

NextGen AIO D2080 Display



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1 Manufacturer's declaration and approval

General authorization



This device complies with the requirements of the directive 2014/30/EC with regard to "Electromagnetic Compatibility" and 2014/35/EC "Low Voltage Directive" and RoHS directive 2011/65/EU.

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

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 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, including interference that may cause undesired operation.

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

Tested safety



The Display D2080 /pc-touch has been awarded the cULus symbol.

User information



Repair work on the devices should only be carried out by authorized and specially trained personnel. Improper repairs will lead to the loss of any guarantee and liability claims.



Extension boards with electrostatically endangered components can be identified with this label.

Safety information

This device conforms to the corresponding safety regulations for information technology devices, including electronic office machines for use in the office environment.

- If the device is moved from a cold environment to a warmer room where it is to be operated, condensation could occur. The device must be completely dry before being put into operation. Therefore an acclimatization time of at least two hours should be accounted for.
- Lay all cables and supply lines so that nobody can tread on them or trip over them.
- Data cables should neither be connected nor removed during electrical storms.
- This equipment is not suitable for use in locations where children are likely to be present.
- Protect the device from vibrations, dust, moisture and heat, and only transport the device in its original packaging (to protect it against impact and blows).
- Take care to ensure that no foreign objects (e.g. paper clips) or liquids can get into the inside of the device, as this could cause electrical shocks or short circuits.
- In case of emergencies (e.g. damaged housing, liquid or foreign objects getting into the device), the device should be switched off immediately, the mains plug of the BEETLE or PC should be removed, and the Diebold Nixdorf customer service should be contacted.
- If the LCD display element is broken and the liquid crystal solution leaks out of the display and onto your hands, clothing etc., wash your hands or clothing immediately with soap or alcohol, holding them under running water for at least 15 minutes. If the liquid comes into contact with your eyes, please consult a doctor immediately.

Generally you should connect IT-devices only to power supply systems with separately guided protective earth conductor (PE), known as TN-S networks. 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.

This product is intended to be supplied by a Listed (Certificate) power adapter, output rated 12Vdc, 1A minimum, Tma 40 degree C minimum and altitude 5000m, if need further assistance, please contact UL File owner or brand owner further information.

Warranty

Diebold Nixdorf guarantees generally a warranty engagement for 12 months beginning with the date of delivery. This warranty engagement covers all those damages which occur despite a normal use of the product.

Damages because of

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

will not be covered by the warranty.

For further information of the stipulation, look at your contract.

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

Please order spare parts at the Diebold Nixdorf customer service.

Instructions for maintenance

Clean your display regularly with an appropriate surface cleaning product. Make sure that the device is switched off, connector cables are unplugged and that no moisture is allowed to get into the inside of the device.

Please observe the maintenance and cleaning instructions for each of the components. These instructions can be found in their respective chapters.

Recycling

Environmental protection does not begin when time comes to dispose of the display; it begins with the manufacturer. The compact display is manufactured without the use of CFCs and CCHS and is produced mainly from reusable components and materials.

The processed plastics can, for the most part, be recycled. Even the precious metals can be recovered, thus saving energy and costly raw materials. Please do not stick labels onto plastic case parts. This would help us to re-use components and material.

You can protect our environment by switching on your display only when it is actually needed. If possible, even avoid the stand-by-mode as this wastes energy, too. Also switch your display off when you take a longer break or finish your work.

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.

So don't simply throw your device on the scrap heap when it has served its time, but take advantage of the environmentally smart, up-to-date recycling methods.

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

Email: info@Dieboldnixdorf.com

We look forward to your mail.

2 Supplier's Declaration of Conformity

Product Description: LCD Monitor

Model: Display D2080, Display D2080 /pc-touch

Party issuing Supplier's Declaration of Conformity

Diebold Nixdorf Singapore PTE. LTD.

30A Kallang Place, #04-01

Singapore 339213

Phone: +65 6747 3828

Responsible Party – U.S. Contact Information

Diebold Nixdorf

5995 Mayfair Road

N. Canton, OH 44720 / USA

Phone: +1 330 490 5049

FCC Compliance Statement (for products subject to Part 15)

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.

3 Introduction

3.1 From Point-of-Sale to Point-of-Service

With the D2080 you are using an ergonomically and customer-friendly cashier's workplace.

Equipped with a sleek modern bezel free design, the D2080 features projected capacitive touch technology. There is also a non-touch version available.

The D2080 features the unique Diebold Nixdorf PanelLink2™ interface. This allows for operation of the displays via a single cable solution. In addition, the screen also offers standard interfaces such as DVI-D and USB-C DP. Instead of using a standard power supply with 12V DC jack, a PoweredUSB cable can be used. The display can be applied in all trade market segments like specialist retailers, department stores, self-service stores, petrol stations or in restaurants. There is indeed a great deal of scope for implementing the display.

They can be used, for example, as:

- a point-of-sale terminal
- an ordering terminal
- an information terminal
- a desk terminal.

The low-energy and flicker-free color display of the D2080 is a LCD in TFT-technology (Thin Film Transistor).

Therefore, it is well suited for multimedia applications as it offers brilliant color representation, an excellent contrast ratio and a high display speed.

3.2 Features at a glance

- Low footprint
- Autoscaling of the screen
- Flicker-free
- Very good contrast ratio, adjustable loudness, sharpness, width, phase, color temperature and brightness
- LCD TFT technology
- Digital interface
- Simple installation via plug & play feature
- Mounting VESA 75 standard

3.3 About this manual

This manual informs you about everything you might need to know for the installation (software and hardware), the operation and the maintenance of your D2080.

