounting height of the system should be appropriate and comfortable for the majority of users.

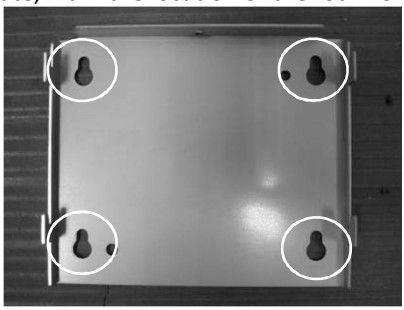
Based on the recommendation of the ADA (American Disability Association), it is recommended that the highest point of the display should not exceed 1370mm height.

It is also recommended that the system is approximately 122cm (48 in) from the floor to the centre of the display when the user is in the standing position.



Mounting location

Once you have determine the mounting height, with the help of the wall mount back plate, mark the location of the four holes on the wall.



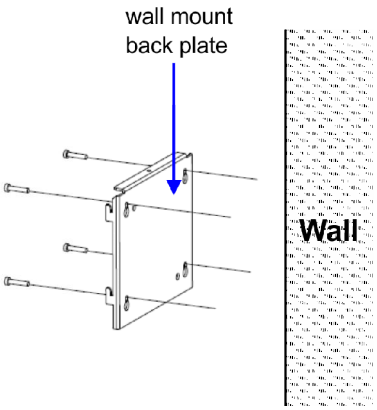
Installation

The wall mount plate must be installed by a professional and qualified installer who is familiar with the building construction methods and the electrical code that are govern by the local laws on the public access areas.

Use only Diebold Nixdorf wall mount plate.

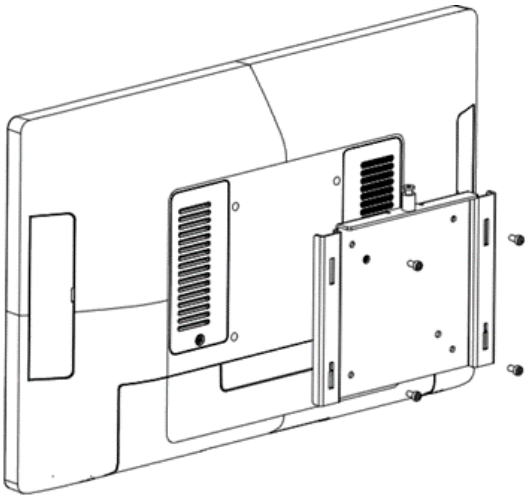
Fix wall mount back plate to the wall

- Prepare the mounting points penetrating from the wall according to the dimension of the mounting holes on the back of the system.
- When the system is mounted onto the wall, ensure that the wall mount back plate must be attached permanently and securely to prevent the system from falling and damaged. Failing to do so may also cause injury to others.
- Use the recommended fasteners (not supplied) to attach the wall mount back plate onto the concrete wall.
- Check and ensure that the wall mount back plate is mounted squarely by using a bubble level.
- After installation, ensure that the screw heads are flushed or below the outer surface of the wall mount back plate.
- Ensure that the wall mount back plate is firmly and securely attached to the wall.



Fix wall mount front plate to the system

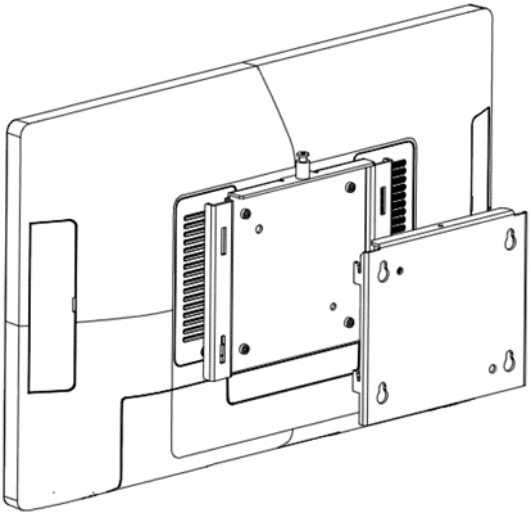
- Align the 4 mounting holes of the wall mount front plate onto the mounting holes at the back of the display.



- Secure the wall mount front plate onto the display using the screws provided in the wall mount kit.

Secure the system to the wall

- Ensure that the power cable has been connected onto the system.
- Hook the system with its wall mount front plate installed, onto the wall mount back plate that has been mounted on the wall. Ensure that the hooks at both sides of the wall mount back plate are securely locked on the slots of the wall mount front plate.



