WINCOR
NIXDORF

BEETLE /iPOS plus
All-in-one POS System

User Manual

We would like to know your opinion on this publication.

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

With kind regards,

Your opinion:

BEETLE /iPOS plus

All-in-one POS System

User Manual

Edition March 2016

Contents

About This Manual

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

Notes in the manual are marked by this symbol.

This symbol is used for warnings.

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

Introduction

The BEETLE /iPOS plus comes in two variants, one with the Projected Capacitive and the other with Resistive touch.

Its key features are the bezel-free design with multi-touch capabilities and the elegantly designed aluminum back housing coupled with its support for the Celeron DC N3060 and the higher performance Pentium QC N3710 processors.

Manufacturer´s Certification

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" and RoHS directive 2011/65/EU.

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

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

Europe-EU Declaration of Conformity

Hereby, Wincor Nixdorf declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Csěky [Czech]:	Wincor Nixdorf tímto prohlašuje, že tento zařízení je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]:	Undertegnede Wincor Nixdorf erklærer herved, at følgende udstyr Enhed overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch [German]:	Hiermit erklärt Wincor Nixdorf, dass sich das Gerät in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]:	Käesolevaga kinnitab Wincor Nixdorf seadme vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud dire ktiivist tulenevatele teistele asjakohastele sätetele.
English:	Hereby, Wincor Nixdorf declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/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 1999/5/CE.
Ελληνική [Greek]:	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Wincor Nixdorf ΔΗΛΩΝΕΙ ΟΤΙ συσκευή ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.

Français [French]:	Par la présente Wincor Nixdorf déclare que l'appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]:	Con la presente Wincor Nixdorf dichiara che questo dispositivo è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]:	Ar šo Wioncor Nixdorf deklarē, ka ierīce atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]:	Šiuo Wincor Nixdorf deklaruoja, kad šis prietaisas atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nu-ostatas.
Nederlands [Dutch]:	Hierbij verklaart Wincor Nixdorf dat het toestel apparaat in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]:	Hawnhekk, Wincor Nixdorf jiddikjara li dan apparat jikkon-forma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]:	Alulírott, Wincor Nixdorf nyilatkozom, hogy a eszköz megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
Polski [Polish]:	Niniejszym Wincor Nioxdorf oświadcza, że urządzenie jest zgodny z zasadniczymi wymogami oraz pozostałymi sto-sownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portu-guese]:	Wincor Nixdorf declara que este dispositivo está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]:	Wincor Nixdorf izjavlja, da je ta Naprava v skladu z bistven-imi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]:	Wincor Nixdorf týmto vyhlasuje, že zariadenie spĺňa zá-kladné požiadavky a všetky príslušné ustanovenia Smer-nice 1999/5/ES.
Suomi [Finnish]:	Wincor Nixdorf vakuuttaa täten että laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direk-tiivin muiden eh tojen mukainen.
Svenska [Swedish]:	Härmed intygar Wincor Nixdorf att denna enhet står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Íslenska [Icelandic]:	Hér með lýsir Wincor Nixdorf yfir því að tæki er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC.
Norsk [Norwegian]:	Wincor Nixdorf erklærer herved at utstyret enhet er i

samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

The declaration of conformity may be consulted at **http://www.wincor-nixdorf.com**.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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.

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 expense. Modifications not authorized by the manufacturer may void user's authority to operate this device.

CAN ICES-3 (A)/NMB-3(A).

BSMI (EMC for Taiwan)

The device complies with the requirements of the BSMI (Bureau of Standards, Metrology and Inspection, Ministry of Economic Affairs) directive CNS13438 with regard to "Electromagnetic compatibility" with the limits for a Class B product.

Energy Efficiency

iPOS plus 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.

Care of the BEETLE /iPOS plus

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 Wincor Nixdorf International GmbH.

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

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

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

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

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@wincor-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 Wincor Nixdorf customer service.

Important Notes

The Wincor Nixdorf International GmbH 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 Wincor Nixdorf. The user is responsible for any malfunctions that emerge from the actions mentioned before.

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

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

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 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 Wincor Nixdorf or your dealer must be notified.

- Your BEETLE system is the result of modern technical innovation. So please see for according structural and technical surroundings to guarantee a faultless and efficient work of your BEETLE. Therefore, you should connect your BEETLE or other IT-devices only to power supply systems with separately guided protective earth conductor (PE). This kind of electricity system is known as TN-S network. Do not use PEN conductors!
  Please also observe the recommendations of the norm DIN VDE 0100, Part 540, Appendix C2 as well as EN50174-2, §5.4.3.Thus you can help to avoid possible mal functions.

- If you replace a storage medium, make sure that you only use the storage medium recommended or approved by Wincor Nixdorf.

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

Overview

Front View with Stand

1   Display
2   Stand
3   Brightness adjustment LEDs
4   Power status indicator
5   On/off button

Back View with Stand
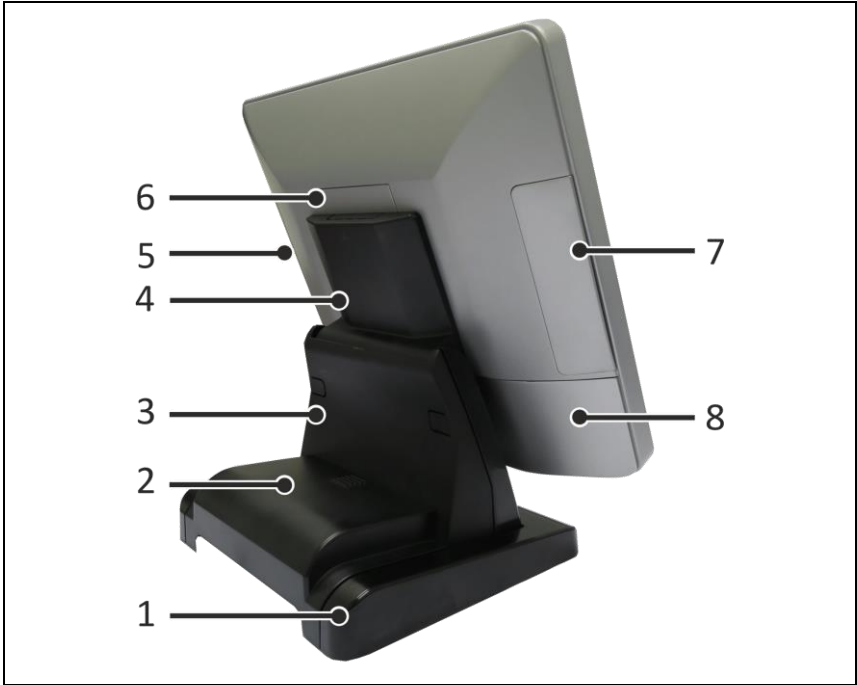
1 Stand

2 Base cover of stand

3 *Back cover of stand

4 Frame cover of stand

5 Side-attach peripheral connection cover

6 RAM/mini-PCIe cover

7 Side-attach peripheral connection cover

8 Cable connection cover

*Observe the safety precaution mentioned on the next page when you remove the back cover of stand.