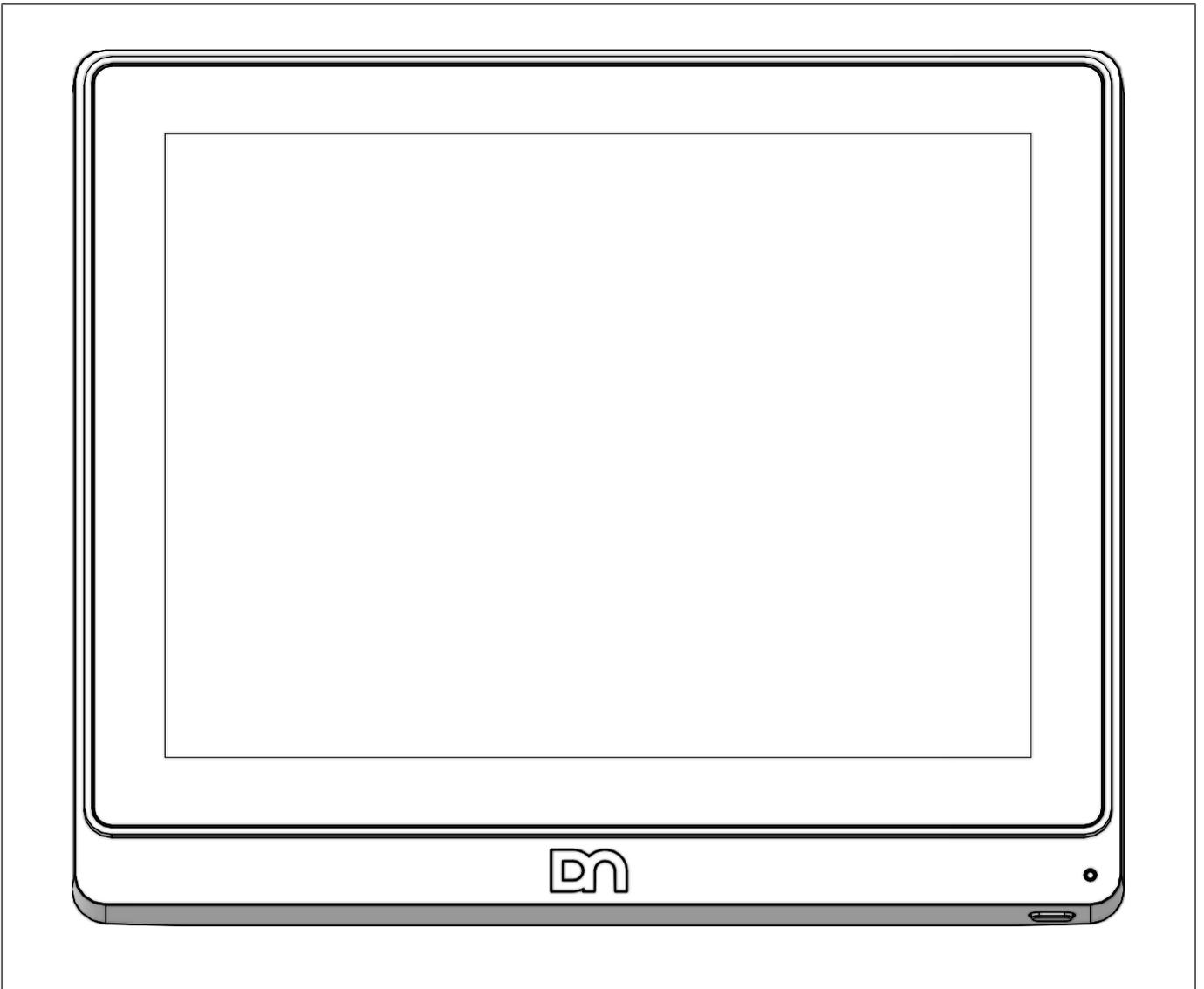
Some parts of this book require familiarity and experience in working with operating systems and installation and configuration procedures.

	NOTE
	Notes in the manual are marked by this symbol.

	WARNING
	This symbol is used for warnings.

4 Display Overview

4.1 D2080



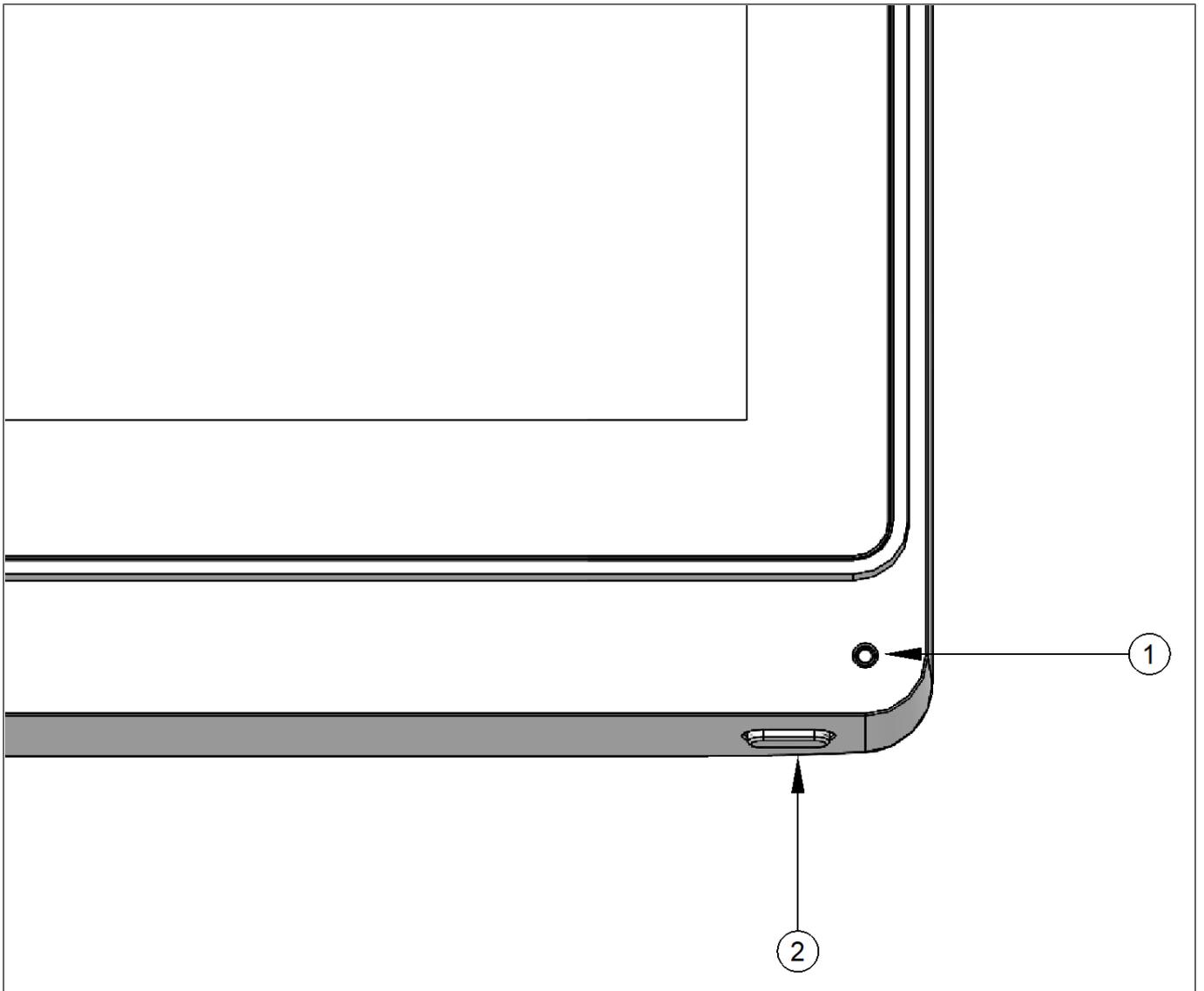
The LCD TFT Panel Display is an 8-inch flat panel display which is absolutely flicker-free. It is designed for a native resolution of 800 x 600 pixels. Application programs should use this resolution.

