

K-two

Installation manual

01750299889E



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1 Symbols

	DANGER This warning note describes a hazard with a high degree of risk, which, if not avoided, will result in death or grave bodily injury.
	WARNING This warning note describes a hazard with a medium degree of risk, which, if not avoided, will result in death or grave bodily injury.
	CAUTION This warning note describes a hazard with a low degree of risk, which, if not avoided, will result in death or grave bodily injury.
	NOTICE This note provides application tips and information that help prevent errors and material damage.

2 Warranty

Generally Diebold Nixdorf guarantees a warranty engagement for 12 months beginning with the date of delivery. This warranty engagement covers all 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 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.



NOTICE

Please contact your local service provider for all questions concerning your service contract.

3 Important Notes

Terminals supplied by Diebold Nixdorf comply with the respective safety regulations for data-processing installations and information technology installations, including electrical office equipment for use within an office environment.

	 WARNING
Whenever work of any kind is done on the device, as well as when data cables are plugged and unplugged, the device must be completely disconnected from the line voltage.	

- Terminals may only be installed and repaired by skilled technicians.
- Unauthorized opening of the housing or inexperienced repairs can result not only in considerable personal danger, but will also invalidate your warranty and liability protection.
- Always consult the enclosed documentation before doing any work with this terminal.
- If this terminal is brought from a cold environment into a heated place of business, condensation may occur. Before operation, the terminal must be completely dry. Therefore, an acclimatization period of at least two hours must be adhered to.
- Always lay the supply leads and cables in such a way that they cannot be stepped on or tripped over.
- Exchange damaged cables immediately.
- In order to completely disconnect the terminal from the power source use the separator in the fuse box/building installation.
- Make sure that no objects (such as paper clips) can reach the interior of the terminal, since electrical shocks or short-circuits could result.
- Ensure that the K-two receives adequate ventilation to avoid overheating.
- During an electrical storm, data cables should not be plugged in or being unplugged.
- Keep the terminal away from vibrations, dust, humidity and heat.
- Ensure that used parts are disposed of in an environmentally friendly manner.
- In case of an accident (such as a damaged housing, entry of liquids or foreign objects), switch the terminal off and use the separator to completely remove the terminal from power.
- The terminal and other information technology hardware should only be connected to electrical supply networks with a separate protective earth wire (PE). This type of electrical supply network is referred to as a TN-S network. Do not use PEN conductors. Also follow the recommendations set forth in DIN VDE 0100 Part 540, Appendix C2 as well as EN50174-2, §5.4.3 (www.DIN.de). This will help prevent malfunctions.

- National Electrical Code ANSI/NFPA 70
- Canadian Electrical Code, Part I, CSA C22.1-02
- Always keep the ventilation slots free of obstruction to ensure adequate air circulation and avoid overheating.
- Transport the terminal only in its original packaging (to protect it against knocks and bumps).
- If a lithium battery is supplied with the terminal, ensure that the battery is replaced with an equivalent type. Otherwise there is danger of explosion! Lithium batteries may only be replaced with identical types or other types recommended by the manufacturer.
- Batteries must be disposed of according to local regulations on the disposal of special waste.

3.1 Connecting Peripherals

Use only shielded cables when connecting terminals to the system to ensure compliance with international Rules and Regulations for radiated emission as well as to achieve a high immunity against external disturbances.

4 Unpacking and Checking the System

Take the system out of the package.

Verify that the scope of delivery is identical to the information on the delivery ticket.

Should you notice any

- transport damages or
- discrepancies between package contents and delivery ticket or
- functional defects,

please inform your contracting parties or the branch office of Diebold Nixdorf immediately. Please indicate the number of your delivery ticket and delivery ticket position and serial number of the respective devices.

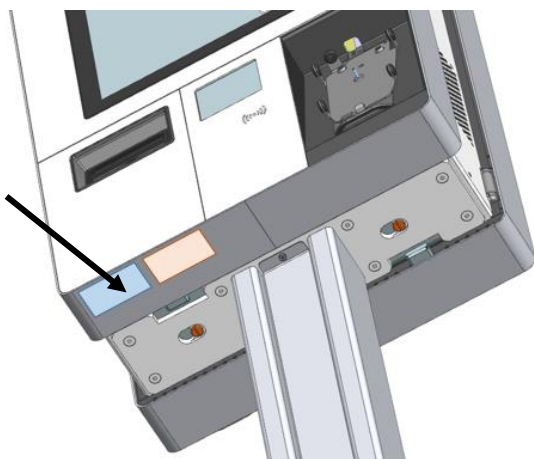


NOTICE

We recommend to save the original packaging for transport at a later time (protection from impact and shock).

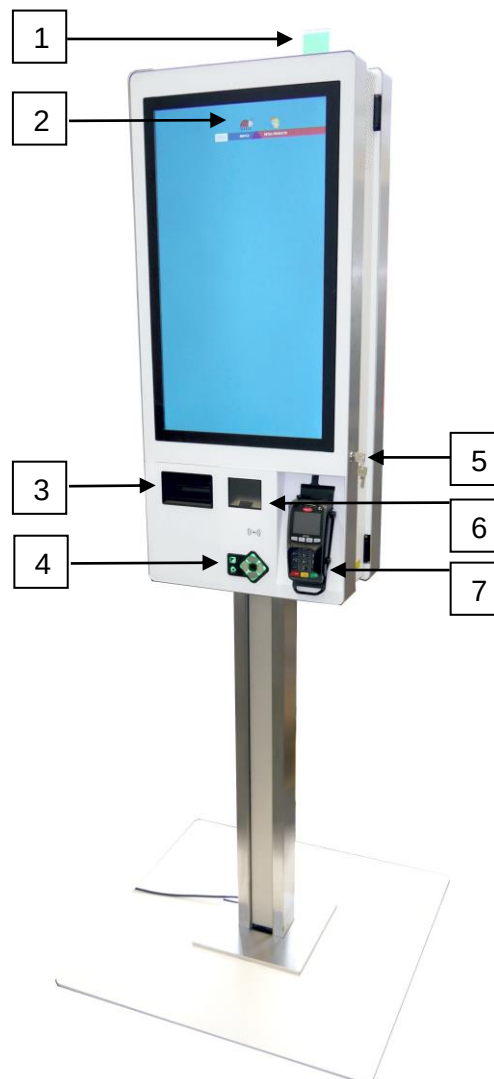
4.1 Serial number

You will find the serial number on the label, which is attached underneath the housing.



5 Overview

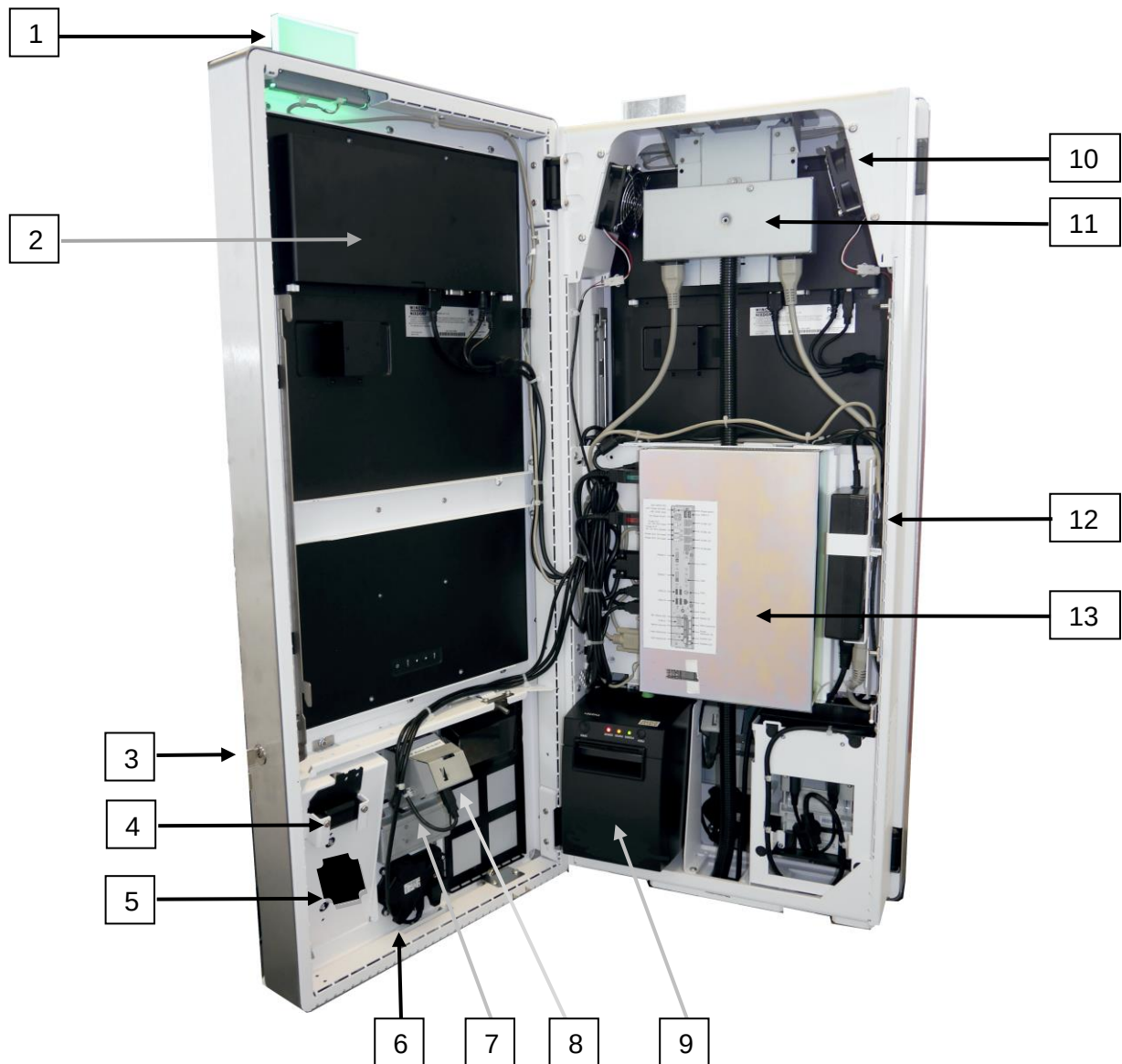
5.1 Exterior view



1	Pole Light	5	Lock
2	Display	6	Scanner
3	Printer	7	EFT*
4	ADA Navigation		

* It may be connected ETFs with 12Vdc and a max. current consumption of 1.1A (permanent).

5.2 Interior view



1	Pole Light	6	ADA Navigation	11	Power Distributor
2	Display	7	NFC Module	12	Power Supply
3	Lock	8	Scanner	13	PC
4	EFT*	9	Printer		
5	Speaker	10	Fan		

* It may be connected ETFs with 12Vdc and a max. current consumption of 1.1A (permanent).

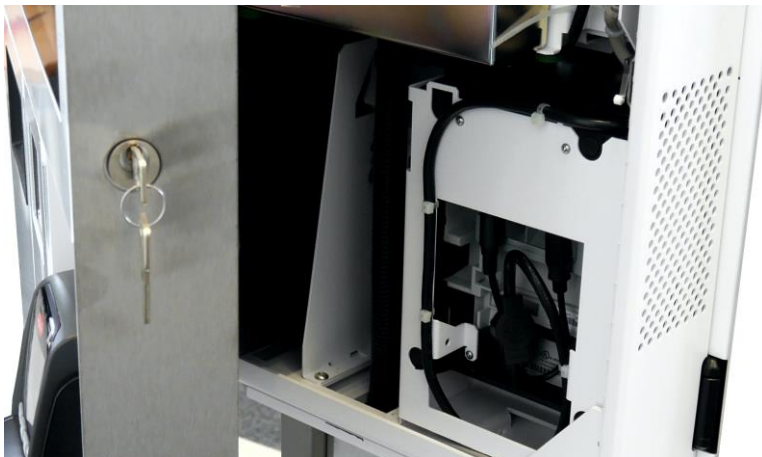
6 Opening the Kiosk

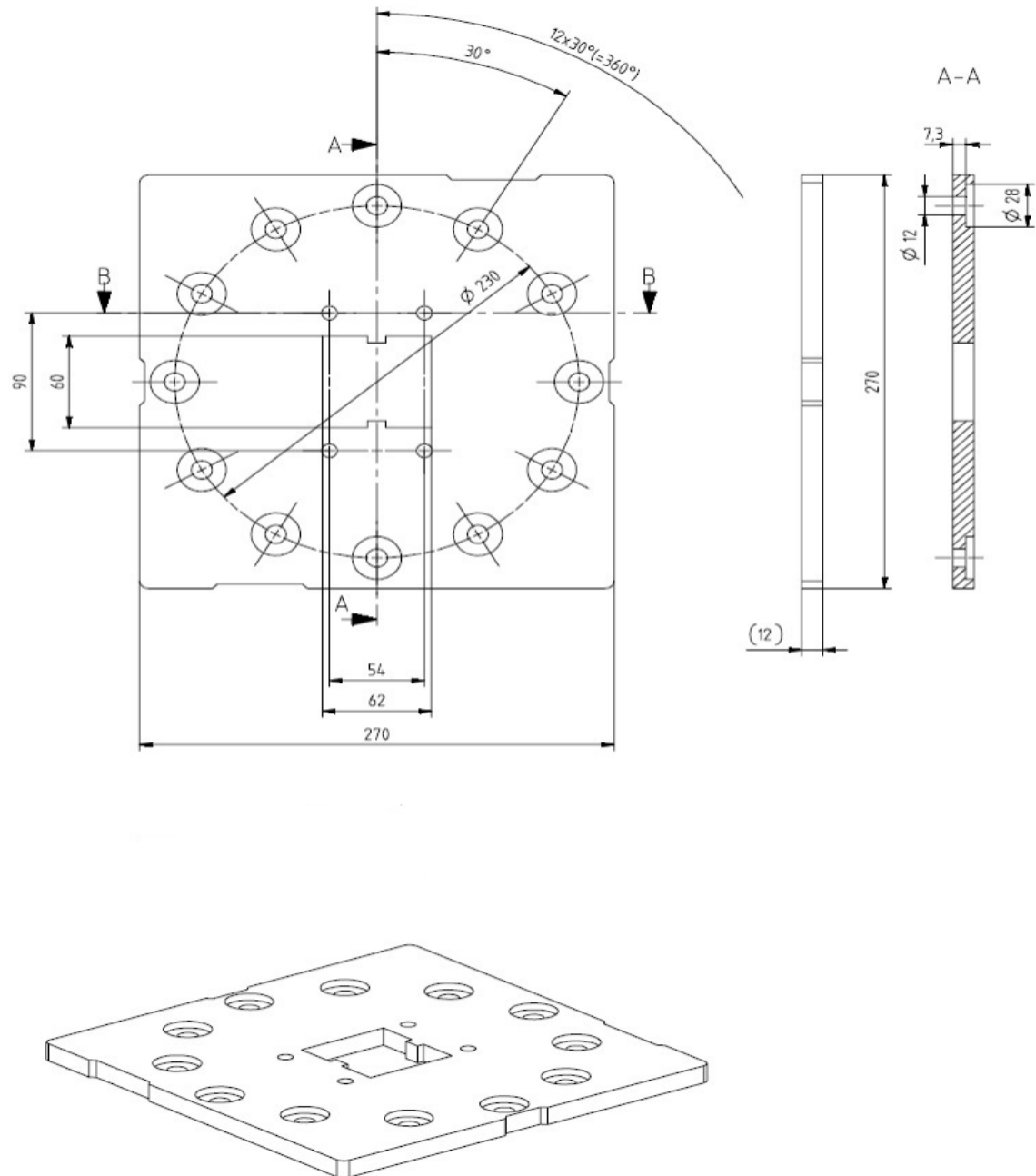
6.1 Opening

Plug the key to the lock and turn it counter clockwise.

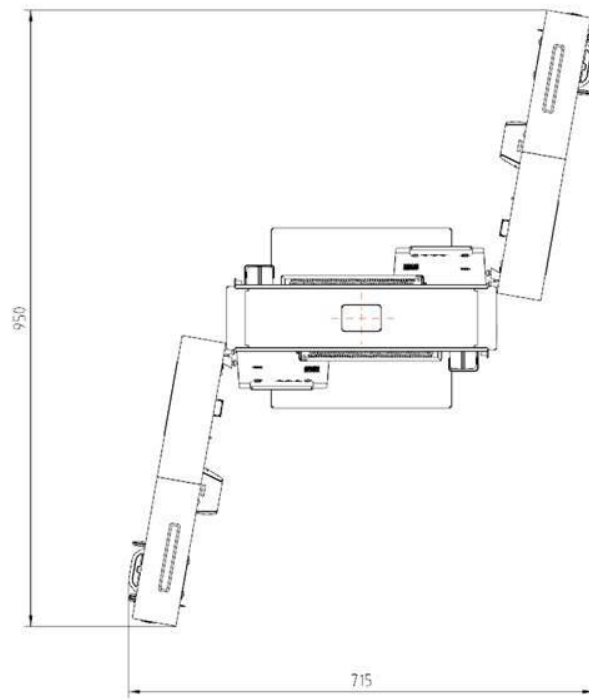


Open the door.

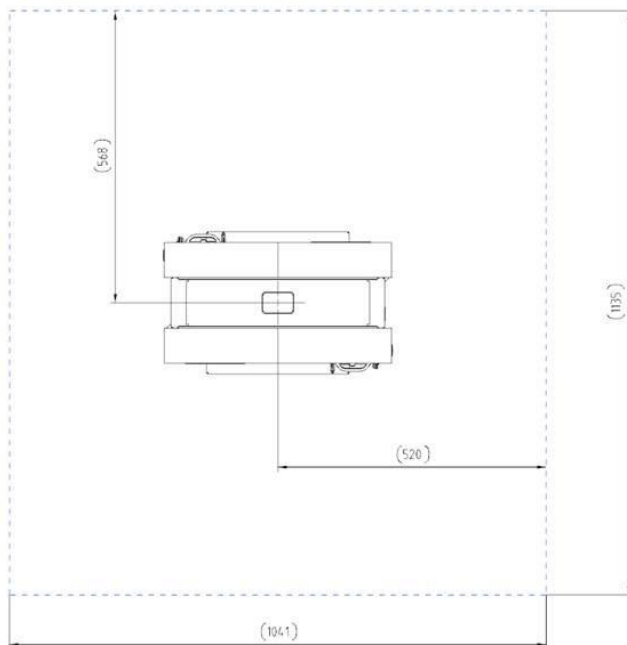




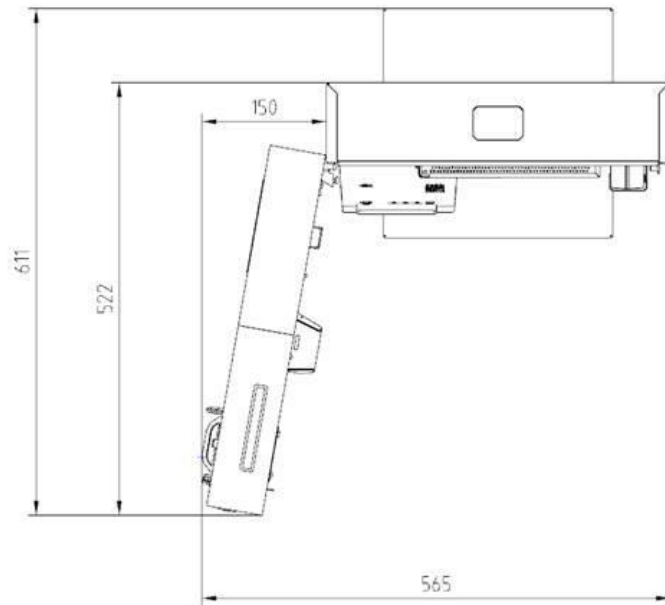
7.2 Double-Sided Kiosk (for all display sizes)



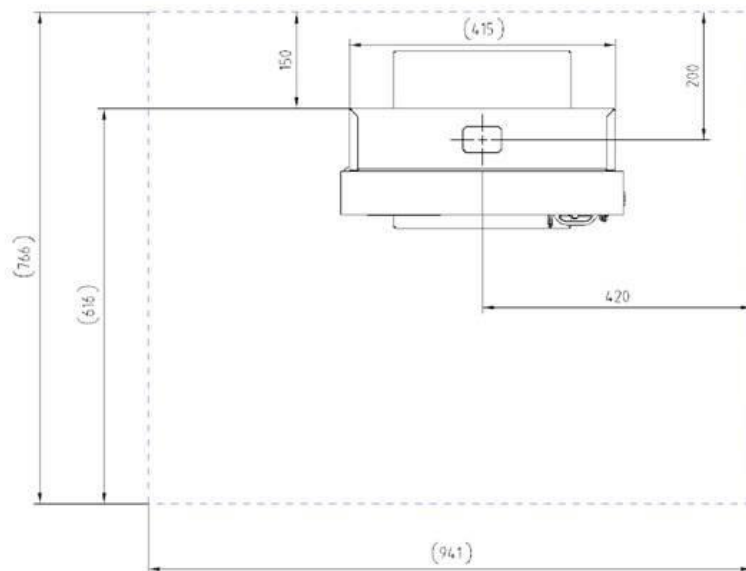
7.2.1 Service Area



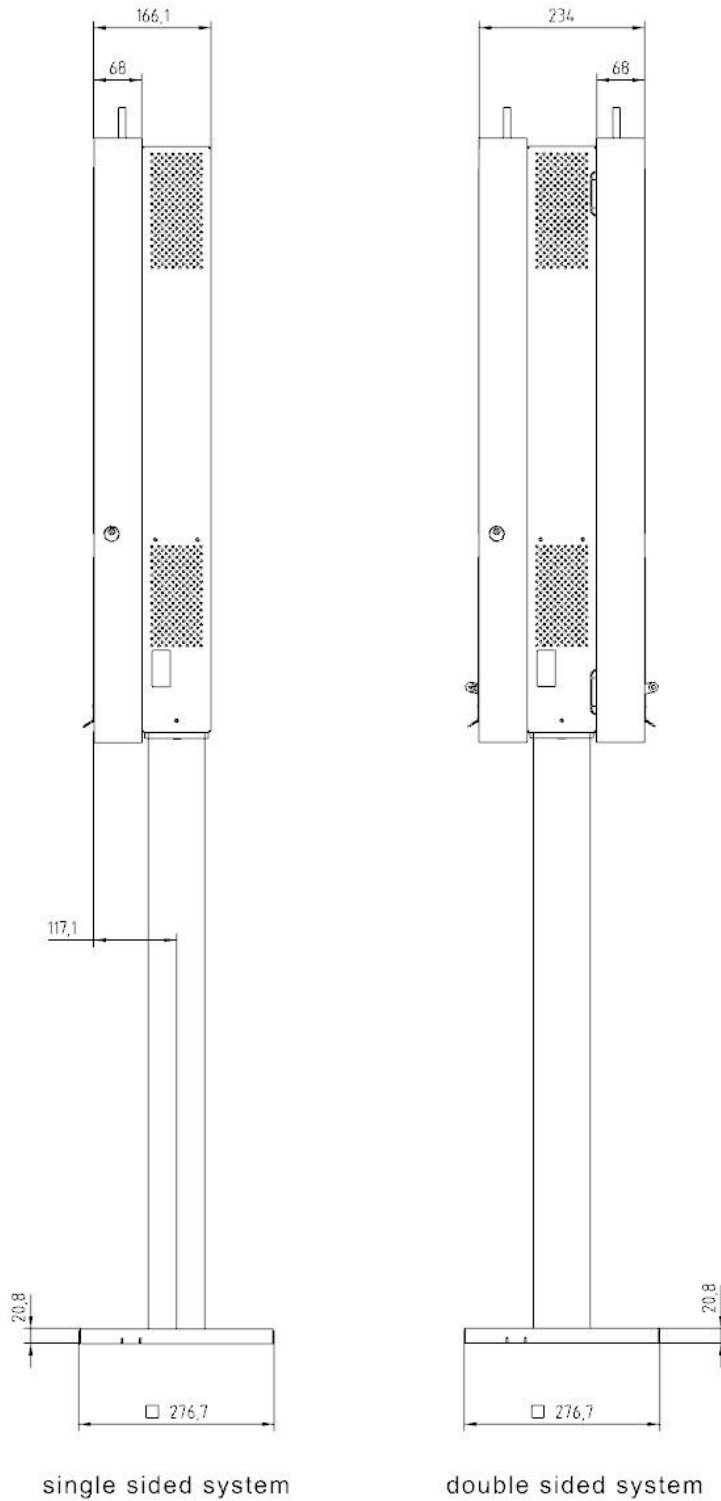
7.3 Single-Sided Kiosk



7.3.1 Service Area



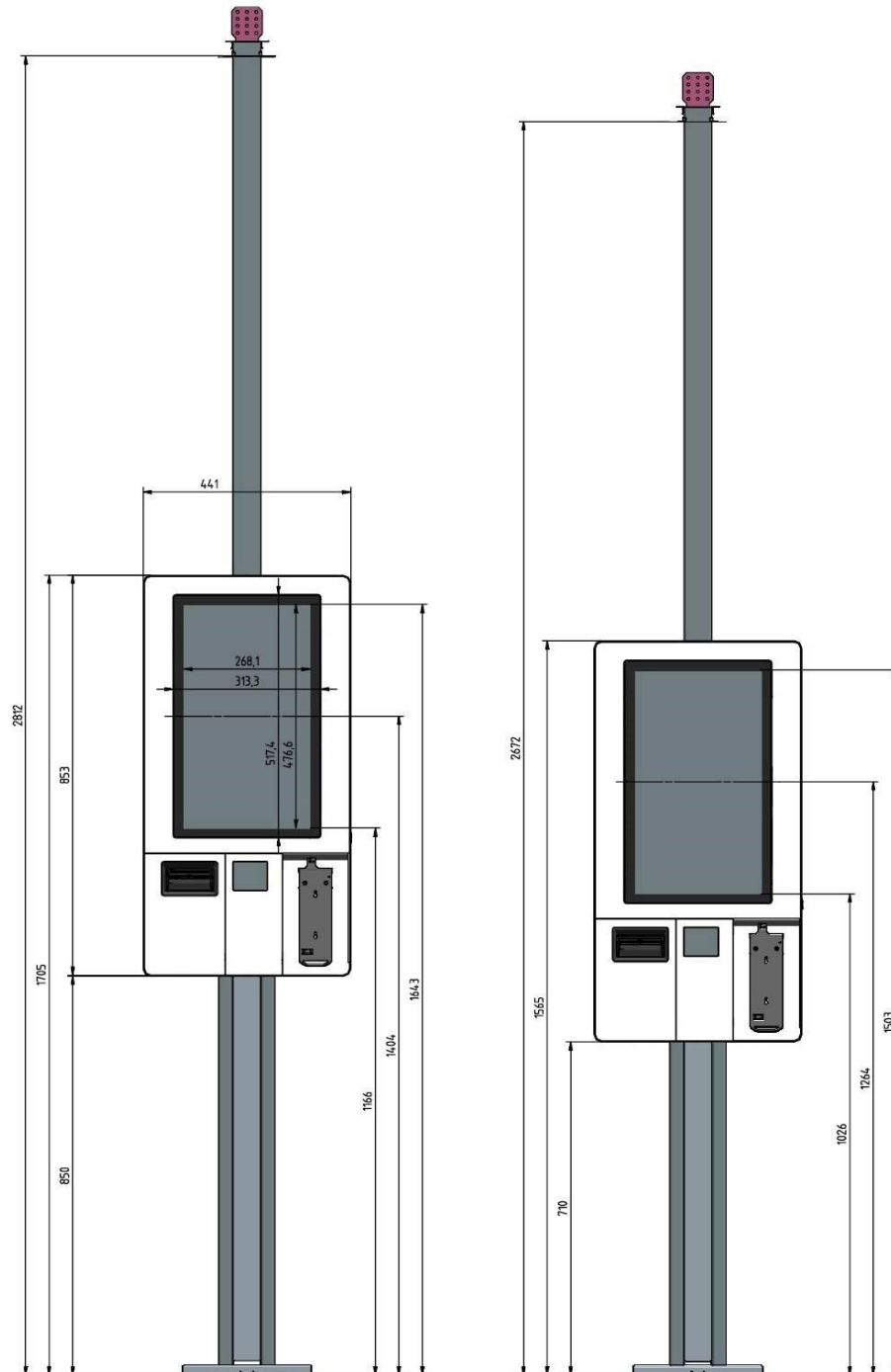
7.4 Side View Single and Double Sided (for all display sizes)