Important note for removal of back cover

![icon] To avoid damage to the back cover of the stand, be careful of how you would remove it.

1. Insert a flat head screw driver into groove on the stand as shown and twist to open.
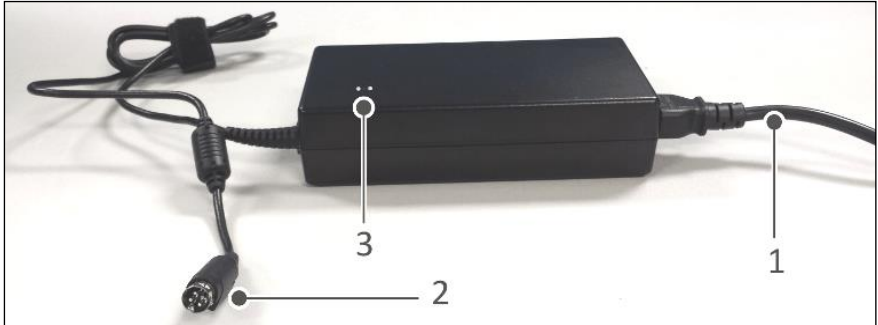

2. Do the same to the other side of the stand.
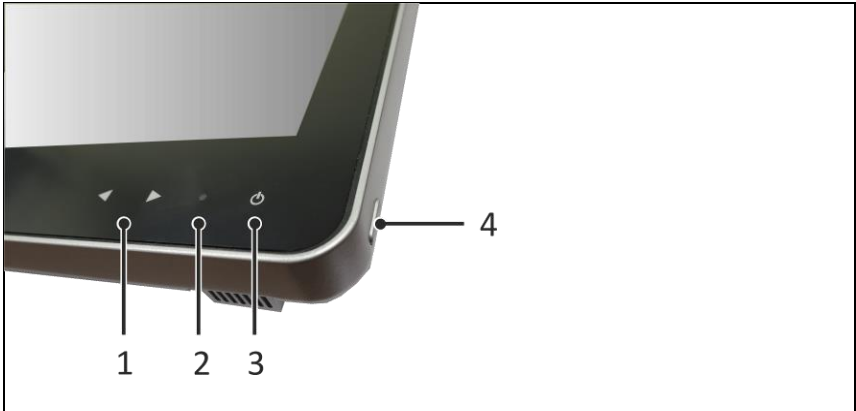

3. Remove stand back cover.

AC Power Adapter

1   Power Connector

2   DC Power Out

3   Power LED

The external power supply is applicable for common line voltage.
It automatically adjusts itself to the particular voltage (for grid input
voltage and power supply see appendix).

Front Panel

1. Brightness buttons

    The touch buttons will be illuminated on first touch. Subsequent touches on the touch buttons increase or decrease the brightness level. 3 seconds after the last touch, the illumination of the touch button will be extinguished and the setting is saved.

2. Activity indicator

    Blinking green LED indicates hard disk or LAN activities depending on the settings in BIOS setup.

    Blinking red LED conveys the error codes of the detected system faults. The error codes are displayed once only at boot up.

3. Power status indicator

    OFF = AC main is switched off.
    Dimly lighted = Standby.
    Brightly lighted = Powered On.
    Blinking at 0.5Hz = Sleep or Hibernate

4. Power button

    Single press will switch on/off. The duration depends on the BIOS setting.

Initial setup

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

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 Wincor Nixdorf sales outlet.

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

Setting Up the Device

The BEETLE /iPOS plus is designed for in-house installation. It can be mounted on a stand for a desktop version, pole-mounted or wall-mounted.

Set up the BEETLE /iPOS plus 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:
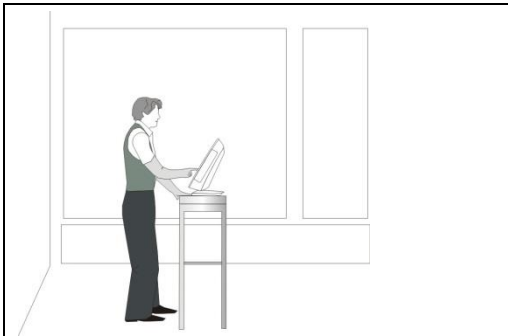
Avoid direct glaring and reflective glaring. Use the screen only in a controlled luminance surrounding. Install the device with a viewing direction that is parallel to the windows.
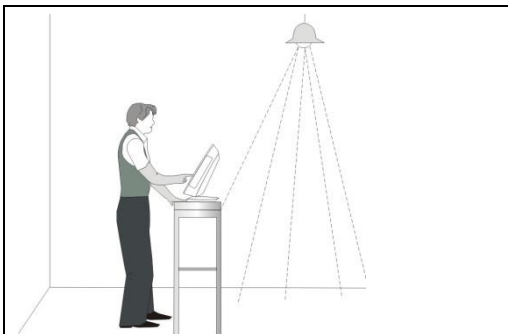
Avoid reflective glaring caused by electric light sources.

Permitted range of vision

Preferred range of vision

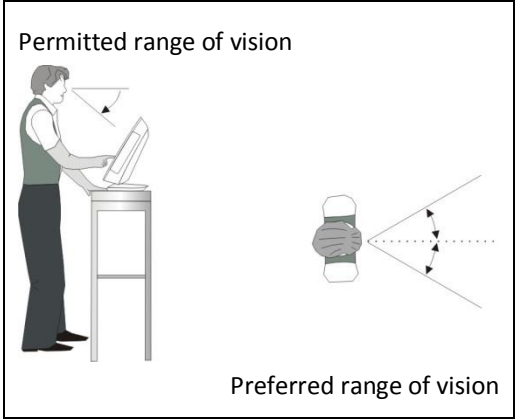Position the screen within a preferred and permit ted range of vision, so that you can look onto the screen from above.

Basic settings

The BEETLE /iPOS plus is configured to your order. Additional peripheral devices are delivered separately, for example the swipe card reader. The modules must still be mounted to the system.

Components

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

Processor types

Celeron Dual-core N3060
Pentium Quad-core N3710

RAM

2GB, 4GB or 8GB DDR3L SODIMM

Hard Disk

2.5" 7mm thick Hard Disk or SSD

Display

15" Color TFT LED backlight with touch options:

- projected Capacitive touch, 10-pt touch multi-touch, or

- 5-wire Resistive Touch screen

Replacing the Lithium Battery

⚠️ **CAUTION**

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 by the indicated polarity in the picture below.

Follow the following steps to replace the Lithium battery.