4.2 Touch screen per model

Model	Screen Size	Touch Screen
Display D2080 /pc-touch	8"	Projected Capacitive Touch
Display D2080	8"	No Touch, Protective Glass

5 User Interface

5.1 Front panel



1	Status / Activity LED	2	Power Button
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LED

1. **Enable Power LED = “ON” (default)**

Operating Condition	Behavior of Activity LED (green/amber)
Active / Operating	LED on; green
Standby / No video input	LED blinking; amber
Soft-Off	LED on; amber
No power input	LED off

2. **Enable Power LED = “OFF”**

Operating Condition	Behavior of Activity LED (green/amber)
Active / Operating	LED on; green
Standby / No video input	LED off
Soft-Off	LED off
No power input	LED off

ON/OFF button

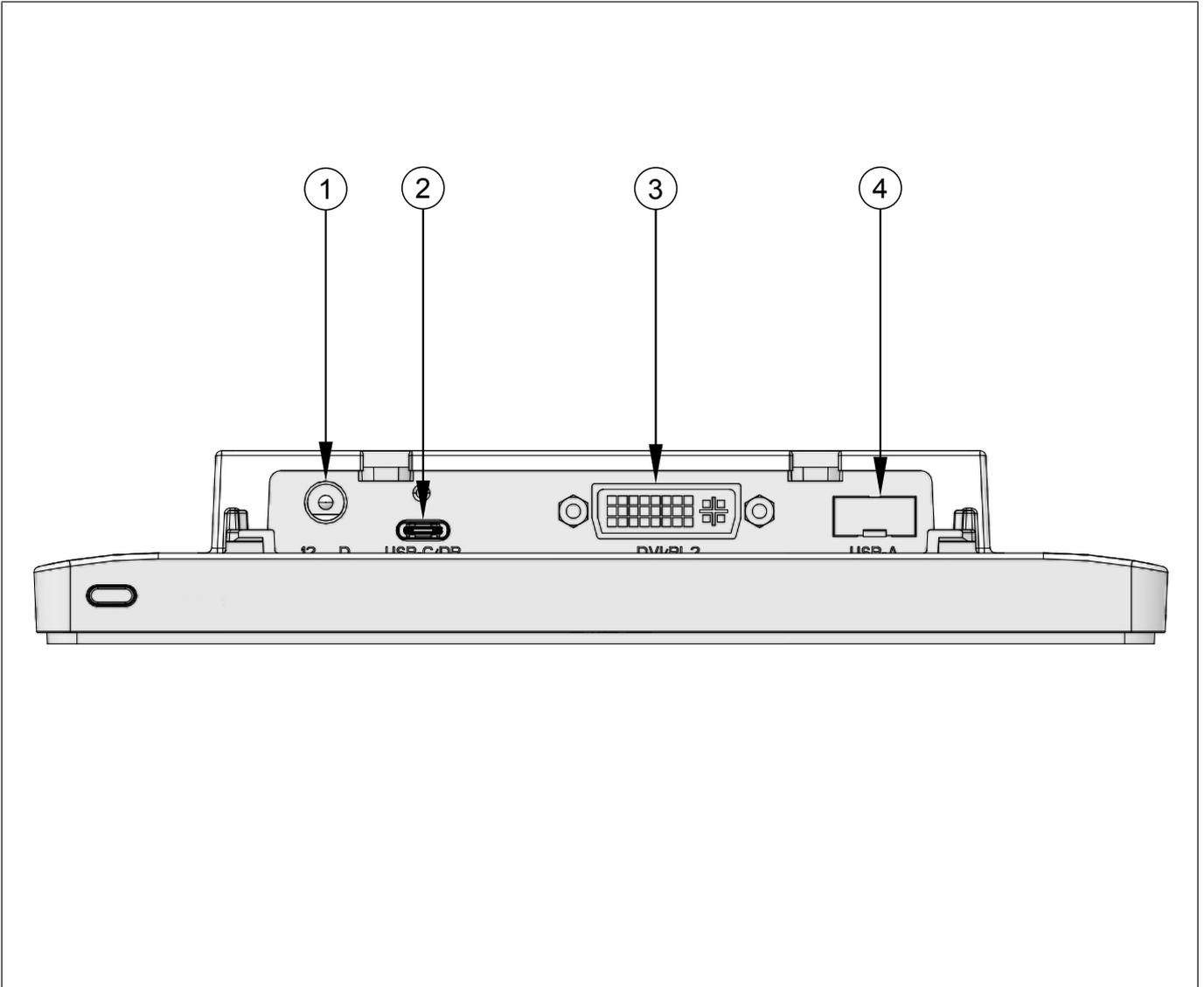
With this button you can switch the display on or off.

	<i>NOTE</i>
	<p>If the display is manually switched off, it will not wake up automatically when the system boots.</p>

When the D2080 is connected via PLINK2™ interface to a BEETLE system, the button also switches the system on or off, provided that the system supports the feature. See section Display Settings / RMT enable/disable for details.

5.2 Connector panel

The following sockets are located under the bezel of the display:



DC-Power Jack (1)	Power supply for the screen via external power supply or PoweredUSB (12V).
USB-C/DP (2)	USB connection to the PC system.
DVI-D/ PLINK2 (3)	DVI-D or PLINK 2 for video/data transfer between the system and the TFT display.
USB-A (4) (PCAP Model only)	USB connection to device.



NOTE

For BEETLE systems with PLINK2 interface, a PLINK2 cable can be used to as a single wire interface to supply power, video and data signal to the display.

6 Display Settings

The D2080 display offers several settings which are available through a GUI software tool (GUIDDC-MonitorControl).

GUI software tool is available in Windows 7 (32bit/64bit), Windows 10 (32bit/64bit) and Linux CentOS 7/8 (64bit). The GUIDDCMonitorControl.exe is an executable file and does not require any installation.

Below you can find a list of specific settings that can be customized to suit the specific installation needs.