- Tighten the thumb screw on the top of the wall mount front plate to secure the hooks of the wall mount plates.
- Dress the cables routing according to the store set up or the overall installation site plan

Peripherals

Magnetic Swipe Card Reader (MSR) (Optional)

There are two types of MSR module to choose from, the standard ISO 3-track or the dual-head JIS1/JIS2. Card reading is bi-directional.

The MSR module can be mounted either on the right or left side of the display.

How To Operate

Run the swipe card through the slit of the swipe card reader from top to bottom in a quick and steady movement. Make sure that the magnetic strip is to the right. When using swipe cards, the following should be observed:

- Swipe cards should never be allowed to come into contact with liquids.
- Swipe cards should not be bent or folded in any way.
- Swipe cards should not be allowed to come into close contact with a magnetic field.

Swipe cards should only be inserted in the top of the specially designed slit of the reading device. If the card is inserted in another place, this could damage the reading head.

Cleaning Instructions

In order to guarantee good reading results, the swipe card reader should be cleaned from time to time. This is carried out by using a special cleaning card that can be purchased from Diebold Nixdorf.

Waiter Lock (Optional)

Each transaction is correctly assigned to the personnel by using the magnetic key. The magnetic keys are available in 10 different colors. The magnet keys are waterproof, shatterproof and by the 16-digit key number also safe for clear identification.
The operation of the system is very simple, the key is placed onto the magnetic probe (see figure). The key is held magnetically to the probe and transmits the data by an electrical USB interface.
The readout of the data may be integrated easily in a software application.

For guide on software application programming, please refer to BA9x MSR/Waiter Lock Programming Manual.

Installing Magnetic Swipe Card Reader, Waiter Lock

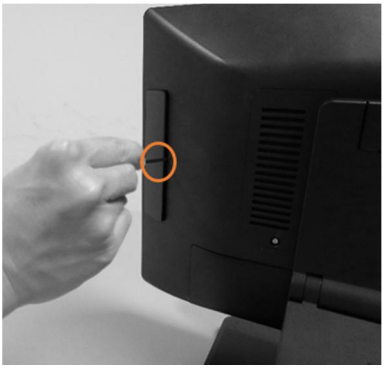
Unpack the parts and check whether the delivery matches the details of the delivery note.

The kit contains the Magnetic Swipe Card Reader (MSR) with holder or the Waiter Lock with holder and two screws.

Magnetic Swipe Card Reader kit

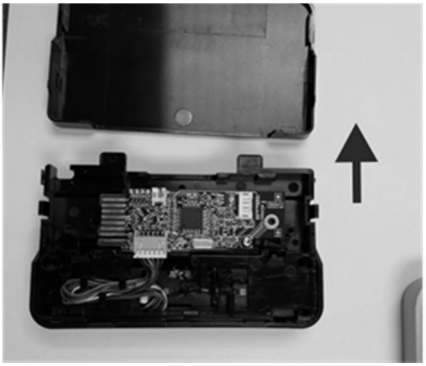
Waiter Lock kit

The Magnetic Swipe Card Reader and Waiter Lock can be installed on either the right or the left side of the display. You will find a flap / peripheral connection cover at the rear side of the display.

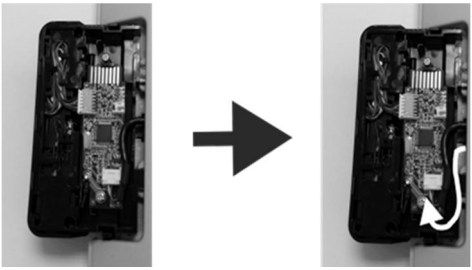


Remove the flap using a flat-tipped screwdriver. One end of a connecting cable could then be seen exposed.

Release the catch on one side of the peripheral's holder.

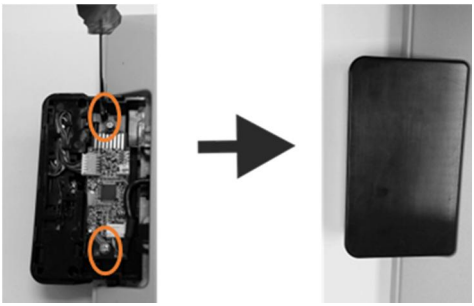


Remove the back cover of the holder.



Fit the holder on the side of the display which was previously uncovered.

Route the connecting cable into the holder and connect to the connector.



Use the two screws supplied to secure the holder to the display.

Place back the back cover of the peripheral.

The installation steps are completed.

Starting Up the System

After installing the BEETLE /iPOS plus XL, switch on the system by using the Power 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 *placeholder* of the BIOS version number.