⚠️ **WARNING**

Always make sure that the system is switched off before you replace the battery.
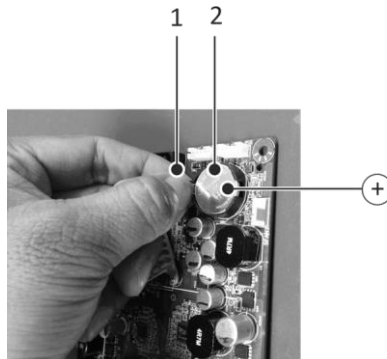
Push the spring latch (1) and remove the Lithium Battery from its Socket (2).

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

Make sure that you insert the battery the right way round, by the indicated polarity in the picture above.

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.

Resistive Touch Screen

General Information

The resistive TFT Touch Screen is constructed by a hard-coated polyester top sheet that is overlaid on a conductively coated glass layer. Voltage is applied to the top sheet. As the user touches the screen, the top sheet compresses into contact with the glass layer, and current flows to the four corners in proportion to the distance from the edge. The controller then calculates the position of the finger or stylus, based on the current flow. Because the controller derives both the "X" and "Y" touch coordinates from the stable glass layer, the accuracy and operation of the touch screen is unaffected by damage to the top sheet caused by extended use or neglect.

Construction of the Resistive Touch Screen

Hard-coated polyester topsheet

Adhesive

Glass substrate with spacer dots
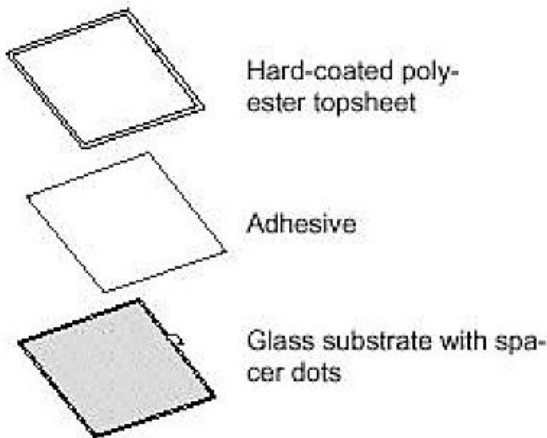
Instructions for using the Touch Screen

Touching the touch screen has the same effect as clicking the left mouse button. You only need to apply a little pressure with the fingertip. In this resistive process not only fingertip contact is recognized. The screen does react in any way if touched, for example, with a stylus. The recommended material for a stylus is polyacetal. The stylus should have a minimum spherical radius of 0.8 mm and contain no sharp edges or burrs that may cause damage to the top sheet.

Cleaning Instructions

Always turn off the system before cleaning

The surface of your Touch Screen should be cleaned with a water-based solvent or a non-abrasive cleaner. Do not use sol vents containing acetic acid or methylene chloride. 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.

Replacement of the RAM module

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

1. Remove the screw of the RAM cover and flip it open.

2. Release the catches of the RAM holder and pull out the RAM module.

3. Replace with new RAM module and fix it back to the holder.

4. Repeat steps 1 and 2 in the reverse order.

   The replacement is complete.

Installing the antenna (option)

This is an orderable kit from Wincor Nixdorf. Please contact your sales representative for details.

The kit consists of:
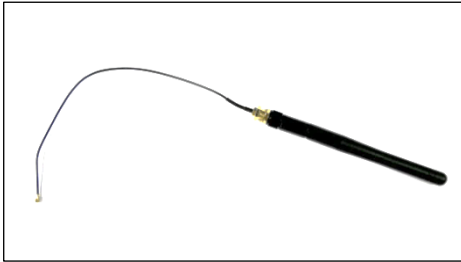
An antenna module
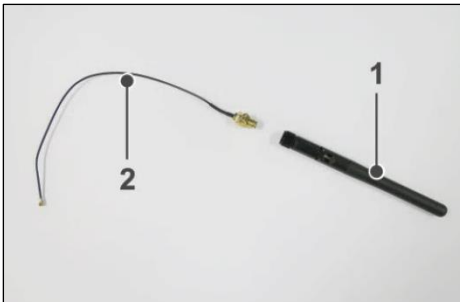
A flap with antenna holes

Steps to install:

First ensure that the device is **switched off** and that the power connector is disconnected.
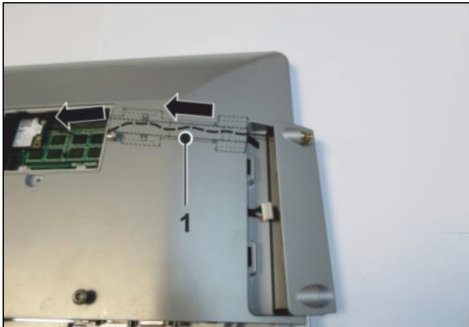
1. Remove the right flap using a screw driver.

2. Remove the RAM cover.

3. Unscrew the antenna module to separate the cover (1) from the antenna (2).

4. Push the screw end of the antenna (1) through the hole on the flap.

5. Route the antenna cable (1) through the cable channel on the inside of the back cover.

6. Connect the antenna cable to the "Main" connector (2) on the Wi-Fi module.

7. Replace the flap (1) and screw in the antenna cover (2).

   Replace the RAM cover (3).

   The installation is complete.

Installing the Wi-Fi flexible antenna (option)

This is an orderable kit from Wincor Nixdorf. Please contact your sales representative for details.

The kit consists of:

A Wi-Fi flexible antenna assembly.

A Wi-Fi module and mini PCIe adapter assembly.
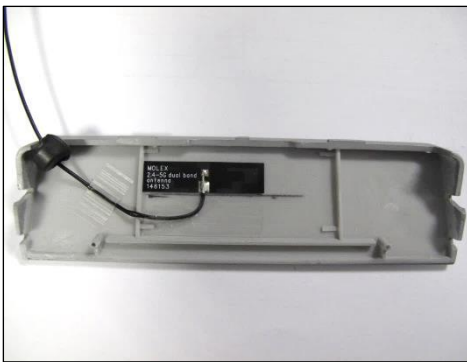
Steps to install:

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

1. Remove the right flap using a screw driver.

2. Remove the RAM cover.

3. Attach the antenna to the back of the flap, in the location as shown. For details of assembly, please refer to Chapter "Appendix: Wi-Fi flexible antenna".

4. Plug the Wi-Fi module and mini PCIe adapter assembly into the connector (1) and secure with the catch (2).

5. Route the antenna cable (1) through the cable channel on the inside of the back cover.

6. Connect the antenna cable to the "Main" connector (1) on the Wi-Fi module and mini PCIe adapter assembly.

7. Replace the flap.

   Replace the RAM cover.

   The installation is complete.

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 millimeters. The views of the systems are not drawn to scale.