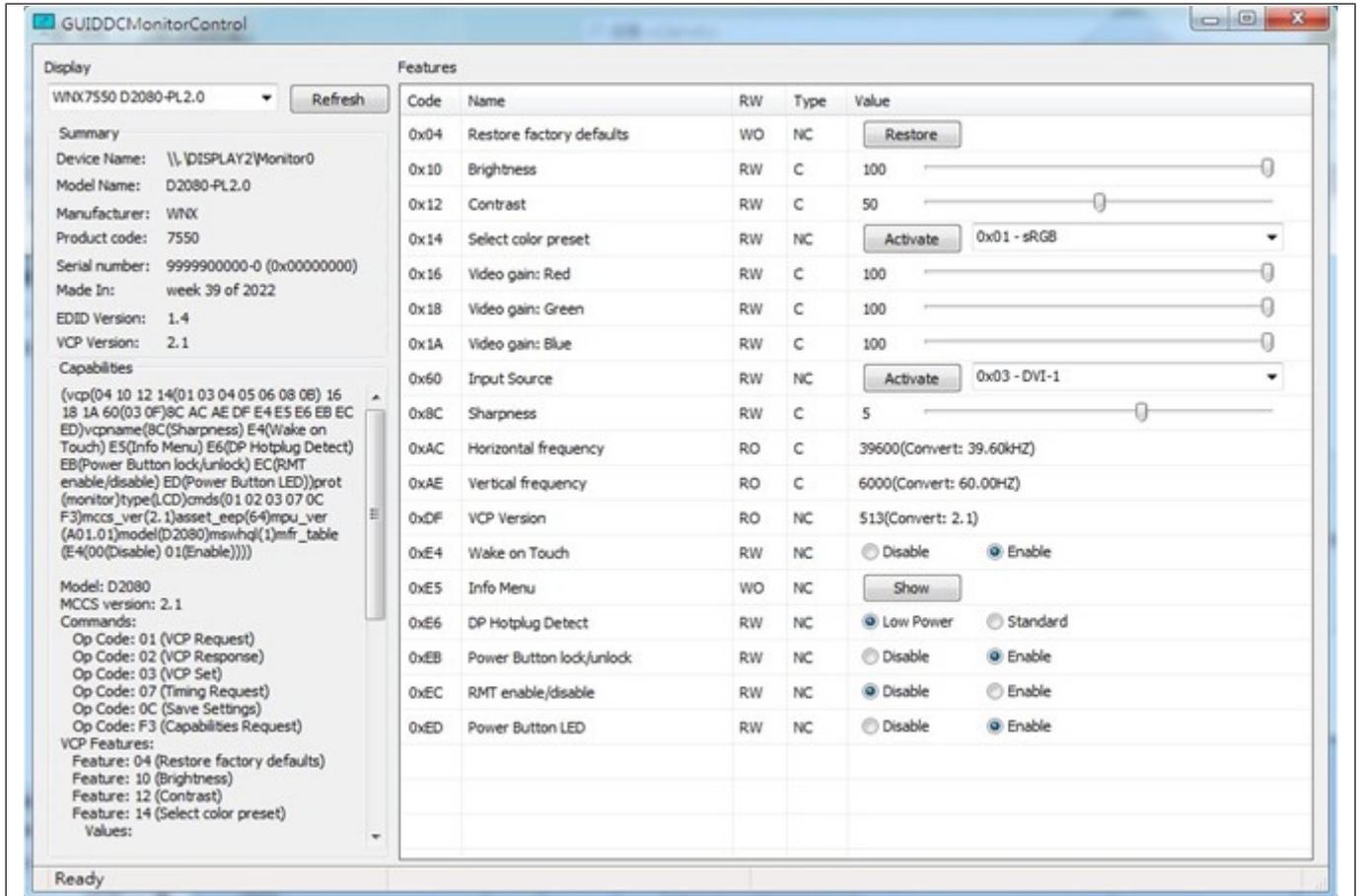


Figure 6-1: GUIDDCMonitorControl

Display Settings

Table 6-1: Display Settings

Setting	Description	Default
Restore Factory Defaults	Restore original display settings.	n.a.
Brightness	Adjusts the brightness level of the screen.	100
Contrast	Adjusts the screen contrast.	50
Select color preset	Selects and adjusts the screen color.	sRGB
Video gain (Red, Green, Blue)	Adjustment only applicable under User setting.	255
Input Source	Selects the video input signal (DVI/DisplayPort).	n.a.
Sharpness	Adjusts the screen sharpness.	5
Wake on Touch	Enable/Disable touch when display in Sleep/Standby. Reduced power state if set to disable.	enable
Info Menu	Invoke menu showing firmware versions, serial number etc.	n.a.
DP Hotplug Detect	Setting only applicable for USBC/DP interface. Reduced power state if set to low power.	low power
Power Button lock/unlock	Enable/Unlock or Disable/Lock of Power Button.	enable
RMT enable/disable	Enable/Disable of RMT (Refer to Sect 6.1). Setting only applicable for PLINK2 connection to BEETLE system.	disable
Power Button LED	Enable/Disable of Power Button during display Softoff/Sleep (Refer to Sect 5.1).	enable

6.1 RMT Enable/Disable

The RMT feature allows the display's power button to act as the power button of the BEETLE system. This feature is only available when the display is connected to a BEETLE system using a PLINK2™ interface cable. The mode of operation depends on the settings of the BEETLE BIOS as well as on the display settings. For details please consult the table below.

BEETLE BIOS Settings	Settings	BEETLE System and Display State	Result of pressing the Display power button
RMT enabled	RMT enabled	OFF	System starts booting; Display switches on by system.
		ON	System starts shutdown; Display switches off when system shutdown is completed.
	RMT disabled	OFF	System starts booting; Display switches on by system.
		ON	System no reaction; Display switches off.
RMT disabled	RMT enabled	OFF	System no reaction; Display remains off.
		ON	System no reaction; Display remains on.
	RMT disabled	OFF	System no reaction; Display remains off.
		ON	System no reaction; Display switches off.

6.2 Power button - Lock/Unlock

The power button is unlocked by default. The user can switch the display on and off discretely, independent of the connected system. If the power button is locked, the user cannot manually switch the display on or off.



NOTE

If RMT is enabled, the power button will initiate RMT signal to the host system only when there is single PLINK connection. If the display is powered by DC-Jack or USB-C, then RMT signal will not be initiated.

7 Touch technologies

7.1 Projected Capacitive Touch Screen

7.1.1 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

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.

7.1.2 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.