7.5 K-two with 22"-display

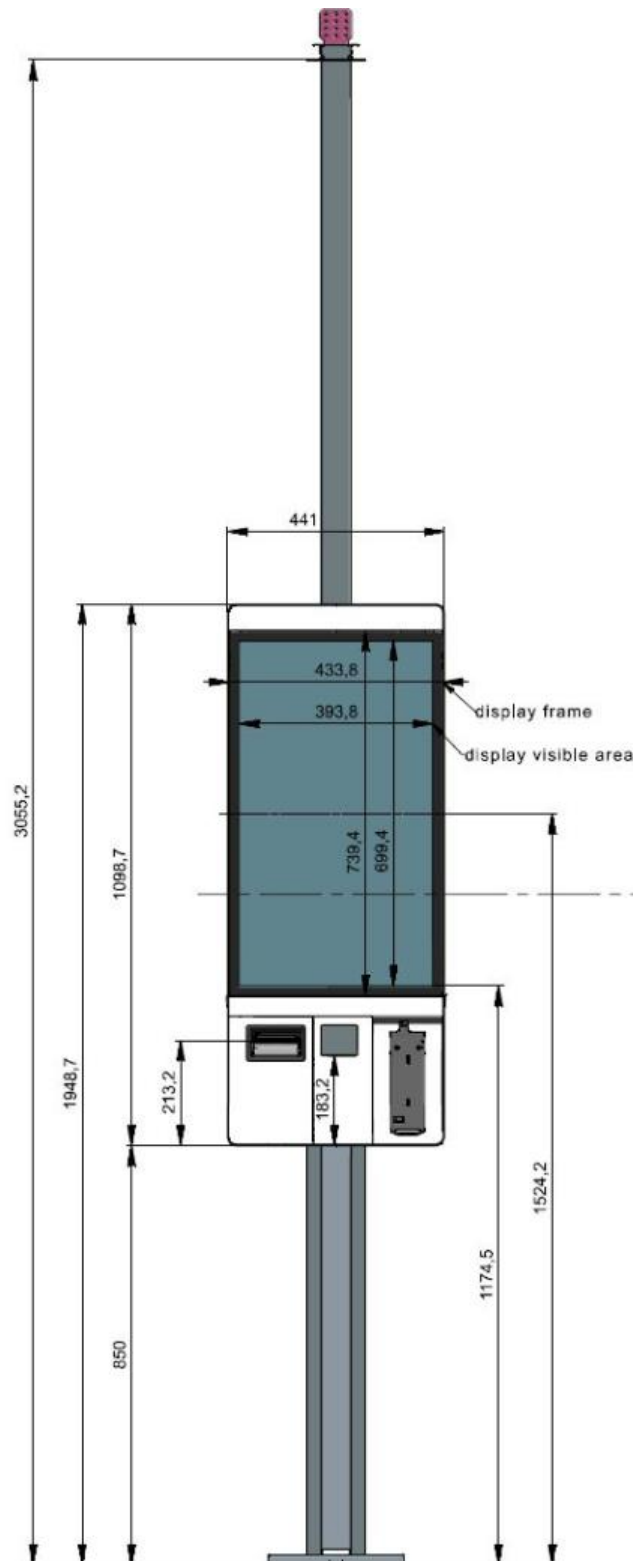
7.5.1 On standard and ADA stand

K2 shown with standard kit for ceiling cabling, it can be enlarged up to two times with 1.151mm expansion kits.

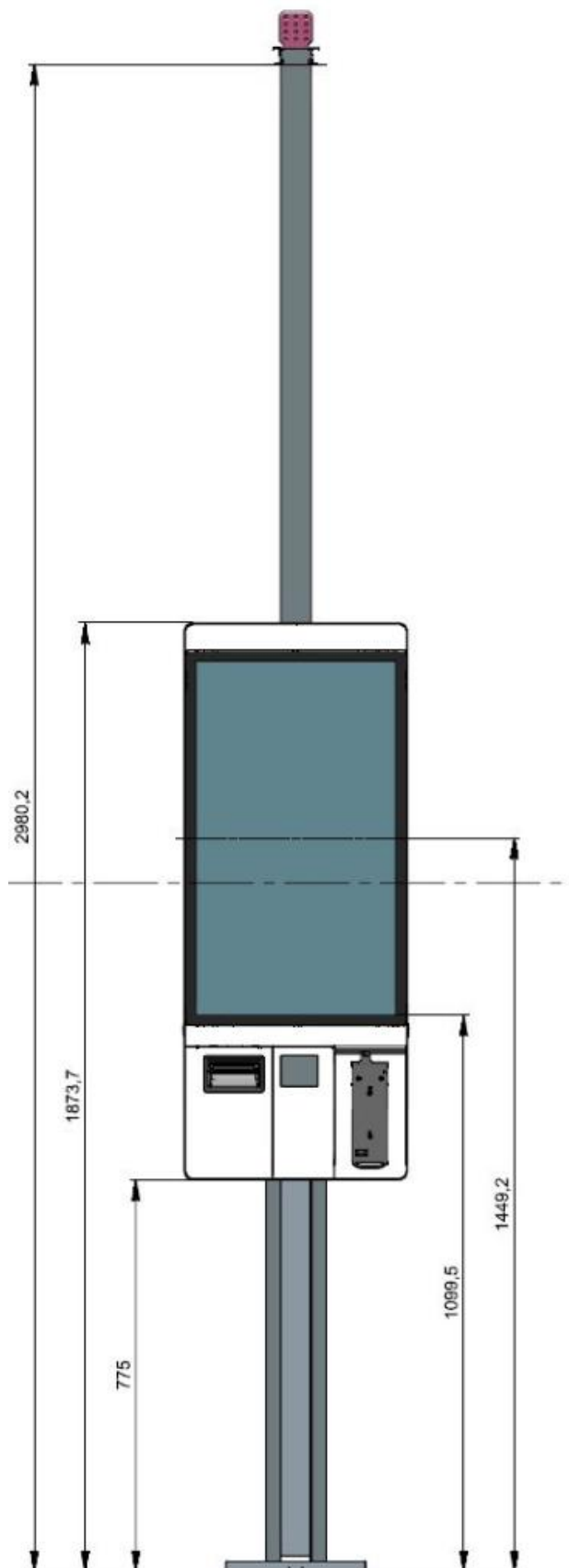


7.7 K-two with 32"-display

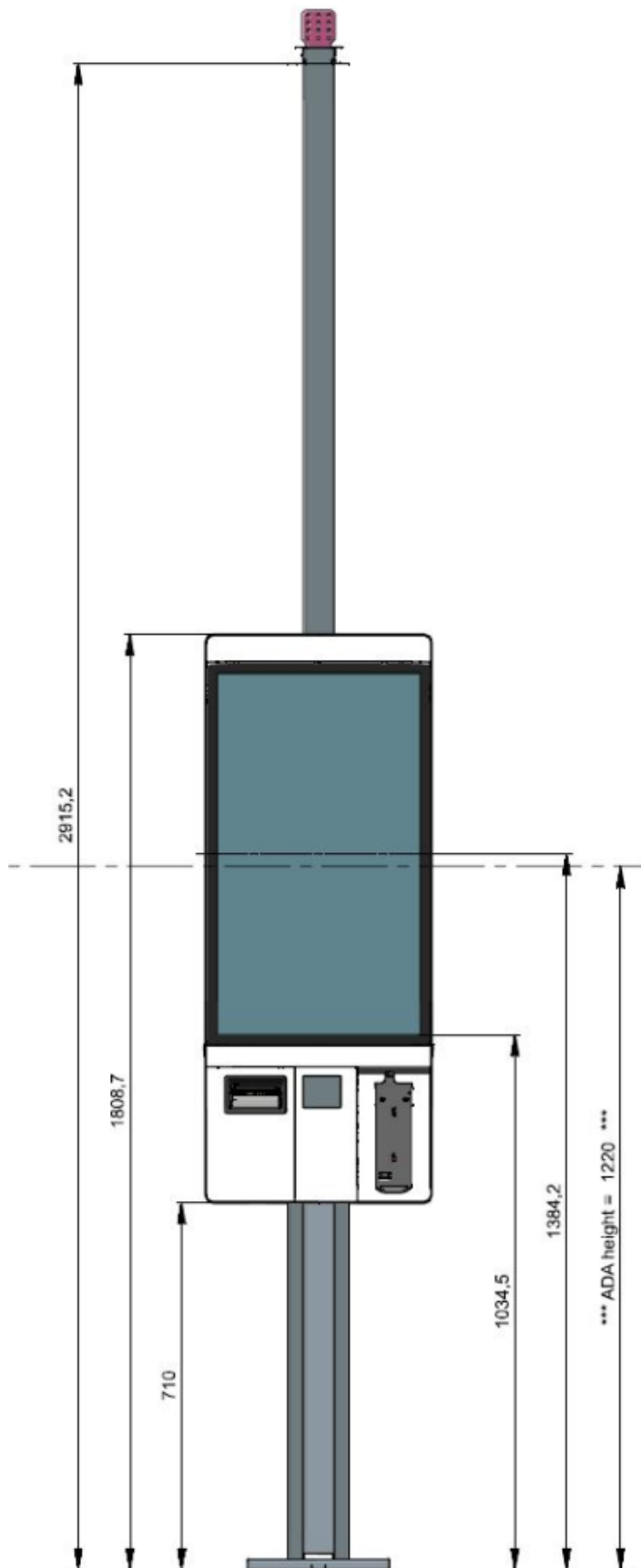
7.7.1 Standard



7.7.2 Short



7.7.3 Pole ADA



8 Assembling: Wall Mounted Kiosk

8.1 Recommendation for wall mounting

	 WARNING WARNING! Risk of injury! Failure to observe the following installation instructions may result in serious injury if the unit falls over.
	 WARNING Danger of damage and injury! Whenever work of any kind is done on the device, as well as when data cables are plugged and unplugged, the device must be completely disconnected from the line voltage.
	 WARNING Danger of damage and injury! Check the quality of the wall first (appropriate and professional basic structure) and be sure the used screws and dowels can guarantee a secure holding of the system.

The suggested dowels and screws from the table are usable for the specified wall type. Due to variations of walls it is necessary to check the compatibility of the screws, dowels and the wall material including substructure on installation site. The wall and used fixation material must hold a weight of minimum 250 kg. For e.g. wood wool slab or insulated planking no secure wall-mounting is possible.

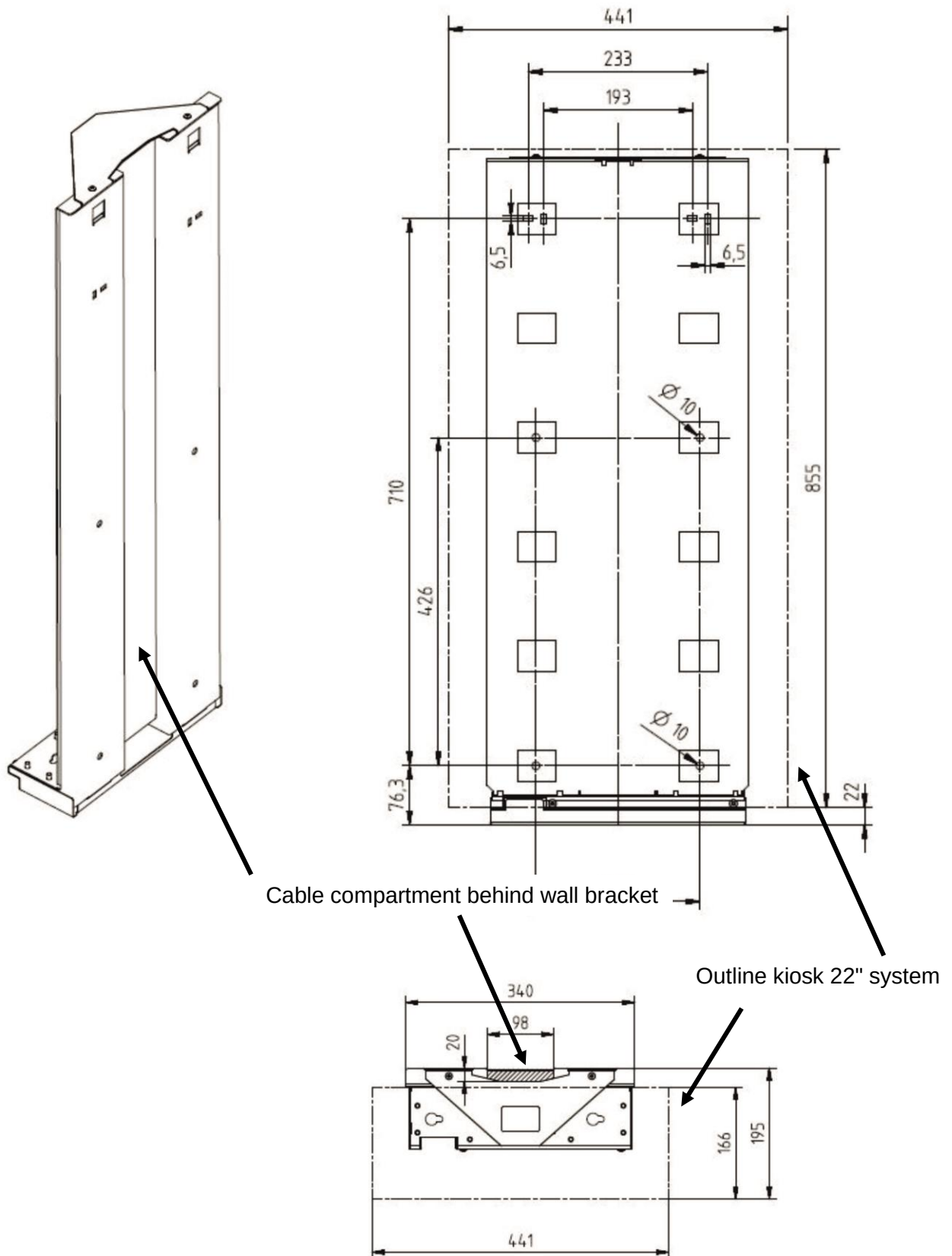
When wooden substructure is detected on one or more fixing points the hexagon head screw DIN 571 – 6 x 50 can be used directly without a dowel, BUT to avoid cracks a pilot hole with 4mm diameter is needed then.

dowel type	image	screw type	washer type	mounting torque [Nm]	Wall material	Wall/plank-ing thickness [mm]	Hole diameter / depth [mm]
HM 6x37 S		hexagon head screw ISO 4017 – M6 x 50 – 5.6 *	washer ISO 7094-6,6x22x 2-100 HV	<5	Gypsum plasterboard / chipboard	6-15	12 / ≥45
HM 6x65 S		hexagon head screw ISO 4017 – M6 x 75 – 5.6 *	washer ISO 7094-6,6x22x 2-100 HV	<5	Gypsum plasterboard / chipboard	17-34	12 / ≥71
DUO-POWER 8 x 40		hexagon head screw DIN 571 – 6 x 50	washer ISO 7094-6,6x22x 2-100 HV	n.a.	Concrete (≥C20/25), solid brick, solid sand-lime brick, aerated concrete (≥PB4, PP4), perforated sand-lime brick, Sepa Par-paing	≥60	8 / ≥50

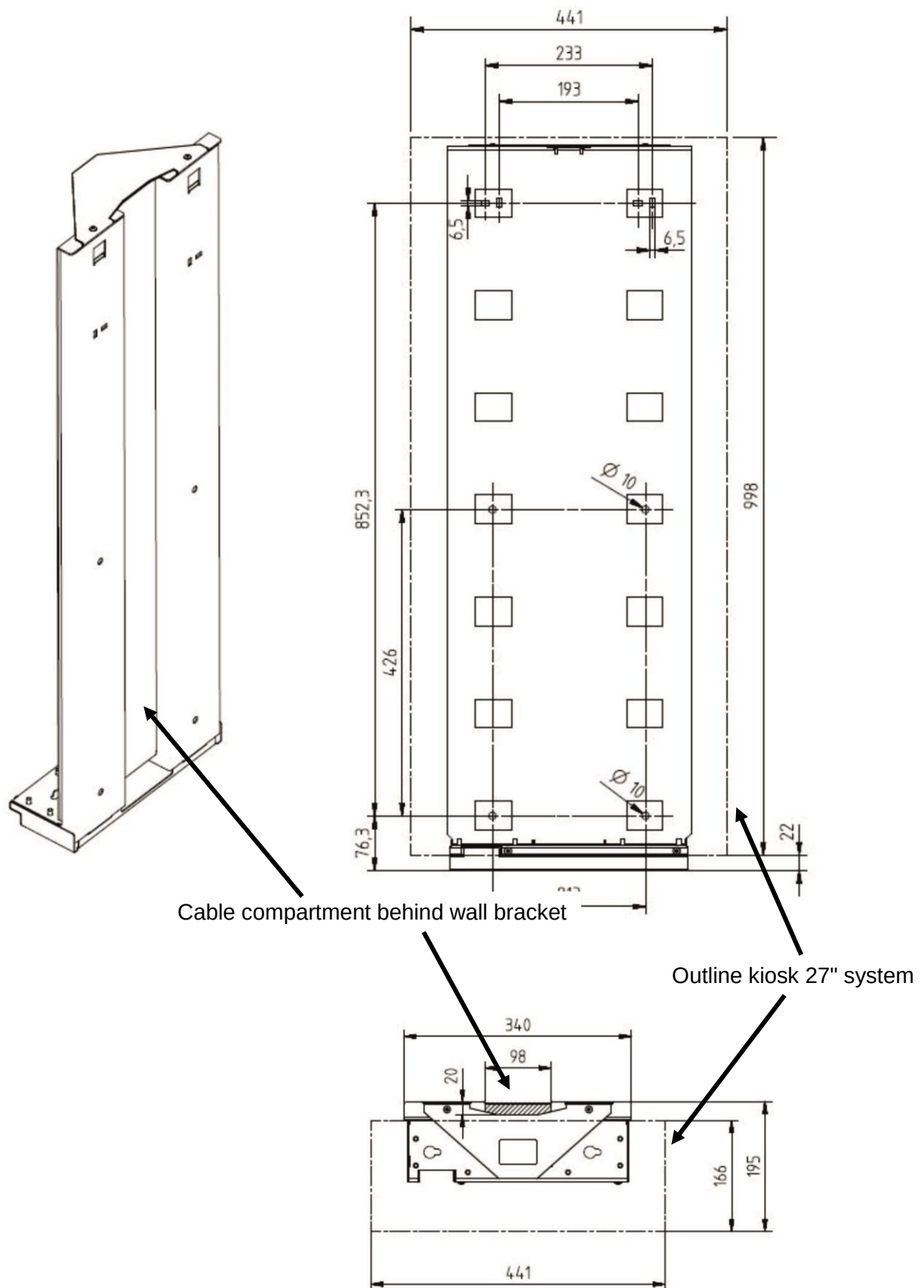
* the included slotted screw has to be exchanged

8.2 Installation Kits and Dimensions

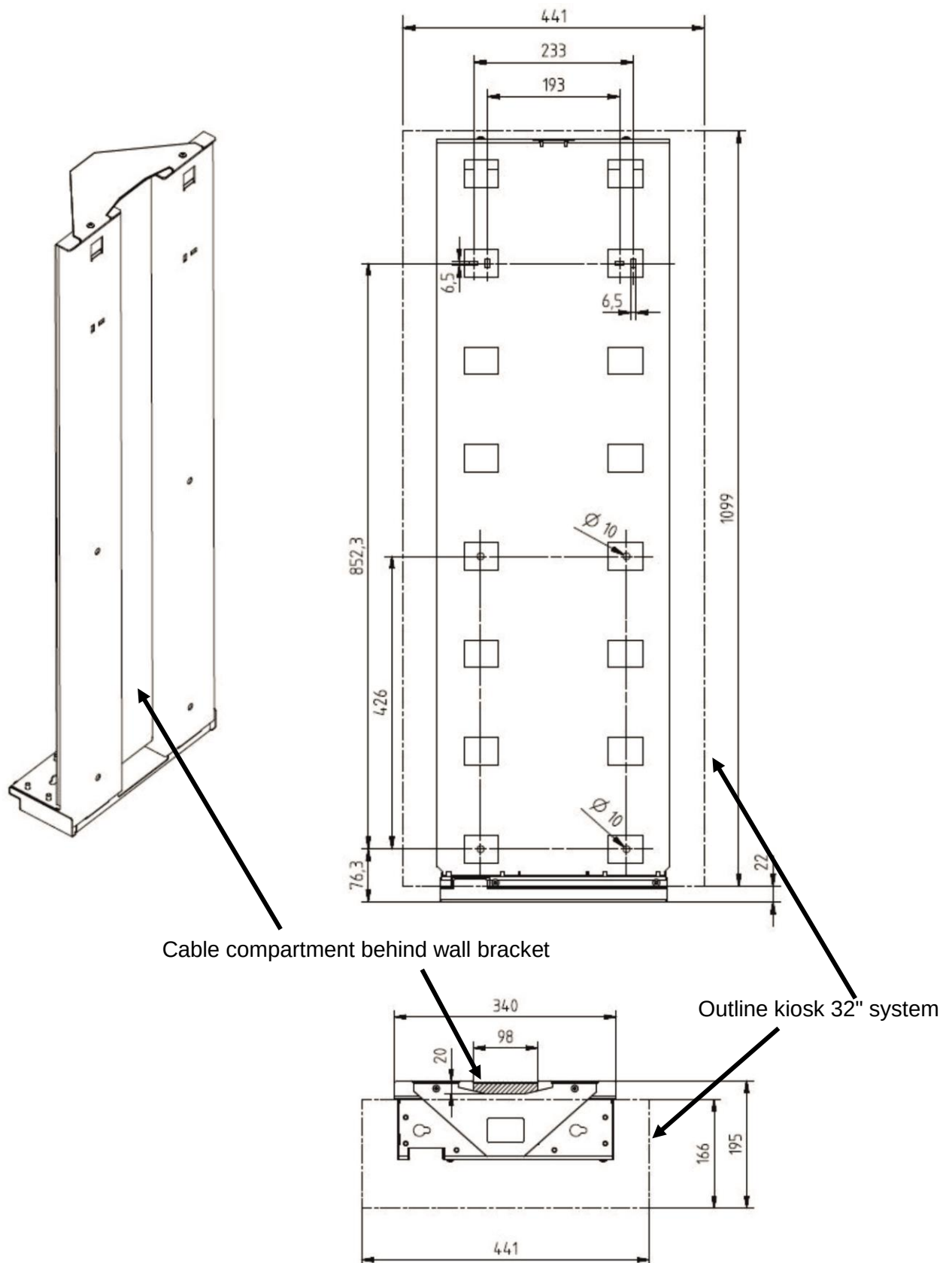
8.2.1 Wall mounting bracket 22":



8.2.2 Wall mounting bracket 27”:



8.2.3 Wall mounting bracket 32":



8.3 Installation

	 WARNING
	WARNING! Risk of injury! Failure to observe the following installation instructions may result in serious injury if the unit falls over.

	 WARNING
	WARNING! The device must be installed by 2 persons. Risk of injury! Always wear safety gloves and safety shoes of safety class 1 according ISO 20345 with toe cap, closed heel area and energy absorbing heel area while transporting or assembling the device. USA: Safety shoes with class 1 toe cap safety according ASTM F 2412 and ANSI Z41.1 in its current versions. Canada: Protection CSA code 1Pxxx.