Desktop version
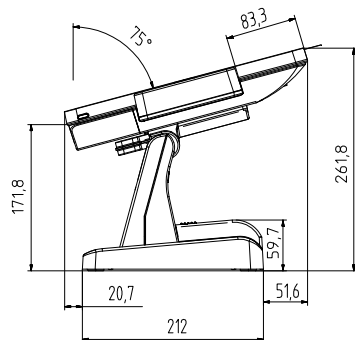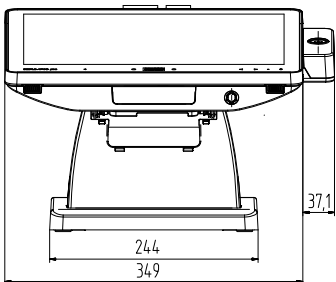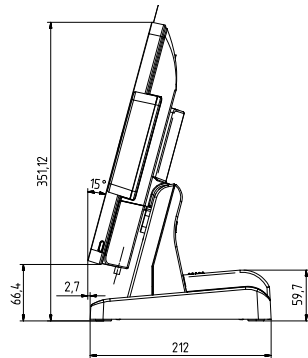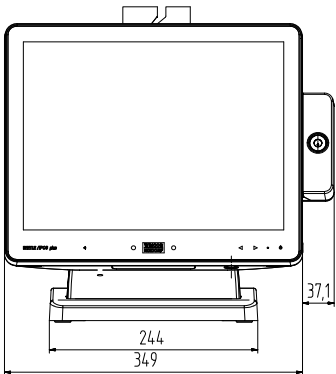
Wall mount version

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

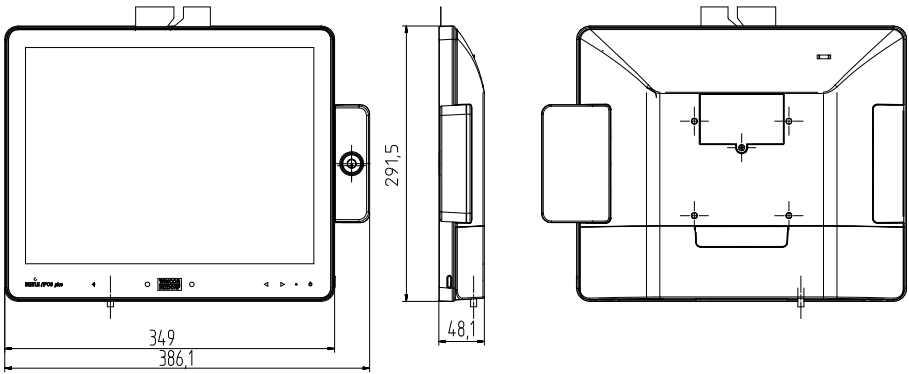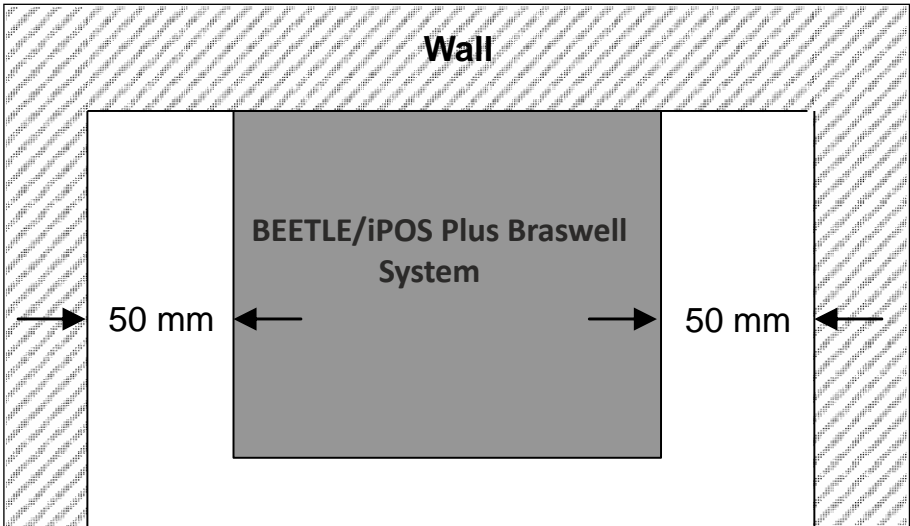When selecting the installation site, ensure that:

- 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 screws!

Preparing the stand
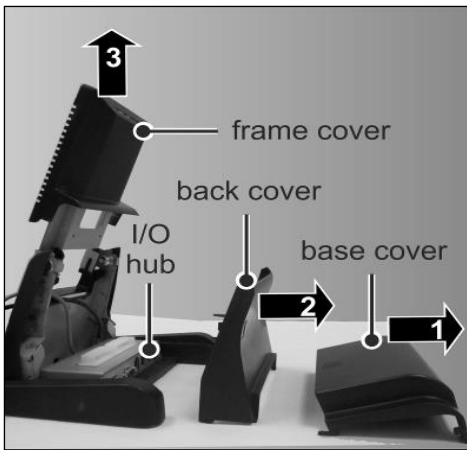
From the stand:
1. Remove the base cover.
2. *Remove the back cover.
3. Remove the frame cover.

* Observe the safety precaution mentioned on page 14 when you remove the back cover of the stand.

Preparing the display

Two-cable connection

1. Place a piece of protection sheet on a flat surface e.g. a table.
2. Lay the display face down on the protection sheet.
3. Tighten the four screws half way through.
4. Remove the cable connection cover at the bottom of the display.

5. Connect cables.

The types of cables to connect depend on requirements. Please refer to section "Full cables connection" below for instructions to prepare a fully connected display.

6. Pull the cables through the cable support.
7. Secure them with the cable clamps.

8. Fit the flanges (1) and (2) on the cable connection cover to the two holes (3) and (4) as indicated by the arrows.

9. Slide in the cable connection cover.
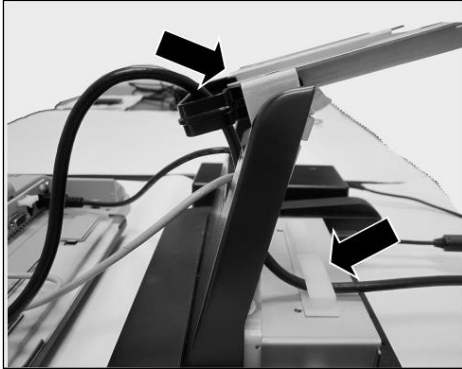
Full cables connection

1. Place a piece of protection sheet on a flat surface e.g. a table.
2. Lay the display face down on the protection sheet.
3. Tighten the four screws half way through.
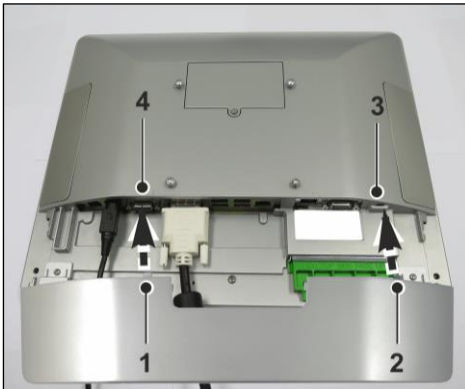4. Remove the cable connection cover at the bottom of the display.