7.1.3 Cleaning instructions

	⚠ WARNING
	<p>Always turn off the system before cleaning.</p> <p>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.</p> <p>Cleaners with pH values 9 to 10 are not recommended. Cleaning with water and iso-propyl alcohol is possible as well. Do not use sol vents containing acetic acid. Use a soft, fine-meshed cloth to clean the surface. Dampen the cloth slightly and then clean the screen.</p>

	NOTE
	<p>A wrong maintenance may cause damages to the screen, which are not covered by guarantee or warranty.</p>

8 Initial setup

8.1 Unpacking and checking the delivery unit

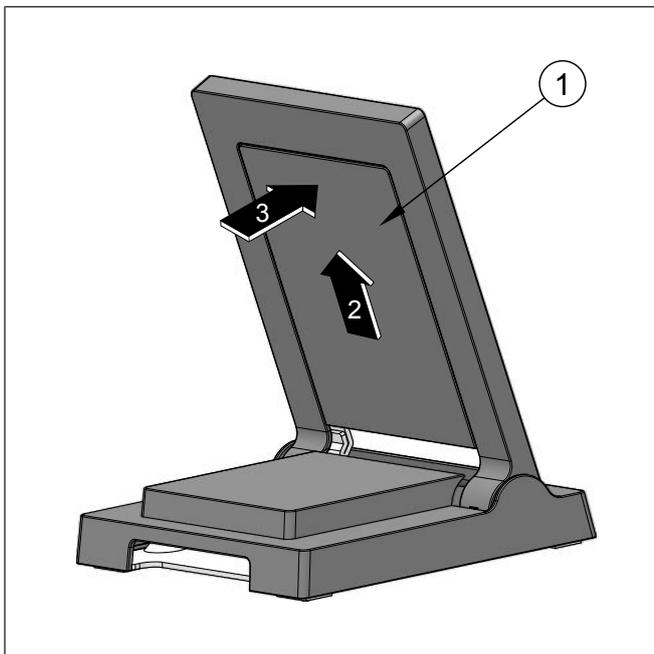
Unpack the parts and check to see whether the delivery matches the information on the delivery note. The delivery comprises the respective screen module. Data cables, necessary for operation, can be ordered separately. If damage has occurred during shipping or if the package contents do not match the delivery note, immediately inform your Diebold Nixdorf sales outlet.

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

8.2 Installing the display to a stand

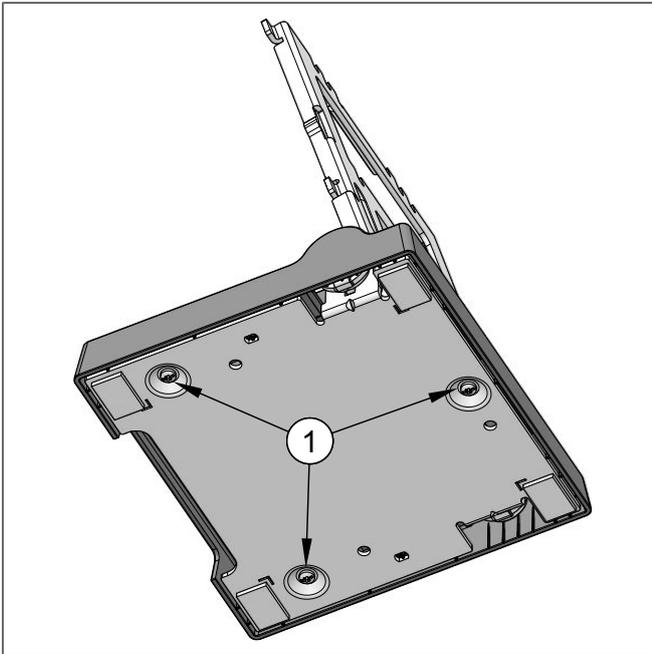
8.2.1 Preparing the stand

	⚠ WARNING
To avoid damage to the back cover of the stand, be careful of how you would remove it.	



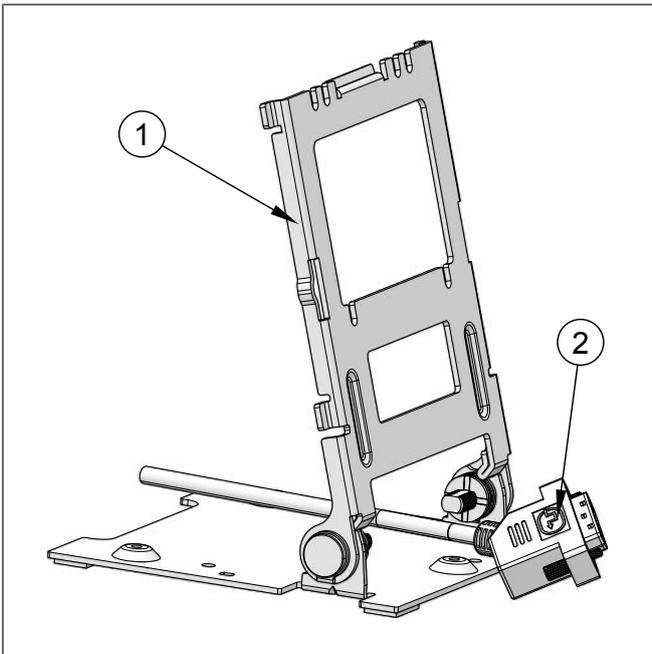
1. Push the stand to the furthest angle (3).
2. Drag the upper part of the back cover (1) in the direction of the arrow (2).

Figure 8-1: Removing the upper back cover



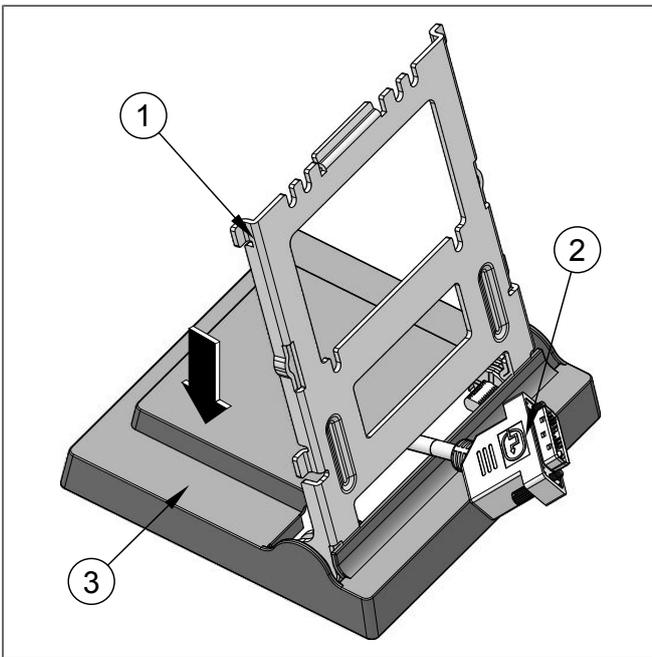
3. Loosen the screws (1).
4. Remove the lower back cover from the stand.