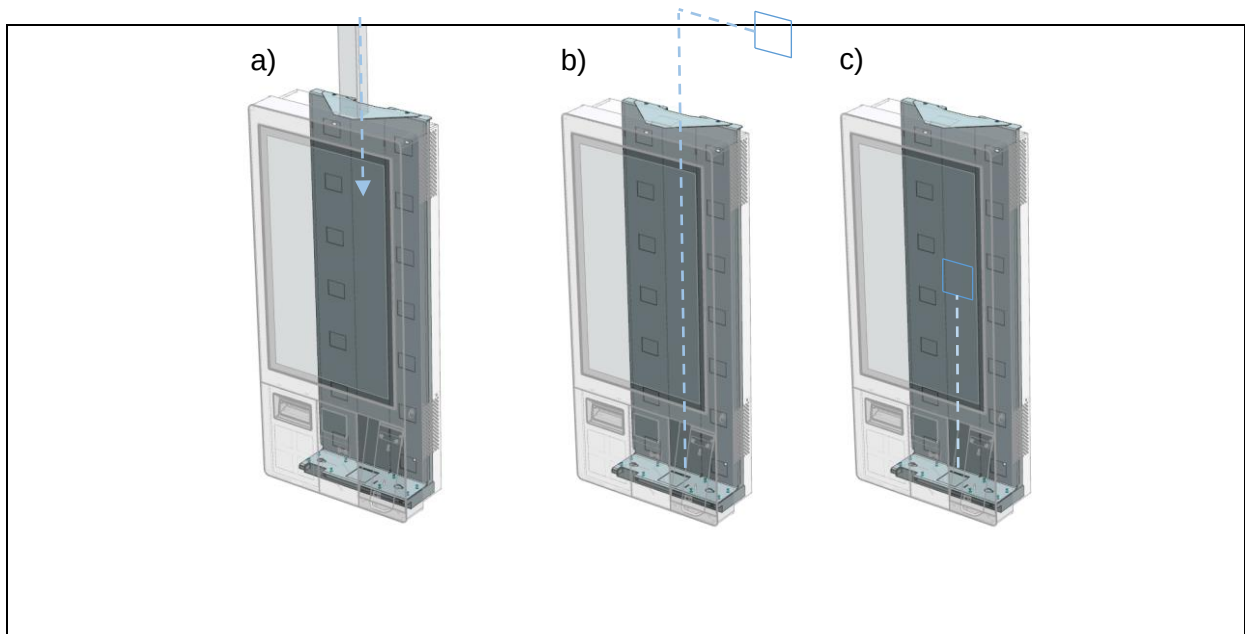
	 WARNING
	WARNING! Risk of injury! Improper installation can lead to fire or electric shock. Ensure that no cables are crushed or insulation damaged during installation.

The assembly pack for the wall mounting includes:

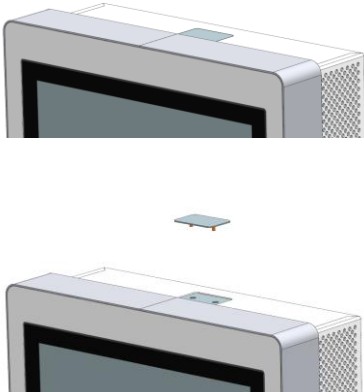
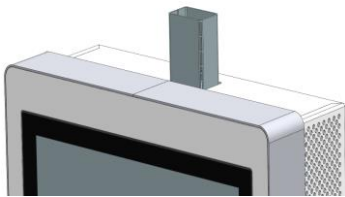
1x wall mount (22", 27" or 32")	1x bracket wall mount
wall mounting ceiling (in the case of a wiring through the ceiling, instead of "bracket wall mount")	1x connection box
1x bracket	6x round head thread rolling screw M4x
8x pan head screw I-6CT M6x10	

- Define the cabling

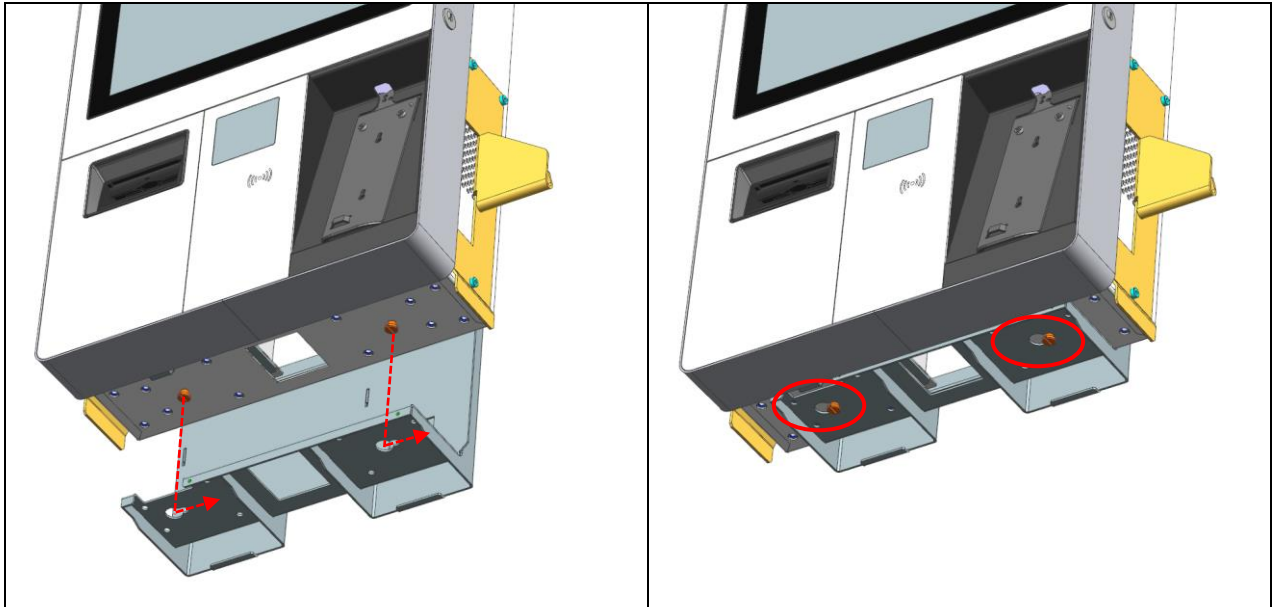
- a) through ceiling duct
- b) on the wall outside the wall bracket,
- c) from the wall behind the wall bracket in the area of the central cable duct



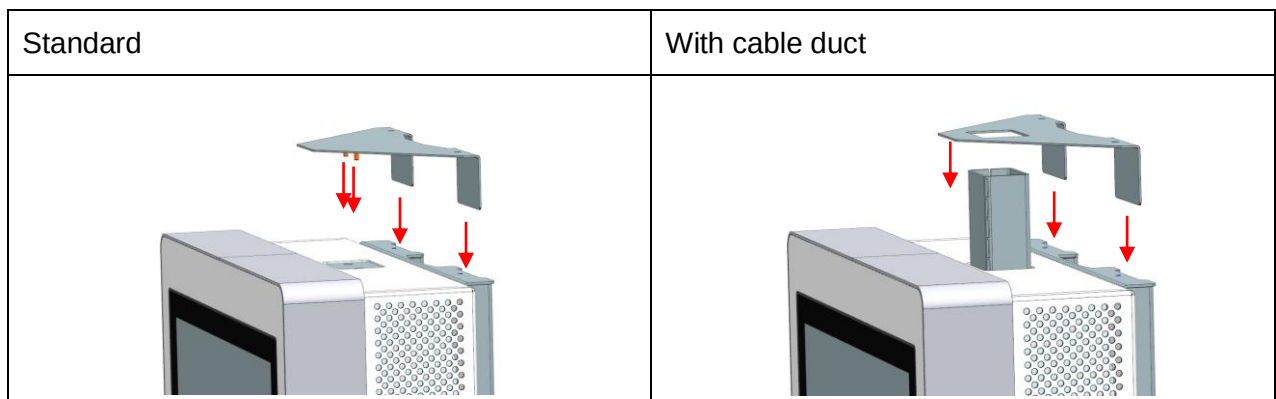
- Observe minimum distances for ventilation and service -> see sketches (6.2.1, 6.3.1).
- The wall mounting bracket can be used as drilling template, dimensions -> see drawings.
- Attach the wall mounting bracket to the wall with suitable fixing material.
- Advance the wiring:
 - Cabling after installation through a ceiling duct from above into the device or
 - through an opening in the bottom of the unit: to do this, lay the cables centrally in the cable duct at the rear of the wall bracket up to the lower edge of the unit.
- Prepare the device:
 - Remove the sealing cap for the standard version, mount the connection piece for the installation with ceiling duct.

Standard	With cable duct
	

- Close the door carefully and remove the key.
- Insert the device into the wall bracket:
 - there are two T-screws on the underside of the body, which ensure positioning and fixing in the lower part of the wall bracket (insert laterally).

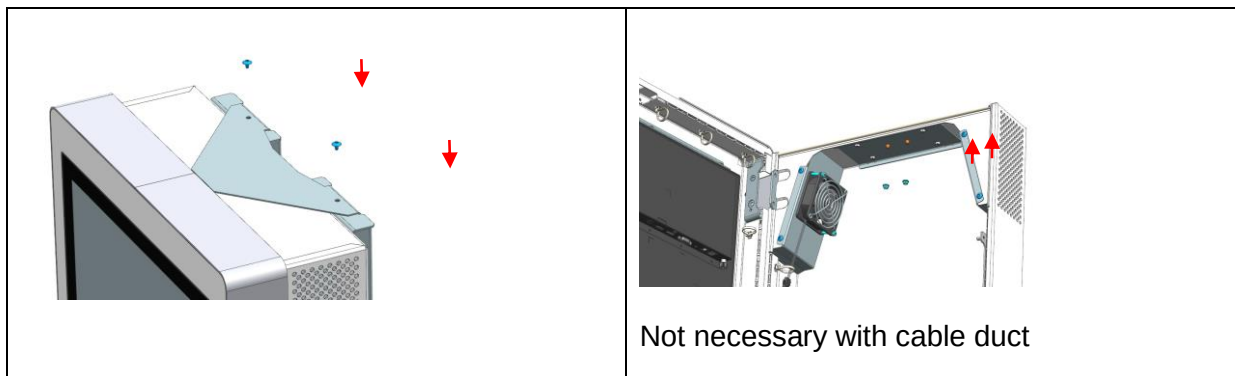


- At the upper end, secure the device by attaching a retaining plate (different plates, depending on whether with ceiling duct or wiring from/on the wall).

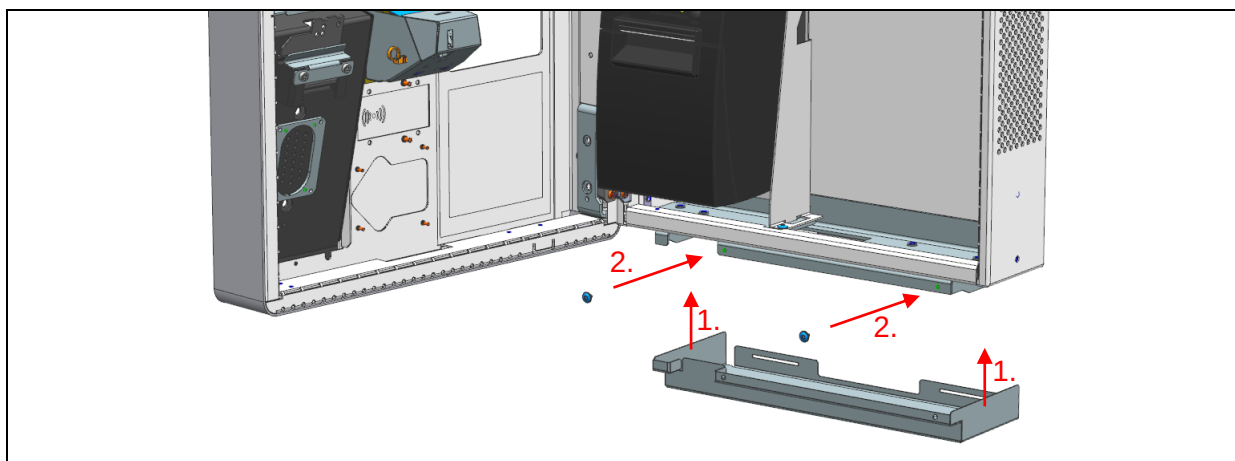


- Screw the device together:

Top side: Secure the retaining plate to the wall bracket from above with 2 screws, then open the door for the version without ceiling duct and fasten the retaining plate from the inside with two nuts.



- Bottom side: fasten to the wall bracket from below with 8 screws.
- Wire device.
- Remove the handles on the sides.
- Mount the cover on the bottom side of the device and fasten it with 2 screws.



9 Assembling: Pole-Mounted Kiosk

9.1 Recommendation for floor mounting

	 WARNING
	WARNING! Risk of injury! Failure to observe the following installation instructions may result in serious injury if the unit falls over.

	 WARNING
	Danger of injury! Check the quality of the floor first (appropriate and professional basic structure) and be sure the used screws and dowels can guarantee a secure holding of the system.

In installation environments where the floor screed class and/or thickness is not clearly specified or unknown and therefore no secure fixation to the floor is possible, the kit base plate K2 01750302804 (750mm x 750mm x 10mm, screws and washers included) must be used without screwing to the ground.

dowel type	image	screw type	washer type	mounting torque [Nm]	floor screed cylinder strength / cube strength [MPa]	floor screed thickness [mm]	Hole diameter / depth [mm]
fischer FZEAll 12 x 40 M10		hexagon head-screw ISO 4017 - M10 x 25 - 8.8	washer ISO 7090-10-200HV	15	≥20/25	≥80	Use fischer FZUB 12x40
fischer SL M 10 N A4		hexagon head-screw ISO 4017 - M10 x 25 - 8.8	washer ISO 7090-10-200HV	50	≥20/25	≥100	16 / ≥70
fischer TA M10 S / 20		M10x90 8.8 (included)	included	40	≥20/25	≥110	15 / ≥90
fischer RG16 x 90 M10 I with RSB 12		hexagon head-screw ISO 4017 - M10 x 25 - 8.8	washer ISO 7090-10-200HV	20	≥20/25	≥130	18 / 110

9.2 Kiosk with Floor Cabling

The installation including the floor mounting has to be carried out by a trained technician after the assessment and evaluation of the constructional conditions on site.

	 WARNING
	WARNING! The device must be installed by 2 persons. Risk of injury! Always wear safety gloves and safety shoes of safety class 1 according ISO 20345 with toe cap, closed heel area and energy absorbing heel area while transporting or assembling the device. USA: Safety shoes with class 1 toe cap safety according ASTM F 2412 and ANSI Z41.1 in its current versions. Canada: Protection CSA code 1Pxxx.

	 WARNING
	WARNING! Risk of injury! Improper installation can lead to fire or electric shock. Ensure that no cables are crushed or insulation damaged during installation.

Assembling the Pole

The assembly pack for the pole includes:

1x preassembled pole
2x cable cover
8x M6x16 counter sunk screws

hexagon socket
torx T20
2x M4x6 counter sunk screws

1. Position the pole above the floor cable outlet ensuring that cables can be guided through the hole in the middle of the base plate.

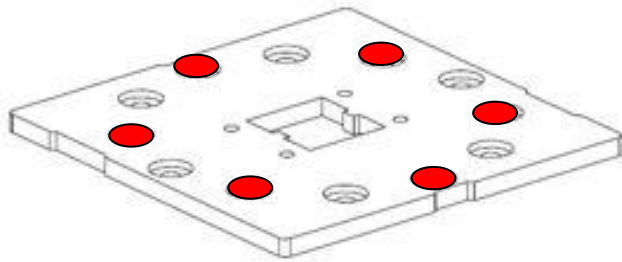
Mark 6 out of the 12 holes as bearing points (every second hole shall be used).

Drill the 6 holes into the floor ground and insert the dowels.



WARNING: The kiosk needs to be screwed to the floor on at least 6 points to avoid the kiosk to tip over.

Do not mark or drill bearing points on the floor cable outlet!



example

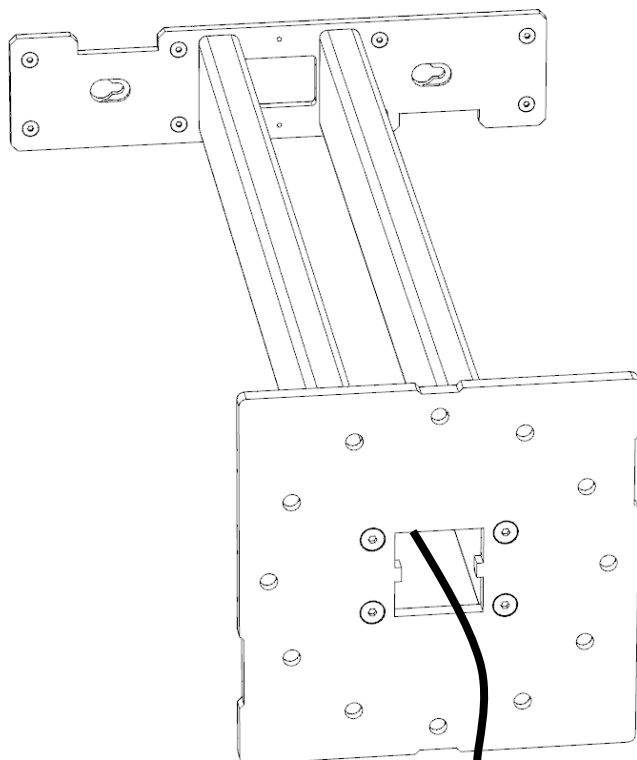
Now align the base plate in the position over the drilled holes with the dowels.

Apply silicon glue on the ground side of the base plate (only near the edges) to avoid the intrusion of liquids under the base plate.

Then insert the fixing screws and tighten them with the recommended torque (see table 9.1)



NOTICE: Be aware that the floor cable outlet seen in the picture is an example and does not represent the actual one.

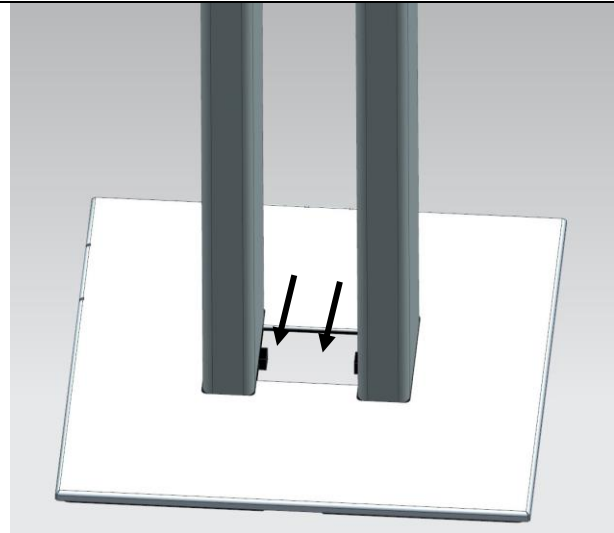


2. Apply silicon glue on the top side of the base plate. Take the stainless steel cover plate and move it over the profiles in direction to the base plate. It covers the screw heads.

Do not remove the foil yet!



NOTICE: Slots being at back side of the kiosk

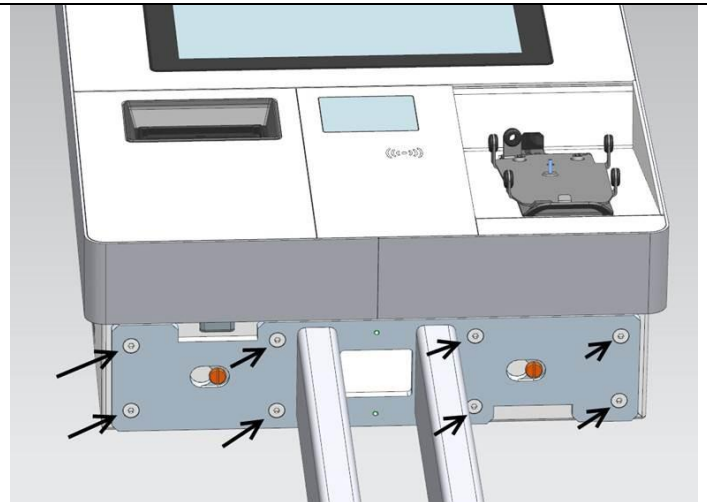


3. Set the kiosk chassis on the pole and fix it with eight M6x16 countersunk screws with hexagon socket 4 mm.

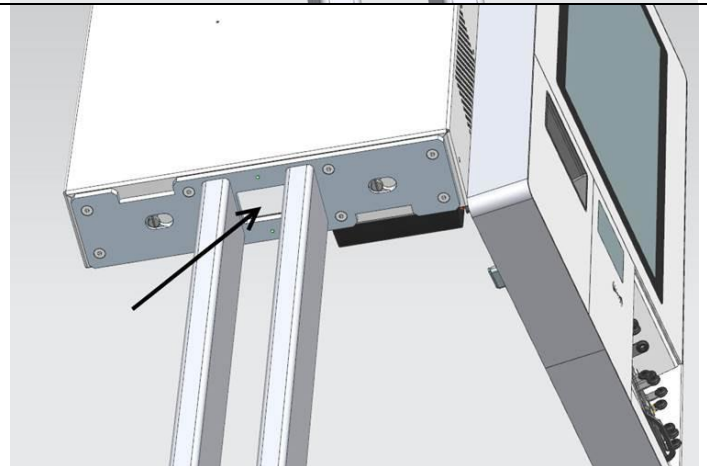
Please take care to avoid damages on the doors.



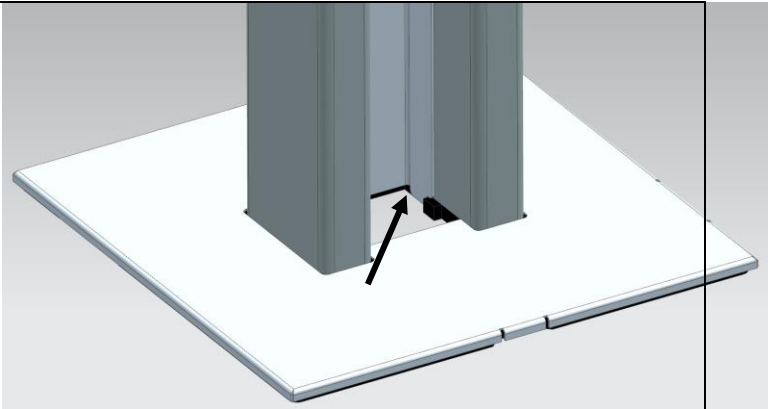
WARNING: Two persons needed to pick up the kiosk and set it onto the pole.



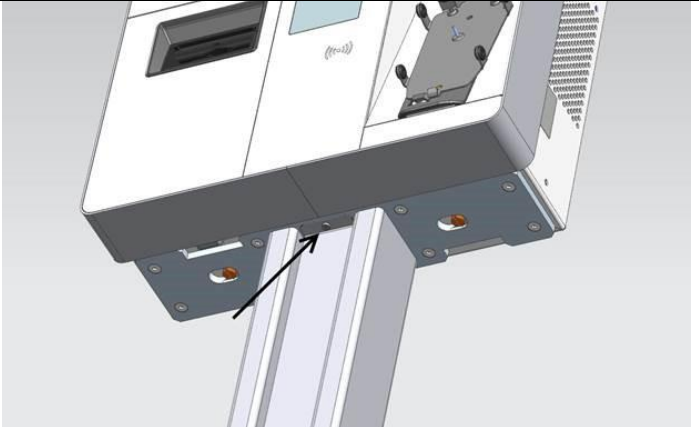
4. Move the cables into the housing.



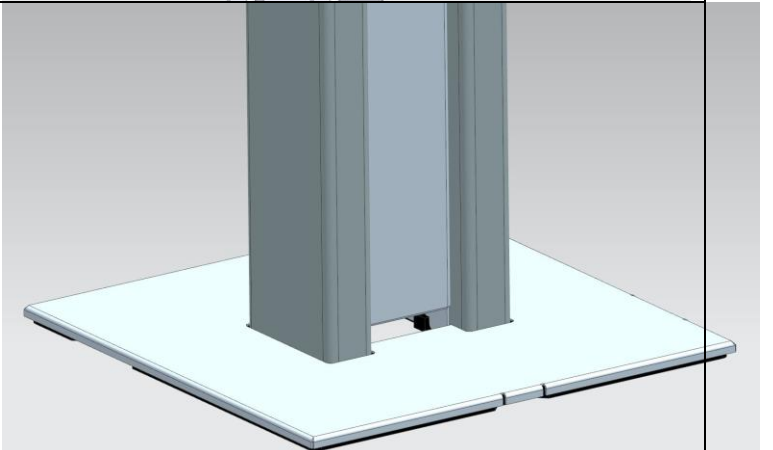
5. Set the front cover into place.



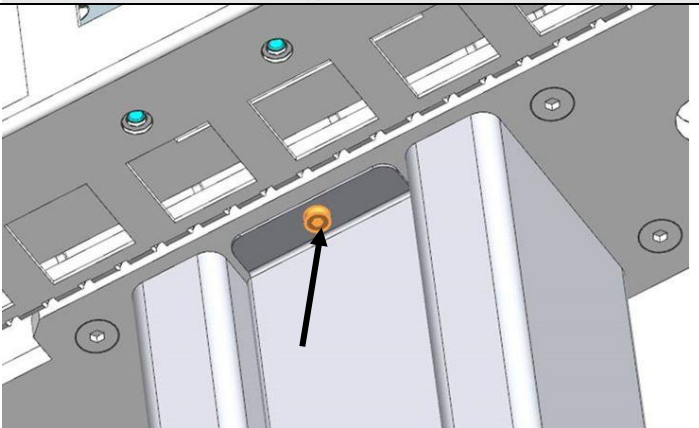
6. Fix it with one M4x6 screw to the adapter with TX20.