5. Connect cables.

Please ensure that all cables are connected snugly into the space. Pay attention to how the power connector (1) and ferrite core (2) should be routed.

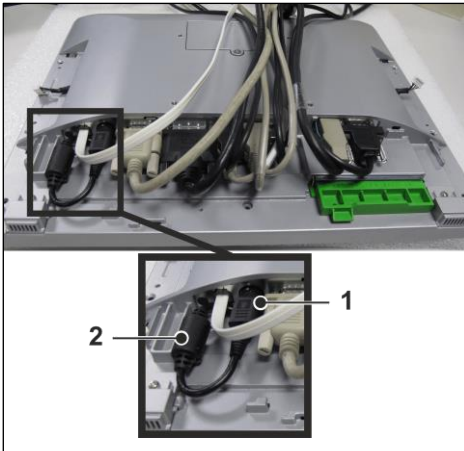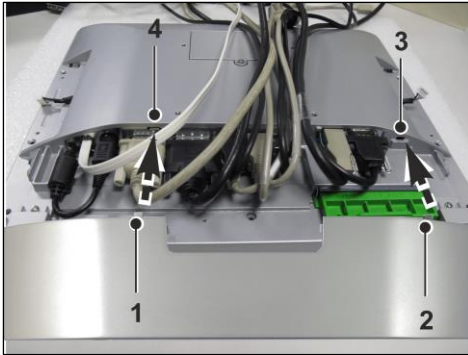6. Fit the flanges (1) and (2) on the cable connection cover to the two holes (3) and (4) as indicated by the arrows.
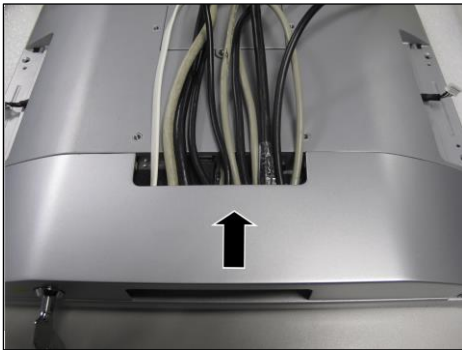
7. Slide in the cable connection cover.

Installing the stand

connector panel

connector panel
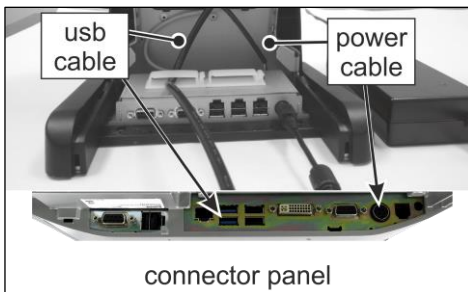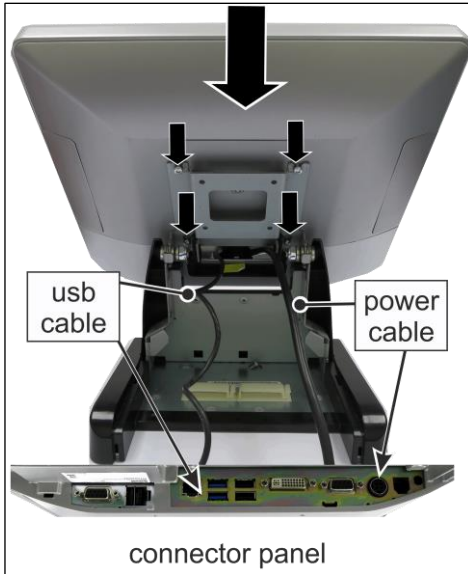
1. Bring the display to above the stand.
2. Locate and hook to the screws (that were previously tightened halfway through) to the four U-shaped groove on the frame of the stand.
3. Connect the power supply. **For device without I/O Hub:**
   Connect the power supply unit to the power socket to the USB5 port on the connector panel.

For device with I/O Hub:
Connect the power supply unit to the power socket at the I/O hub.

From the I/O hub, connect the power cable of to the power socket and the usb cable to the USB5 port on the connector panel.

4. Tighten the four Torx screws to secure the display to the stand.

5. Place in the frame cover.

6. Place in the back cover, routing the cables through the bottom.

7. Place in the base cover. The installation is complete.

To uninstall, follow the steps in the reverse order.

 When uninstalling the stand always make sure that all cables are disconnected.

 Never connect data cables when the system is switched on.

User Accessible I/O

The following sockets are located under the cable connection cover of the display:
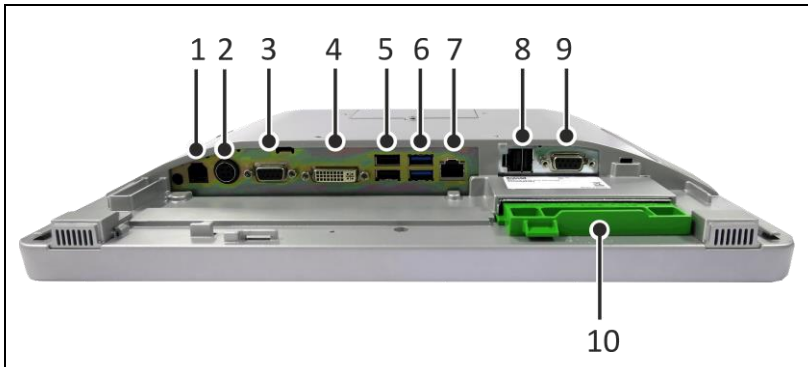
1   Cash drawer port (RJ12)

2   24V Power Input

3   Powered COM (COM2, DB9 female)

4   PLINK2/DVI-D

5   2 x USB 2.0 (USB4 and USB5)

6   2 x USB 3.0 (USB2 and USB3)

7   LAN (RJ45)

8   12V Powered USB

9   Standard COM (COM1, DB9 male)

10   Mass storage (HDD/SSD)

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

Connecting cables

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

Connect the system as described below.

1. Tilt the system to the back.

2. Pull down the cable con-
    nection cover to uncover
    the connector panel.

3. Connect cables to their
    assigned connectors.

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.
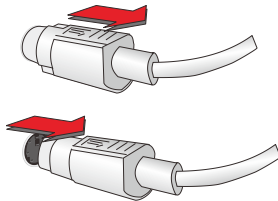
With MINI-DIN plugs (Wincor Nixdorf keyboards), the plug remains inserted until released.

