

# BEETLE /iSCAN EASY eXpress+

Integration manual

May 2019

01750301910B





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# 1 Remarks

You will find further important details in relation to installation in the Installation Guide for the BEETLE /iSCAN Express<sup>+</sup> on the Diebold Nixdorf website.



## NOTICE

An angled power cable is required both for integration in the tabletop adapter and for wall and pillar mounting.

## 1.1 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 Technical data

### 2.1 System

Mains input voltage	100-240 VAC / 60-50Hz
Power consumption	1.4-0.7A
Typical output	approx. 55W
Max. output	approx. 87W
Standby output	approx. 1.5W
Weight for 15" version	28 kg
Weight for 19" version	30 kg

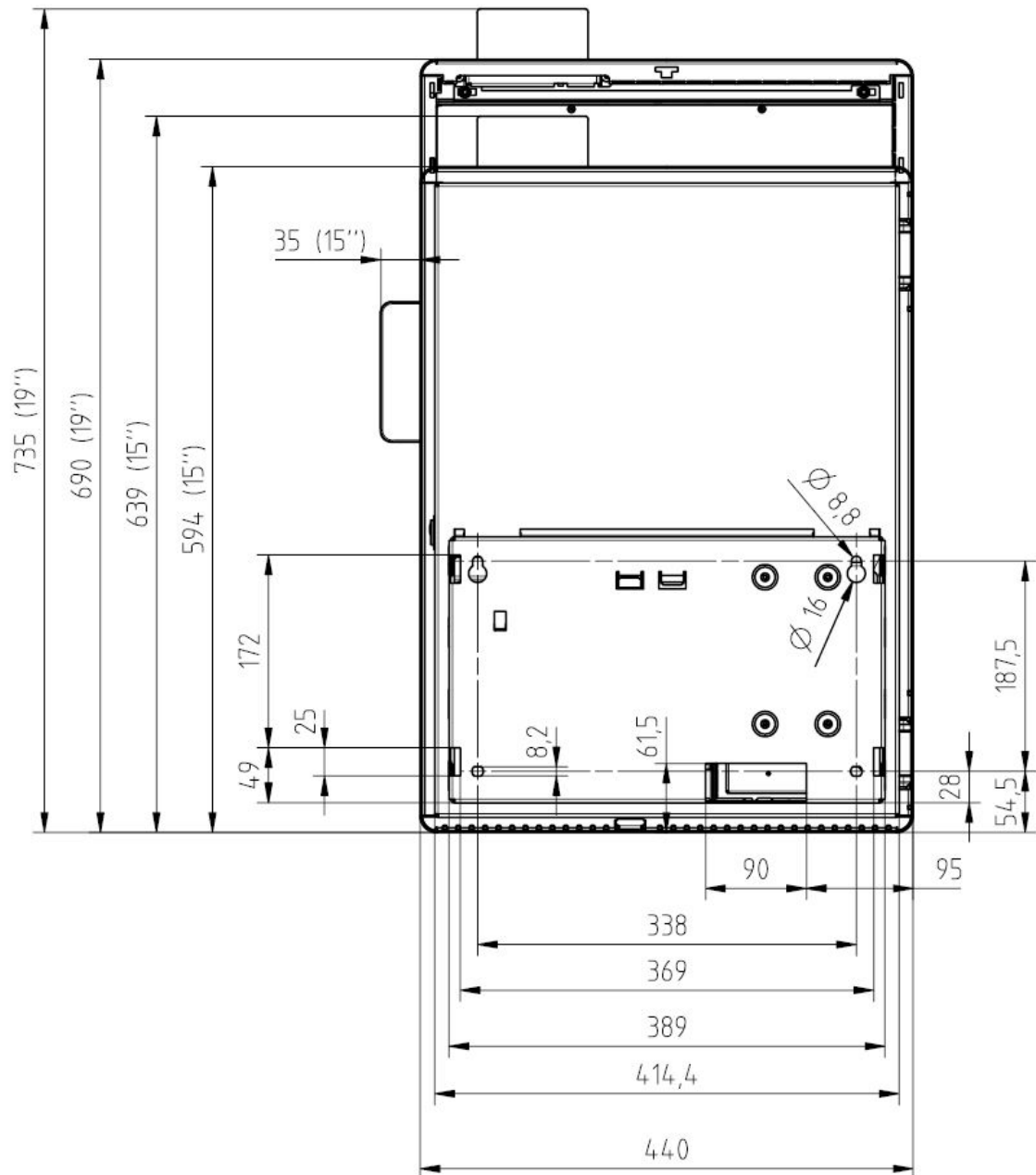
### 2.2 Environmental conditions

<b>Operation</b>	
Air temperature:	5 °C – 35 °C
Relative humidity:	5% r.h. (1 g/m <sup>3</sup> ) – 85% r.h. (25 g/m <sup>3</sup> )
Temperature fluctuation:	0.5 K/min (max. 7.5K/30 min)
Air pressure:	106 - 78 kPa (78kPa corresponds to the air pressure for installation at approx. 2000m above sea level) Installation environments with prolonged exposure to sunlight should be avoided.
<b>Storage</b>	
Air temperature:	5 °C – 40 °C
Humidity:	5% r.h. (1g/m <sup>3</sup> ) – 85% r.h. (25 g/m <sup>3</sup> ) 0.5 K/min
Temperature fluctuation:	0.5 K/min (max. 7.5K/30min)
<b>Transport</b>	
Air temperature:	-25 °C – 60 °C
Humidity:	15% r.h. (1 g/m <sup>3</sup> ) – 98% r.h. (32 g/m <sup>3</sup> )
Temperature fluctuation: -	25 °C / 25 °C

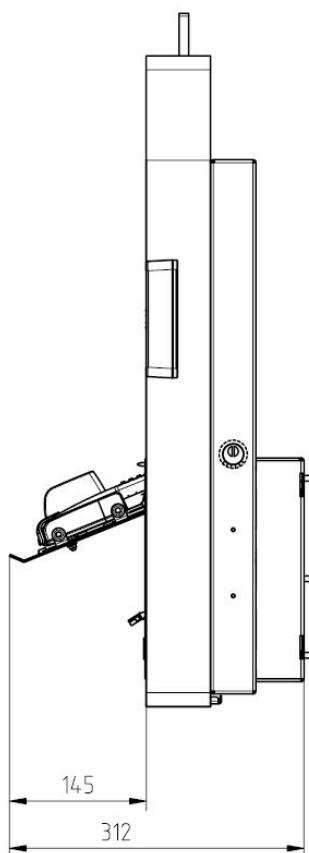
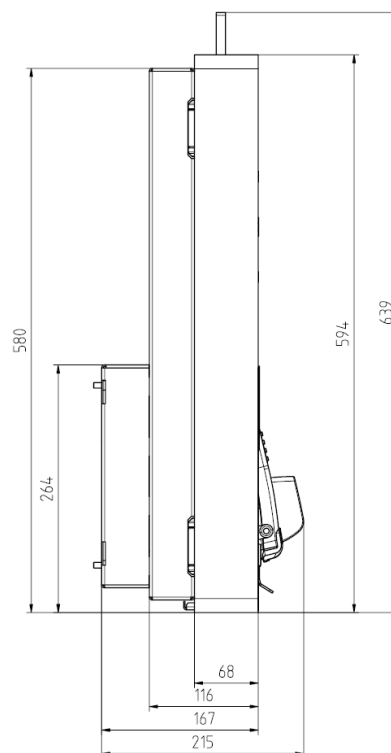
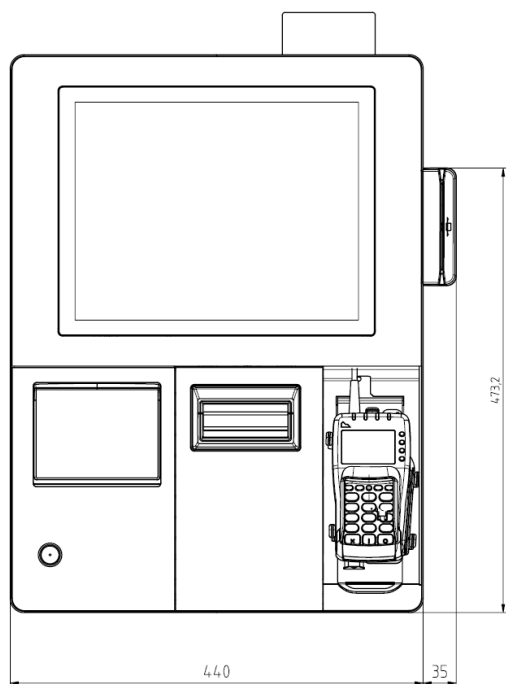
### 3 Dimensions

(all values in mm)

#### 3.1 Rear of 15" and 19" version

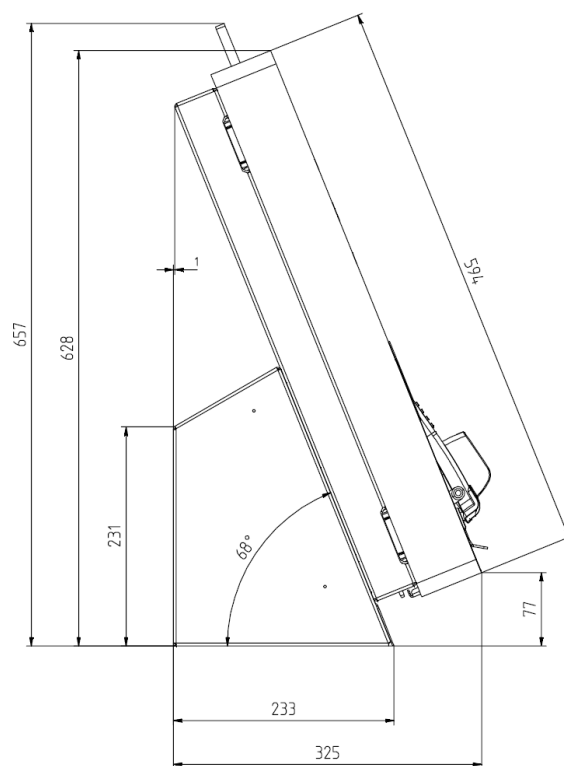
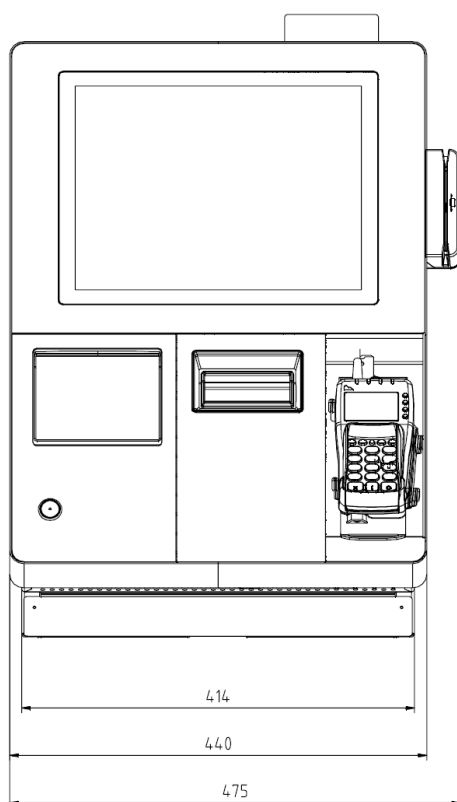