7. Set the back cover into place.



8. Fix it with one M4x6 screw to the adapter.



9.3 Kiosk with Over-Floor Cabling

	 WARNING WARNING! Risk of injury! Failure to observe the following installation instructions may result in serious injury if the unit falls over.
---	---

The installation including the floor mounting has to be carried out by a trained technician after the assessment and evaluation of the constructional conditions on site.

	 WARNING WARNING! The device must be installed by 2 persons. Risk of injury! Always wear safety gloves and safety shoes of safety class 1 according ISO 20345 with toe cap, closed heel area and energy absorbing heel area while transporting or assembling the device. USA: Safety shoes with class 1 toe cap safety according ASTM F 2412 and ANSI Z41.1 in its current versions. Canada: Protection CSA code 1Pxxx.
---	--

	 WARNING WARNING! Risk of injury! Improper installation can lead to fire or electric shock. Ensure that no cables are crushed or insulation damaged during installation.
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Assembling the Pole

The assembly pack for the pole includes:

1 pole, pre-assembled
2x cable cover
TX20

2 x M4x6
8 x M6 x16

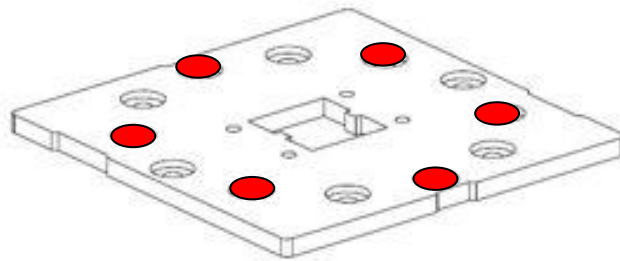
1. Mark 6 out of the 12 holes as bearing points (every second hole shall be used).

Drill the 6 holes into the floor ground and insert the dowels.



on

WARNING: The kiosk needs to be screwed to the floor at least 6 points to avoid the kiosk to tip over.



example

2. Slide all necessary cables (power cable, LAN cable, etc.) through the opening in the base plate positioned above the floor cable outlet.

Now align the base plate in the position over the drilled holes with the dowels.

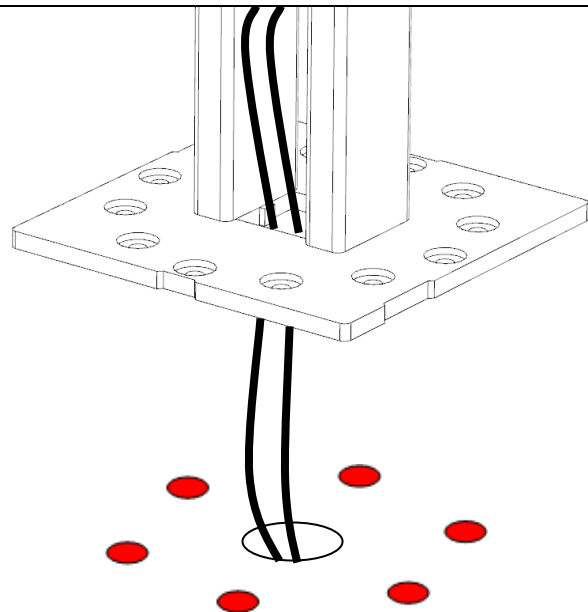
Apply silicon glue on the ground side of the base plate (only near the edges) to avoid the intrusion of liquids under the base plate.

Then insert the fixing screws and tighten them with the recommended torque (see table 9.1)



on

WARNING: The kiosk needs to be screwed to the floor at least 6 points to avoid the kiosk to tip over.

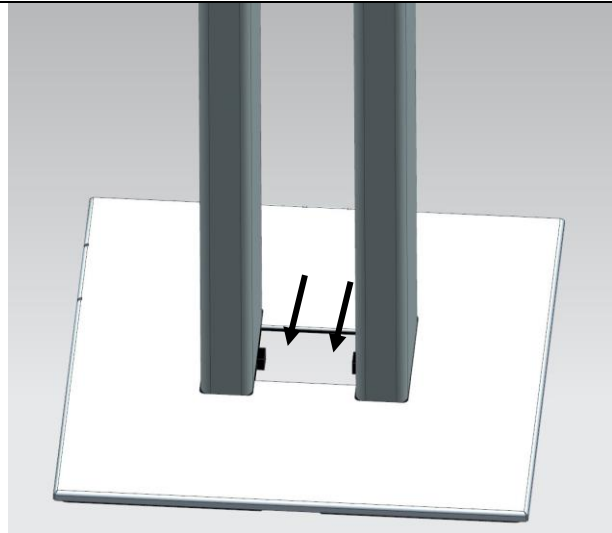


3. Apply silicon glue on the top side of the base plate. Take the stainless steel cover plate and move it over the profiles in direction to the base plate. It covers the screw heads.

Do not remove the foil yet!



NOTICE: Slots being at backside of the kiosk

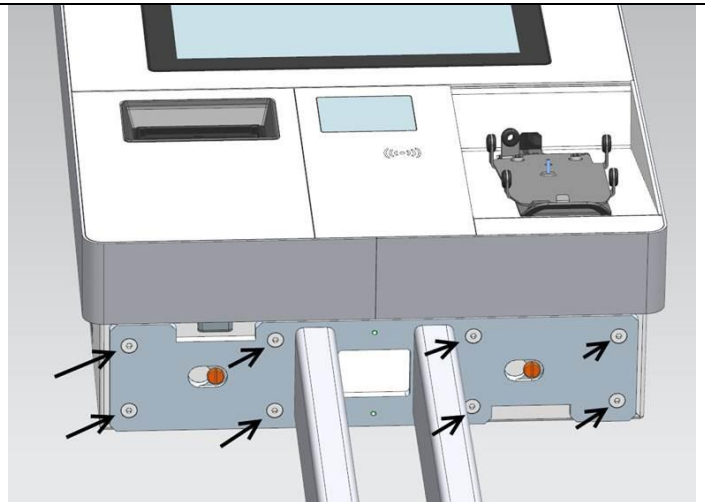


4. Set the kiosk chassis on the pole and fix it with eight M6x10 countersunk screws.

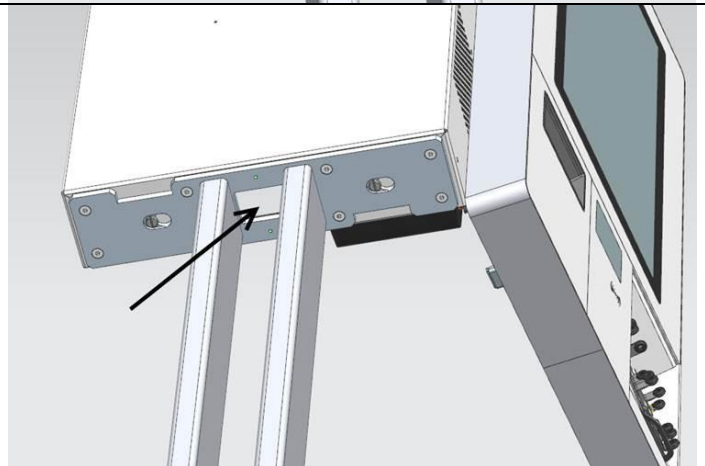
Please take care to avoid damages on the doors.



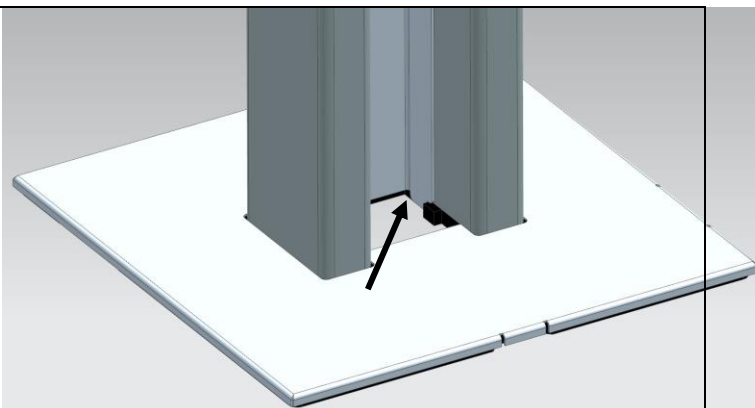
WARNING: Two persons needed to pick up the kiosk and set it onto the pole.



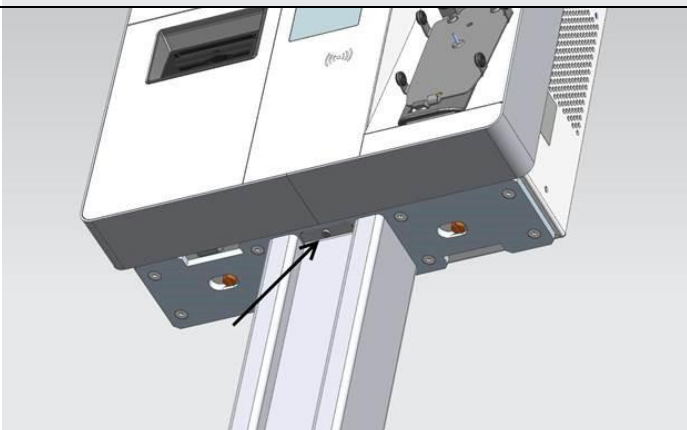
5. Slide all necessary cables (power cable, LAN cable, etc.) through the opening into the kiosk.



6. Set the front cover into place.



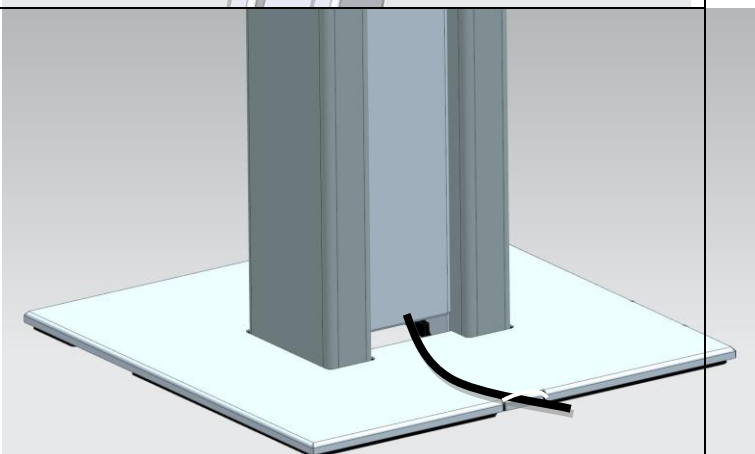
7. Fix it with one M4x6 screws to the adapter



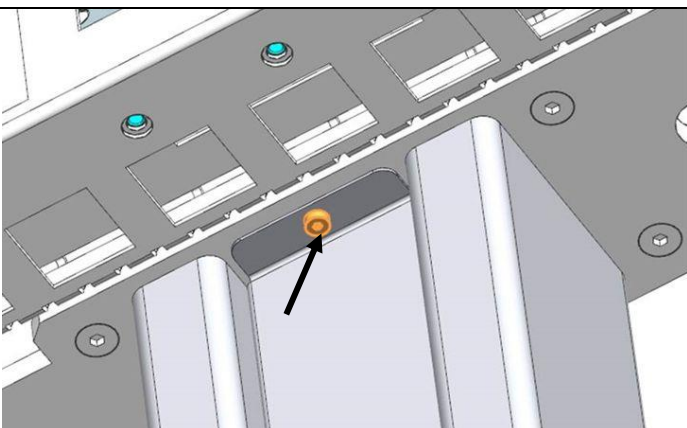
8. Set the back cover into place. Use the special cover for over floor cabling. Route the cable through the gap and fix it securely on the floor.



WARNING: Always lay the supply leads and cables in such a way that they cannot be stepped on or tripped over.



9. Fix it with one M4x6 screw to the adapter.



9.4 Kiosk with Ceiling Cabling

	 WARNING
	WARNING! Risk of injury! Failure to observe the following installation instructions may result in serious injury if the unit falls over.

The installation including the floor mounting has to be carried out by a trained technician after the assessment and evaluation of the constructional conditions on site.

	 WARNING
	WARNING! The device must be installed by 2 persons. Risk of injury! Always wear safety gloves and safety shoes of safety class 1 according ISO 20345 with toe cap, closed heel area and energy absorbing heel area while transporting or assembling the device. USA: Safety shoes with class 1 toe cap safety according ASTM F 2412 and ANSI Z41.1 in its current versions. Canada: Protection CSA code 1Pxxx.

	 WARNING
	Risk of injury! Improper installation can lead to fire or electric shock. Ensure that no cables are crushed or insulation damaged during installation.

Before beginning with the installation of the kiosk, a ceiling area needs to be chosen where

- no lamps
- no electric cables
- no ledger

are located where the ceiling channel will enter the ceiling.

There are two possibilities on how to find this area:

1. Place the base plate with the attached stainless steel profiles on a chosen spot. Attach a laser pointer pointing upwards to determine where the ceiling channel will enter the ceiling.
OR
2. Choose a spot on the ceiling and drop a perpendicular with the help of a string to determine where the base plate should be positioned.

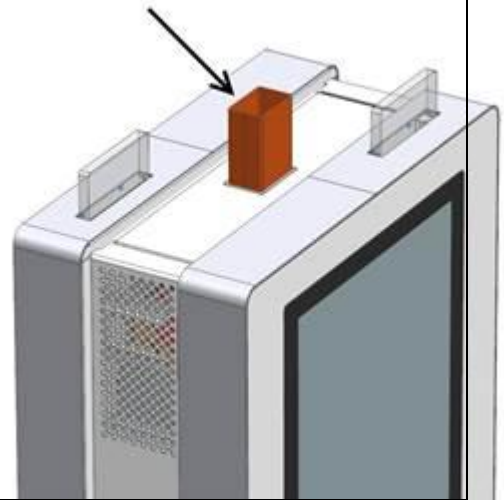
Assembling the Pole

Follow step 1-6 and 8-12 of chapter 7.2 for single-sided kiosk and chapter 7.4

9.5 Attach Cable Duct

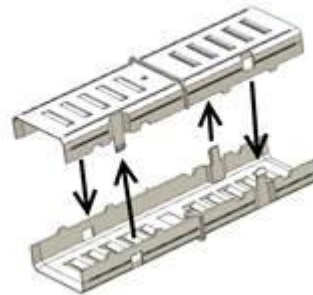
The opening for the ceiling installation should be between 70x55mm (minimum) and 100x80 mm (maximum) so that all damage to the ceiling surface will be covered.

Check, if the adapter is installed at the top of the corpus.

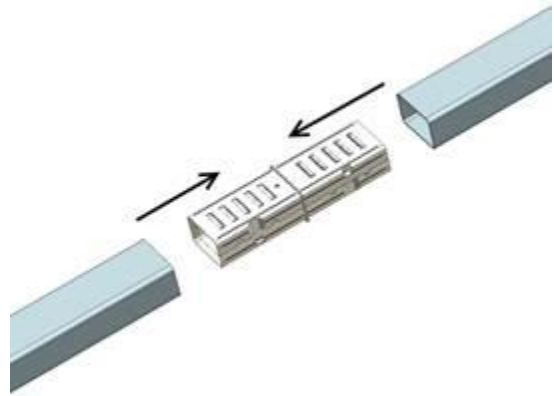


Each pipe is approx. 1,15m long. If that is not sufficient enough, an additional construction set must be used.
The pipes are made by aluminum and can be cut easily by a metal saw to the right length.
The cutting edges must be deburred to avoid any damages on the cables.

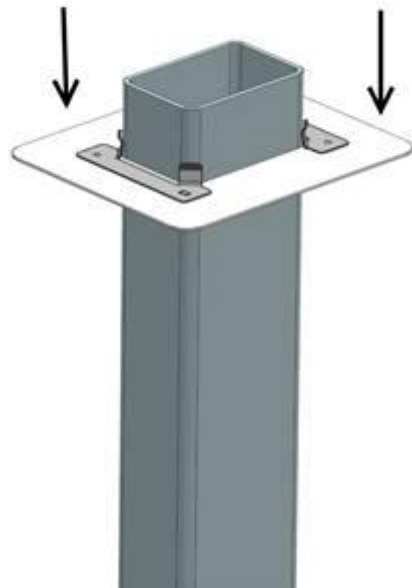
Prepare the fitting, if you are using an additional construction kit.



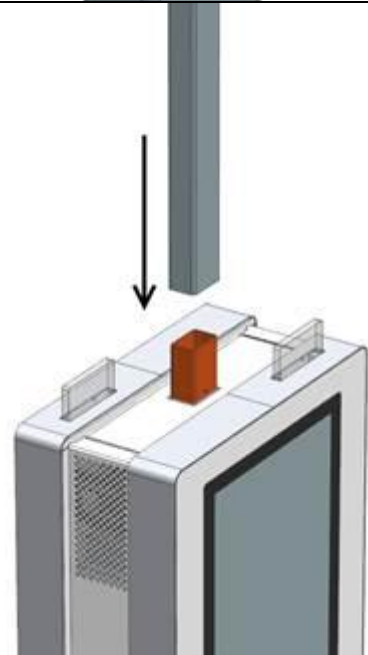
Route the cable through the pipes and the fitting.
Afterwards join the pipes with the fitting.



Attach the cover plate to the upper end of the pipe.



Attach the pipe to the adapter from above.





WARNING

WARNING!

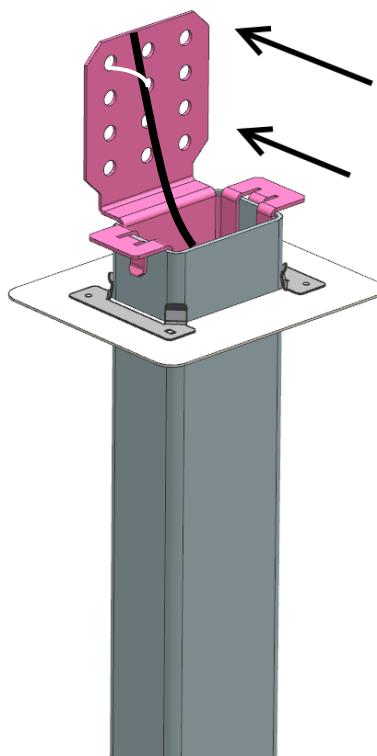
Risk of injury! Improper installation can lead to fire or electric shock.

Ensure that no cables are crushed or insulation damaged during installation.

The mains cable shall be fixed to the retaining bracket in order to provide a suitable edge protection and strain-relief. The retaining bracket shall be fixed to a solid construction of the building to prevent the cable from moving and bending.

The ceiling tube is intended exclusively for covering the cables routed inside it. Do not attach any objects such as an advertising board to the ceiling tube. The ceiling tube could become unstable, the objects could fall down and cause personal injury. Do not hold on to the ceiling tube!

Fix the upper end of the “ceiling cabling kit” securely on the ceiling or a prepared solid construction by the retaining bracket and fix the cables by cable tie to the retaining bracket as shown.



10 Customer-specific mounting of the K-two system

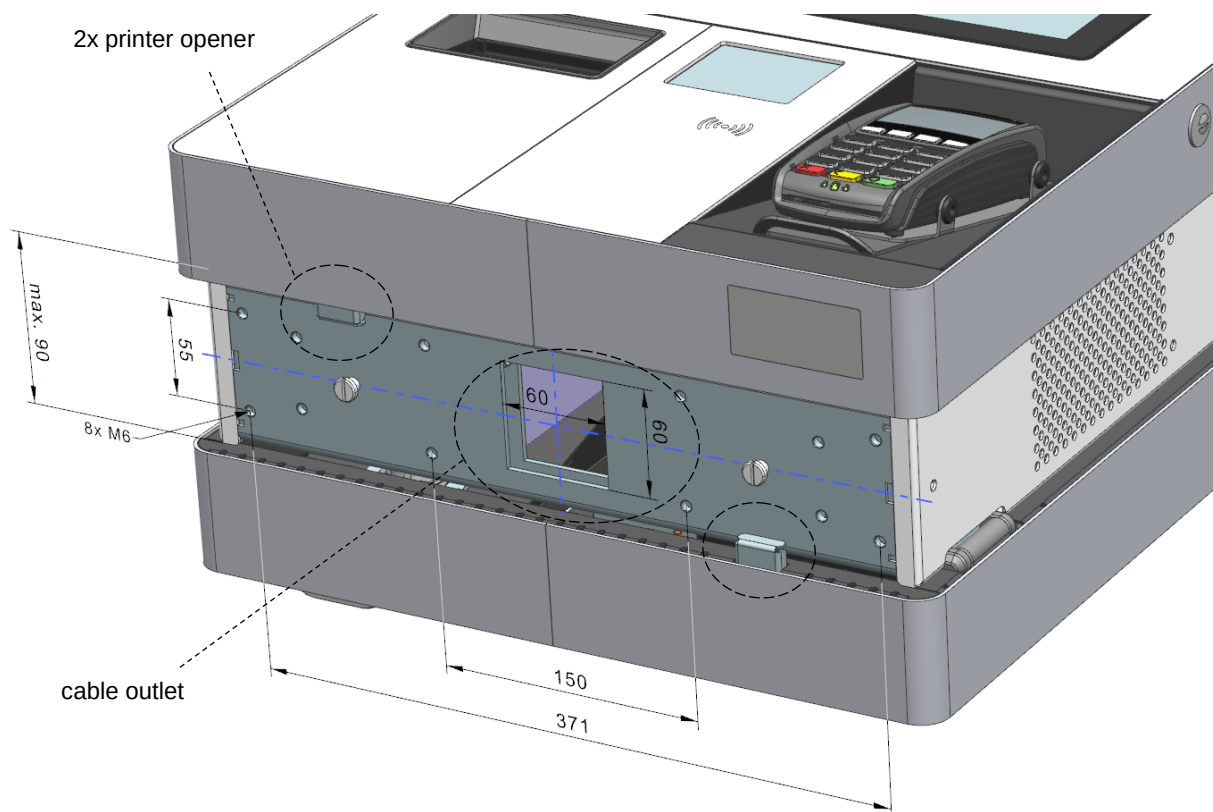
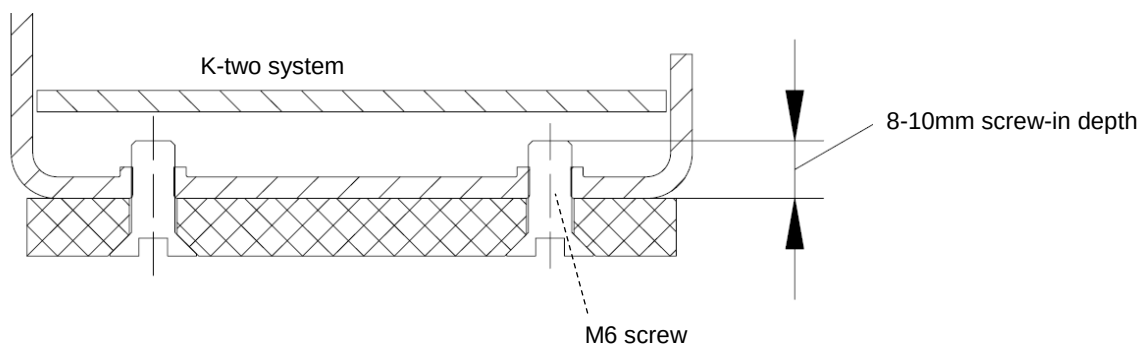
The description applies to all sizes of K-two systems and to single-sided and double-sided systems.

10.1 Important notes

	 WARNING
	WARNING! Risk of injury! Failure to observe the following installation instructions may result in serious injury if the unit falls over.

- The system may only be mounted on a bracket or stand designed for the weight of the system.
 - The tilting stability and anchoring in the wall or floor must be designed in accordance with the conditions and regulations found.
 - All 8 fixing holes provided on the underside must be used to distribute the load.
 - Screws with metric thread M6 and at least strength class 8.8 must be used.
 - The screw length depends on the thickness of the mounting plate and must have a screw depth between 8 and 10 mm in the system.
 - The two guide pins on the underside of the system are not designed for permanent and sole fastening of the system!
- They only serve to simplify the mounting of the system and can be removed after installation.