Pull the plastic covering from the connecting socket with your thumb. The lock is released. The metal of the plug is visible.
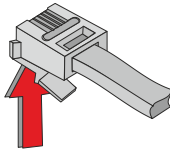
To release a RJ12 plug push the latch under the plug to the top.
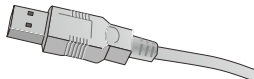
You loosen the USB-A- connector by pushing the *covering* of the connector.
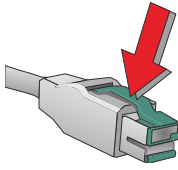
The P- USB connector is disengaged by pressing the spring that is marked by an arrow.
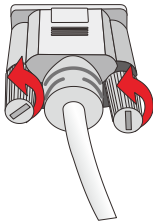
Manually loosen the knurled screws of the COM or DVI interface connector.
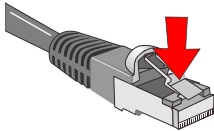
To release a RJ45 plug push down the latch (see arrow).

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. The most SSDs are flash memory based.

Replacement of the Hard Disk Drive

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

1. Tilt the display to the back.

2. Pull down the cable connection cover to uncover the connector panel.

3. The HDD or SDD is in the drive carrier located on the left.
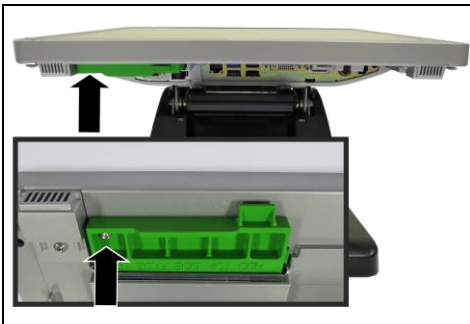
4. Remove the screw that fix the drive carrier to the connector panel and pull out the drive carrier.

5. 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.

6. Replace the new hard disk and fix it back to the drive carrier.

7. Insert the disk carrier into the connector panel.

   Fix it with the screw, removed previously.

   The replacement is complete.

Installing to a wall

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

You will need:

From the kit:

Wall mount back plate
Quantity: 1 piece

Wall mount front plate
Quantity: 1 piece
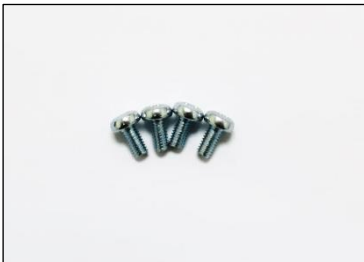
M4x8 Torx screws
Quantity: 4 pieces

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

Fasteners
Quantity: 4 pieces

Preparation

Connecting the display

1. Place a piece of protection sheet on a flat surface e.g. a table.
2. Lay the display face down on the protection sheet.
3. Tighten the four screws half way through.
4. Remove the cable connection cover at the bottom of the display.

5. Connect cables.

 The types of cables to connect depend on requirements. The illustration above shows a case where only two types of cables are connected.

6. Slide in the cable connection cover and pull the cables through the opening at the bottom.

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 122 cm (48 in) from the floor to the center of the display when the user is in the standing position.

122 cm (48 in)

Floor
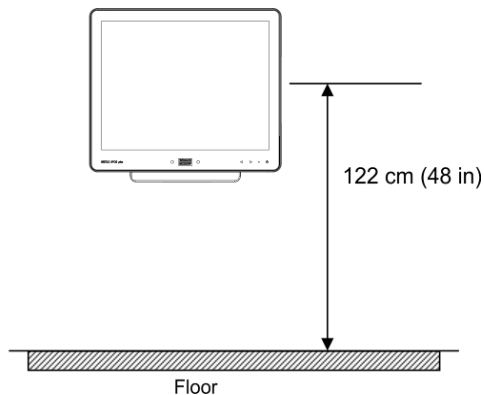
Mounting location

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.
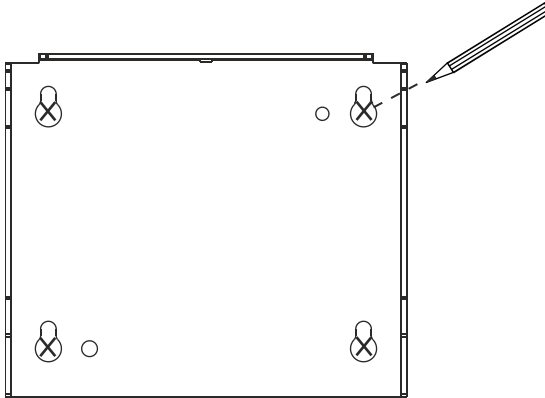
Installation

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 Wincor 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.

wall mount back plate
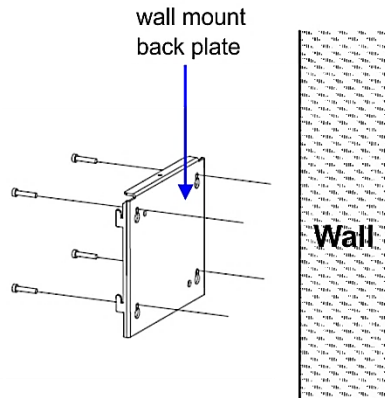
Wall

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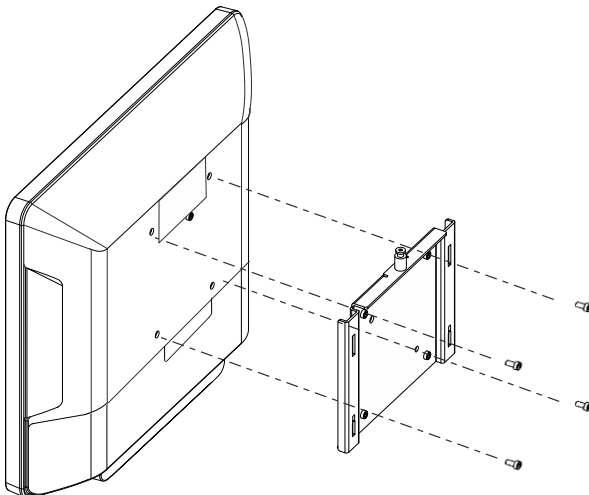
■ Secure the wall mount front plate onto the display using the screws provided in the wall mount kit.

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.
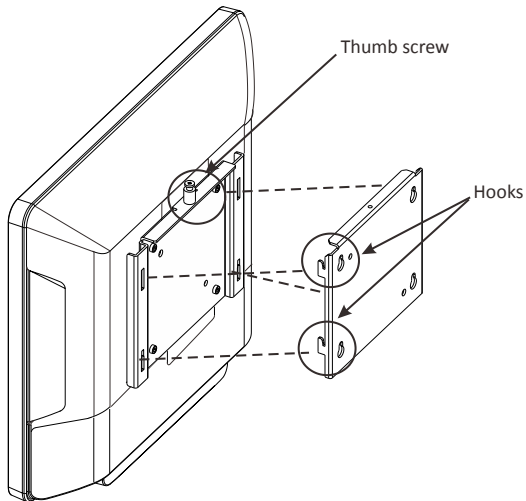
Thumb screw

Hooks

■ 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

iPOS plus Port Extender

The I/O Port Extender is an accessory designed exclusively for iPOS plus family of all-in-one POS terminals; to extend the I/O ports to add POS-specific I/O ports, namely two powered COM power, one 24V powered USB and two 12V powered USB. It mounts on the base of the desktop stand for the iPOS Advanced. The Port Extender is powered by a 24V power supply, and the iPOS plus Advanced in turn receives power from the DC24 OUT port. It also has a port for supplying power to a 2.5" hard disk or SSD for a RAID configuration. The powers available at the I/O ports are controlled by the iPOS plus Advanced such that when the system enter sleep or powered down state the powers are cut off thereby conserving power.