## 3.2 15" version

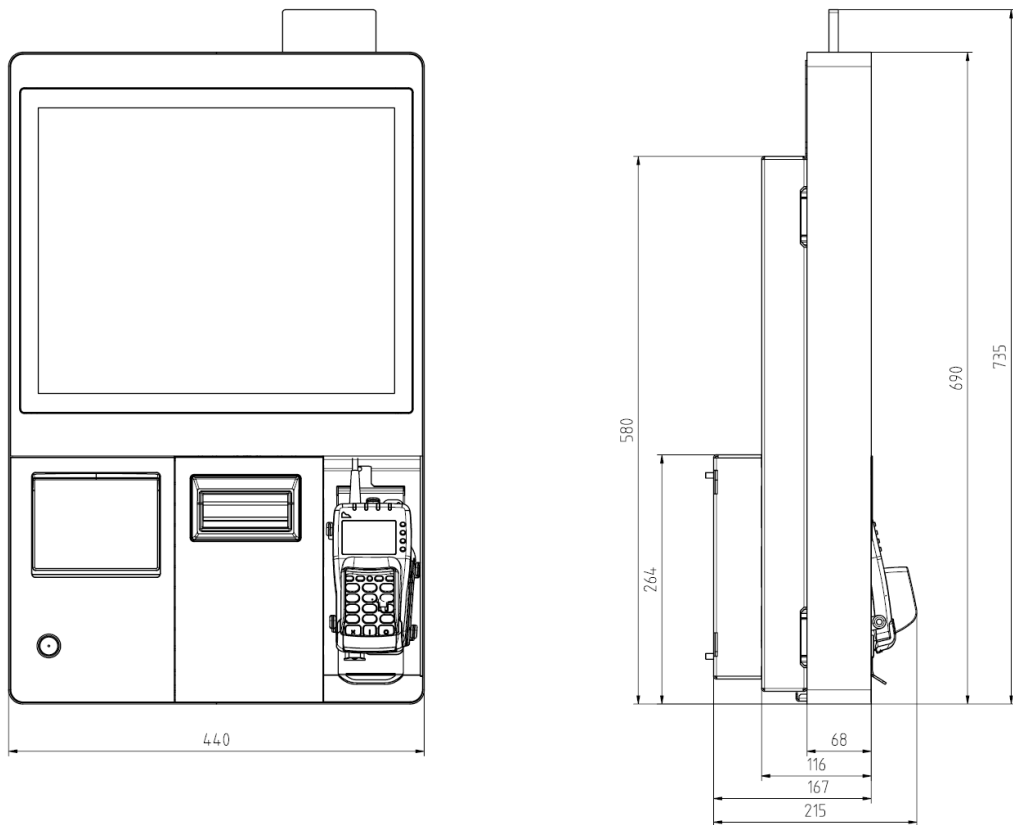




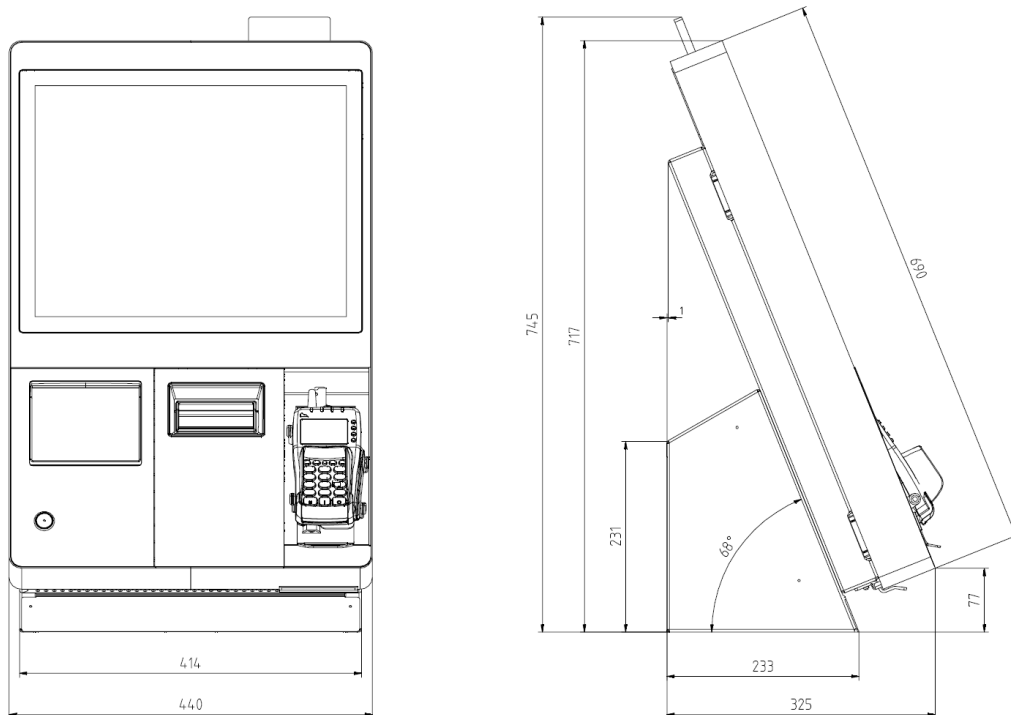
### 3.3 15" version with tabletop display



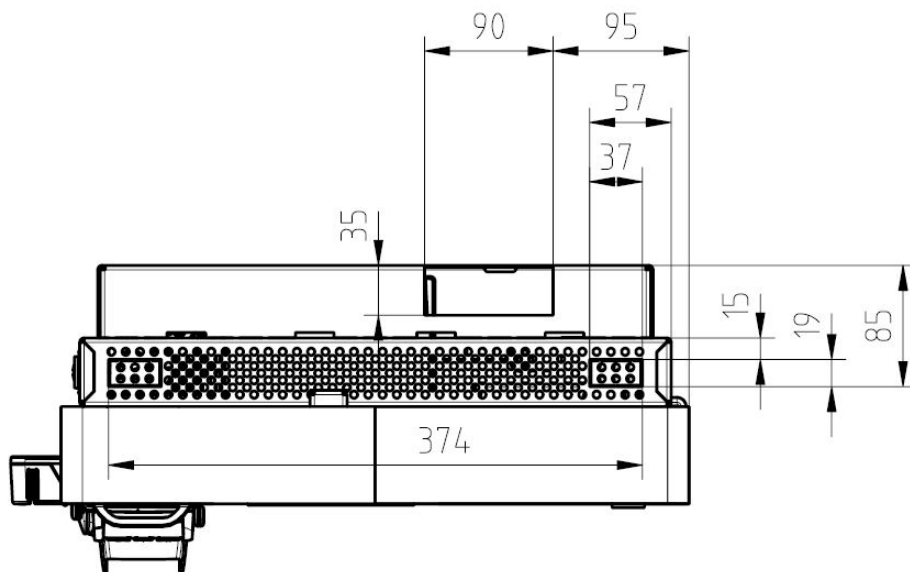
### 3.4 19" version



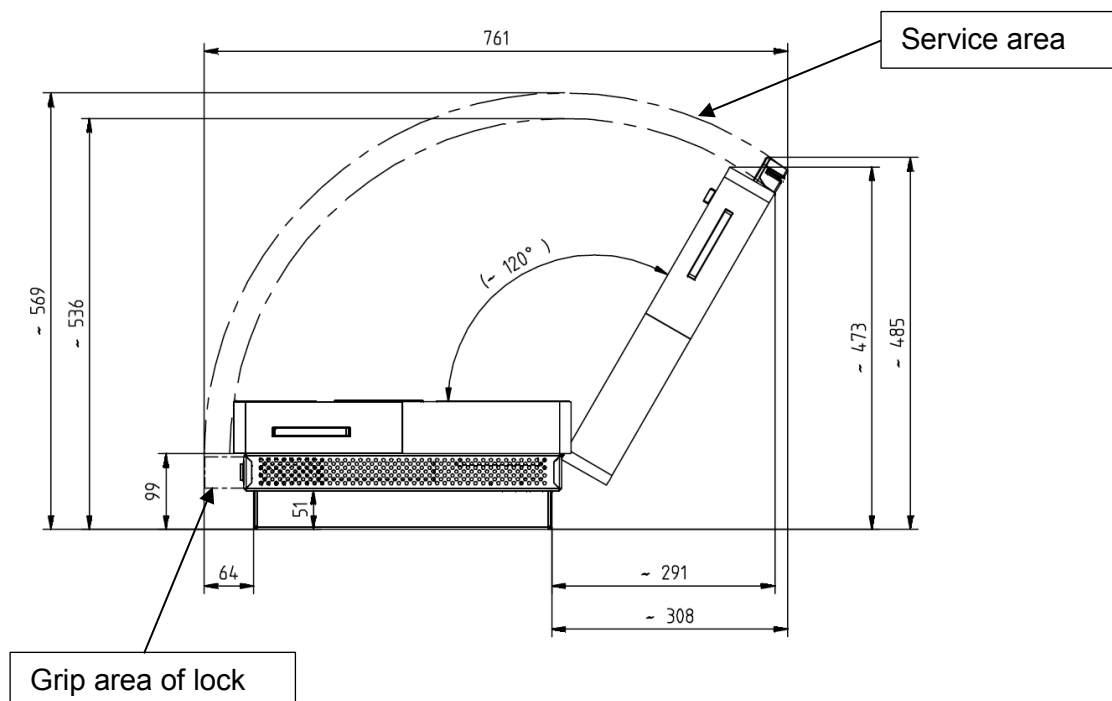
### 3.5 19" version with tabletop display



### 3.6 Openings on the underside

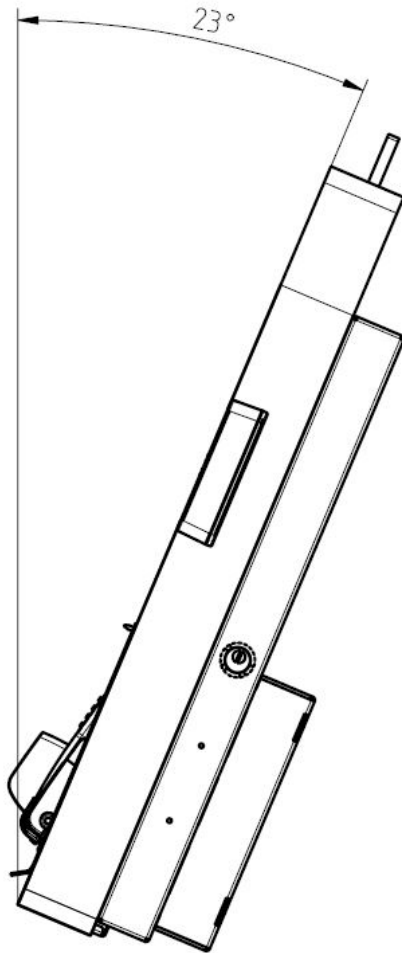


### 3.7 Device with open door



## 4 Orientation and vertical mounting

The BEETLE /iSCAN EASY eXpress<sup>+</sup> may be installed vertically or tilted at an angle of up to 23° from the vertical.



Danger owing to ingress of liquids!



In case of vertical assembly in a restaurant environment, a suitable mechanism must be used to ensure that no beverages can be placed on the device.

Ingress of liquids can damage the device irreparably.

## 5 Ventilating the system

Keep the device's ventilation openings uncovered to ensure adequate ventilation. This prevents the temperature increasing excessively.

Even if you plan to integrate the device, make sure to maintain the minimum distances stated below and ensure reliable ventilation and air extraction.

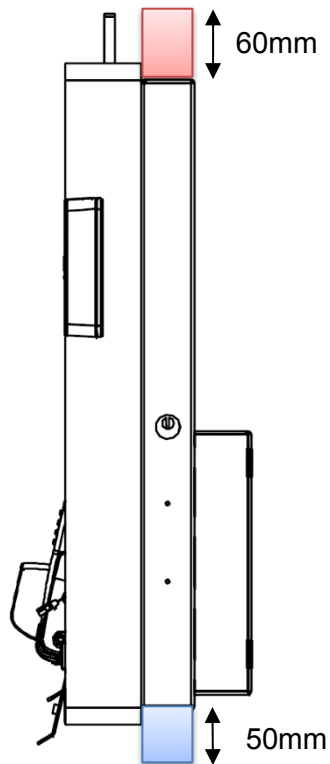
The direct ambient temperature of the system must not exceed 35 °C.



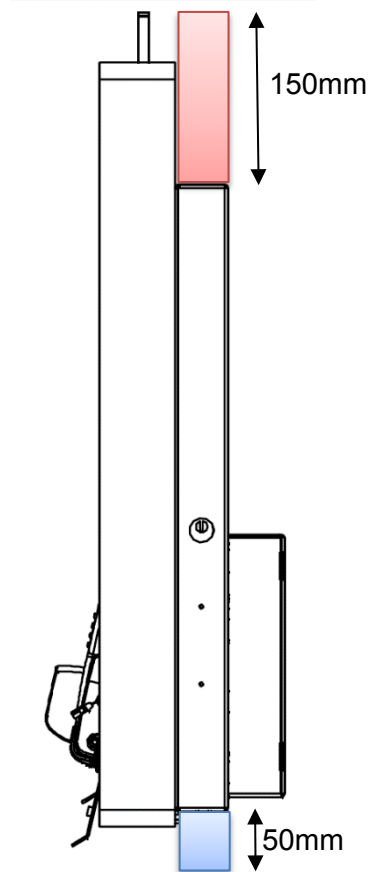
Observe the specified minimum distances to ensure proper ventilation.

Always keep the ventilation slots free of obstruction to ensure adequate air circulation and avoid overheating.

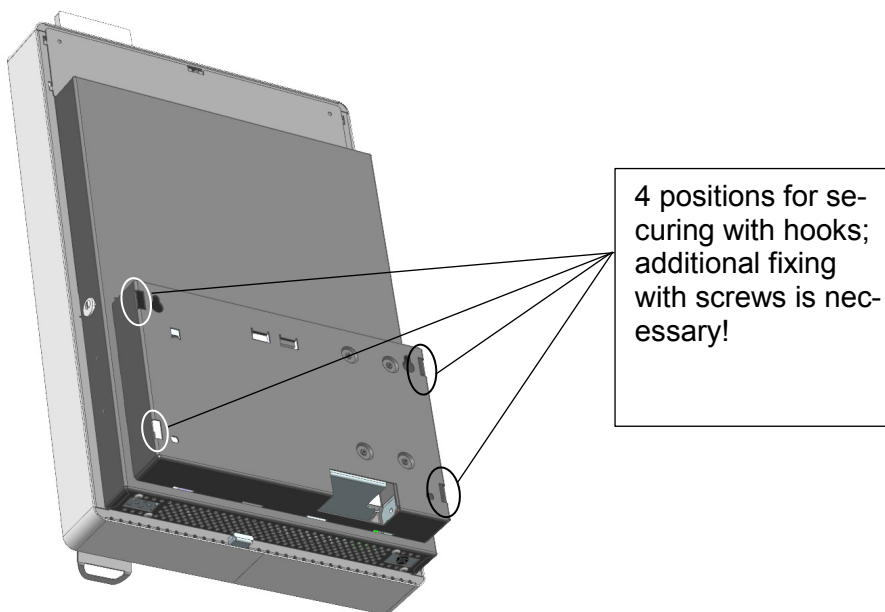
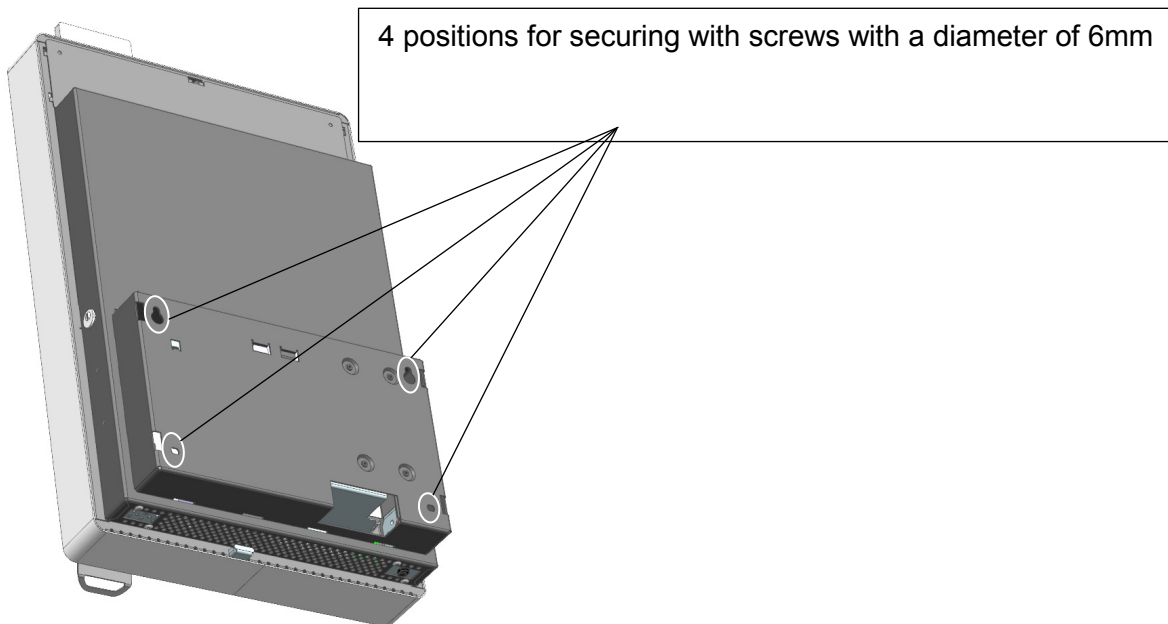
**15" version**