Following the completion of the BIOS boot up, the BIOS will attempt to boot up an operating system from a bootable media. The BIOS default boot order from highest priority is,

1. HDD/SSD
2. USB Key
3. USB HDD
4. USB ODD
5. LAN PXE ROM (Network)

If no bootable media is present and a message will be prompted on the display.

Error reporting

When an error condition is detected, it is reported by a repetitive train of blinking red LED. Decode by counting the number of blinks in a train and check against the error code table below.

Number of pulses	Error description
1	Hard Disk 1 failed (internal hard disk)
2	Hard Disk 2 failed (external hard disk)
3	Processor Hot
4	Processor fan is faulty
5	Capacitive Sense board is faulty
6	ALS / PS board is faulty
7	PCH Hot

Technical Data

Dimensions	Diagonal Screen size	18.47" (469.16 mm)
	Active screen size	408.96 mm x 230.04 mm (H x V)
	Display housing dimensions	Refer to section 'Planning the Installation'
Weight		4.90 kg
Climatic class		DIN IEC 721-3-3 Class 3K3 up to 40°C
Operating temperature		+5°C to +40°C
Humidity		5% to 85% Absolute humidity 1g/m3 to 25g/m3 Condensation is not permitted
Display Characteristics	Pixels H x V	1920 x 1080
	White Luminance (Center)	360 cd/m^2 (Typ.)
	Contrast Ratio	1000 (Typ.)
	Optical Response Time	20 ms
	Support Color	16M colors
	Surface Treatment	Anti-Glare, 3H
	Viewing Angle	178/178° (Typ.)
User Accessible I/O		PLINK2/DVI-D, 2x USB 2.0, 2x USB 3.0, 1x 24V and 2 x 12V Powered USB, 1x Standard COM, 1x Powered COM, Cash drawer, LAN, eSATA, USB-C (Q170 version only)
Expansion Options	Internal	1x M.2 2230 (WLAN) 1x M.2 2280 (SSD)
	External (Left/right side)	MSR, WaiterLock, Barcode reader, Fingerprint reader and NFC reader

AC Power Adapter

Only use power supply units (PSU) released or approved by Diebold Nixdorf. The PSU has to comply with the following minimal requirements and common standards:

Rated input voltage	100-240VAC
Rated input current	2.0A
Input frequency range	47-63 Hz
Rated output voltage	24V ± 5%
Rated output current	5.0A
Max. output power	120W at ambient of 45 degree C, 100W at ambient of 55 degree C
Approvals and Certification	UL Listed, TÜV-GS, CE

NFC Module

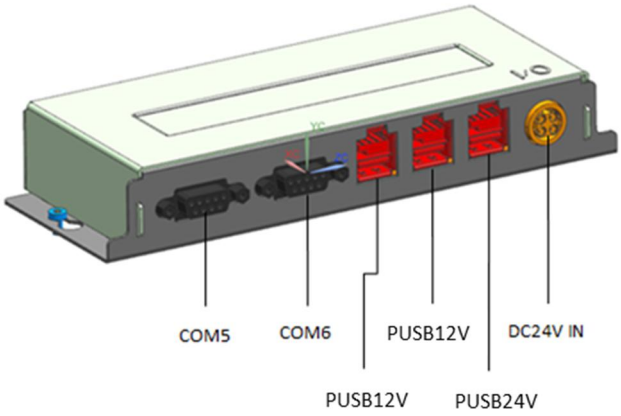
Supported Standards	ISO/IEC 14443 Type A FeliCa
Validated IC cards/Tags	MIFARE Classic, UltraLight, Plus, DESFire NTAG 212, 203 QR2213 FM11RF08 FeliCa S962 20h, S965 F0h
RF Operating Frequency	13.56 MHz
Host Interface	USB 2.0 Full speed
	HID 1.11 Usage Page: 0xFF45, Usage: 0X2200
Rated Voltage	5.0 V
Rated Current	250 mA
RF Output Power	230mW
Operating Temperature	0 ° C to 40 ° C
Device Firmware Upgrade	Firmware upgradable via DFU interface
Middleware support	JavaPOS 1.13
Operating Systems	Windows 7, Linux
Certification	CE
Height x Width x Depth	125 mm x 72.8 mm x 34.2 mm
Weight	Approx. 102 g