Power input	DC24V IN	24V DC (connect to 24V power supply
User interface	COM5	Rated voltage: 12V, 5V
	COM6	Rated current: 1A combined (each supply)
	PSUB12V	2x powered USB, rated 3A
	PSUB24V	1x powered USB, rated 3A
Power output	DC24V Out	24V DC (connect to iPOS plus Advanced)
USB Upstream		USB Type B (connect to iPOS plus Advanced)
2nd HDD Power		For optional second hard disk

DC24 OUT

USB
Upstream

2nd HDD
power

COM5   COM6   PSUB12V   DC24V IN

PSUB12V   PSUB24V
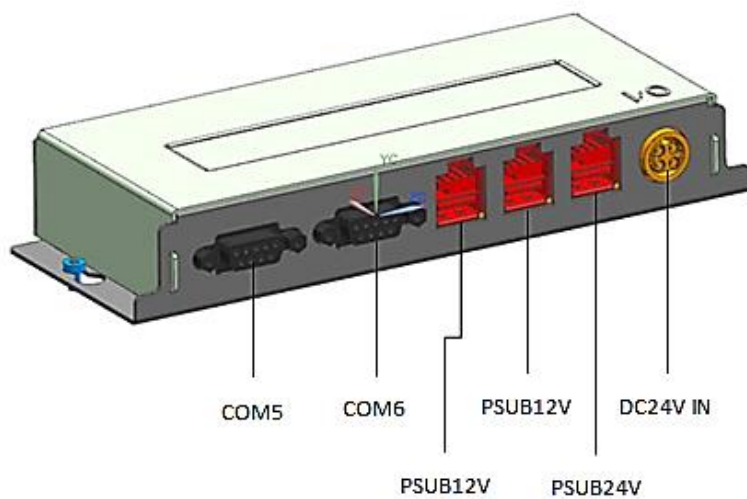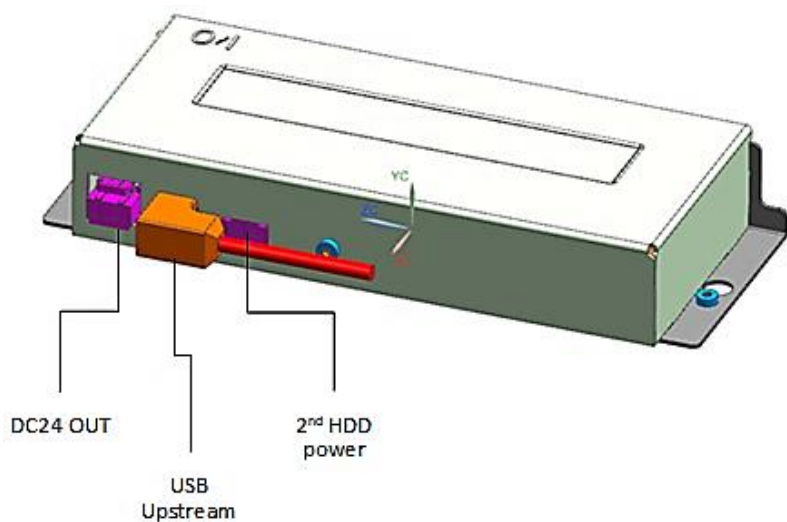
Starting Up the System

Install the BEETLE /iPOS plus and switch on the system with the Power button located on the left side of the lower right corner of the unit. The system will start booting up displaying a BIOS boot up screen . The following message is shown for a brief duration during which you may press <F2> to enter setup.

```
WN STD xx/xx dd/mm/yyyy
Press <F2> to enter setup
```

"xx/xx" is the *placeholder* of the BIOS version number and "dd/mm/yyyy" is the date of release.

Following the BIOS boot-up the operating system will boot up if a bootable storage device is present. The default boot priorities is as shown below, to change the order of boot priority please navigate to the Boot tab of the BIOS setup menu.

- USB Key
- USB CD/DVD
- USB Hard Disk
- Hard Disk
- Network

Operating the RFID/NFC reader

If the system is configured with RFID/NFC option, please place the RFID/NFC tag at the region shown below. Reading distance varies depending on the tag, in general the range is up to 10mm away from the front surface of the system.

When system is powered ON, the RF logo is illuminated. When in reading mode and a tag is brought within range the RF logo indicator will blink to signify reading in progress.

region where the antenna is located.

blue lighted RF logo

Powering Down the System

Always perform an orderly shutdown from the operating system otherwise there is a risk of corruption. If system become unresponsive due to application freeze up, press and hold the power button (about 6 seconds) until the system shutdown.

In case you switch off the AC main, wait at least 5 seconds before switching it on again to allow the residual charge to drain completely otherwise the system might not respond to the power button.

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.
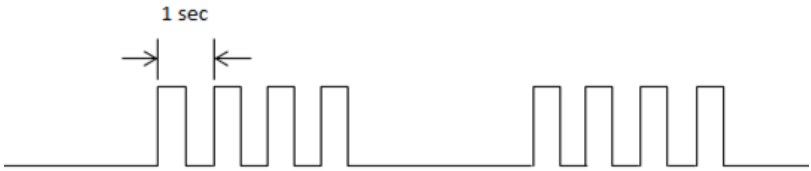
Number of pulses	Error description
1	Not used
2	Not used
3	Not used
4	Not used
5	Capacitive Sense board is faulty
6	Ambient Light/Proximity Sensor faulty

Technical Data

Processors Supported	Celeron DC N3060 2.48GHz Pentium QC N3710 2.56GHz
Memory	Single-slot SODIMM Supports 2GB, 4GB & 8GB DDR3L 1600
Primary Display	15" TFT, 1024x768 LED backlight, 320 cd/m^2 (typical)
Touch Options	Projected Capacitive, 10-point multi-touch 5-wire Resistive
Audio	Integrated stereo speaker, 2x2W
Mass storage	2.5" SATA Hard disk or SSD, slim-type (7 mm)
Expansion Slots	1x mini-PCI Express (half & full size) M.2, 2280, B-key edge connector
Internal TPM Option	Infineon SLB9665 TPM 2.0