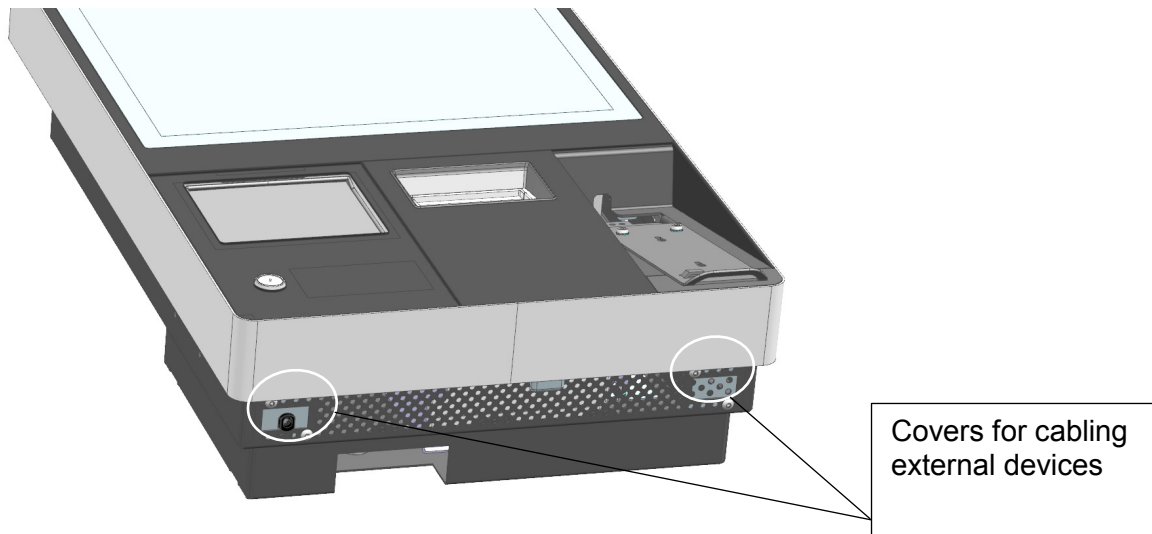
**19" version**



## 6 Suspending the system

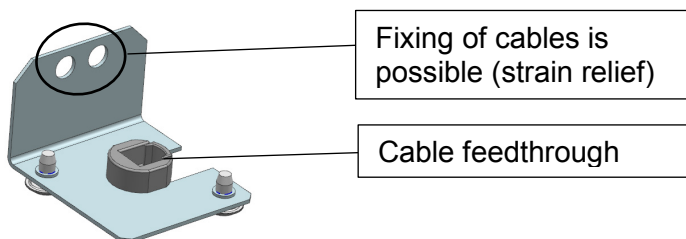


## 7 Cabling external devices



There are openings on the underside of the device to the right and left, which are sealed by covers.


One of the covers allows cable feed with edge protection. The covers are interchangeable.



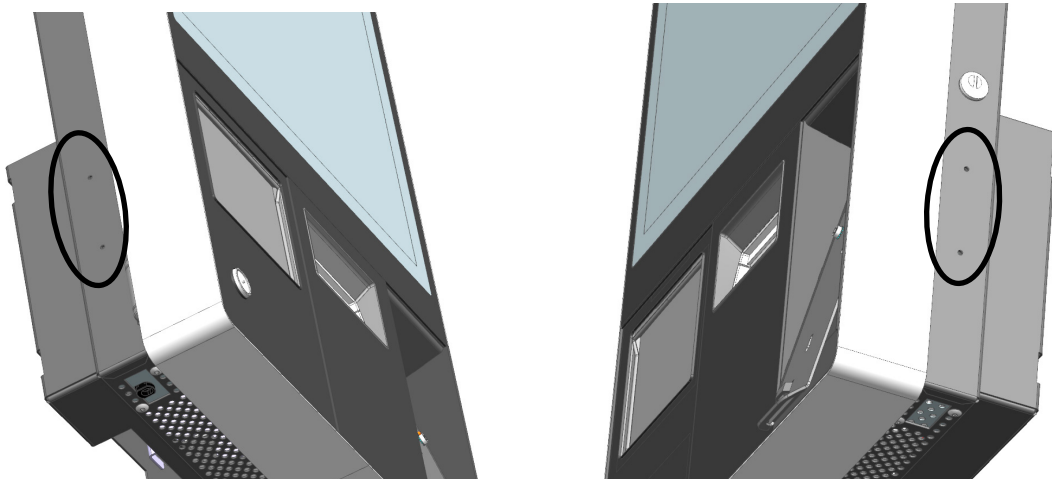


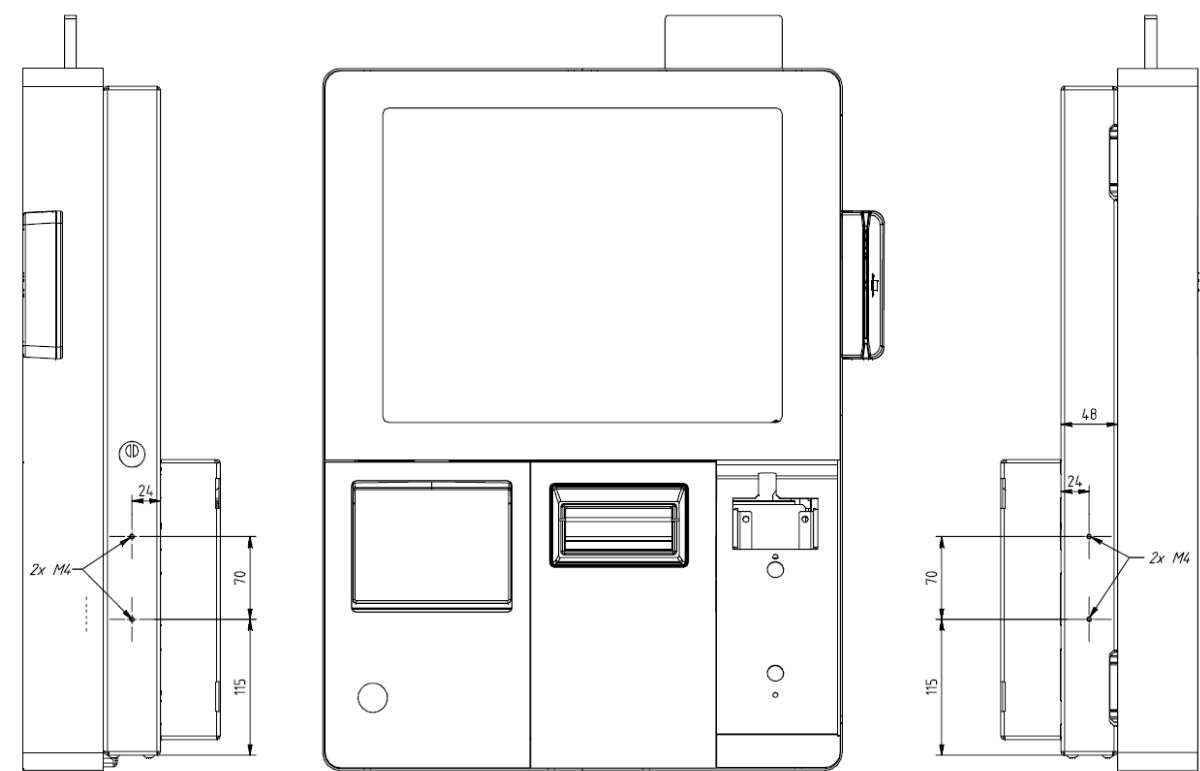
## 8 Mechanically adapting additional peripherals

The housing of the BEETLE /iSCAN EASY eXpress<sup>+</sup> includes two M4 screw threads on either side of the body for attaching add-ons, such as brackets for handheld scanners, advertising media, etc.

	<p><b>WARNING</b></p> <p>Risk of injury! The M4 screw threads must not be used under any circumstances for mounting the device on a wall.</p>
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Take care when fitting the add-ons that the opening of the door and access to the locking system are not obstructed.