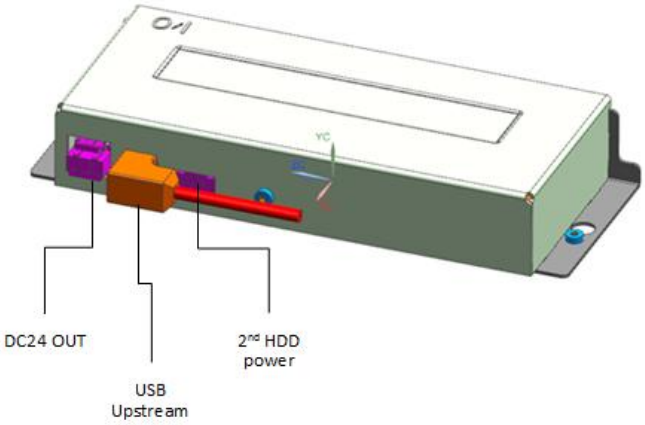
I/O Hub

The I/O Hub (illustration on next page) is an accessory for the BEETLE /iPOS plus XL, to extend the number of I/O ports.

Power input	DC24V IN	24V DC (connect to 24V power supply)
User interface	COM5	Rated voltage: 12V, 5V Rated current: 1A combined (each supply)
	COM6	
	PUSB12V	2x powered USB, rated 3A
	PUSB24V	1x powered USB, rated 3A
Power output	DC24 V Out	24V DC (connect to BEETLE /iPOS plus XL)
USB Upstream		USB Type B (connect to eSATA port of BEETLE /iPOS plus XL)
2nd HDD Power		For optional second hard disk

Please note that MAX 45W load is allowed for any combination of the interface connectors.


COM5
COM6
PUSB12V
DC24V IN
PUSB12V
PUSB24V


DC24 OUT
USB
Upstream
2nd HDD
power

Total Available Power

The total power available for the external IO ports depends on the rating of AC power adapter used. Below is the Diebold Nixdorf's approved AC power adapter for BEETLE /iPOS plus XL

Part number	Model Name	Output Rating	Total power available External I/O ports
1750266555	ADC029-280G	120W	45W

Type	Port Name	Voltage	Current rating	Max Total Power Consumption (W)
Display	PL2	12V	2.5A	*Depends on the power adapter used.* *See above table for the applicable total power available.*
		5V	0.1A	
USB 3.0	USB1	5V	0.5A	
	USB2	5V	0.5A	
USB 2.0	USB3	5V	0.5A	
	USB4	5V	0.5A	
	PUSB24V	5V	0.5A	
		24V	3A	
	PUSB12V-1	5V	0.5A	
		12V	0.5A	
	PUSB12V-2	5V	0.5A	
		12V	0.5A	
USB Type C	USB-C	5V	3A	
		12V	3A	
Powered COM	COM2	5V	1A	
		12V	1A	
Cash Drawer	Cash	24V	0.1A	

Before connecting additional peripherals to these ports, the service engineer or trained technician must check and ensure that the power consumptions of the peripherals do not exceed the maximum output powers of the ports, and that the total power consumption does not exceed the total available power of the selected AC power adapter.

Appendix

Approved Printers List

The following are the approved printers that are allowed to be connected to the BEETLE /iPOS plus XL+24Vdc Powered USB port:

	Model	Manufacturer
1	TH200i series	Diebold Nixdorf
2	TH210 series	Diebold Nixdorf
3	TH230 series	Diebold Nixdorf
4	TH250 series	Diebold Nixdorf
5	TH320 series	Diebold Nixdorf

Connecting printer that are not in the above approved list to the **+24Vdc Powered USB port** may cause safety hazard and endanger the user and the nearby people. Please consult Diebold Nixdorf if in doubt.

Abbreviations

CE	European Symbol of Conformity
CFC	Chlorofluorocarbon
CHC	Chlorinated hydrocarbon
COMn*	Powered RS 232 Interface (Asterisk denotes Power)
cUL	Canadian Registration (Recognized by UL)
DIN	Deutsches Institut für Normen (German Institute for Standards)
D-Sub	D- Shaped Sub miniature
ESD	Electronically Sensitive Devices
HDD	Hard Disk Drive
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization,
LAN	Local Area Network
LED	Light Emitting Diode
PEN	Protective Earth Neutral Conductor
RAM	Random Access Memory
SSD	Solid State Disk (flash medium)
TN-S	Terre Neutre- Separé
UL	Underwriters Laboratory (standards)
USB	Universal Serial Bus
VGA	Video Graphics Adapter
VESA	Video Electronics Standards Association

Diebold Nixdorf Singapore Pte Ltd
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New Tech Park
#05-01A/B
Singapore 556741

Order No.: ***01750306119 A***