10.2 Dimensions for mounting the K-two system



K-two“ bottom view

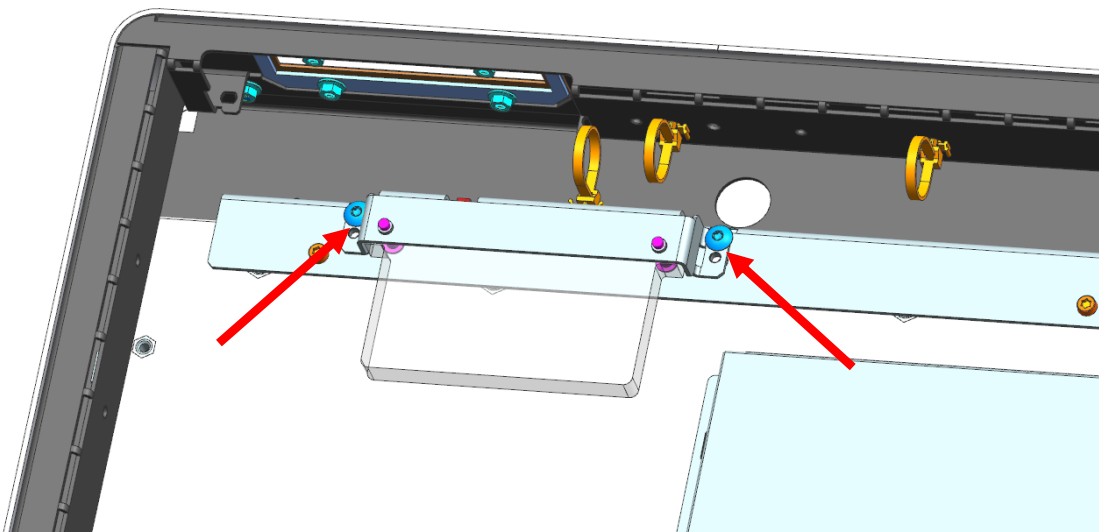
11 Pole light (K-two 32" only)



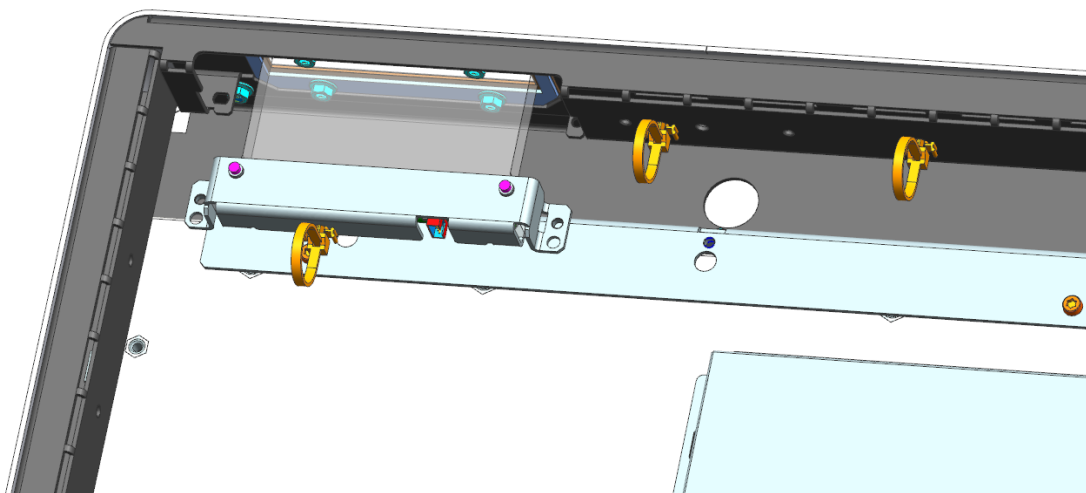
NOTICE

This action is necessary only if the option "pole light" is used.

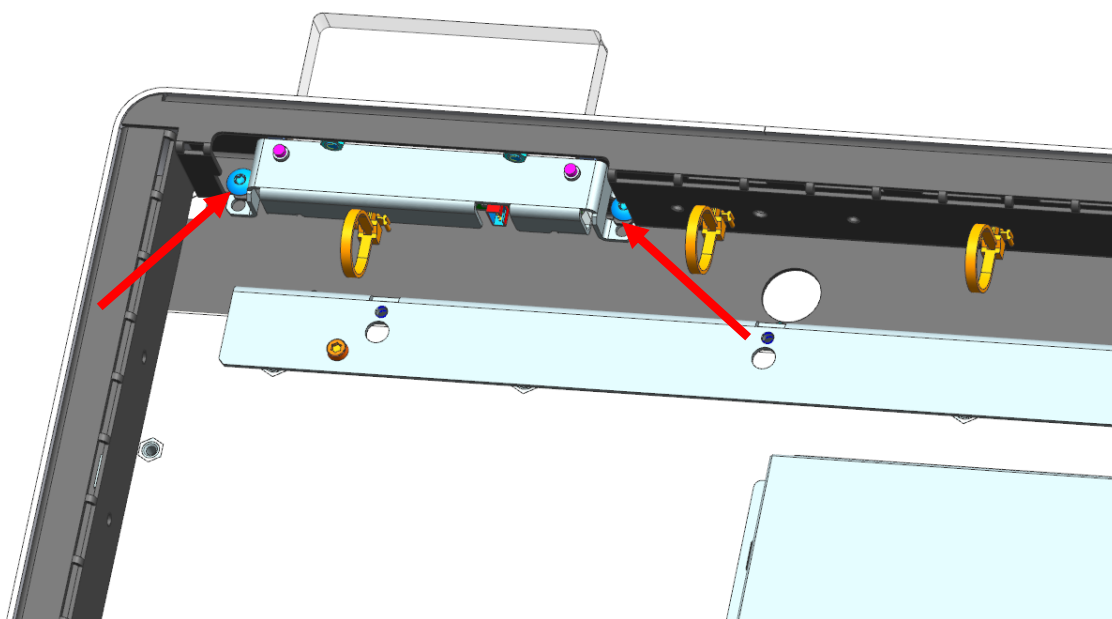
Open the device. Remove the two M4 screws (see arrows) that secure the inverted pole light.



Turn the pole light around.



Pass the pole light through the pole light opening and fasten it with the M4 screws previously removed. Take care that the cable of the pole light stays connected.



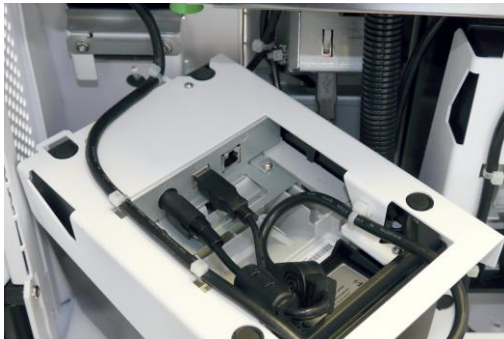
12 Assembling: TH230+

Power down the kiosk. Open the device and unplug the power cables of the PCs on the power distribution box if it is a device with fixed wiring. Otherwise, disconnect the mains plug from the housing installation.

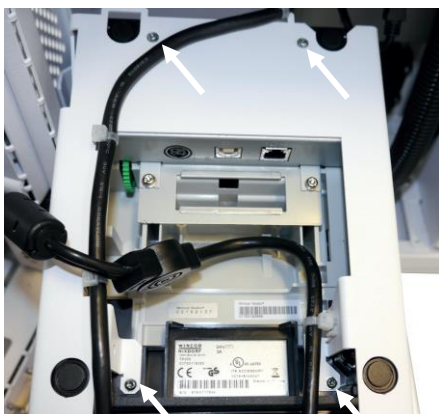
Uninstall two screws (see arrows) and remove the frame carefully.



Set the TH230+ into place and plug the cables.



Fix the printer with the 4 screws from the accessory bag at the holder.



Mount the TH230+ together with the added holder into the K-two.

Make sure that the printer is in the correct mounting position and secure it using the screws you previously removed.



Plug the power cables at the power distributor.

Close the K-two and start the system.



NOTICE

Check the printer settings on the printer (baud rate 9600).
Additional maintenance information can be found in the User Manual for the "TH230+" on the Diebold Nixdorf Internet.

13 EFT (Electronic-Funds-Transfer)-Terminal

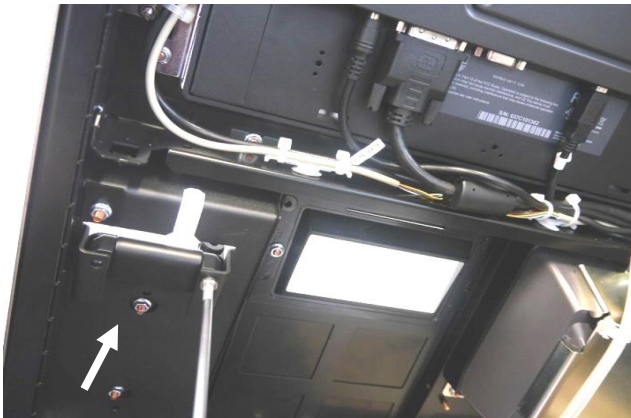
Power down the system. Open the device (Section "Opening the kiosk door") and separate completely the system from the mains voltage.



NOTICE

Various, customer-specific EFTs are used.

Here in the example it is the IPP350.
Remove the two screws (see arrows).



Remove the bracket, including the support plate. Loosen the two screws.



EFT-support plate



EFT-bracket

Screw the support plate at your EFT terminal, here for example an IPP350 EFT.



Hook the EFT support plate into the EFT mount at the bottom.



Connect both with a supplied locking screw.



Replace the two screws and tighten them.



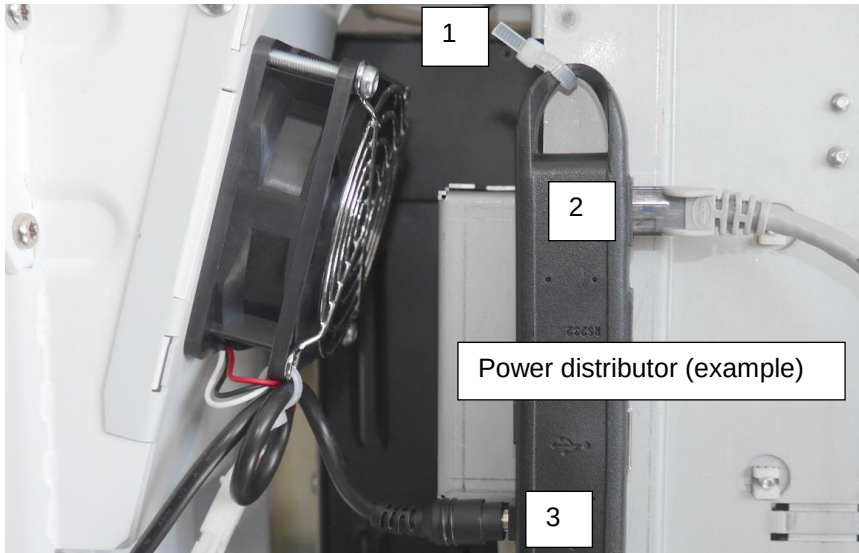
Thread the connection cable through the opening and attach the EFT incl. Bracket.
Screw the EFT incl. Bracket / support plate to the housing.



Plug the cable and mount the two screws you removed before to fix the EFT at the housing.

Attach the power distributor to the housing (1) with a cable tie.

If the connector plug is a LAN or USB plug, it is connected to the corresponding socket (2, here LAN) on the power distributor. Then the mains plug is plugged in (3).



NOTICE

If the power distributor is installed differently or a different power distributor than in the example shown here, the following must be observed:

- No moving parts must be affected, e.g. fan, lock, etc.
- The air flow (thermal) must not be impaired.
- Cables must not be clamped.

14 MX915

Power down the kiosk. Open the device and unplug the power cables of the PCs on the power distribution box if it is a device with fixed wiring. Otherwise, disconnect the mains plug from the housing installation.

Remove 4 nuts and uninstall the blind cover.

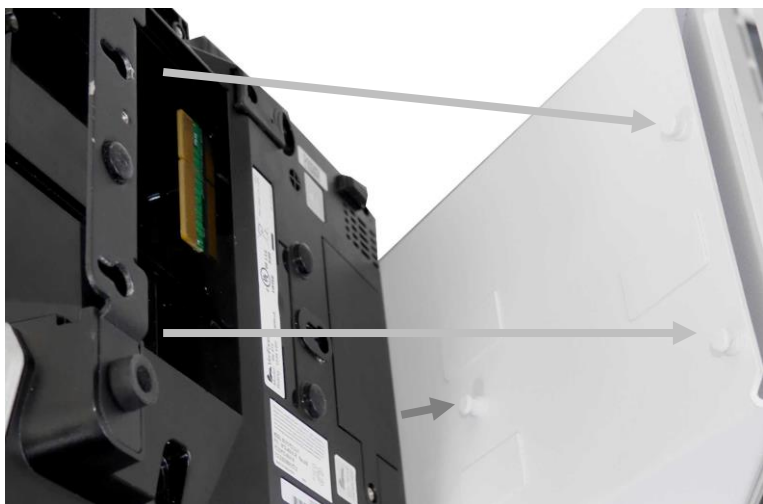
Set the adapter with 4 bolts into place.



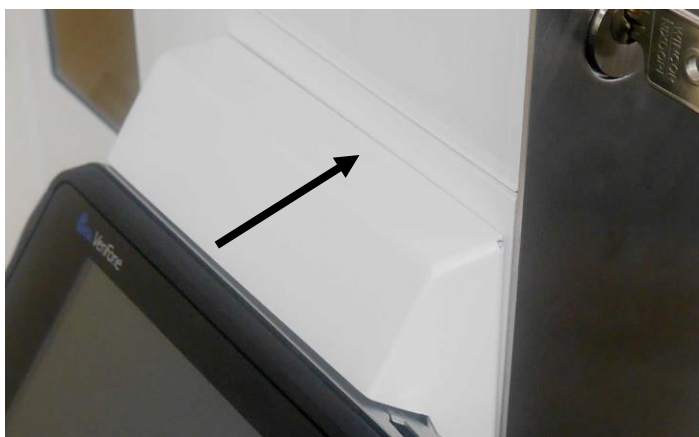
Open the door and fix it with 4 nuts inside the device.



Set the device with the 3 key holes on the pins at the adapter.



Set the cover into place.

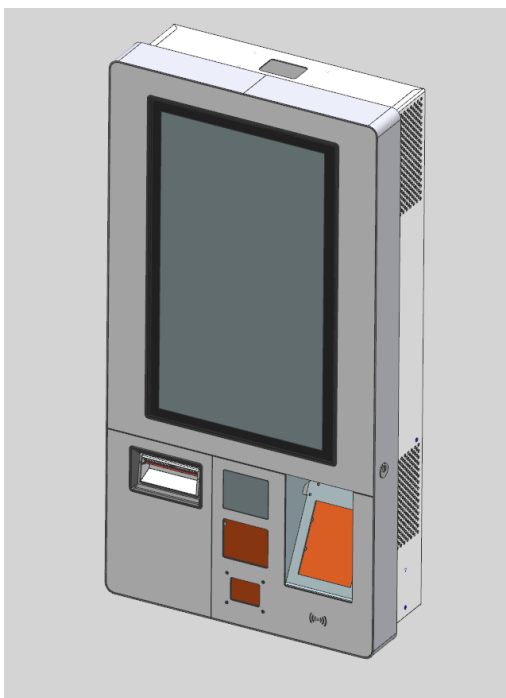
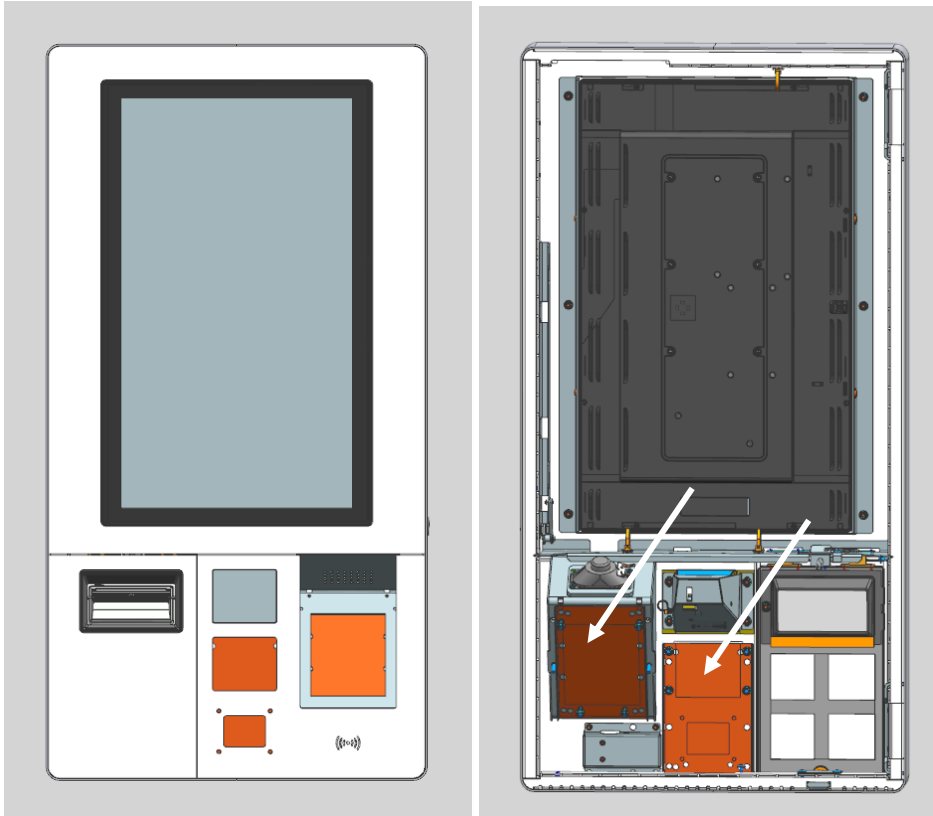


Fix it with the 2 screws.

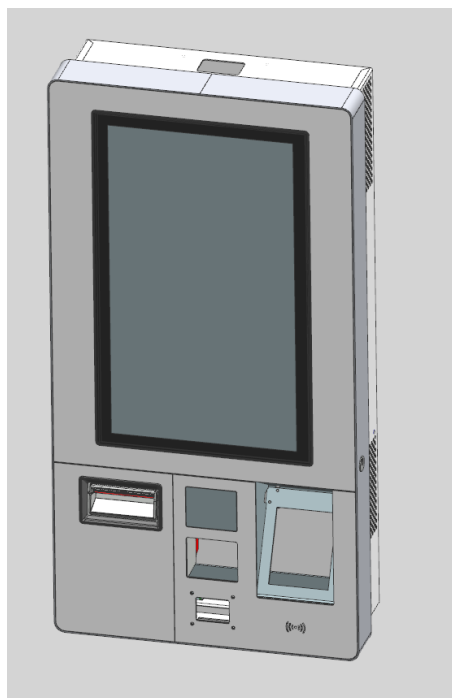


15 Ingenico IUP/IUR 250/IUC 150

Open the door and remove the blind covers (coloured in orange) with a 8x M4 socket wrench size 7.



mounted blind cover



removed blind cover

15.1 Installation



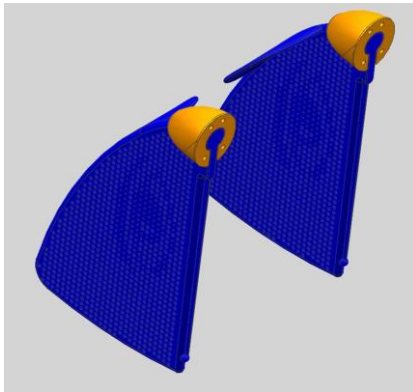
NOTICE

Tighten the hexagon nuts with a torque of 1 Nm. Use a liquid thread locker to secure the nuts!

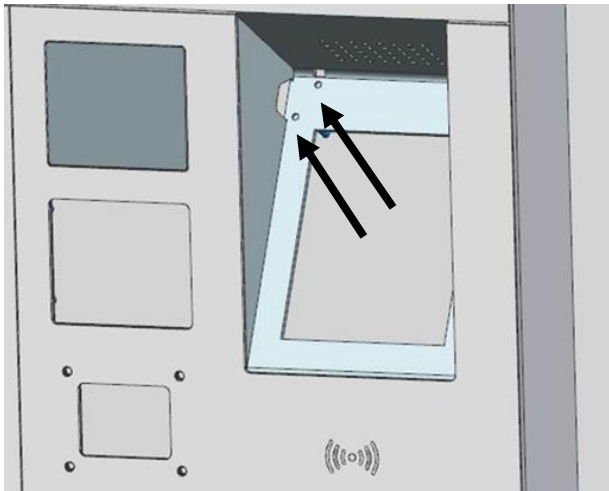
Mounting kit

1x privacy protection left
1x privacy protection right
4x M3x8 countersunk screws
2x mounting element
12 x locking nut
4 x M4x8 cheese-head screw
2 x toothed lock washer

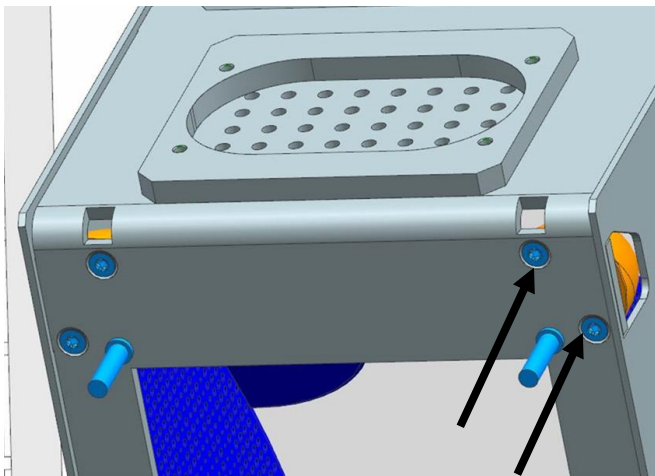
The fastening elements must be pushed onto the privacy flaps (see picture below).



Set the first one into place.

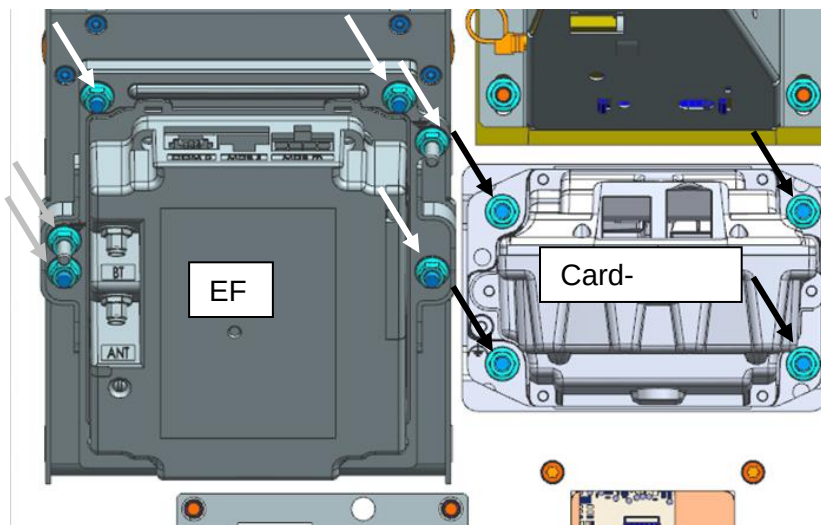


Fix it with 2 with M3x8 countersunk screw (Torx TX 10).

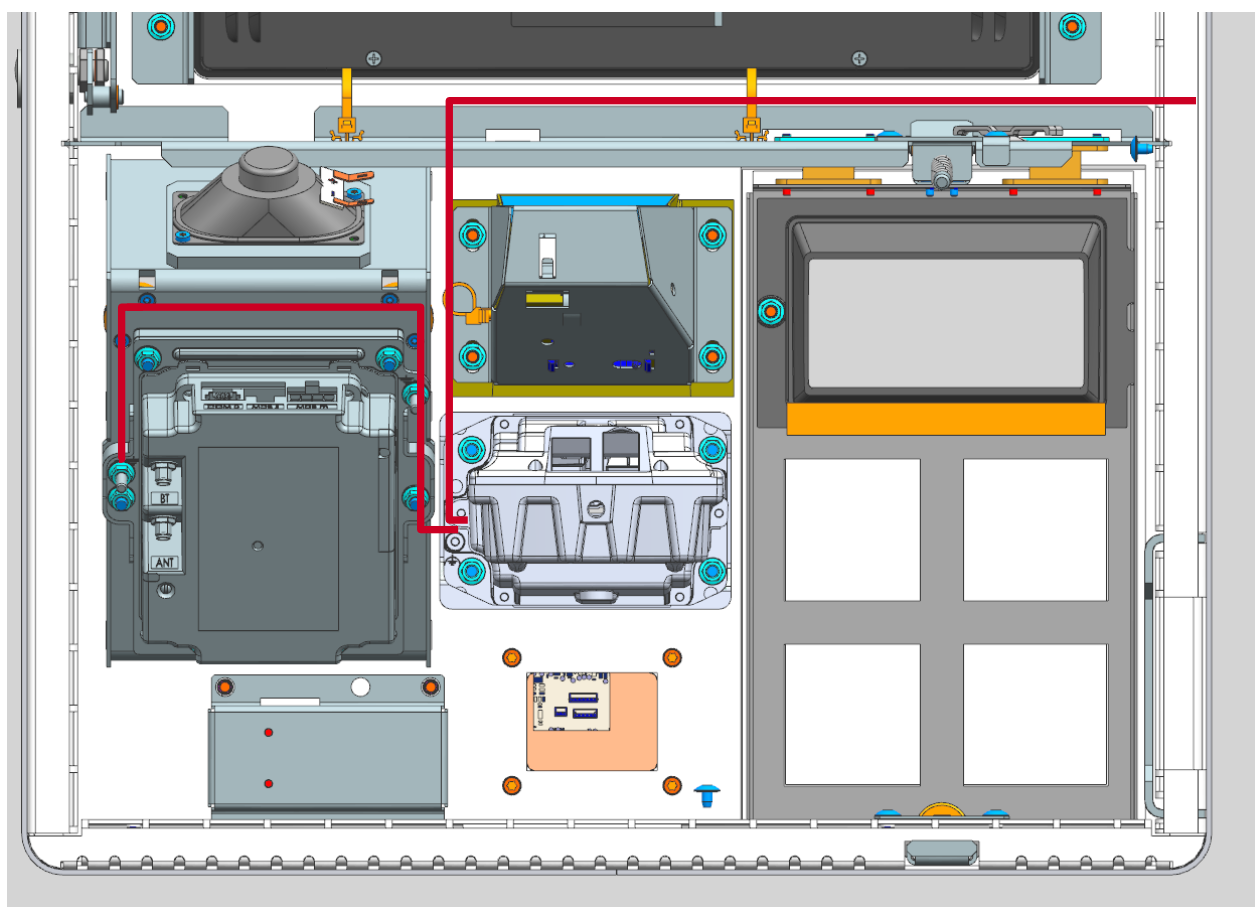


Fix the other one in the same way.

Set the EFT into place and fix it with 6 locking nuts. Set the card reader into place and secure it with 4 locking nuts.