Figure 8-2: Removing the lower back cover



5. Feed all for your interface required cables (2) through the lower opening of the stand (1).

Figure 8-3: Manage cabling through the stand

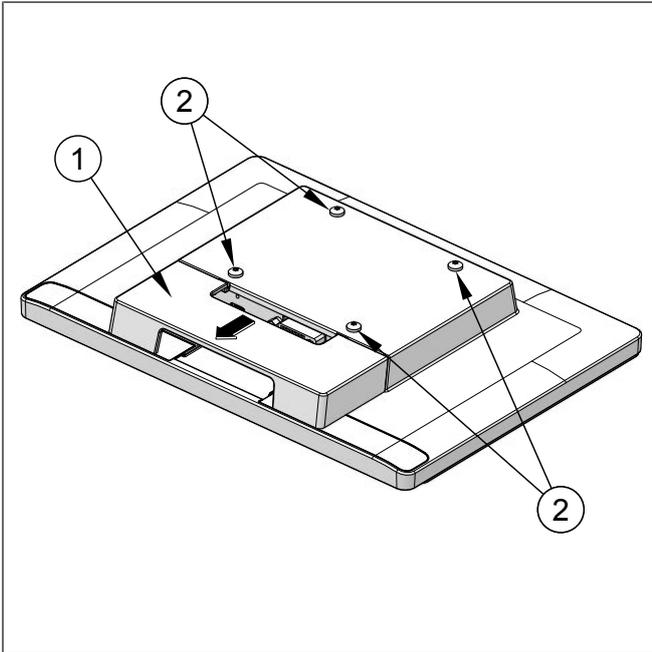


6. Slide the lower back cover (3) onto the stand (1).
7. Feed all for your interface required cables (2) through the opening of the lower back cover (3) and the lower opening in the stand.

Figure 8-4: Manage cabling through the lower back cover

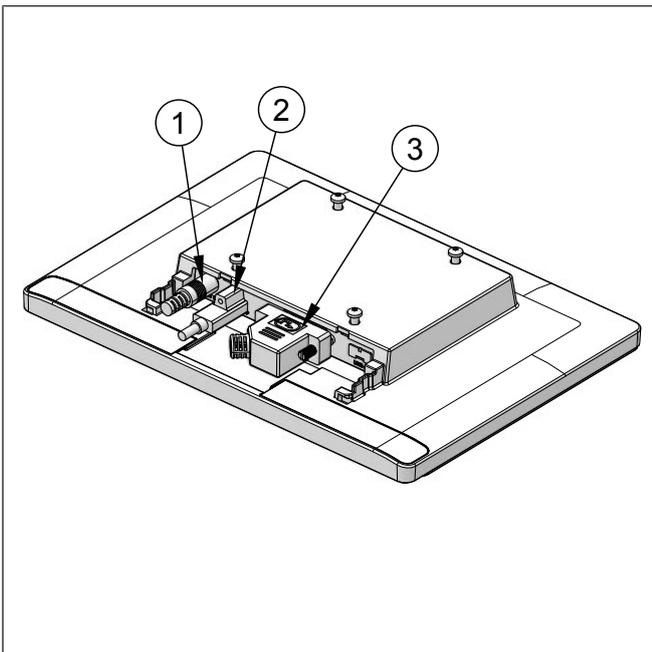
8.2.2 Preparing the display

1. To protect the display, lay out a piece of cloth on a flat surface, e.g. a table.
2. Place the display, with the glass facing down, on the protection cloth.



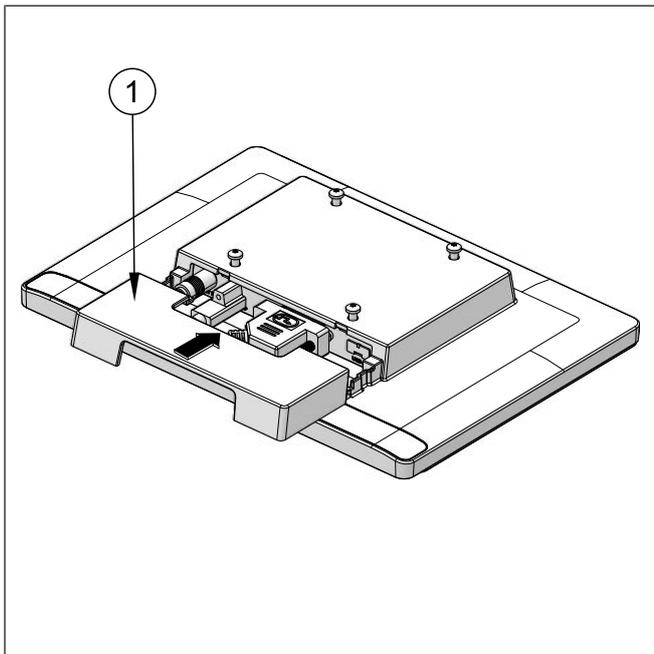
3. Drag the cable cover (1) in the direction of the arrow.
4. Loosen the screws (2) slightly, so that they are still attached to the display.

Figure 8-5: Remove the cable cover and loosen the screws



5. Attach the cables needed for your interface to the display, this is either:
 - The USB-C cable to the USB-C port (2).
 - the PLINK2 cable to the DVI-port (3).
 - the 12V Power cable to the DC-port (1), the DVI-D cable to the DVI-port (3) and the USB-C to USB-A cable to the USB-C port (2).

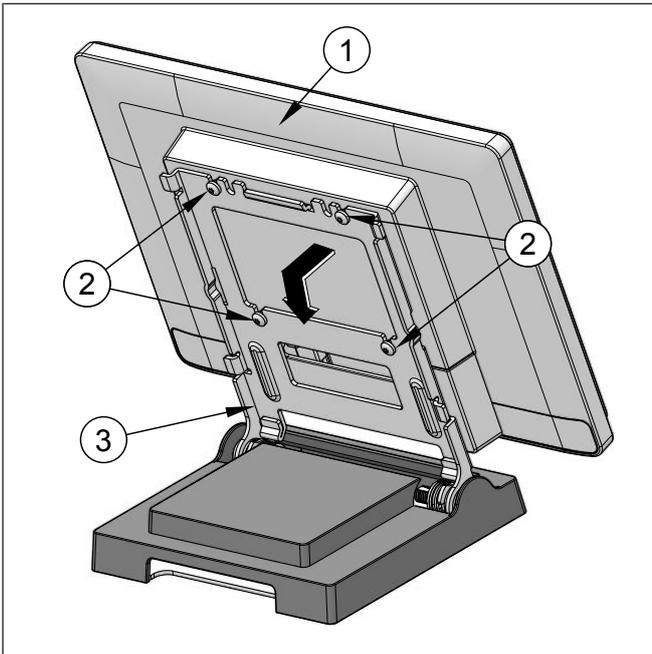
Figure 8-6: Attaching all cables to the display