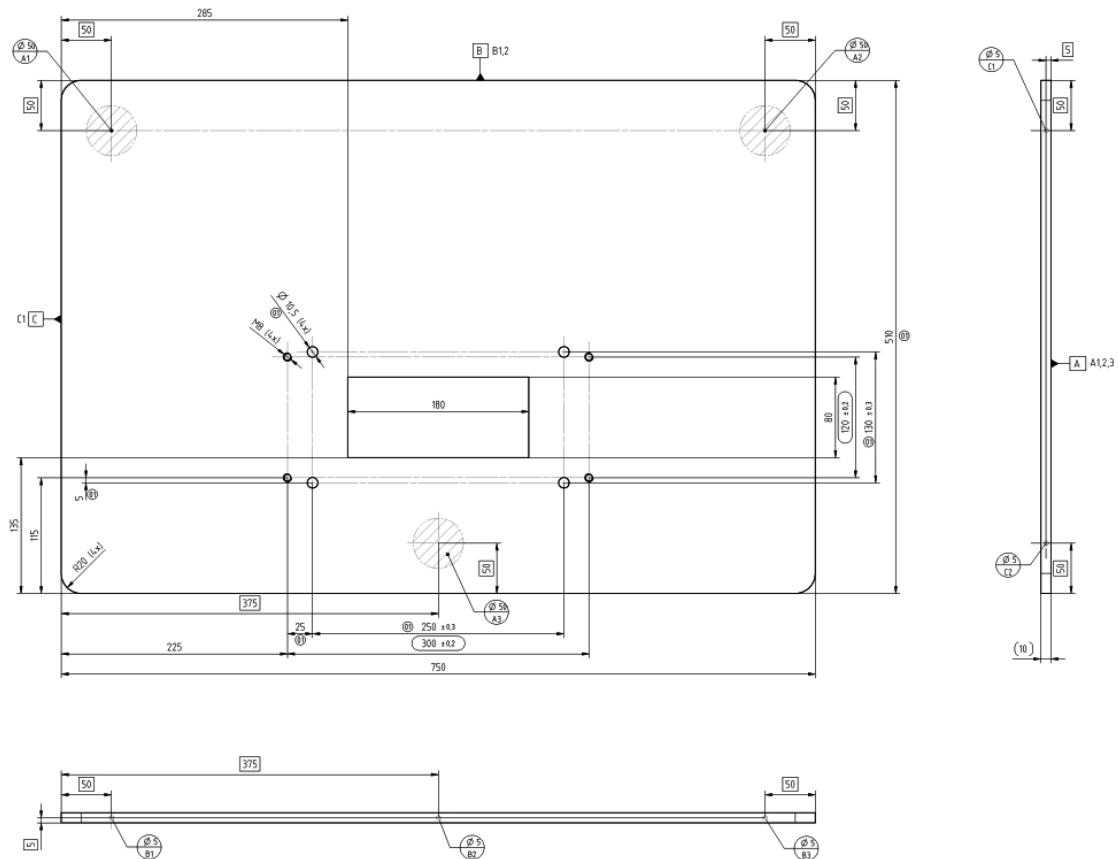




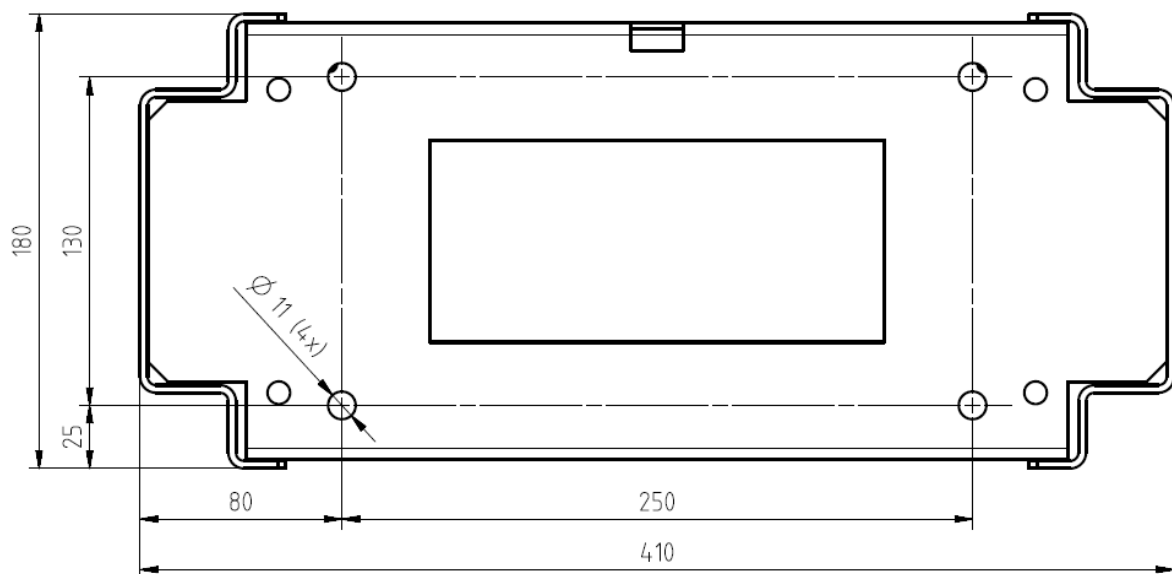
## 9 Pillar and wall mounting

### 9.1 Dimensions (in mm)

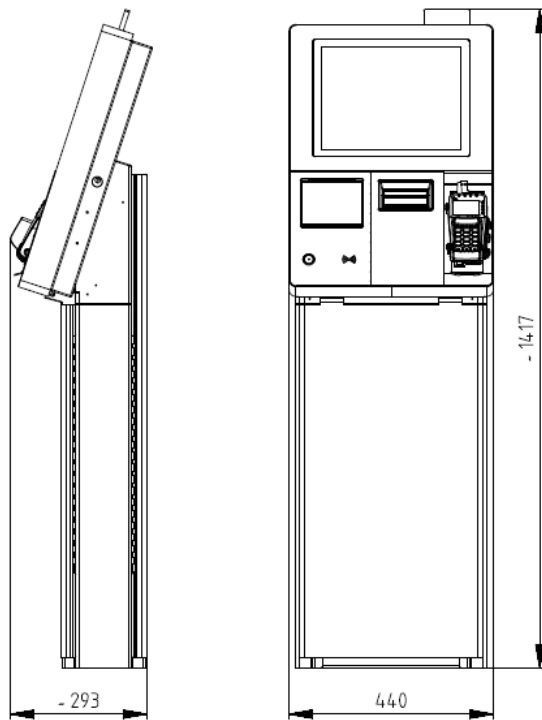
#### 9.1.1 Optional base plate



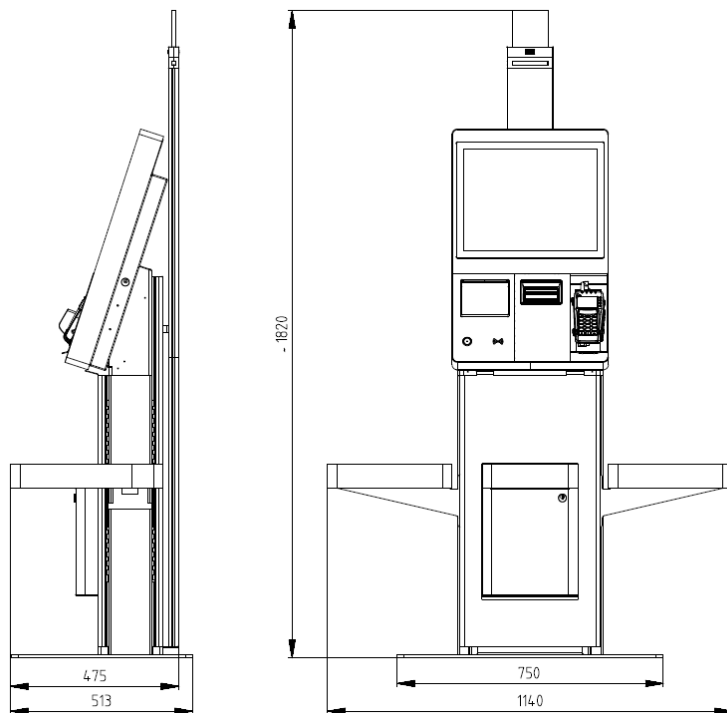
#### 9.1.2 Pillar drill template



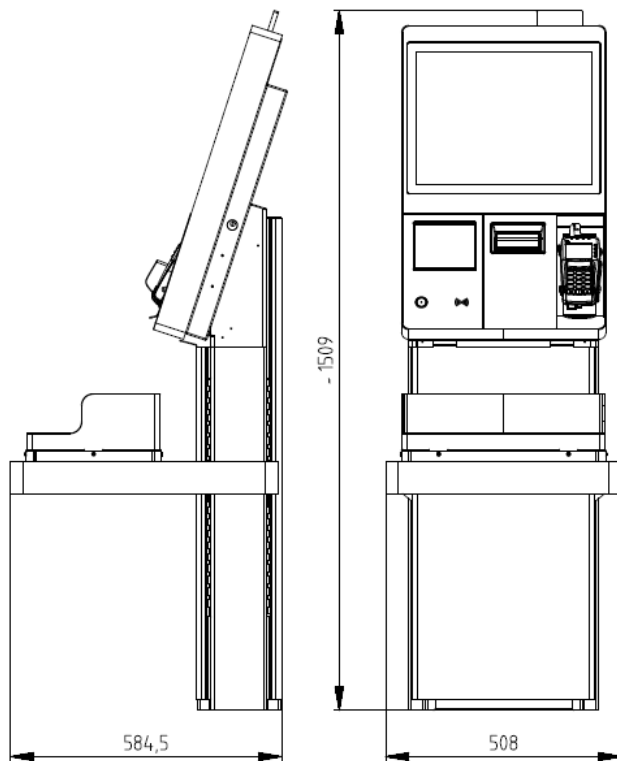
### 9.1.3 Pillar mounting with 15" BEETLE /iScan EASY eXpress<sup>+</sup>



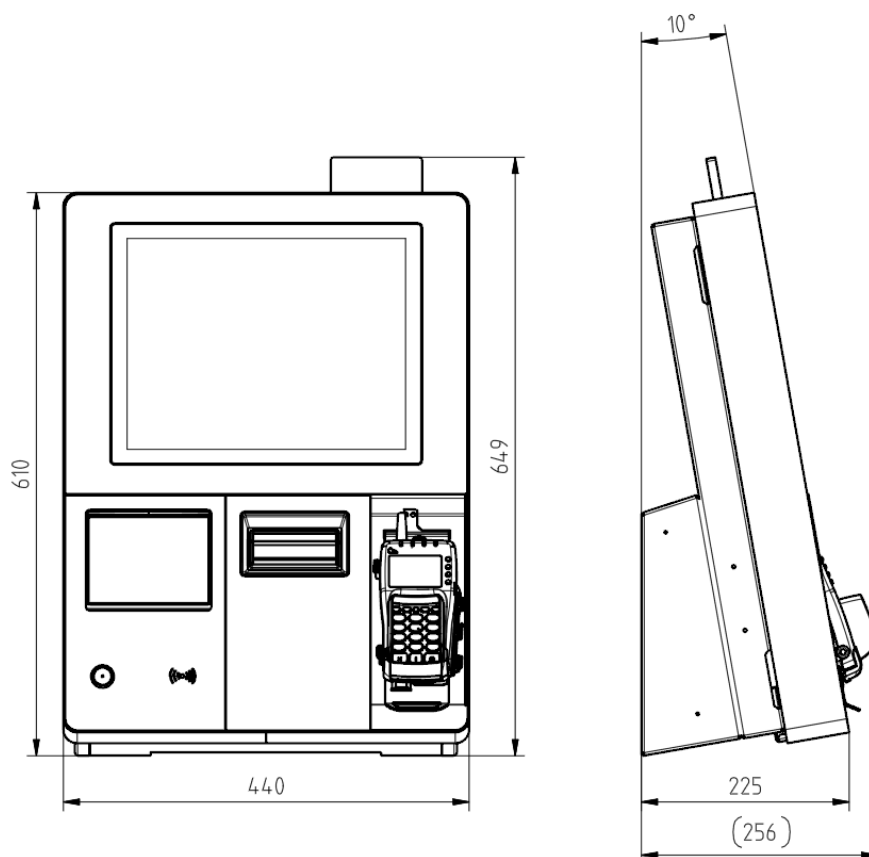
### 9.1.4 Pillar mounting of 19" BEETLE /iScan EASY eXpress<sup>+</sup> with optional basket shelf on both sides, status indicator, coupon box and base plate



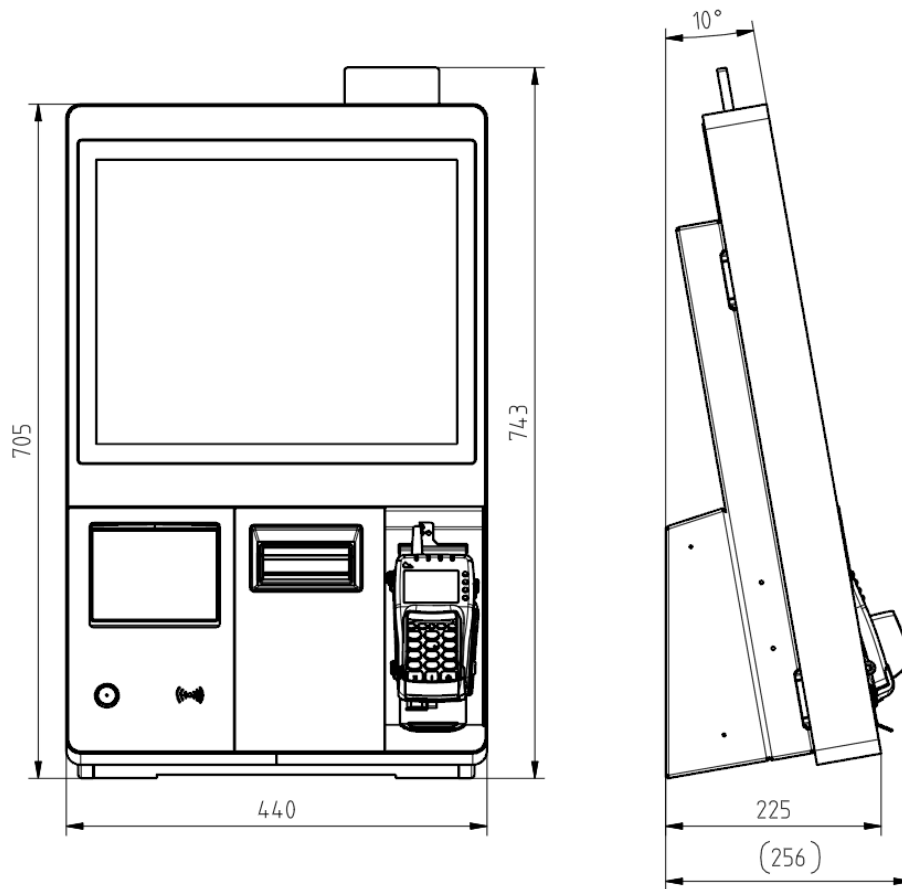
### 9.1.5 Pillar mounting of 19" BEETLE /iScan EASY eXpress<sup>+</sup> and optional scale platform



### 9.1.6 Wall mounting of 15" BEETLE /iScan EASY eXpress<sup>+</sup>



### 9.1.7 Wall mounting of 19" BEETLE /iScan EASY eXpress<sup>+</sup>



## 9.2 Installation instructions: Self-Checkout on pillar

### 9.2.1 Self-Checkout with floor cabling

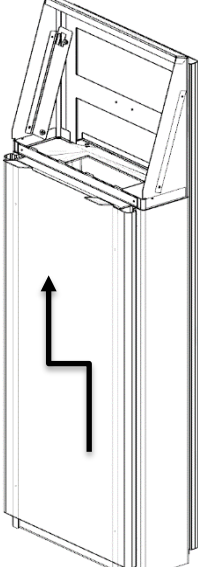
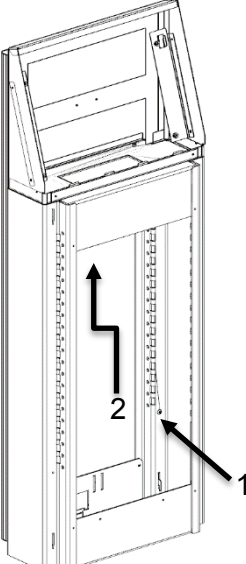
Installation including floor mounting must be carried out by a trained engineer after assessing and evaluating the structural conditions on site.