Internal RFID/NFC Option	Card standards supported:
	    ISO/IEC 18092
	    ISO/IEC 14443A/MIFARE
	    ISO/IEC 14443B

User Accessible I/O	1x Powered COM (COM1) 1x Standard COM (COM2) 2x USB 2.0 2x USB 3.0 1x 12V Powered USB 1x LAN 1x Cash drawer 1x PLINK2/DVI-D

Peripheral Interfaces	1x USB (left)
	1x USB (right)
Side-attached Peripheral options	Magnetic Swipe Card, ISO 3-track or JIS-2
	WaiterLock (ID iButton)
	RFID/NFC reader
	Fingerprint Reader
Operating Systems supported	Windows 7 Pro, POSReady 7,
	Windows 8.1 Pro & Industry,
	Windows 10
	WNLPOS4 (Linux)
Middleware	JavaPOS 1.13 / OPOS UDM
Mounting method & options	VESA100
	Desktop stand or wall-mounted kit
Operating Environment	5 to 40° C
	5 to 85% RH
IP Rating	IP54 at the front surface
Certifications	CE Class B, FCC Class A, UL, CCC, BSMI
	Wi-Fi: R&TTE
Dimensions	Refer to chapter "Planning the installation"
Weight	3 kg (without stand)
	5 kg (with stand)

AC Power Adapter

Only use power supply units (PSU) released or approved by Wincor Nix-dorf. 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

iPOS plus Port Extender (for Desktop stand)

Power input	DC24V IN	24V DC (connect to 24V power supply)
User interface	COM5	Combined Ratings:
	COM6	12V/1A and 5V/1A
	PSUB12V	2x 12V powered USB, rated 12V/3A (total)
	PSUB24V	1x powered USB, rated 24V/3A
Power output	DC24 V Out	24V DC (connect to iPOS plus Advanced)

iPOS plus Port Extender (Standalone)

Power input	DC24V IN	24V DC (connect to 24V power supply)
User interface	PSUB12V	7x 12V powered USB Combined Ratings: 12V/3A and 5V/3A
	PSUB24V	1x 24V powered USB, rated 24V/3A

Power Budgeting

Take note that the total power available for the system is limited to 120W, the DC output rating of the external power supply. The table below shows the power budget which the system integrator must refer to in deciding what external devices that tap power can be connected to the system to ensure the operation is not disrupted due to excessive load.

	Port name	Ratings	Maximum continuous power	
Base Unit note 1	-	-	30W	30W
User Accessible I/O	USB1 USB2	5V/1A	40W	90W
	USB4 USB5	5V/1A		
	USB3.7	5V/0.5A 12V/1.85A		
	PLINK2	12V/3.7A 5V/1A		
	COM1	5V/1A & 12V/1A		
I/O Hub	PUSB24V	24V/3A	50W	
	PUSB12V (2x or 7x)	12V/3A & 5V/3A		
	COM5 COM6	5V/1A & 12V/1A		

Note 1: The Base Unit includes all internal modules and devices, and excludes external peripherals at the User Accessible I/O that draw power from the system's I/O ports.

30W is budgeted for the Base Unit, what's remaining is 90W to be shared among the available ports. It has to be noted that the rating of each port does not mean that's the power available and all the ports can be loaded to

their rated powers simultaneously. System integrator has to observe the 90W limit which total consumptions of all connected ports must not exceed.

The budgeted powers for the User Accessible I/O and the I/O Hub are practical computation of actual powers drawn by POS peripherals. System integrators are not restricted to the stated budgeted powers but are free to allocate according to their system configuration, limited by the 90W maximum available continuous power.

Appendix

Approved Printers List

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

Model	Manufacturer
TH180 series	Wincor Nixdorf
TH230 series	Wincor Nixdorf
TH320 series	Wincor Nixdorf
TH420 series	Wincor Nixdorf
ND77 series	Wincor Nixdorf
ND210 series	Wincor Nixdorf
ND220 series	Wincor Nixdorf
TH200 series	Wincor Nixdorf
TH250 series	Wincor Nixdorf

WARNING

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 Wincor Nixdorf if in doubt.

Wi-Fi flexible antenna

Assembling the antenna to flap
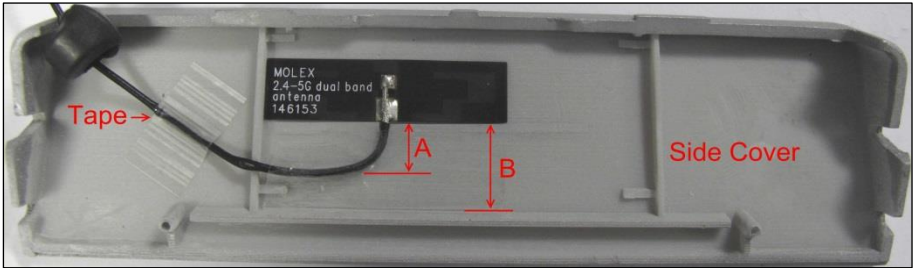
Assembling information

- Paste the flex-antenna of the Wi-Fi antenna assembly to the plastic side cover in the position as shown in the photo.

- Distance of flex-antenna from the side cover rib is B = 11 ± 0.5 mm.

- Bend and route the flex-antenna cable as shown in the photo. Keep a distance of A = 7 ±1 mm between the flex-antenna and its cable.

- Use a piece of tape to secure the flex-antenna cable to the side cover as shown in the photo.

Assembling the Wi-Fi module to mini PCIe adapter
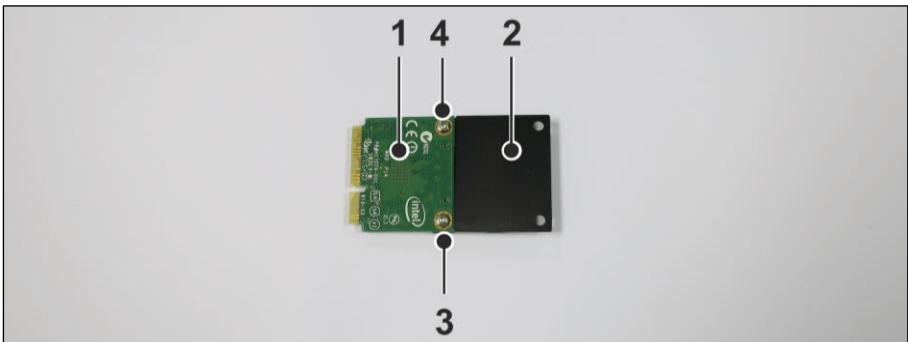
Assembling Information

- Assemble the Wi-Fi module (1) to the mini PCIe adapter (2).

- Tighten with the two screws provided (3) and (4).

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
WN	Wincor Nixdorf International GmbH

Wincor Nixdorf Pte Ltd
151 Lorong Chuan
New Tech Park
#05-01A/B
Singapore 556741

Order No.: *01750284105 A*