6. Mount the cable cover (1) to the display.

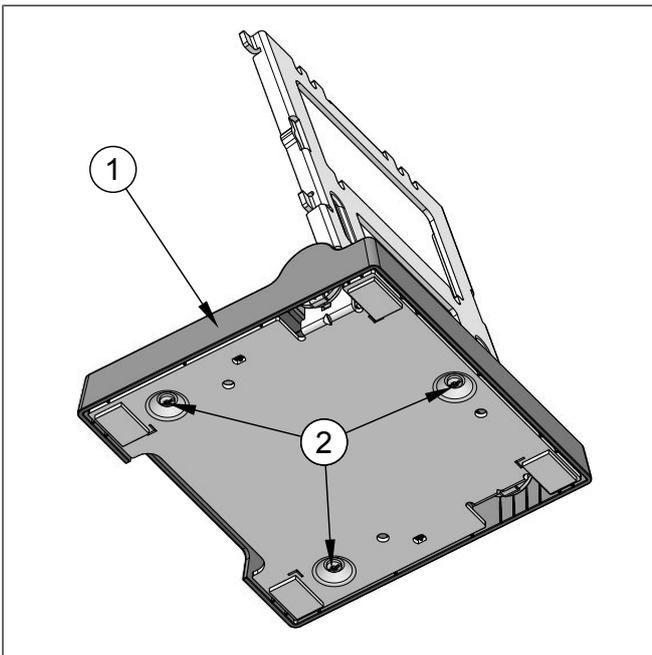
Figure 8-7: Mounting the cable cover

8.2.3 Installing the stand



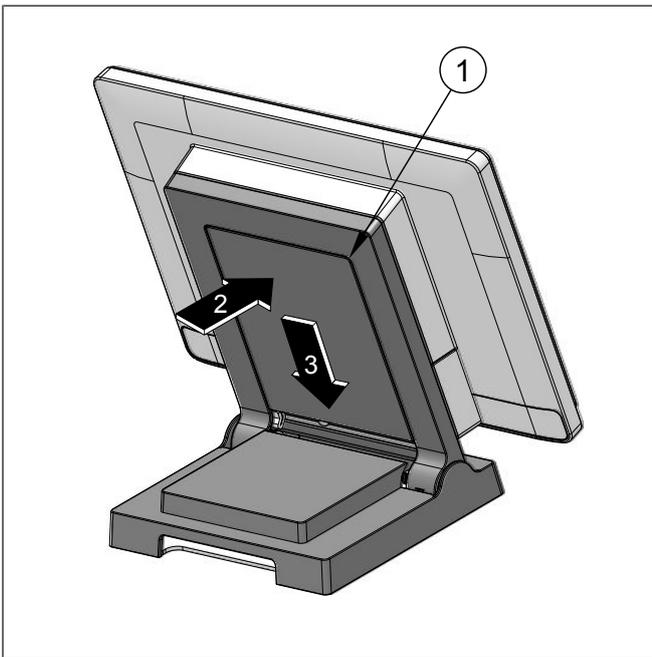
1. Suspend the display (1) with the screws (2) into the corresponding notches of the stand (3).
2. Tighten the screws (2).

Figure 8-8: Attaching the display to the stand



3. Secure the lower back cover (1) with screws (2).

Figure 8-9: Mounting the lower back cover to the stand



4. Push the stand to the furthest angle (2).
5. Mount the upper back cover (1) on the stand by pushing it down in the indicated direction (3).

Figure 8-10: Mounting the upper back cover



NOTE

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

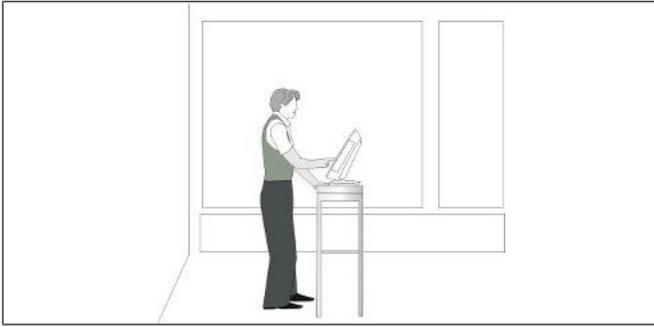
8.3 Connecting the display



NOTE

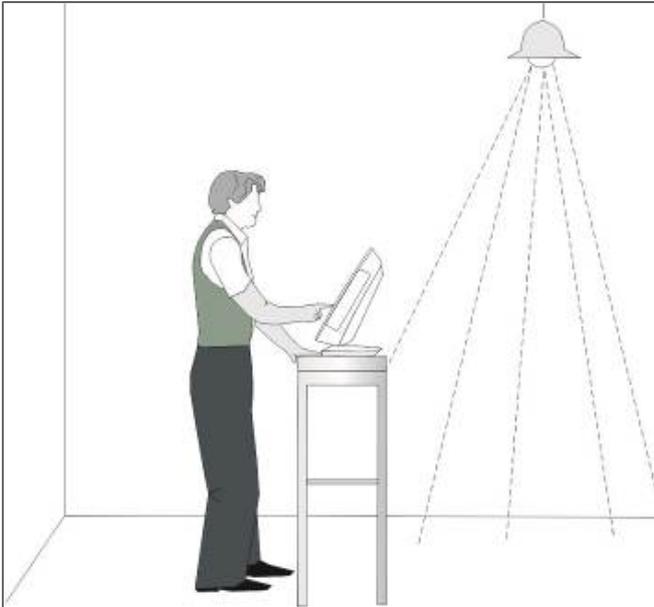
Switch off the display and disconnect it from the mains supply before connecting the cables.

9 Ergonomic Terminal Workplace

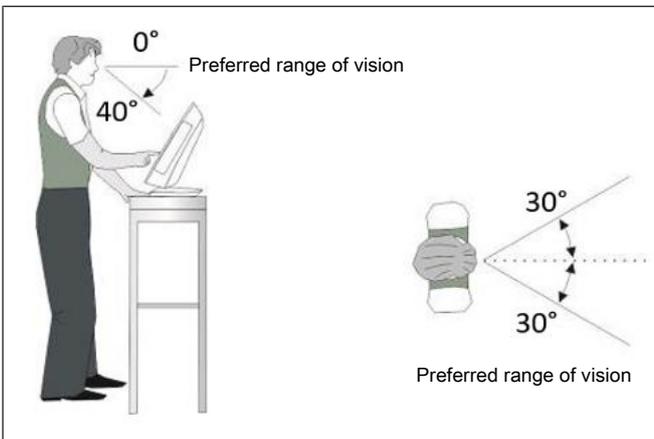


Please observe the following when setting up your terminal workplace:

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.