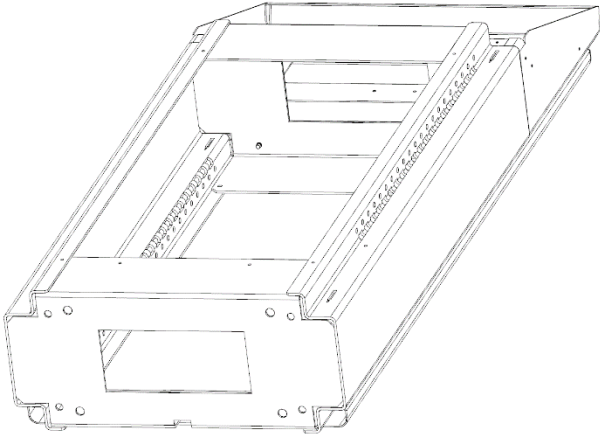


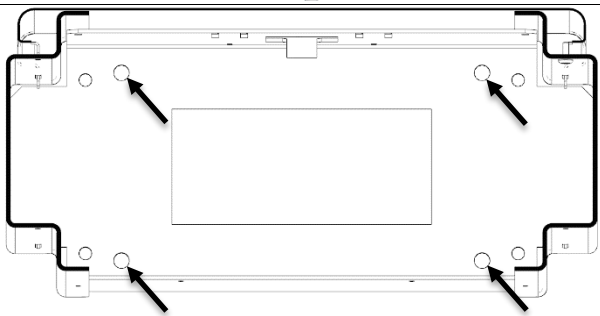

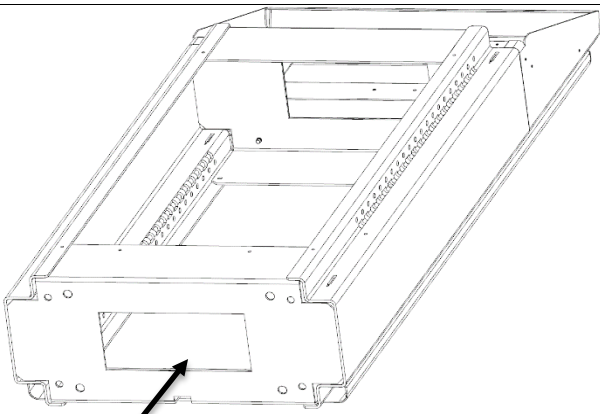
Materials required (depending on the substrate):

4x M10 anchor bolts

4x DIN 933 M10x60-8.8 hexagon bolts

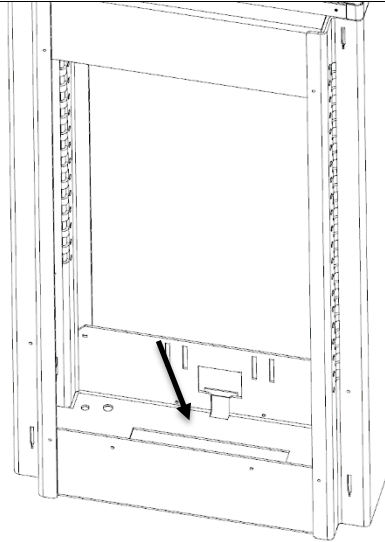
4x 10.5x2.0 washers

<p>1. Raise the front panel and remove it forward.</p>	
<p>2. Remove the safety screw [1], then raise the rear cover and remove this [2].</p>	

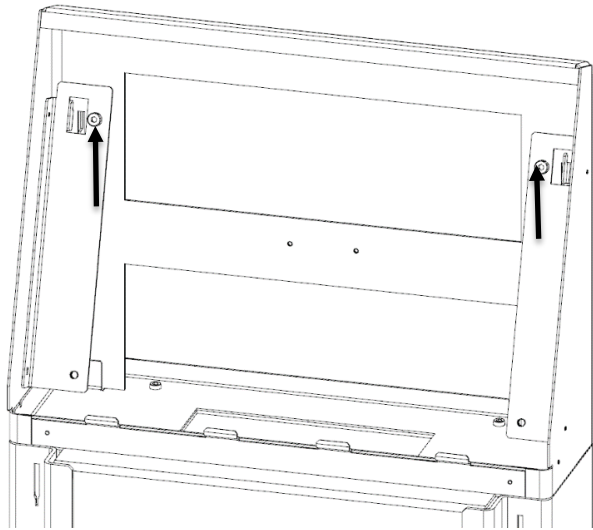
<p>3. Position the pillar above the floor outlet so that the cables can pass through the hole in the center of the base plate.</p> <p> The pillar must always have a solid base.</p>	
<p>4. Mark the four holes as drilling points.</p> <p> <b>Do not mark any drilling points near the cable feed!</b></p> <p> <b>Attention:</b> The kiosk must be screwed tightly to the floor so that it cannot tilt over.</p> <p>Drill the four holes in the floor using a 12mm drill and install the anchor bolt.</p> <p>The drill holes must be 80 mm deep.</p>	
<p>5. Push all required cables through the opening in the base plate.</p> <p>Position the pillar with the holes precisely over the drill holes with the anchor bolts.</p> <p> Secure the pillar using the hexagon nuts.</p>	



6. Leave the cable lying on the base plate.



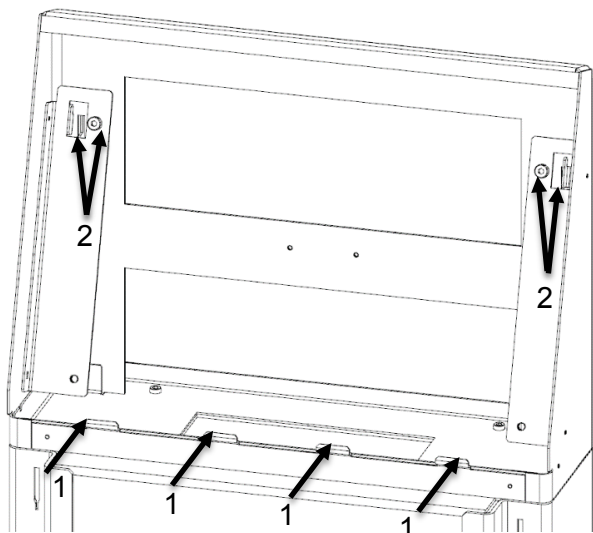
7. Screw the two M6x10 screws in halfway.

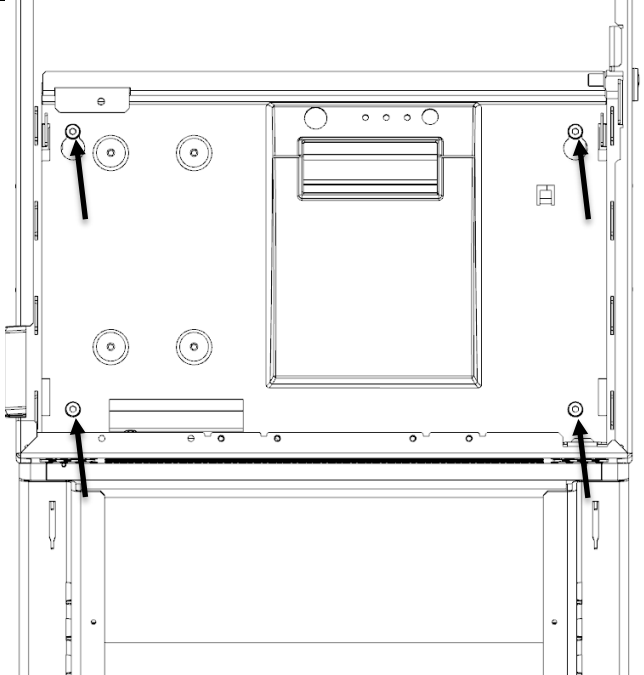

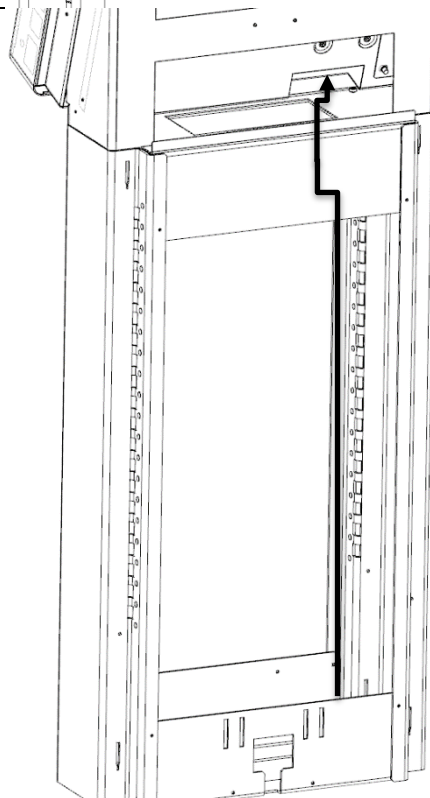


**Attention:** Two people are needed to position the kiosk on the pillar.

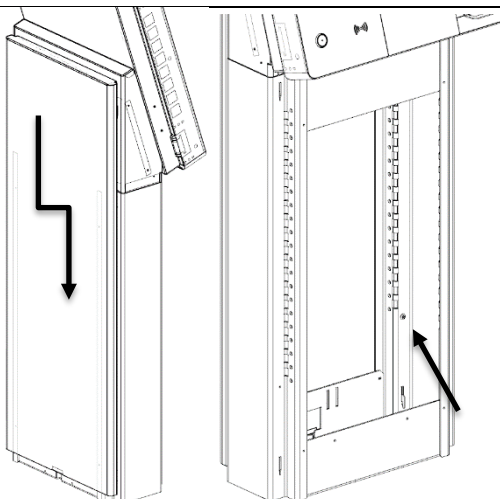
8. First insert the closed BEETLE /iSCAN EASY eXpress<sup>+</sup> below into the sheet metal tabs of the pillar adapter [1].

Now raise the BEETLE /iSCAN EASY eXpress<sup>+</sup> and clip into the upper snap hooks and screws of the pillar adapter [2].

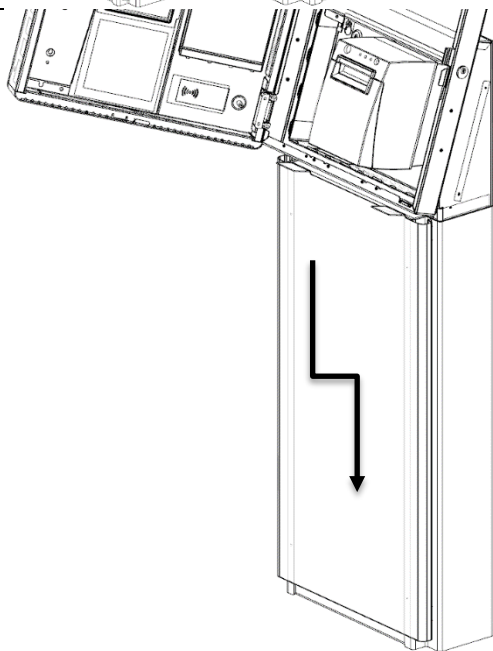


<p>9. Unlock the device and open the door. Insert two more M6x10 screws (see arrows) in the lower area and secure the device by tightening all four screws on the pillar adapter.</p>	
<p>10. Insert the cable into the BEETLE /iSCAN EASY eXpress<sup>+</sup> housing and secure with cable ties in free drill holes on the pillar from the inside.</p> <p> For more information about connecting the cables, see the BEETLE /iSCAN EASY-eXpress<sup>+</sup> Installation Guide on the Diebold Nixdorf website.</p>	
<p>11. Mount the optional components, such as basket shelf or scale platform, in accordance with the configuration ordered; see adjacent chapter details.</p>	<p>9.4 Basket shelf at front            9.5 Basket shelf at side            9.6 Security scale at front            9.7 Security scale at side            9.8 Coupon box            9.9 Signal indicator            9.10 Coupon printer shelf</p>

12. Insert the rear panel and secure by screwing in.


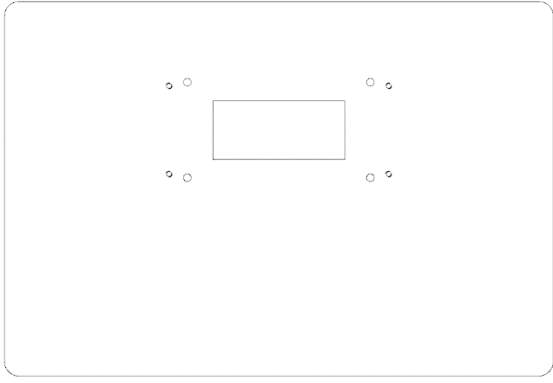
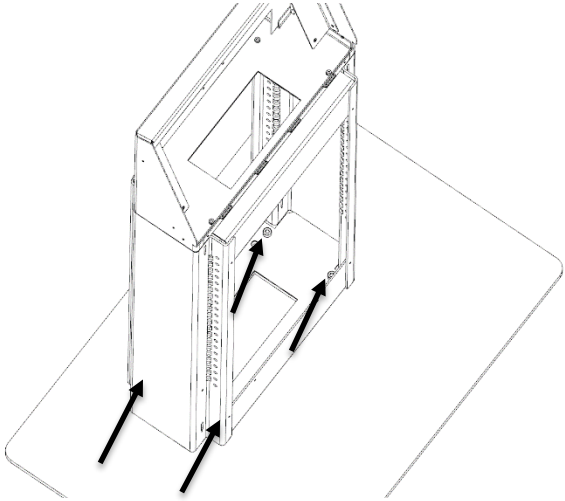
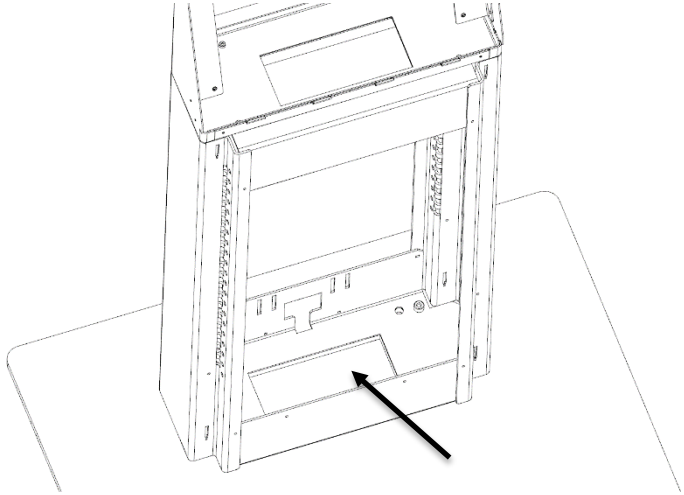


13. Unlock the BEETLE /iSCAN EASY eXpress<sup>+</sup> and open the door.  
Now insert the front cover and close and lock the BEETLE /iSCAN EASY eXpress<sup>+</sup>.