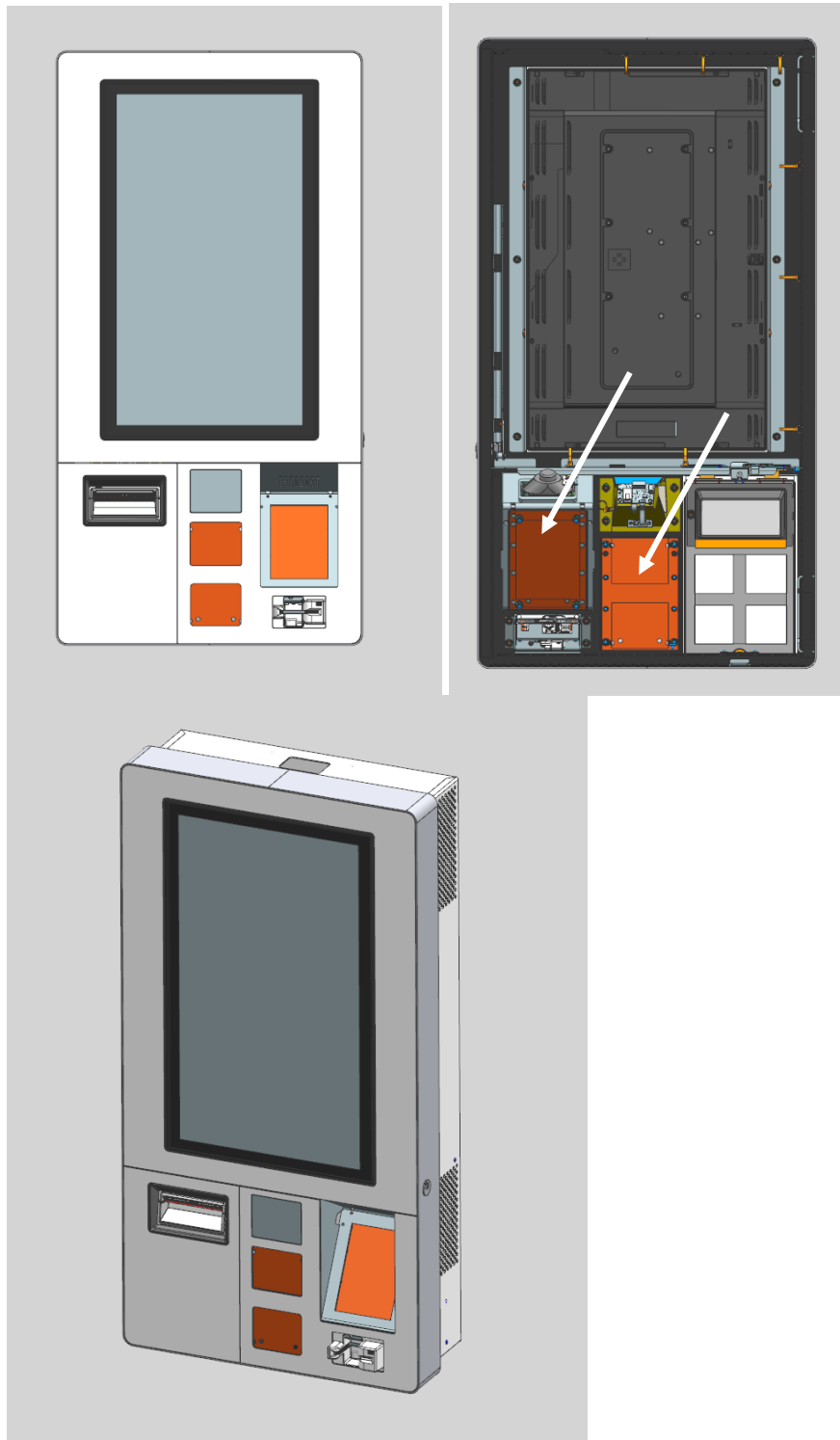


Pinpad and card reader must be earthed via the pre-installed ground strap (see red lines).



16 Pin Pad UX 100/200/300

Open the door. Remove the blind covers (coloured in orange) with a8x M4 socket wrench size 7).



16.1 Installation



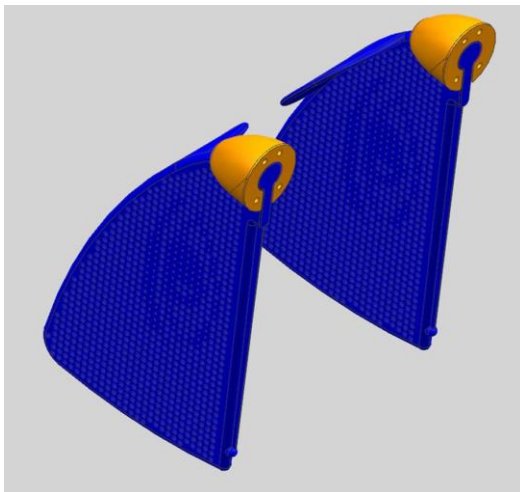
NOTICE

Tighten the hexagon nuts with a torque of 1 Nm. Use a liquid thread locker to secure the nuts!

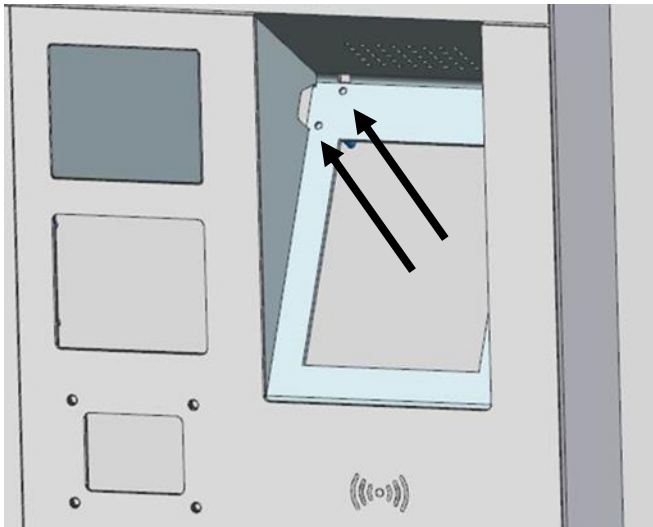
Mounting kit

1x privacy protection left
1x privacy protection right
4x M3x8 countersunk screws
2x mounting element
10x M4 locking nut

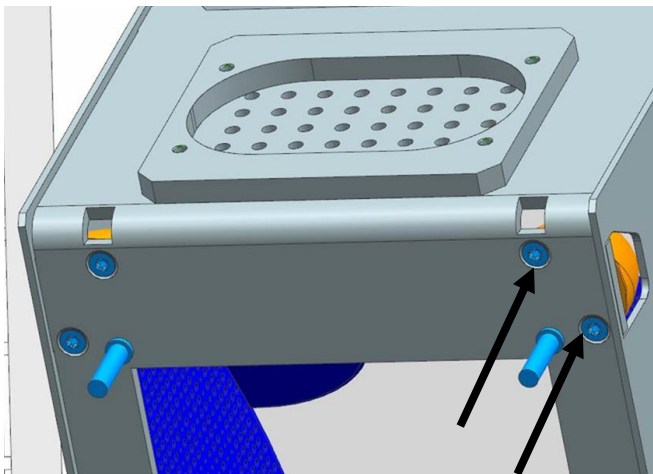
The fastening elements must be pushed onto the privacy flaps (see picture below).



Set the first one into place.

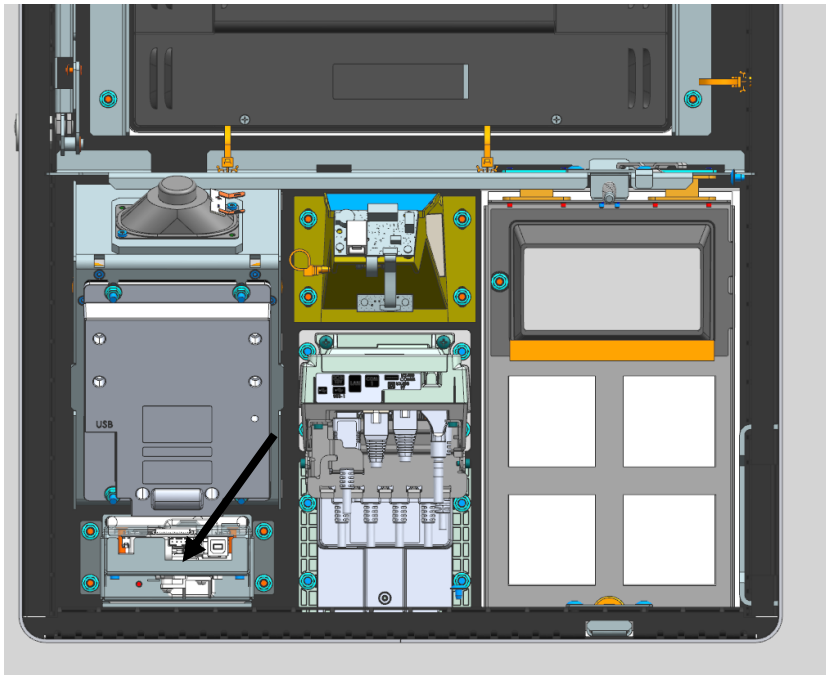


Fix it with two M3x8 countersunk screw (Torx TX 10).

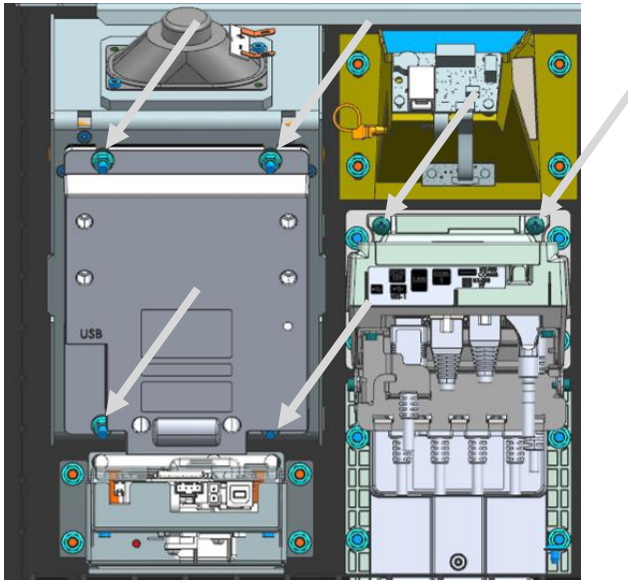


Fix the other one in the same way.

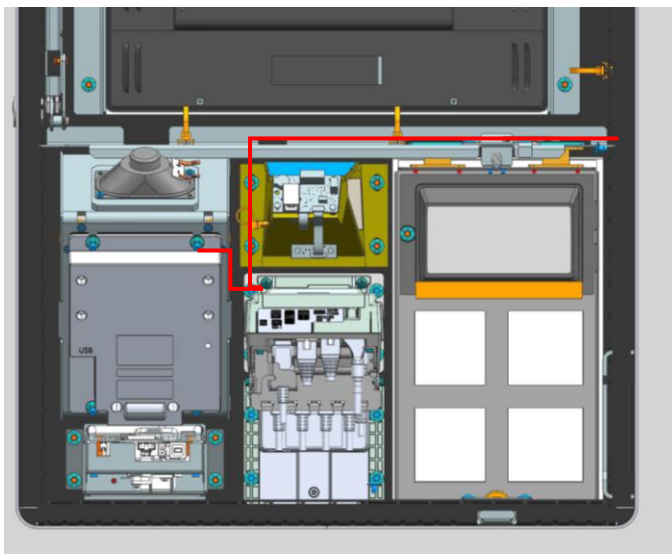
The pre-assembled card reader (optional) may have to be removed before the pinpad can be installed (4x M4).



Set the pin pad into place and fix it. Do it the same way with the card reader.

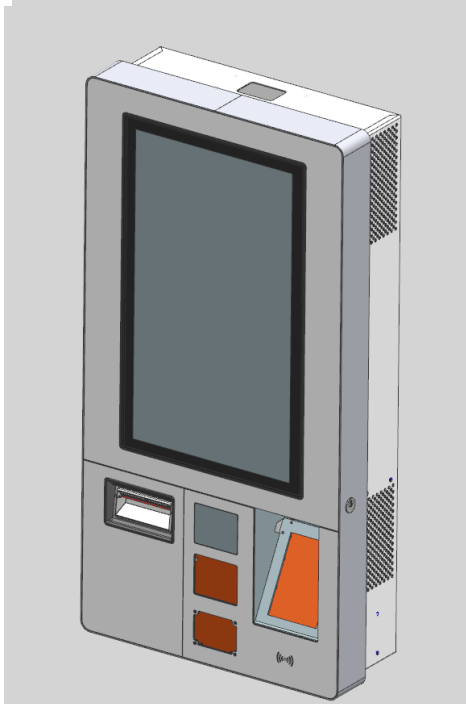
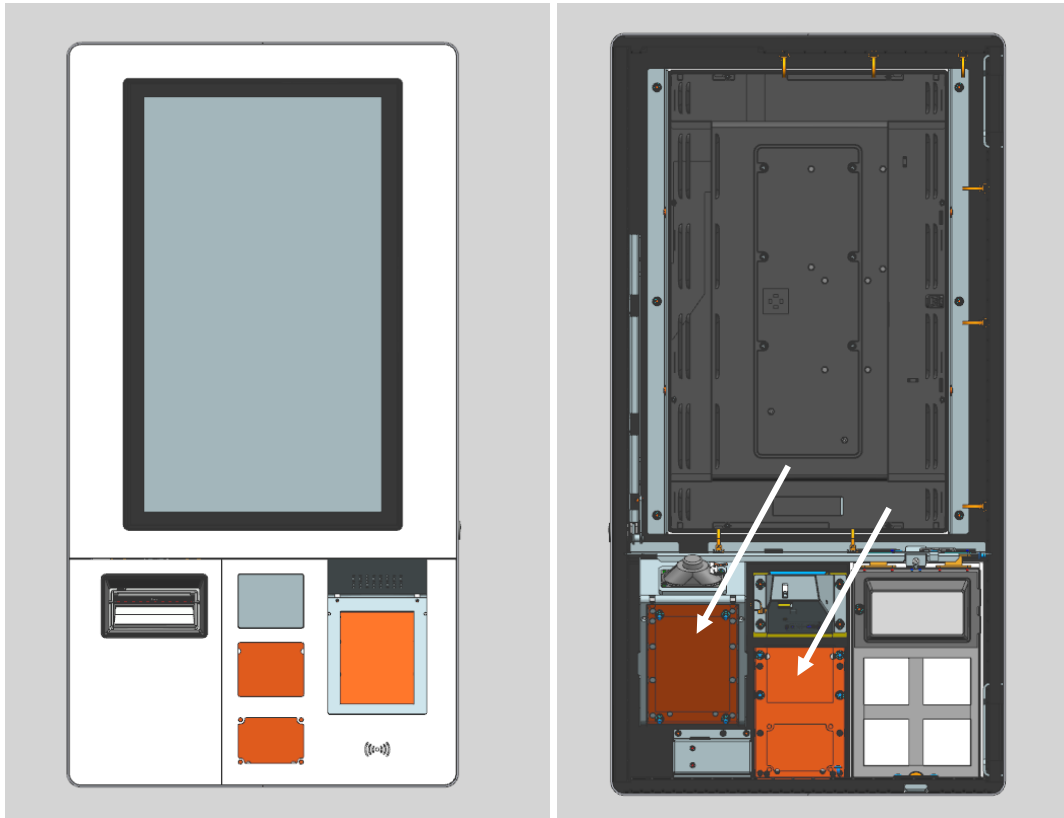


Pinpad and card reader must be earthed via the pre-installed ground strap (see red lines).

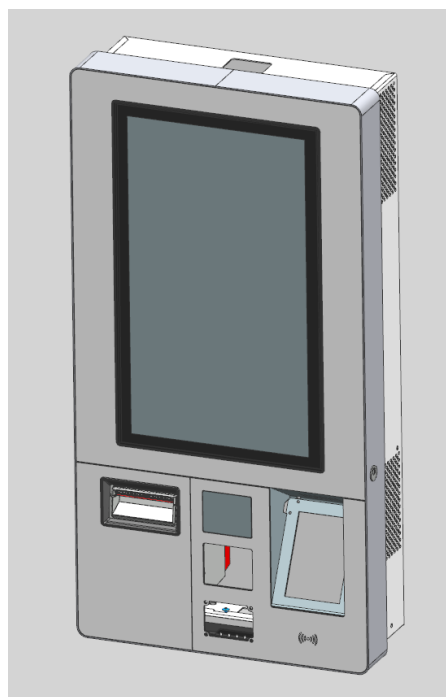


17 CCV C60

Open the door. Remove the blind covers (coloured in orange) with a 8x M4 socket wrench size 7.



mounted blind cover



removed blind cover

17.1 Installation



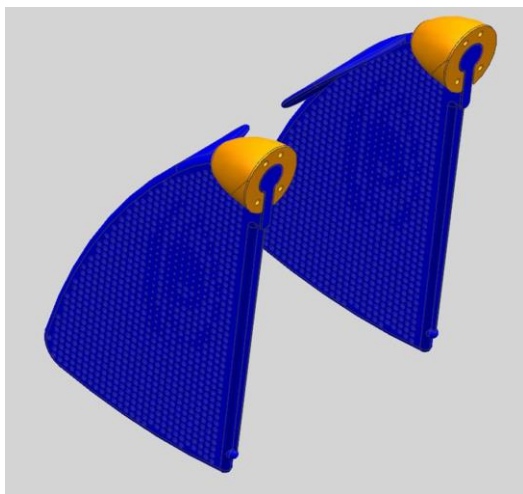
NOTICE

Tighten the hexagon nuts with a torque of 1 Nm. Use a liquid thread locker to secure the nuts!

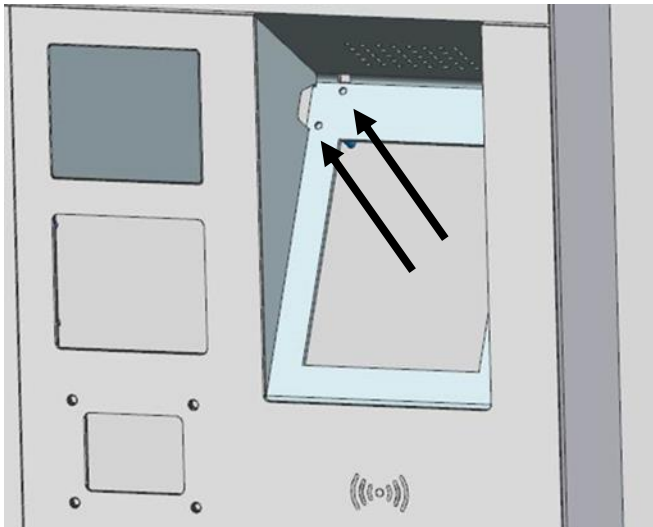
Mounting kit

1x privacy protection left
1x privacy protection right
4x M3x8 countersunk screws
2x mounting element
10x M4 locking nut

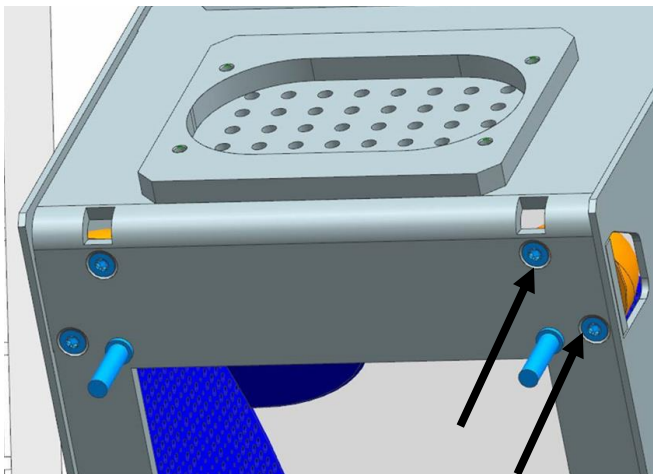
The fastening elements must be pushed onto the privacy flaps (see picture below).



Set the first one into place.

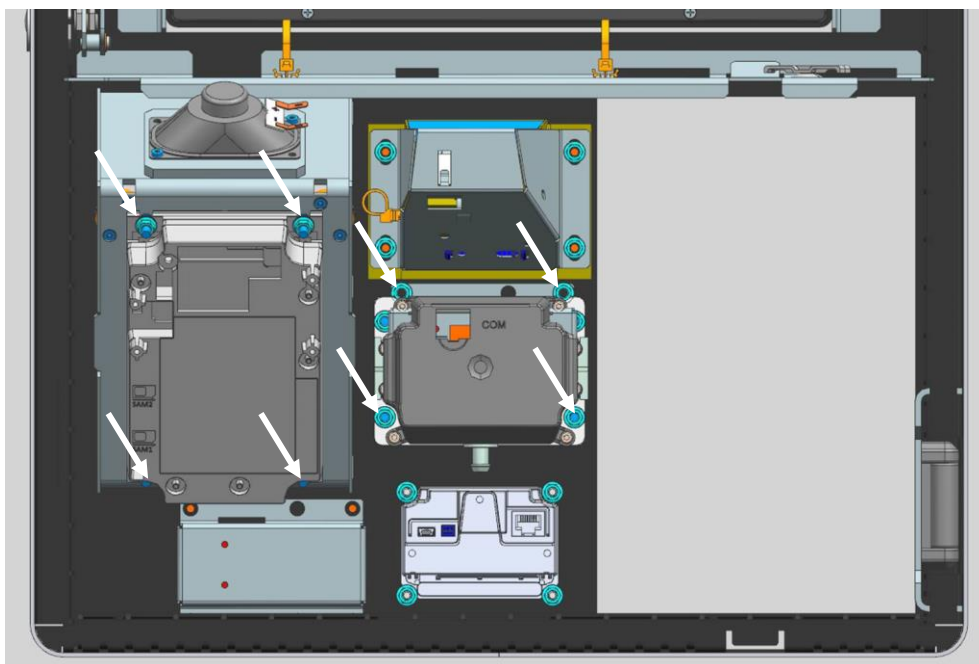


Fix it with two M3x8 countersunk screw (Torx TX 10).

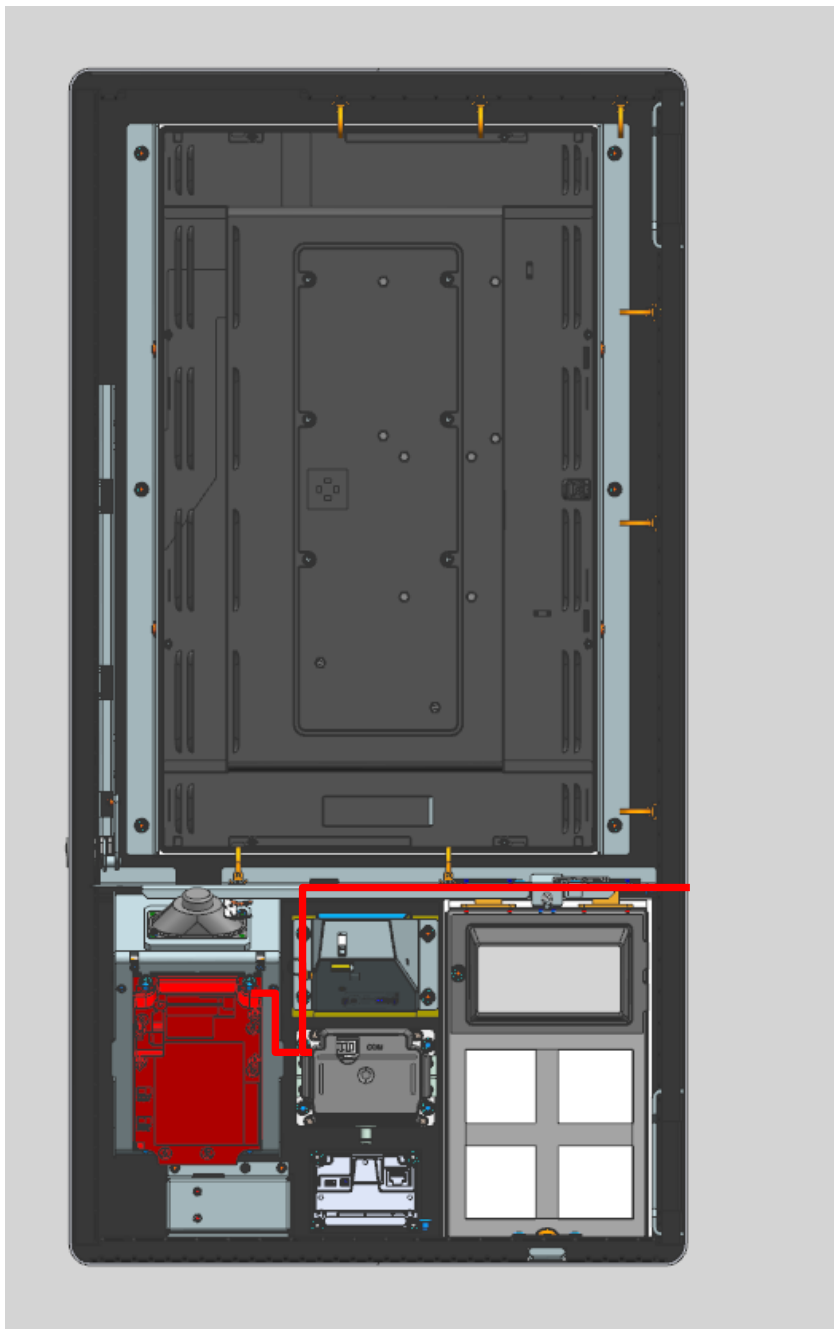


Fix the other one in the same way.

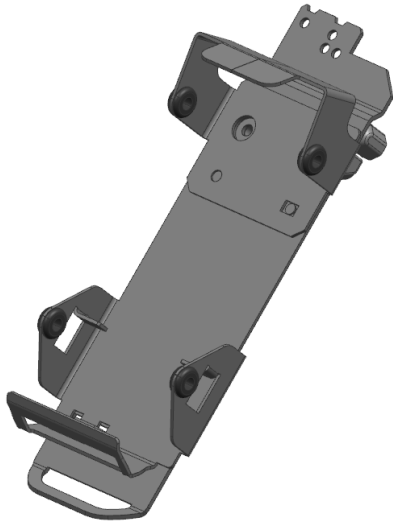
Set the EFT into place and fix it with 4 M3x8 countersunk screws. Install the card reader with 4 countersunk screws.