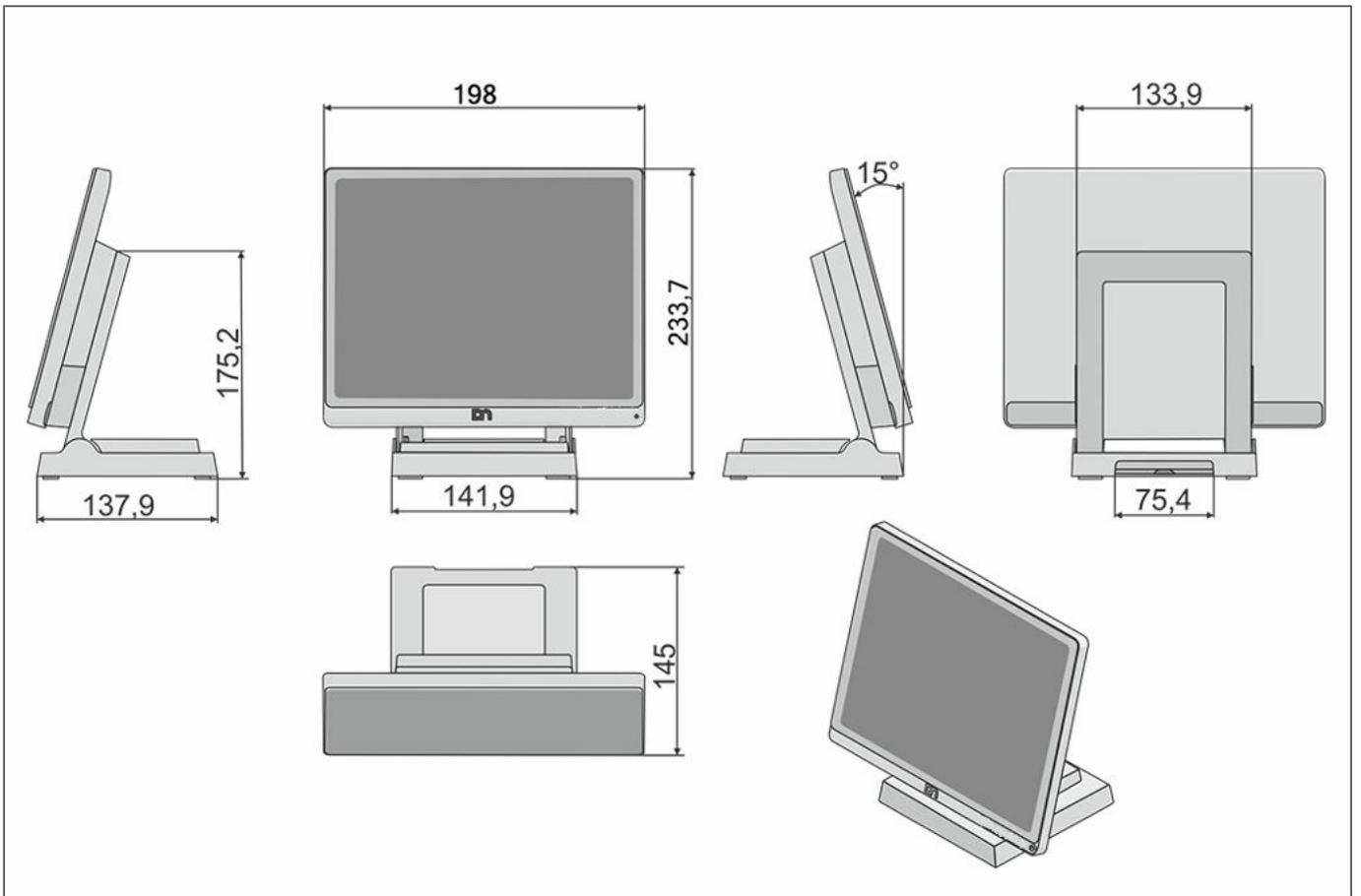


Position the screen within a preferred and permitted range of vision, so that you can look vertically onto the screen.

10 Technical Data

Model		D2080
Dimensions	Diagonal screen	8.0" (20.3 cm)
	Active screen (mm) horizontal x vertical	162.0 mm x 121.5 mm
	Cable length	Up to 5m for DVI/PLINK2 cable Up to 4.5m for Active USB-C(DP) cable Up to 3m for Passive USB-C(DP) cable
	Display housing width x height x depth (mm)	198 x 169 x 34
Weight	without base	0.65 kg
	with base	1.28 kg
Operating temperature / Humidity		+ 5 °C to + 40 °C / 5% to 85%
Storage temperature / Humidity		-10 °C to + 60 °C / 5% to 90%
Frequencies	Horizontal (KHz)	37.9
	Vertical (Hz)	60.3
Native resolution	Horizontal (Pixel)	800
	Vertical (Pixel)	600
	Color depth	Up to 16.7 M
Pixel format (approx. in mm)		0.2025 x 0.2025
Graphic interface	internal	RGB 24bits
	external	PLINK2, DVI-D, USB-C DP
Viewing angle	right/left	70 ° / 70 °
	top/bottom	70 ° / 60 °
Brightness	Projected Capacitive	210 cd/ m2
	Non-Touch	210 cd/ m2
Contrast	Projected Capacitive	700:1
	Non-Touch	700:1
Backlight		LED
Power consumption	Typical	4.0 W
	Maximum	5.0 W

10.1 Dimensions



10.2 Projected Capacitive Touch Screen

Touch Technology	Projected Capacitive
Surface	Anti-glare
Data transfer	USB
Multi Touch	10-points Touch (Gestures Supported)

10.3 Supported resolution

	⚠ WARNING
	Scaling to any display resolution other than recommended panel native resolution (highlighted with **) will result in lower display quality like uneven character/spacing.

D2080

Resolution		Refresh Rate	Horizontal Sync	Vertical Sync
			Frequency (KHz)	Frequency (Hz)
VGA	720 x 400	70Hz	31.47	70.09
VGA	640 x 480	60Hz	31.50	60.00
SVGA	800 x 600 (Native)	60Hz	37.88	60.32
XGA	1024 x 768	60Hz	48.36	60.00

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