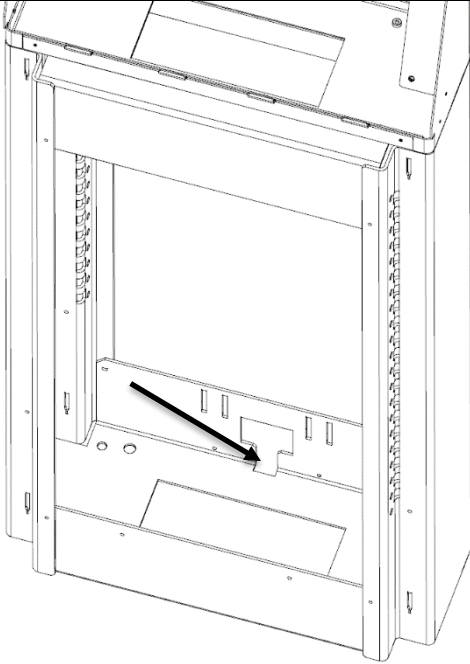


## 9.2.2 Self-Checkout with floor cabling and optional base plate

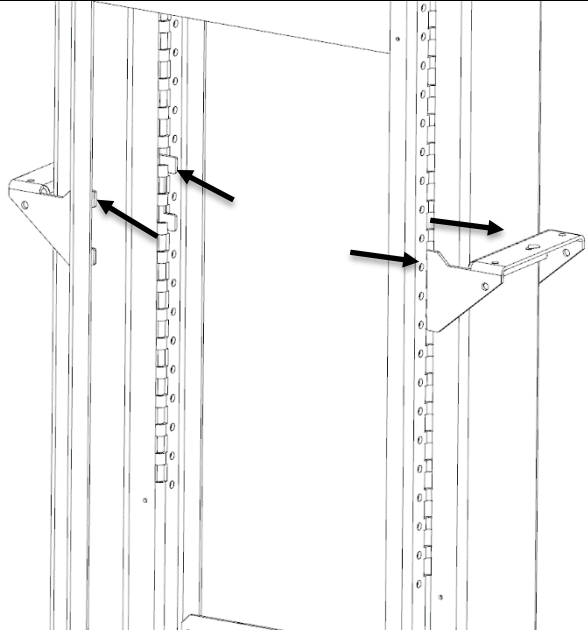
Installation including floor mounting must be carried out by a trained engineer after assessing and evaluating the structural conditions on site.

<ol style="list-style-type: none"> <li>1. Follow steps 1-2 in Section 9.2.1</li> </ol>	
<ol style="list-style-type: none"> <li>2. Position the base plate above the floor outlet so that the cables can pass through the hole in the center of the base plate.</li> </ol> <p> The pillar must always be on a solid base.</p>	
<ol style="list-style-type: none"> <li>3. Position the pillar on the base plate and secure it using 4 M8x12 screws.</li> </ol>	
<ol style="list-style-type: none"> <li>3. Pull all required cables through the opening into the interior of the pillar.</li> </ol>	
<ol style="list-style-type: none"> <li>4. Follow steps 6-13 in Section 9.2.1.</li> </ol>	

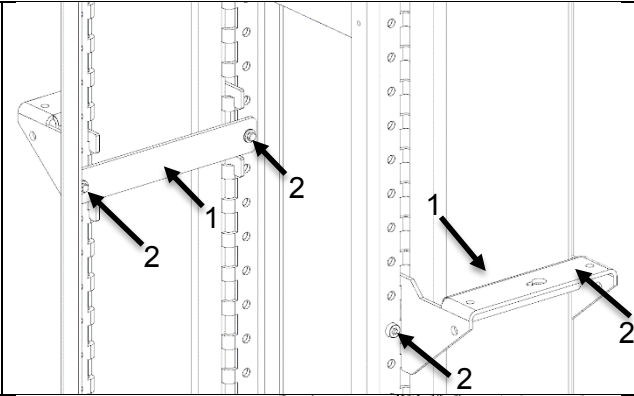
### 9.3 Self-Checkout with cabling “on the floor”

1.	Follow steps 1-4 in Section 9.2.1
2. Pull all required cables through the opening into the interior of the pillar.	
3. Follow steps 6-13 in Section 9.2.1	

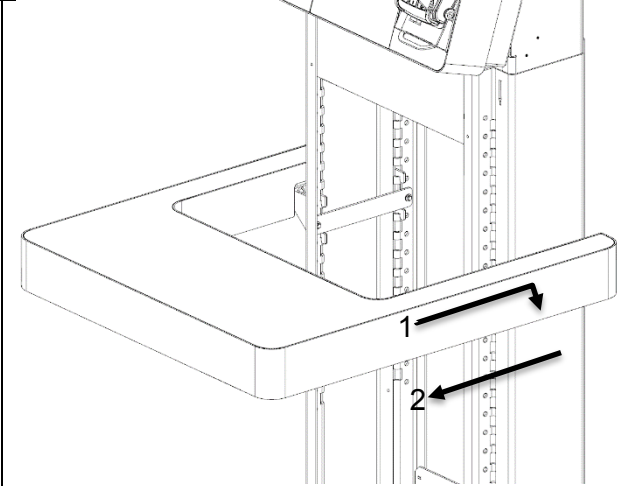
### 9.4 Installing the basket shelf at front

1. To install the basket shelf at the front at the standard height (535 mm), clip the two angle brackets into the grid of the pillar so that the upper hook is located in the 12th opening from below.	
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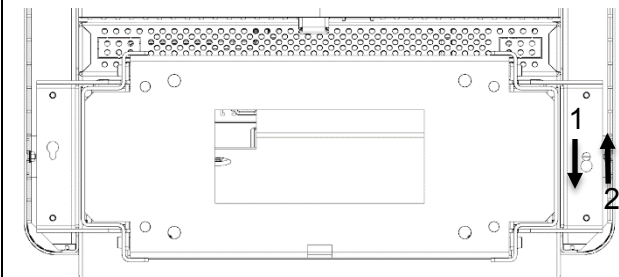
2. Insert the two safety plates from the inside as shown in the diagram alongside [1] and secure each of these from the outside using two M6x10 cheese head screws [2].



3. Place the basket shelf on the angle brackets and push these toward the rear until the shoulder screw on the right-hand side submerges into the key contour [1]. Now pull the shelf forward again right up to the key contour [2]. The shelf is now secured from falling down during the further course of installation.



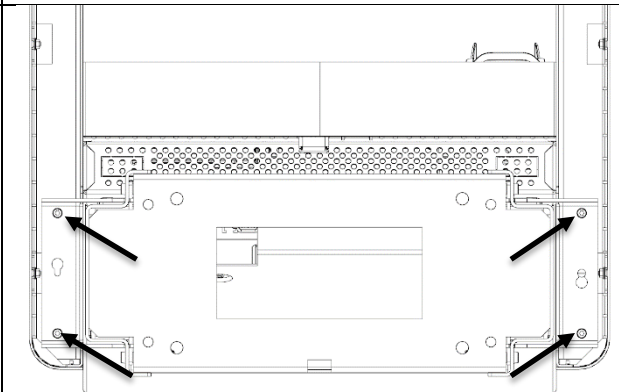
View from below



4. Finally, screw in four M5x10 cheese head screws from below into the basket shelf.

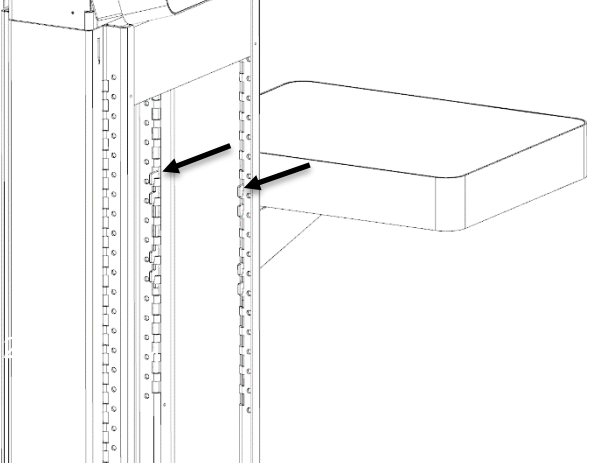
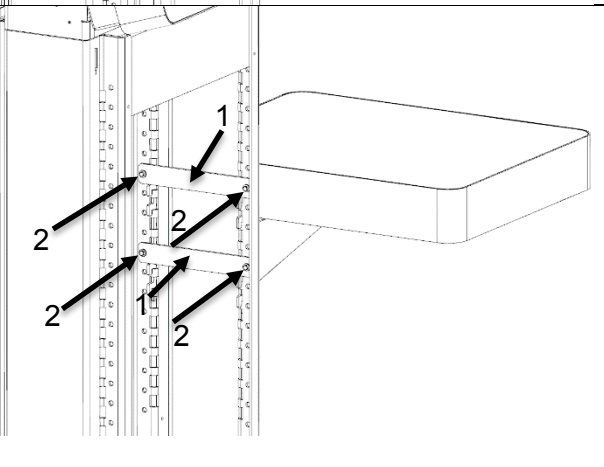


View from below

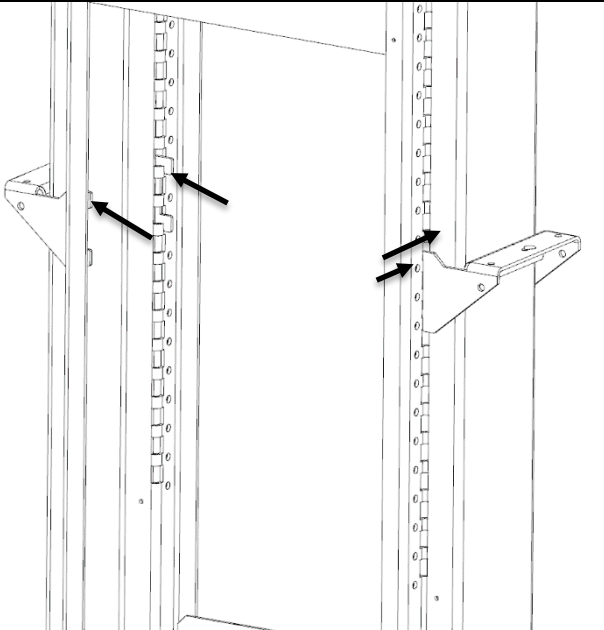


## 9.5 Installing the basket shelf at side

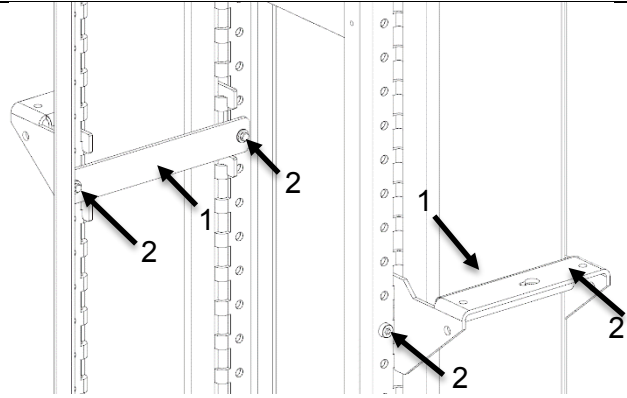
Installation of the basket shelf on the right is described here by way of example, the left basket shelf is secured accordingly on the left-hand side.

<p>1. To install the side basket shelf at the standard height (535 mm), clip the shelf into the mounting grid so that the upper hook is located in the 12th opening from below.</p>	
<p>2. Insert the two safety plates from the inside as shown in the diagram alongside [1] and secure each of these from the outside using two M6x10 cheese head screws [2].</p>	

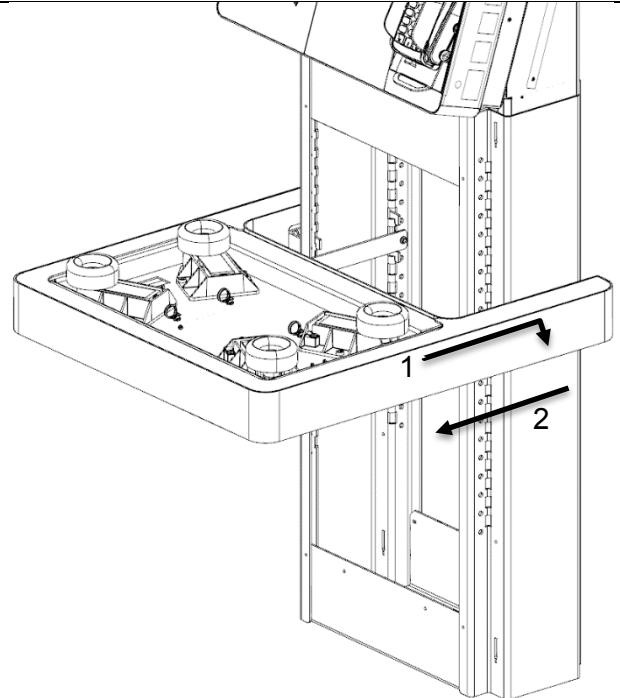
## 9.6 Installing the security scale at front

<p>1. To install the front security scale at the standard height (535 mm), clip the two angle brackets into the grid of the pillar so that the upper hook is located in the 12th opening from below.</p>	
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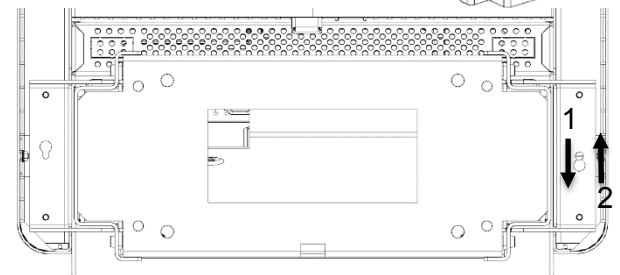
2. Insert the two safety plates from the inside as shown in the diagram alongside [1] and secure each of these from the outside using two M6x10 cheese head screws [2].