Pinpad and card reader must be earthed via the pre-installed ground strap (see red lines).



18 ICT 220/250



The EFT fastening is removed from the EFT recess with the hinge (2x screw M5 Torx TX25) and the support plate is detached from the holder underneath (2x nut M4 SW7 and 1x M3 TX 10). These fixing screws are required again for installation.



For the ICT 220/250, a two-piece EFT support plate is used.



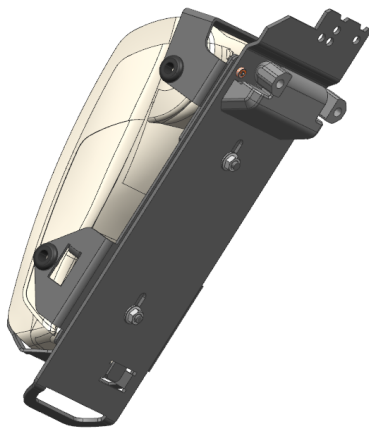
The upper part, the closure, is lifted off.



Then the ICT 220/250 is inserted into the lower shell.



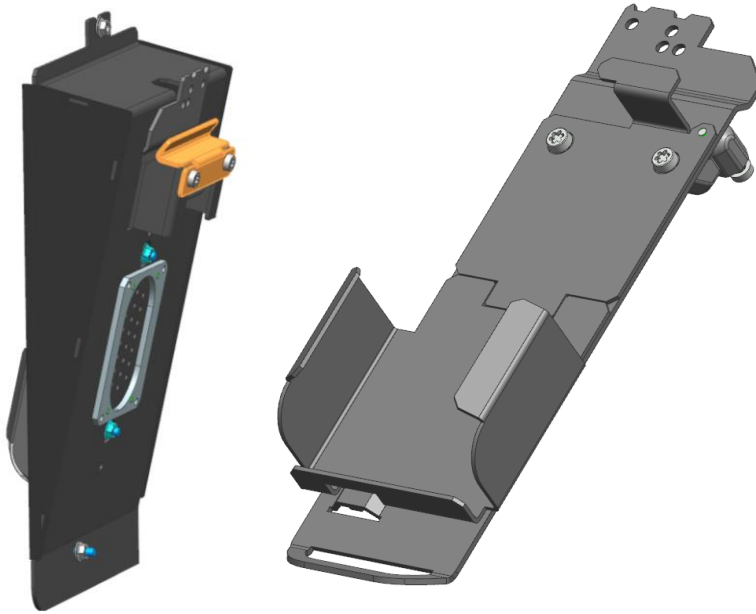
Then the ICT 220/250 is inserted into the lower shell.



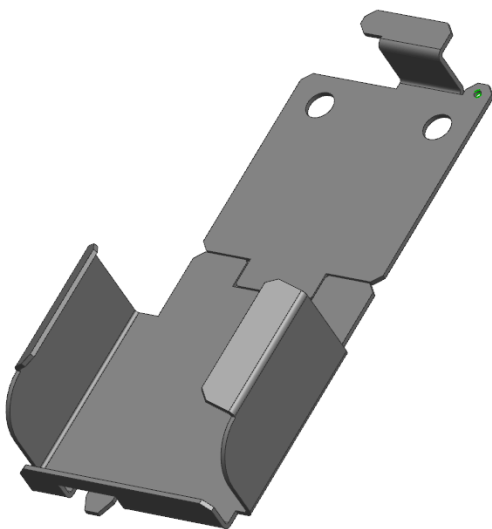
The two parts are finally screwed to the carrying plate with the 2xM4 nuts and secured with the M3x6 Torx screw. This assembly can then be reinstalled in the EFT recess in the system (2x M5).

19 Spire SpP30

Remove the EFT mounting with the hinge from the EFT recess (2x screw M5 Torx TX25) and remove the support plate from the holder underneath (2x nut M4 SW7 and 1x M3 TX 10). These fixing screws are required again for installation. Also keep the angle limiter (marked yellow) for a re-installation.



Remove the two-piece EFT support plate from the holder.



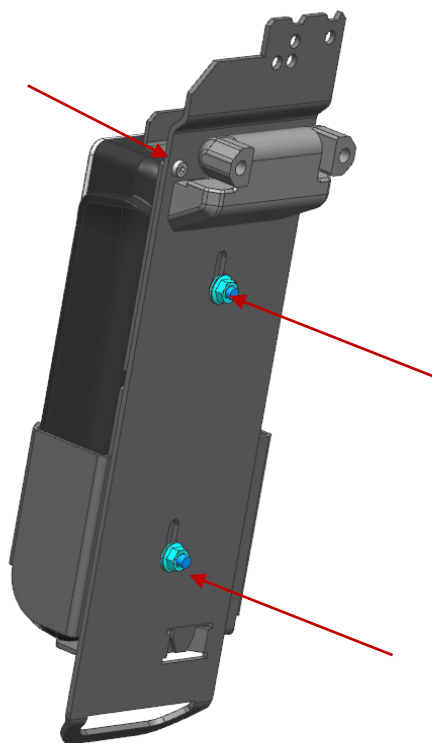
Place these sheet metal parts around the Spire SPp30.



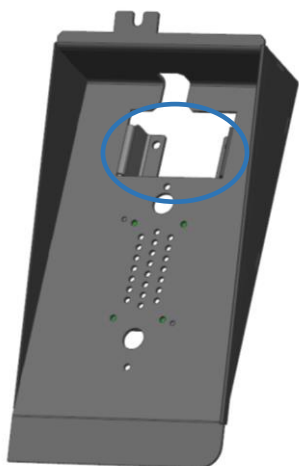
Slide this pre-assembled assembly into the bracket from above. The lower EFT support plate should snap into the provided guide.



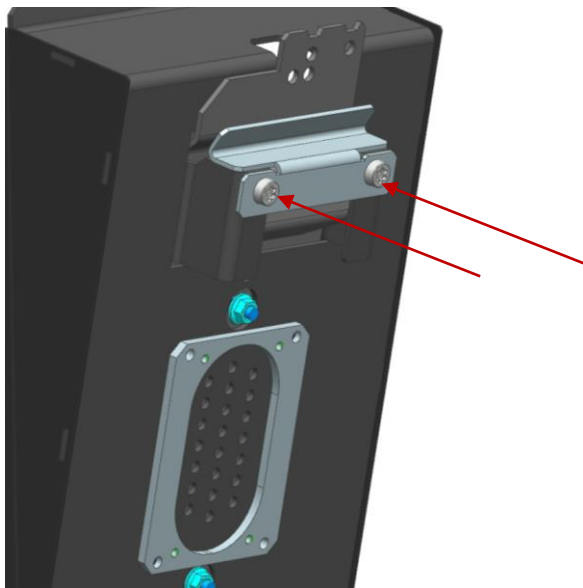
Fasten the sheet metal parts with the previously unscrewed 2x M4 SW7 and 1x M3 TX 10.



Pass the EFT cable through the opening in the EFT trough.



Reinstall this assembly together with the angle limiter in the EFT recess (2x M5).



19.1.1 Cabling

The cable must be fixed to the EFT holder with two cable ties so that it is not crushed or damaged in any position of the holder.



Combine the supplied cables and fasten them to the existing wiring harness using cable ties (see arrows). Guide the cable to the PC and plug the USB cable (USB-A) into a free USB socket. This plug is only responsible for the 5V power supply.



Connect the RJ45 plug (Ethernet) via LAN adapter to a LAN cable supplied from the outside.



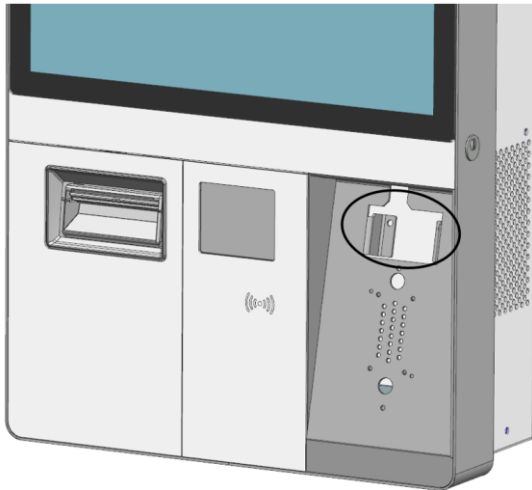
NOTICE

An LAN adapter is not part of delivery.

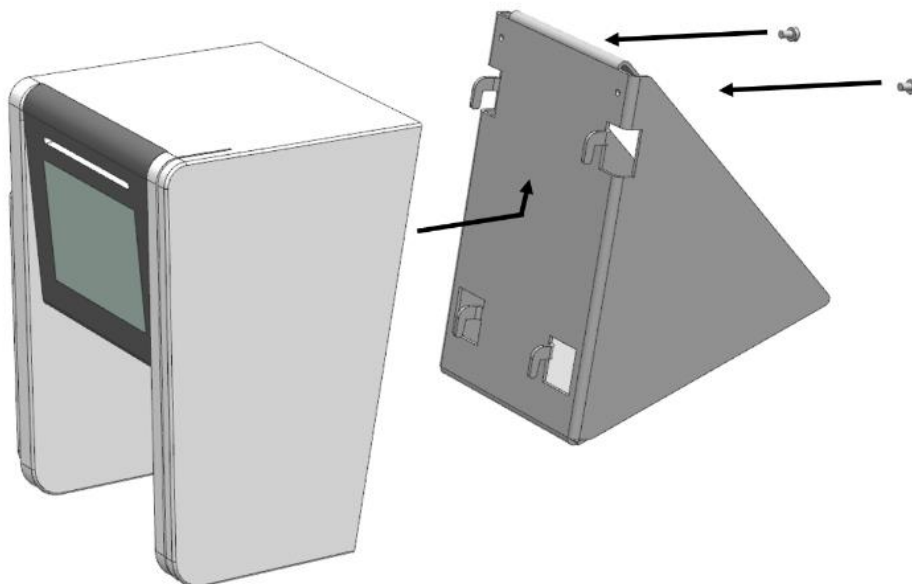
The swipe card reader is not usable after installation.

20 Yomani EFT

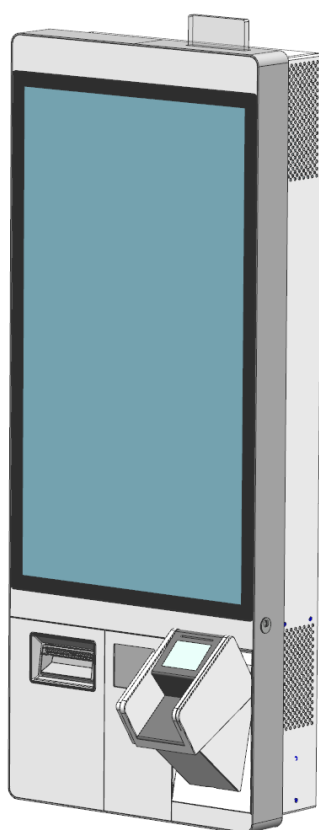
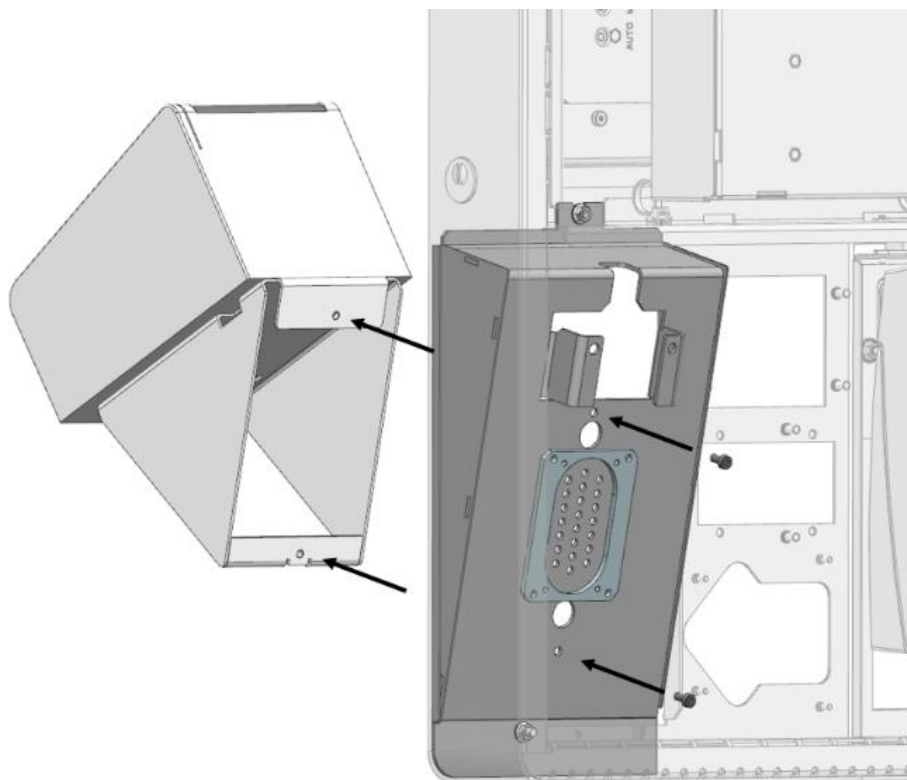
Guide the cables (USB and Ethernet) through the opening in the door from the inside to the outside and connect them to the Yomani-EFT.



Slide the Yomani-EFT onto the holder and fix it with 2x M3x5 screws from behind on the holder.

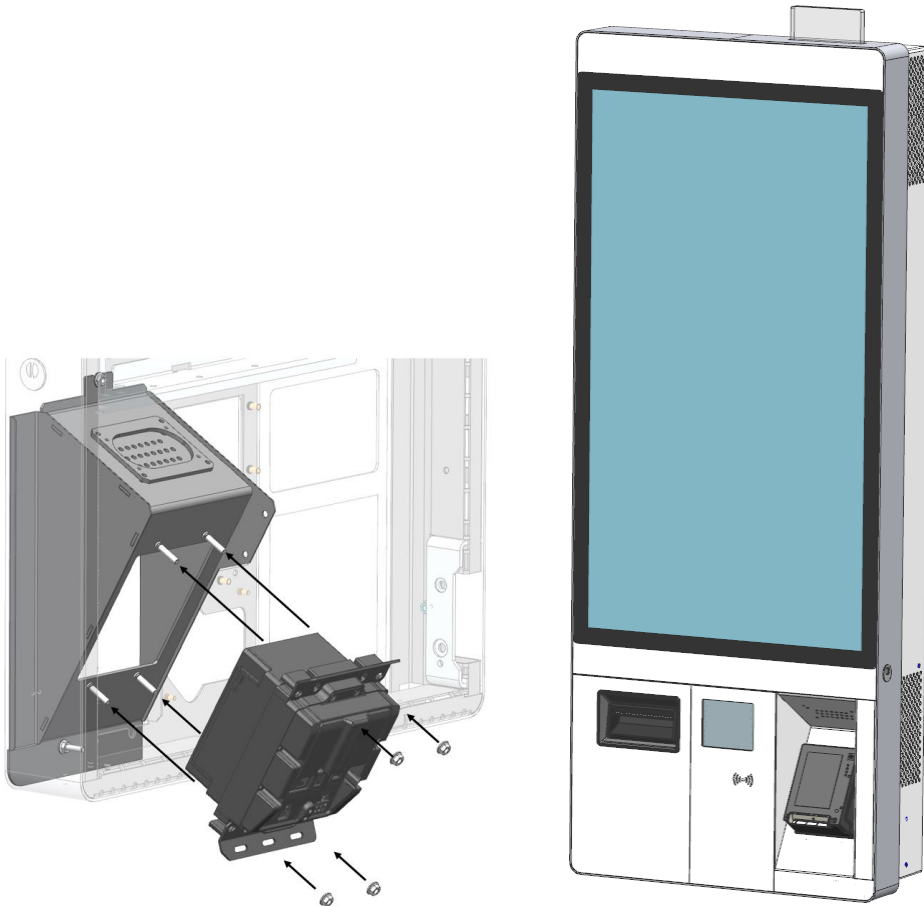


Screw the pre-assembled system to the K-two with 2x M4x8 (see illustration).



21 Valina

Unlock and open the front door. Set the Valina –EFT into place from the backside of the door and fix it with 4x M4 nuts.



Plug LAN- and power cord.



22 Start up the System

Ensure that the K-two has been installed correctly to the house installation and the LAN cable is properly connected.



NOTICE

The system will start up automatically, when it will be provided with current. If this does not work, please open the device (see chapter Opening) and push the ON/OFF button at the PC to switch the system on (see arrow).



23 Disconnecting the System from the Mains

Open the device and unplug the power cables of the PCs on the power distribution box if it is a device with fixed wiring. Otherwise, disconnect the mains plug from the housing installation.



24 Permanent connection (USA/Canada)

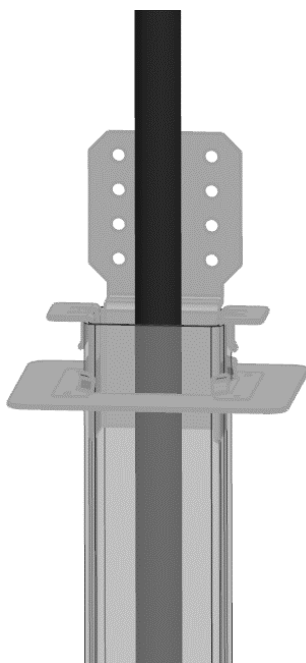
	 DANGER
	Risk of injury! Faulty connection or use may result in fire or electric shock. All works on the device shall be performed by a skilled person. Observe national regulations. Even when the device is turned off, voltage may be present at its terminals. Always turn off the mains by removing the circuit breaker. Installation by qualified electrician only! Follow the local regulations! • National Electrical Code ANSI/NFPA 70 • Canadian Electrical Code, Part I, CSA C22.1-02

24.1 Connection line

Single-wire conductor	0,08....4 mm ² / 28.....12 AVG
Finely stranded conductor	0,08....4 mm ² / 28.....12 AVG
Stripping length	9.....10 mm / 0.35.....0.39 inch

24.2 Wiring from above

Unlock and open the door. Guide the conduit for the power cable through the ceiling cable channel.



Cable channel with socket screw.

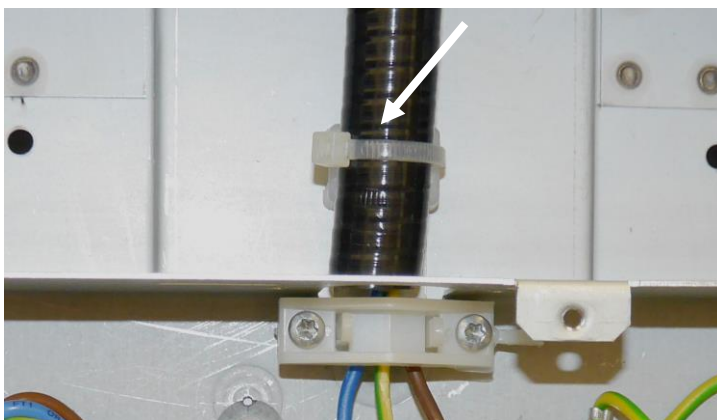


Remove two screws and remove the cover of the power distributor.



Guide conduit from above through the cable channel into the power distributor.

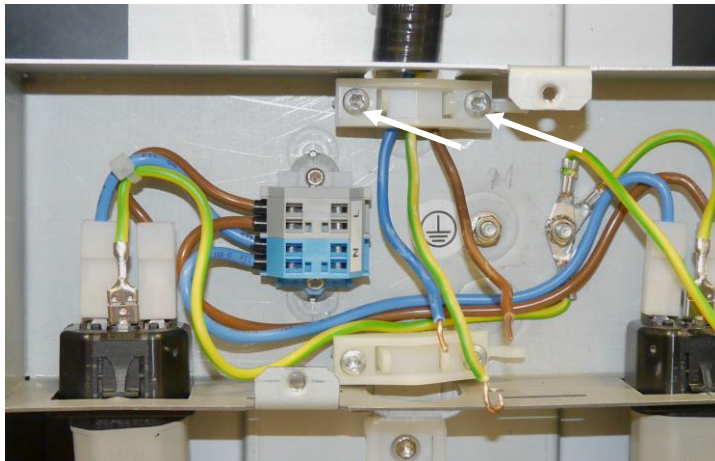
Fix the conduit with a cable binder.



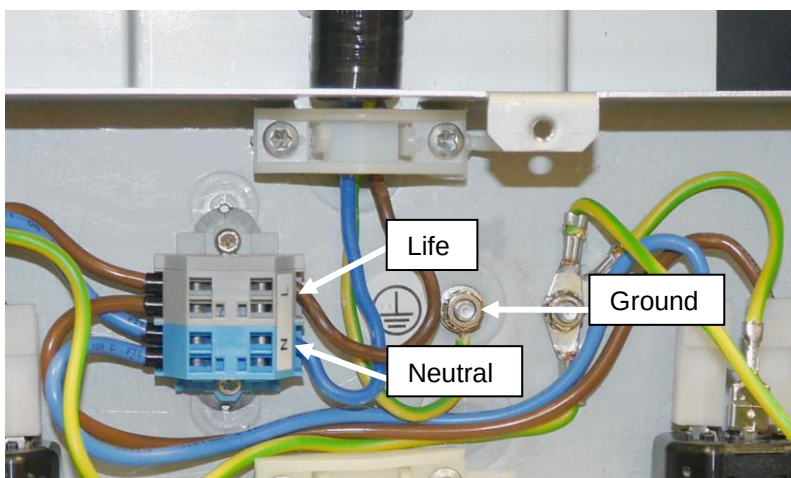
If you use conduit with metal sheath follow the instructions in the short guide and use the installation set included in the plastic bag. If not remove it and put it aside.



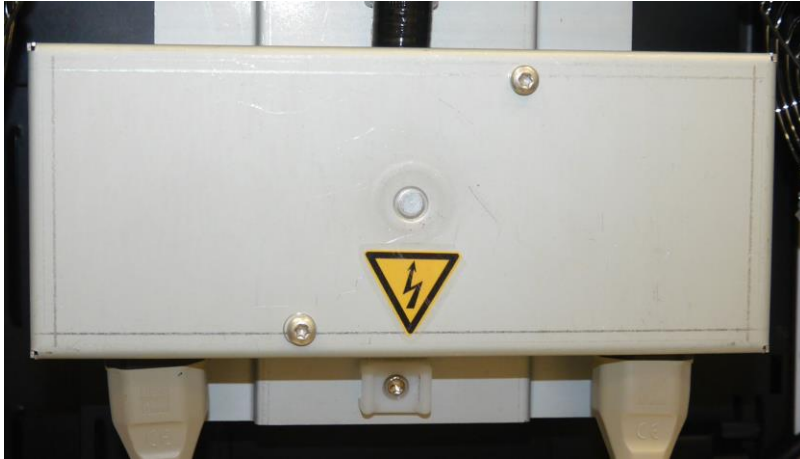
Loosen the screws at the bracket (see arrows). Guide the three cables through and fix the screws again.



Install the cables as shown in the picture below. If it is a flexible wire, listed as ring pressure-terminal connectors recognized for the wire size must be used. The bonding conductor shall be routed so as not to be exposed to physical damage.



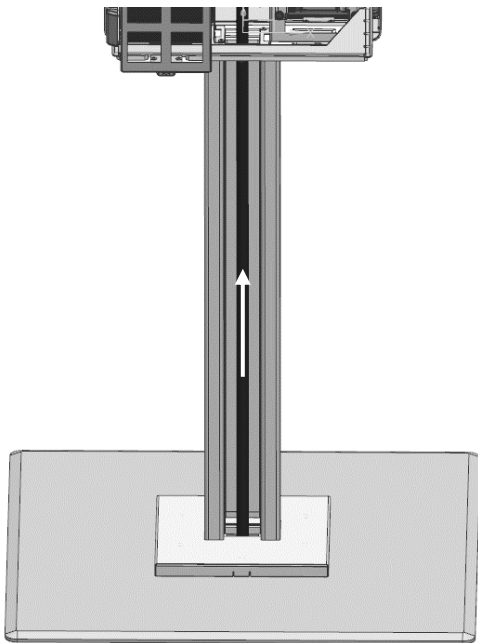
Turn the cover carefully (take care for the cable) upside down, set it into place and secure it with the two screws removed before.



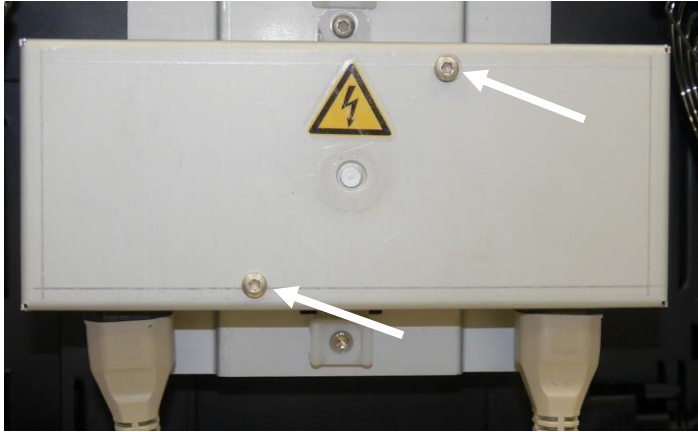
Close and lock the door.

24.3 Wiring from below

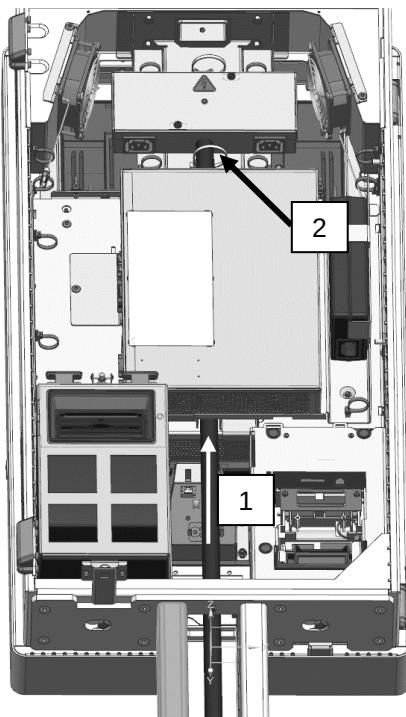
Unlock and open the door. Guide the conduit with the cables through the cable channel into the housing.



Remove two screws and remove the cover of the power distributor.



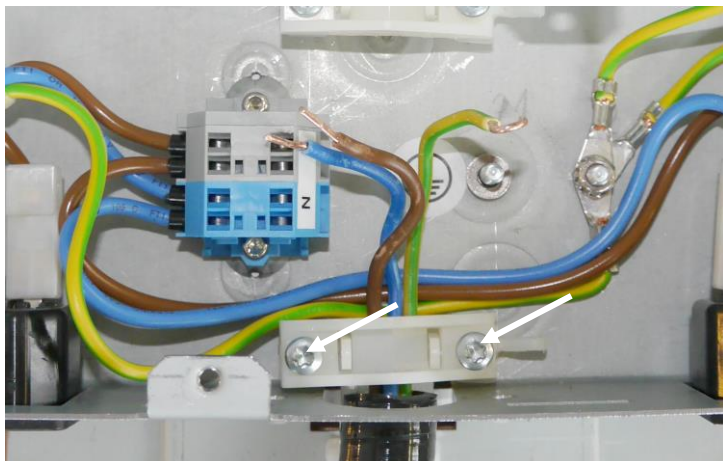
Guide the conduit behind the PC (1) into the distribution box and fix it with a cable binder (2).



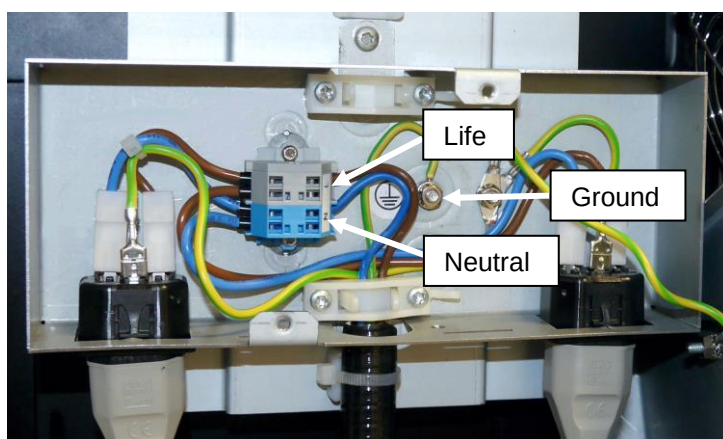
If you use a cable with metal sheath follow the instructions in the short guide and use the installation set included in the plastic bag. If not remove it and put it aside.



Loosen the screws at the cable bracket (see arrows). Guide the three cables through and fix the screws again.



Install the cables as shown in the picture below. If it is a flexible wire, listed as ring pressure-terminal connectors recognized for the wire size must be used. The bonding conductor shall be routed so as not to be exposed to physical damage.



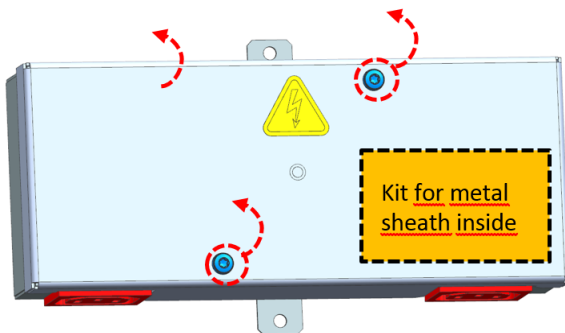
Mount the device in reverse order.

25 Permanent connection (USA/Canada)

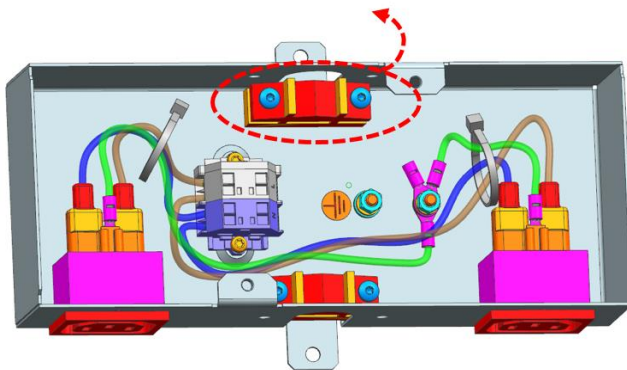
	 DANGER
	Risk of injury! Faulty connection or use may result in fire or electric shock. All works on the device shall be performed by a skilled person. Observe national regulations. Even when the device is turned off, voltage may be present at its terminals. Always turn off the mains by removing the circuit breaker. Installation by qualified electrician only! Follow the local regulations! • National Electrical Code ANSI/NFPA 70 • Canadian Electrical Code, Part I, CSA C22.1-02

25.1 Installation with metal sheath

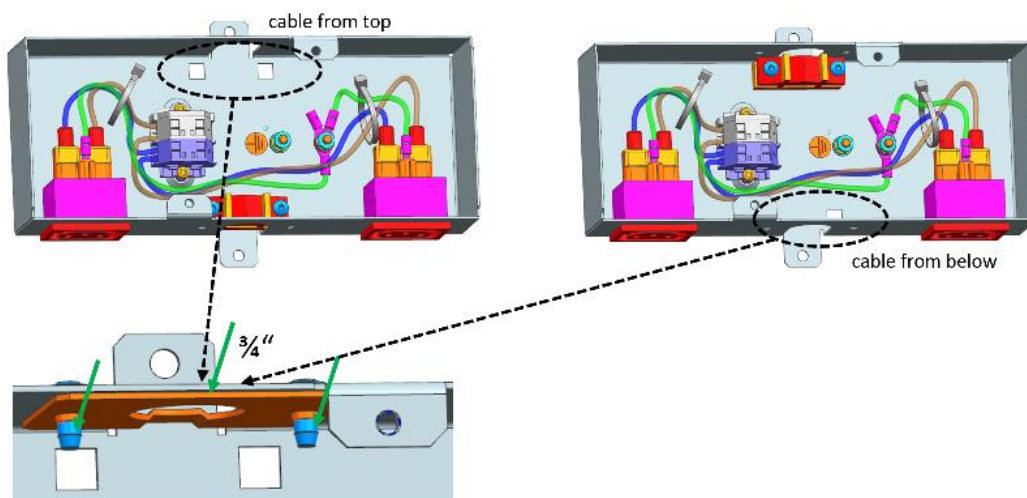
Remove the screws and remove the cover. Find the kit for the metal sheath in the box.



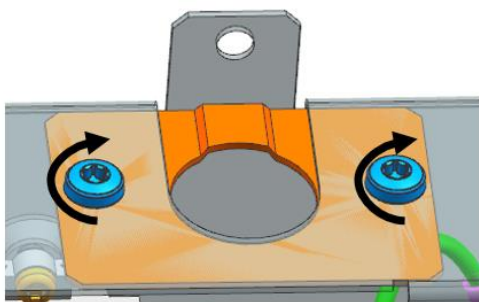
Loosen the two screws and remove the part (see illustration below).



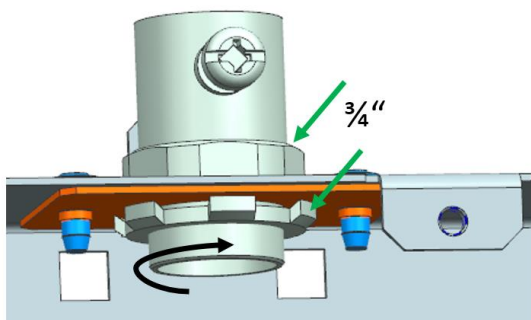
Set the metal sheath into place (see illustration below).



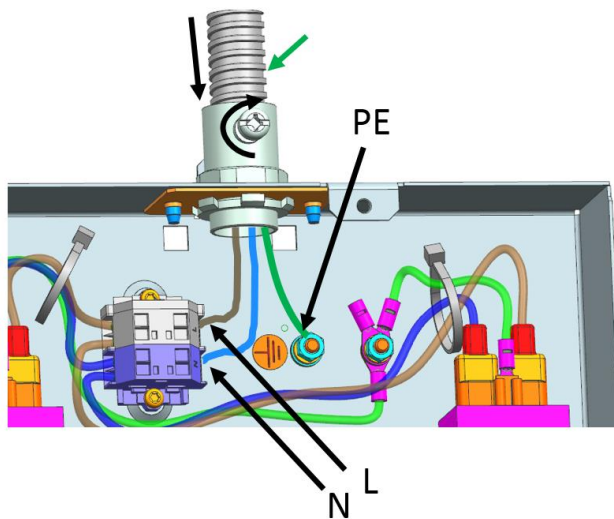
Install the plate with two screws.



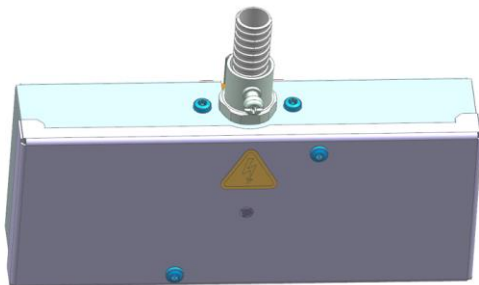
Mount the adapter.



Guide the cable through and plug them as shown in the picture.



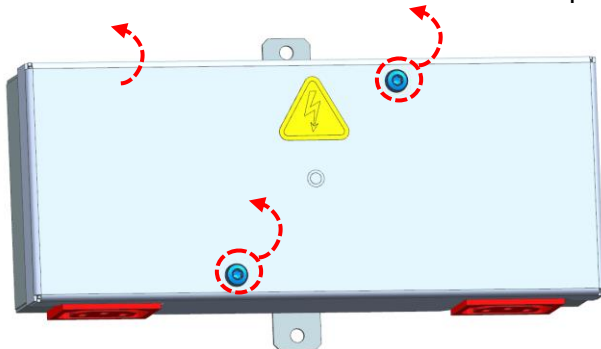
Mount the cover.



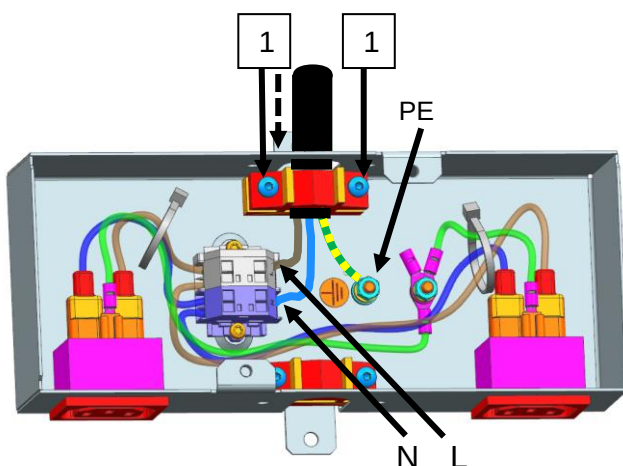
26 Permanent connection

	 DANGER
	Risk of injury! Faulty connection or use may result in fire or electric shock. All works on the device shall be performed by a skilled person. Observe national regulations. Even when the device is turned off, voltage may be present at its terminals. Always turn off the mains by removing the circuit breaker. Installation by qualified electrician only! Follow the local regulations!

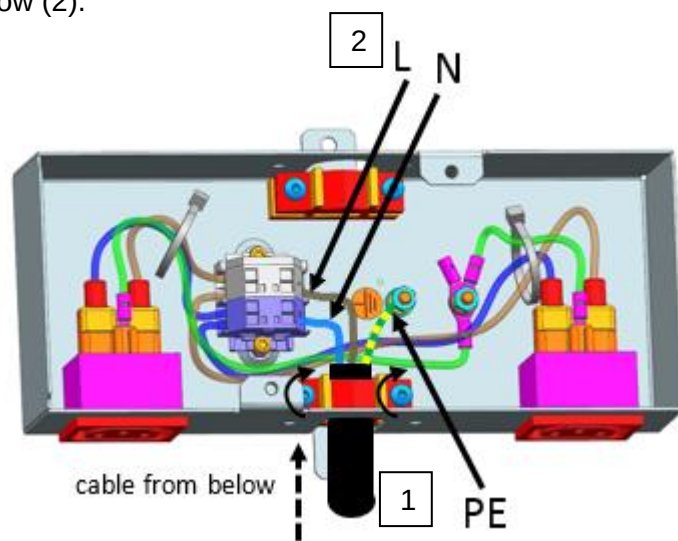
Remove two screws and the cover from the power distributor.



Loosen the two screws (1). Guide the cable through from the top and plug the cables as shown in the picture below or

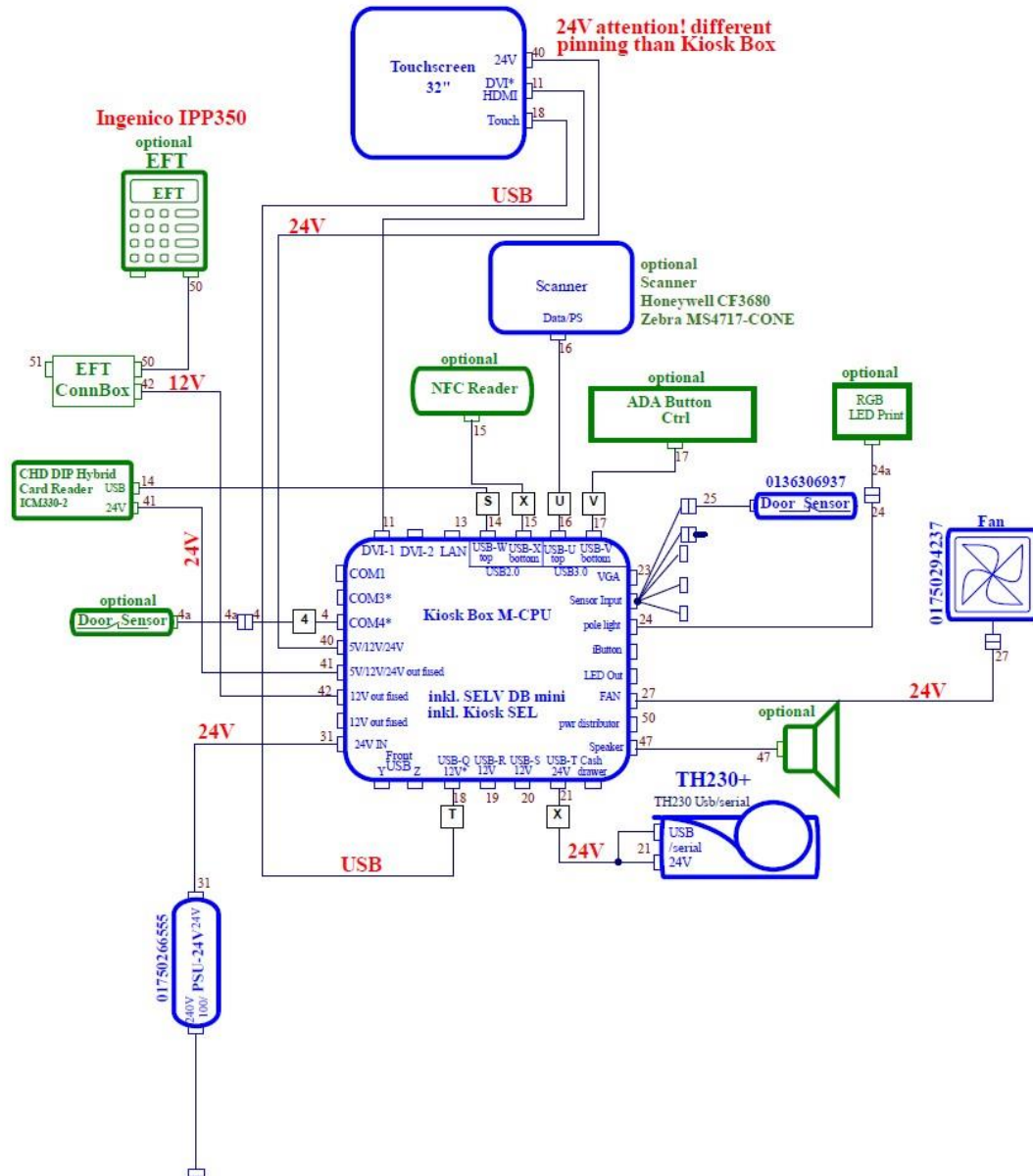


...or guide the cable through from below (1) and plug the cables as shown in the picture below (2).



Mount the cover and start the system.

27 Block diagram



Green marked components are optional

28 Technical data

28.1 System

Rated voltage	100-240 V~ / 60-50Hz
Rated current	2,4 – 1,0 A
Weight 22" double sided	ca. 55 kg
Weight 22" single sided	ca. 35 kg
Weight 27" double sided	ca. 65 Kg
Weight 27" single sided	ca. 40 kg
Weight 32" double sided	ca. 75 kg
Weight 32" single sided	ca. 50 kg
Wall mounting bracket 22",27", 32"	10 kg, 11,5 kg, 12,5 kg
Pole light	18,5 kg
Ceiling cabling kit	4 kg
Ceiling cabling extension	4 kg

28.2 Environmental requirements

Operating

Ambient temperature: 5° C – 35° C
Humidity: 5% r.h. (1 g/m³) – 85% r.h. (25 g/m³)
Barometric pressure: 70 kPa – 106 kPa
(70kPa corresponds to an installation at approximately 2000 meters above sea level)
Installation environments with long periods of sunshine should be avoided

Storage

Ambient temperature: 5° C – 40° C
Humidity: 5% r.h. (1 g/m³) – 85% r.h. (25 g/m³) 0.5 K/min

Transport

Ambient temperature: -25 °C – 60° C
Humidity: 15% r.h. (1 g/m³) – 98% r.h. (32 g/m³)

28.3 Device conditions

		110-120V				220-240 V			
		Idle Mode		Operation		Idle Mode		Operation	
	Typical current consumption	2,2	A	2,65	A	0,81	A	0,9	A
	Active Power	154	W	220	W	150	W	295	W
					110-120V				
Leakage Current					<3,5		mA		
Protection class					I				

28.4 Noise emission in acc. With EN 27779

Noise rating according ISO 7779		Idle Mode		Operation	
	Sound power level LWAd	4	B	5	B
	Workplace-related sound pressure level LpAm	41	dB	51	dB

* typical operating cycle

28.5 ACO Kiosk PC

Motherboard	K1	K2
CPU	Intel i5-4570	Intel Celeron 1820
Chipset	Q87	H81
RAM	8 GB	4 GB
HD	128 mSATA	64 mSATA
Motherboard	M1	M2
CPU	Intel i5-6500	Intel Celeron G3900
Chipset	Q170	H110
RAM	4 GB	4 GB
HD	64 GB SSD	64 GB SSD

28.6 Display 22"

Native Display resolution	1920 x 1080
Contrast	1000:1
Color deepness	16.7M
Brightness (without Touch)	300 cd/m2
Brightness (with Touch)	270 cd/m2
Active Area	476.64 (H) x 268.11 (V) mm
Viewing angle	170° (H) / 160° (V)
Video Input	VGA (analog) / DVI-D (digital)
Power consumption	24W (On-Mode) / 3W standby / 1W Soft-Off
Plug & Play	DDC 2B kompatibel
Supported resolutions	1920 x 1080 (60Hz) 1680 x 1050 (60Hz) 1440 x 900 (60/75Hz) 1280 x 1024 (60/70/75Hz) 1024 x 768 (60/70/75Hz) 800 x 600 (60/70/72/75Hz) 640 x 470 (60/66/70/72/75Hz) 720 x 400 (70Hz)
Touch Screen Technology	Projective Capacitive (10-Points)
Touch Screen Connection	USB (Typ-B)
OSD Buttons	Power On/Off , Select , Down , Up , Menu
OSD Option	Contrast, Brightness, Auto Adjust, Left/right, Down/Up
Approvals	TÜV, CE, UL, cUL, FCC-B, RoHS

28.7 Display 27"

Native Display resolution	1920 x 1080
Contrast	3000:1
Color deepness	16.7M
Brightness (without Touch)	300 cd/m ²
Brightness (with Touch)	270 cd/m ²
Active Area	597.9 (H) x 336.3 (V) mm
Viewing angle	178° (H) / 178° (V)
Video Input	VGA (analog) / DP und HDMI (digital)
Power consumption	30W (On-Mode) / 3W standby / 2W Soft-Off
Plug & Play	DDC 2B kompatibel
Supported resolutions	1920 x 1080 (60Hz) 1680 x 1050 (60Hz) 1440 x 900 (60/75Hz) 1280 x 1024 (60/70/75Hz) 1024 x 768 (60/70/75Hz) 800 x 600 (60/70/72/75Hz) 640 x 470 (60/66/70/72/75Hz) 720 x 400 (70Hz)
Touch Screen Technology	Projective Capacitive (10-Points)
Touch Screen Connection	USB (Typ-B)
OSD Buttons	Power On/Off , Select , Down , Up , Menu
OSD Option	Contrast, Brightness, Auto Adjust, Left/right, Down/Up
Approvals	TÜV, CE, UL, cUL, FCC-B, RoHS

28.8 Display 32"

Size	32"
Native Display resolution	1920 x 1080
Contrast	3000:1
Color deepness	16.7M
Brightness (without Touch)	300 cd/m ²
Brightness (with Touch)	270 cd/m ²
Active Area	698.4 (H) x 392.85 (V) mm
Viewing angle	178° (H) / 178° (V)
Video Input	VGA (analog) / DVI-D (digital)
Power consumption	38W (On-Mode) / 2W standby / 1W Soft-Off
Plug & Play	DDC 2B kompatibel
Supported resolutions	1920 x 1080 (60Hz) 1680 x 1050 (60Hz) 1440 x 900 (60/75Hz) 1280 x 1024 (60/70/75Hz) 1024 x 768 (60/70/75Hz) 800 x 600 (60/70/72/75Hz) 640 x 470 (60/66/70/72/75Hz) 720 x 400 (70Hz)
Touch Screen Technology	Projective Capacitive (10-Points)
Touch Screen Connection	USB (Typ-B)
OSD Buttons	Power On/Off , Select , Down , Up , Menu
OSD Option	Contrast, Brightness, Auto Adjust, Left/right, Down/Up
Approvals	TÜV, CE, UL, cUL, FCC-B, RoHS

28.9 TH230+

Technology	High-speed thermal printer
Resolution	8 dots/mm (203 dpi)
Printing speed	Mono color: 220 mm/s, Two colors: 110 mm/s Draft mode up to 300 mm/s (reduced intensity)
Cash drawer interface	6pin RJ12, 1A@24V max.
Interface options	USB 2.0 full speed, powered USB, RS232c, Ethernet
Cutter	Material: hardened steel, Full cutting speed: < 300ms
Paper transport	Forwards; to utilize the entire capacity of the paper > after cutting: up to 12mm backwards (approx. 3.5 lines at 7.52 lpi)
Control functions	Print head temperature control with adjustment of the print speed Near end paper control and out of paper control Error message for paper cutter Printer cover open/closed Self-test with printout
Optional	Paper width 57.5mm, Printing width = 51mm = 408 dots
Statistical data	Total number of dots Total number of line feeds Total number of cuts Max. head temperature Paper jam counter Error counter for cutter Error counter for thermistor Error counter for high voltage/low voltage Number of firmware updates Switch-on time in hours Switch-on counter
Reliability	55 million lines 3 million cuts at 55g/m ² 150km at 12.5% print density
Graphics function	The TH230 is fully graphic-compliant.
Paper width	79.5mm - 80mm
Paper weight	55g/m ² ± 5 g/m ²

Paper thickness	0.055mm – 0.1mm
Thermal coating	Rear side of paper
Paper roll Outer diameter	90mm max.
Width of paper roll	80.3mm max.
Length of paper	~100m
Core size	Core diameter 10mm +2mm Wall thickness of core: max. 2mm $\pm$ 0.3mm; End of paper not glued to core. Length of paper fold at core: 35mm
Print width	72mm = 576 dots

29 Certifications of the Manufacturer



The device complies with the requirements of the EU directives 2014/30/EU with regard to “Electromagnetic compatibility” and, if applicable, 2014/35/EU “Low Voltage Directive” and 2011/65/EU “Restriction of Hazardous Substances”. Therefore, you will find the CE mark on the device or packaging.



The system is approved for the USA and Canada.

Supplier's Declaration of Conformity

47 CFR § 2.1077 Compliance Information

Responsible Party in the U. S.: Diebold Nixdorf

Address: 5995 Mayfair Road
N. Canton, OH 44720 / USA

Contact: cynthia.williams@dieboldnixdorf.com

FCC Compliance Statement

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 may 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.

This class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada. (2)
This device must accept any interference received, including interference that may cause undesired operation.

30 Recycling the Kiosk

This device was designed according to the Diebold Nixdorf standard "Environmentally Conscious Product Design and Development".

The device is manufactured without the use of CFCs and CCHs and is manufactured to a great extent out of materials and components which are recyclable.

For recycling purposes do not attach any additional adhesive labels to the terminal.

Diebold Nixdorf disposes of old terminals in an environmentally responsible manner at a recycling center that is ISO 9001 and ISO 14001 certified, as is the entire company. Follow your local regulations on the disposal of toxic waste.

Your Diebold Nixdorf vendor will answer any questions you have concerning returns, recycling, and disposal of our products.

Diebold Nixdorf
D-33094 Paderborn
Order No.: 01750299889E