3. First place the scale on the angle brackets without load plate and push these to the rear until the shoulder screw on the right side submerges into the key contour [1]. Now pull the scale forward again right up to the key contour [2]. The scale is now secured from falling down during the further course of installation.



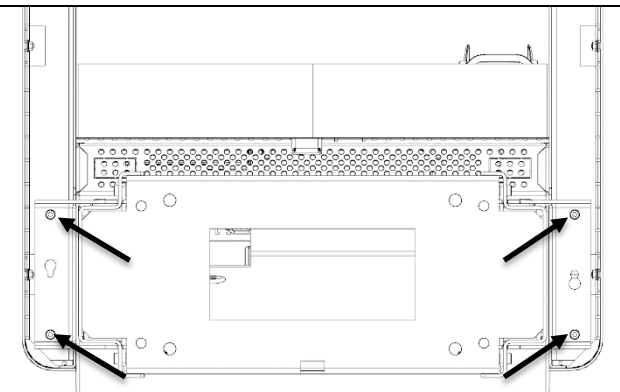
View from below.



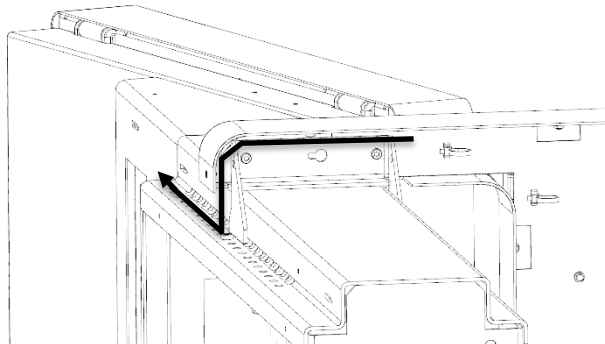
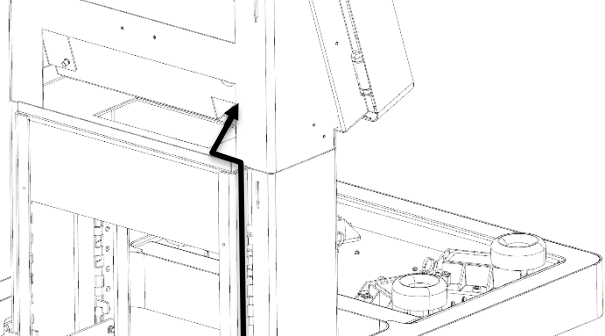
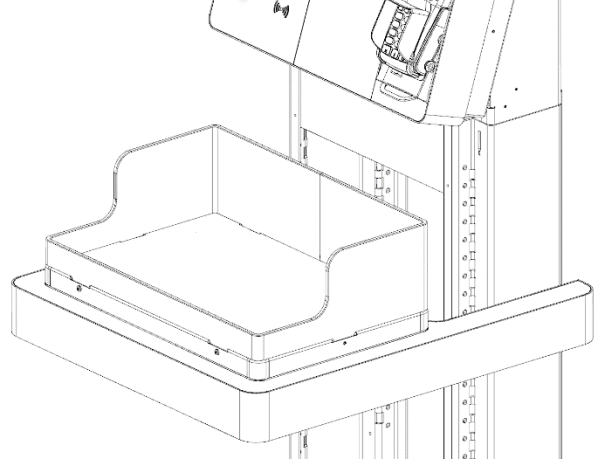
4. Finally, screw in four M5x10 cheese head screws from below into the security scale.



View from below.

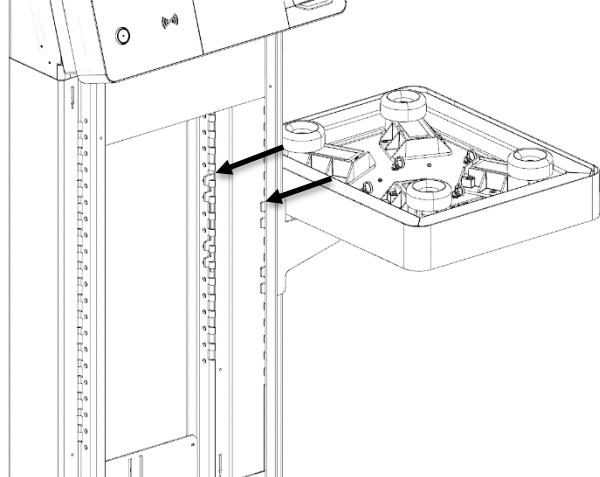
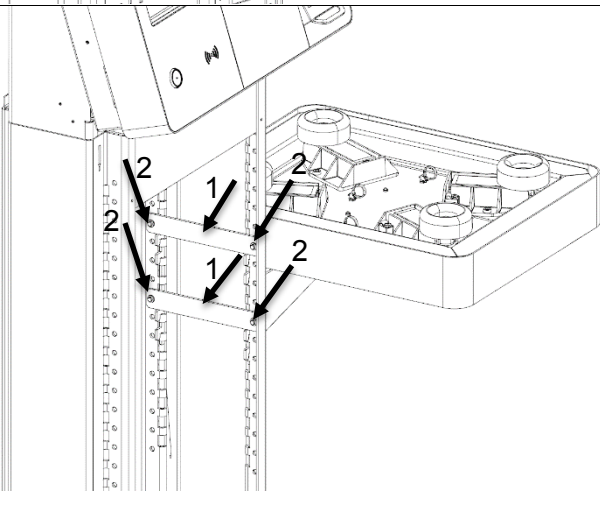
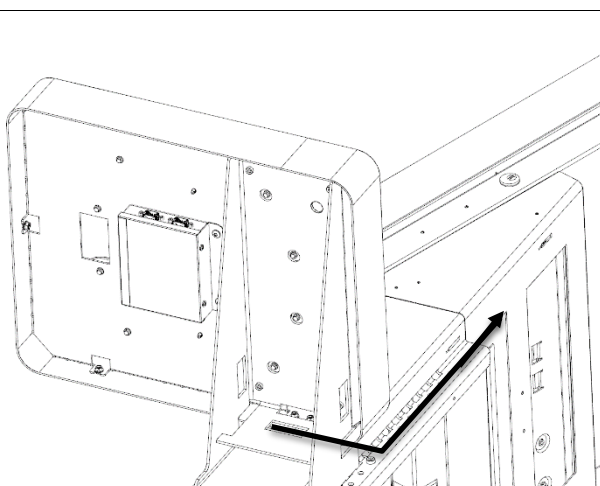




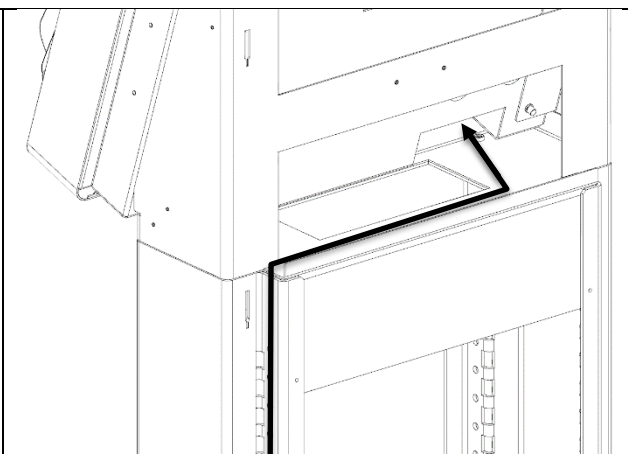
<p>5. Run the cable for the scale controller upward in the rear area of the pillar and secure it from the outside in a free drill hole using cable ties.</p>	
<p>6. Now feed the cable to the BEE-TLE /iSCAN EASY eXpress<sup>+</sup> in the top area.</p>	
<p>7. Place the load plate on the scale.</p>	

## 9.7 Installing the security scale at side

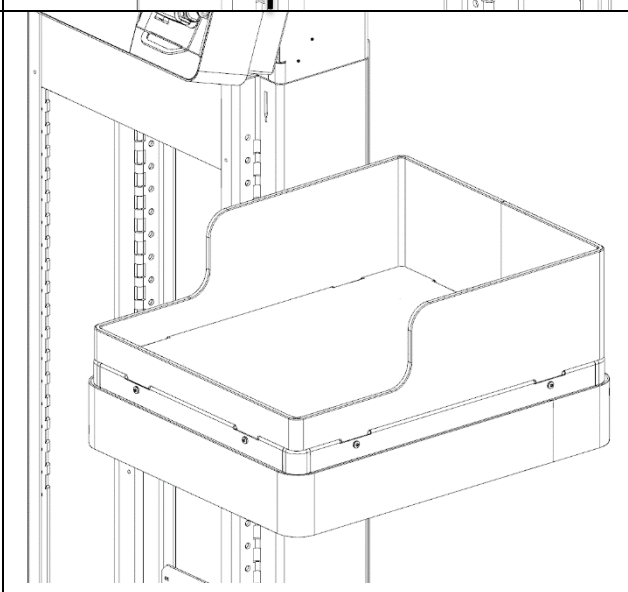
The installation of the security scale on the right is described here by way of example, the left security scale is secured accordingly on the left-hand side.

<p>1. To install the side security scale at the standard height (535 mm), first clip the scale without the load plate into the mounting grid so that the upper hook is mounted in the 12th opening.</p>	
<p>1. Insert the two safety plates from the inside as shown in the diagram alongside [1] and secure each of these from the outside using two M6x10 cheese head screws [2].</p>	
<p>2. Run the cable for the scale controller upward in the rear area of the pillar and secure it in a free drill hole using cable ties.</p>	

3. Now feed the cable to the BEE-TLE /iSCAN EASY eXpress<sup>+</sup> in the top area.

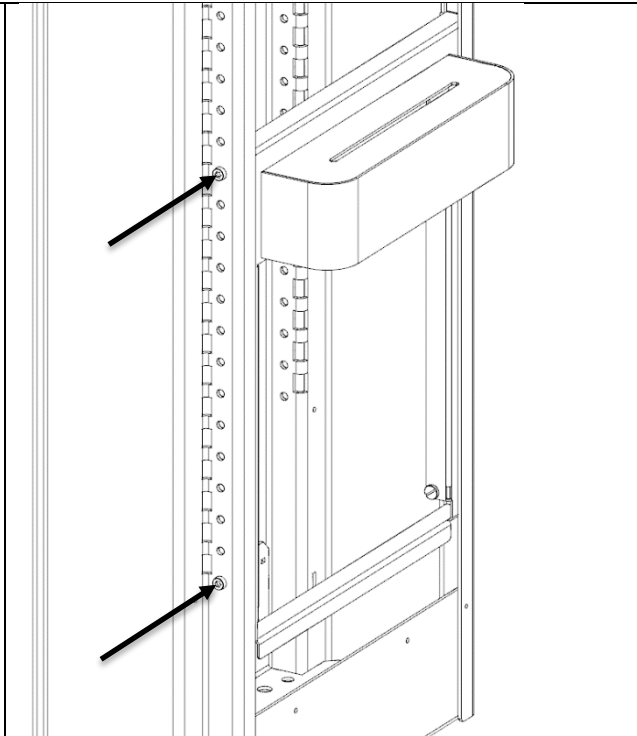


4. Place the load plate on the scale.

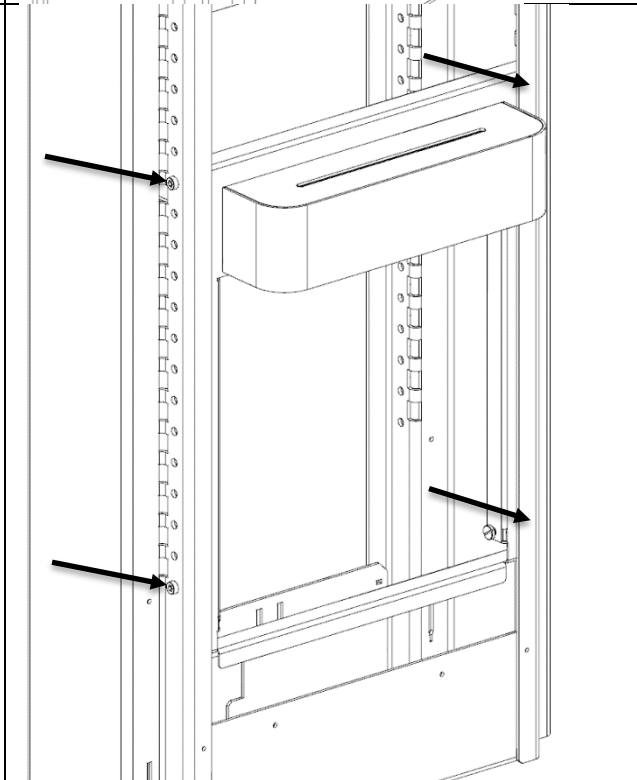


## 9.8 Installing the coupon box

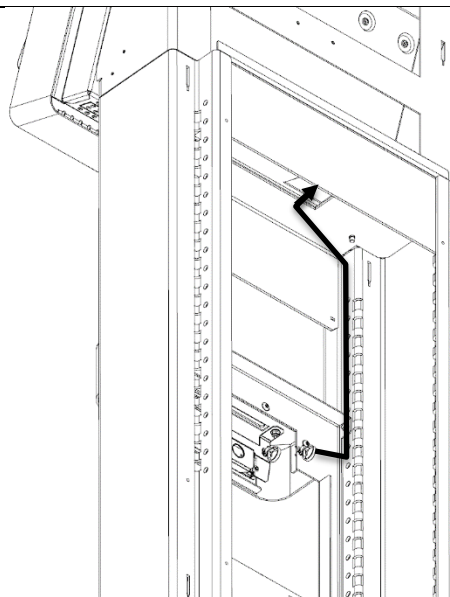
1. Insert the mounting frame into the pillar so that the lower fixing hole corresponds to the bottom drill hole in the perforated grid of the mounting pillar.



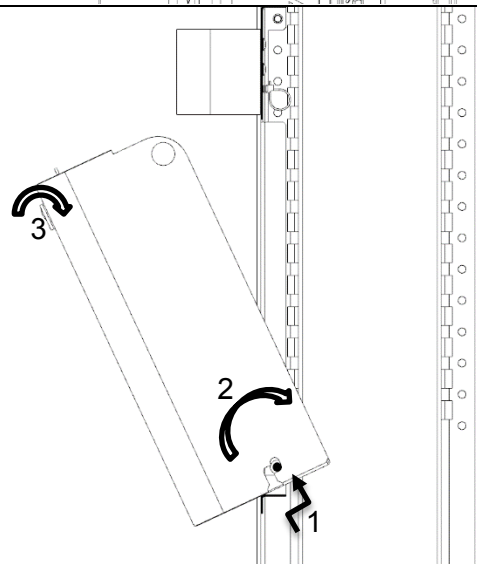
2. Now screw in the four M6x10 cheese head screws on both sides from the outside into the corresponding threaded drill holes.



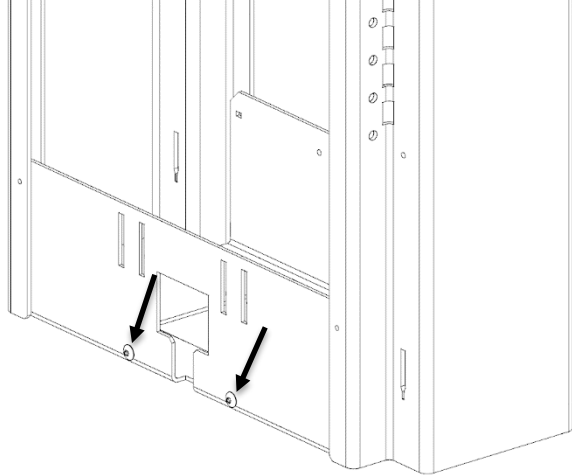
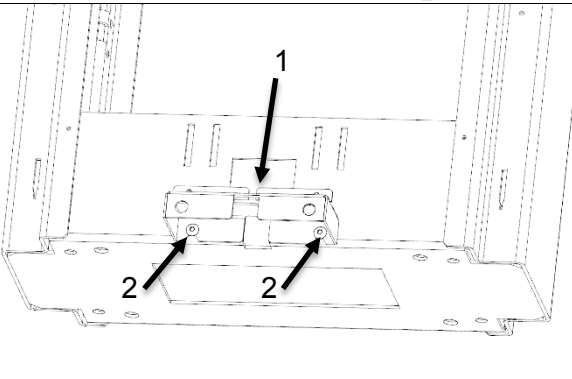
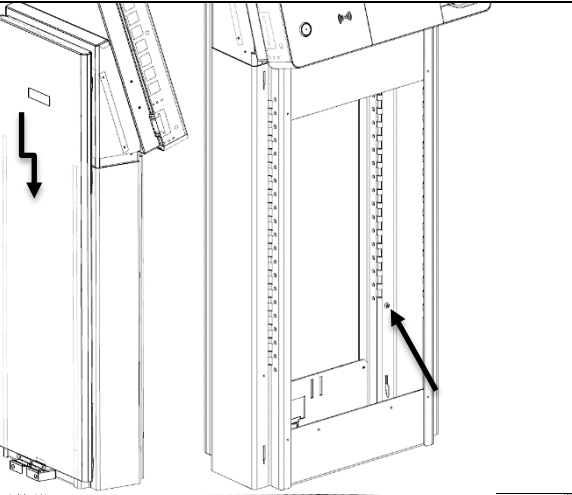
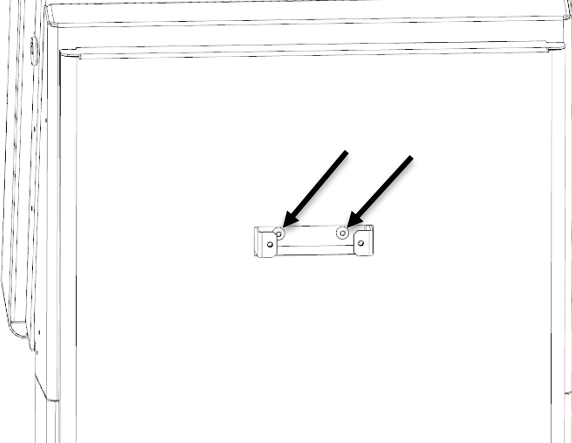
3. Secure the cable in free drill holes using cable ties and feed the cable to the BEETLE /iSCAN EASY eXpress<sup>+</sup>.

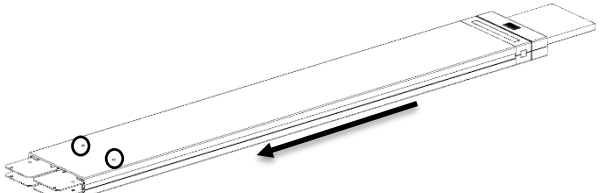
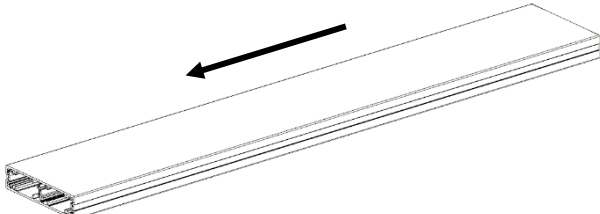
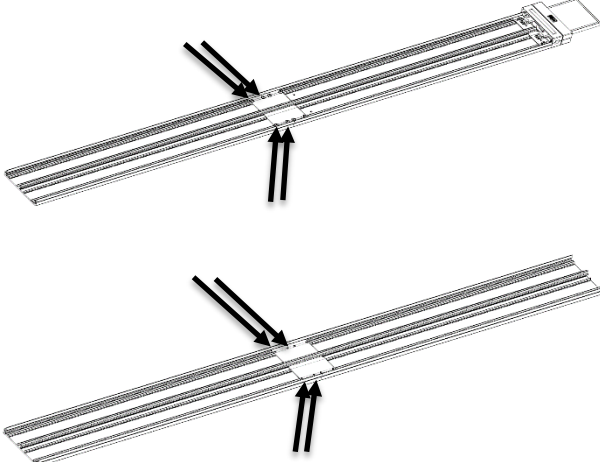
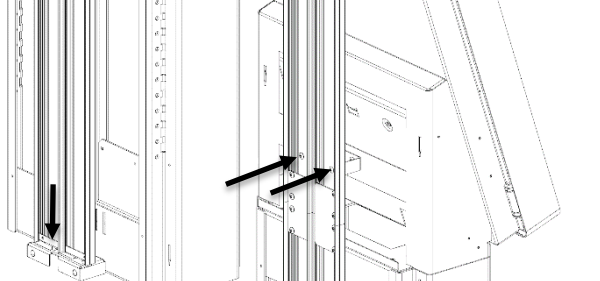
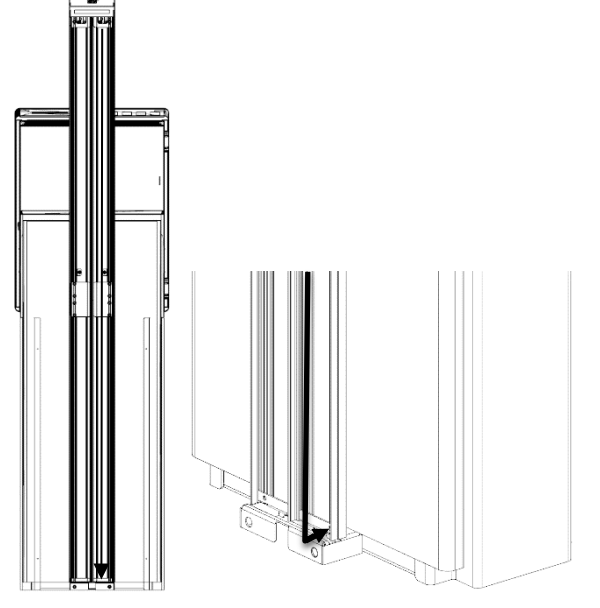


4. Insert the coupon box [1], close [2] and finish [3].

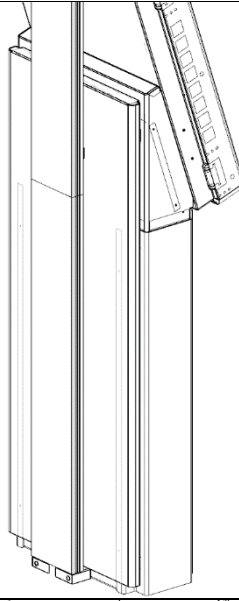


## 9.9 Installing the signal indicator

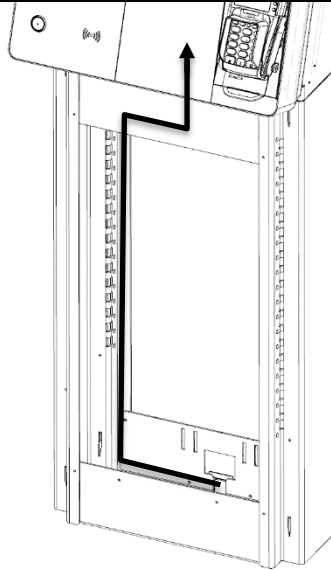
<p>1. Screw in two M4x6 round head screws halfway into the lower two drill holes on the rear of the pillar.</p>	
<p>2. Place the base plate on the two screws and slide the base down to the floor [1]. Now tighten the screws [2].</p>	
<p>3. Insert the rear panel and secure with a safety screw.</p>	
<p>4. Insert the mounting bracket through the upper opening in the rear panel and screw tightly using two M4x6 round head screws.</p>	

<p>5. Remove the aluminum profile without drill holes (see markings) in the direction of the arrows.</p>	
<p>6. Likewise separate the other aluminum profiles (remove in the direction of the arrows).</p>	
<p>7. Connect the aluminum profiles without gaps using four M4x6 round head screws.</p>	
<p>8. Place the connected aluminum profile with status indicator on the base plate and screw tightly to the mounting bracket using two M4x6 screws.</p>	
<p>9. Feed the cable from the status indicator down through the opening in the base plate into the pillar.</p>	

10. Position the outer aluminum profile and lock in place.



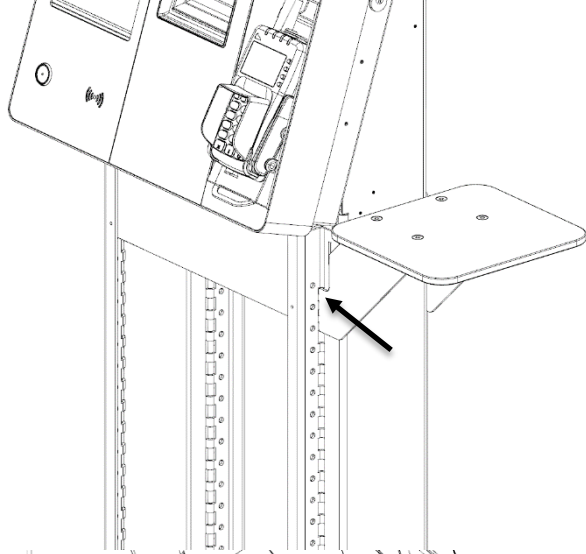
11. Now secure the cable from the status indicator cable inside the pillar to a free drill hole in the perforated grid using cable ties and feed through to the BEETLE /iSCAN EASY eXpress<sup>+</sup>.



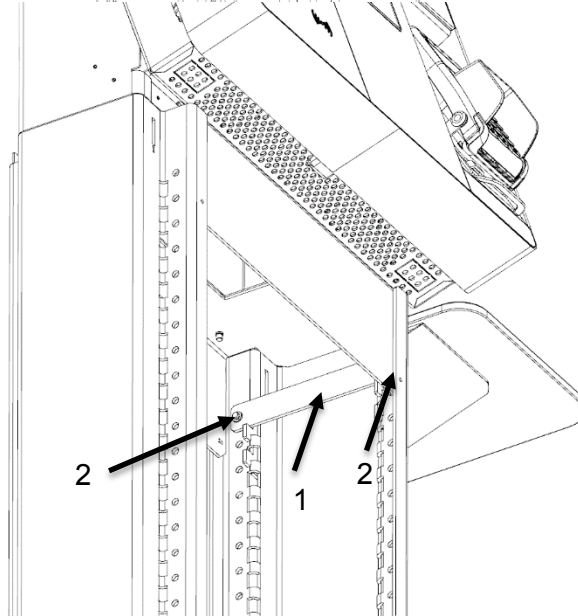


## 9.10 Installing the coupon printer shelf

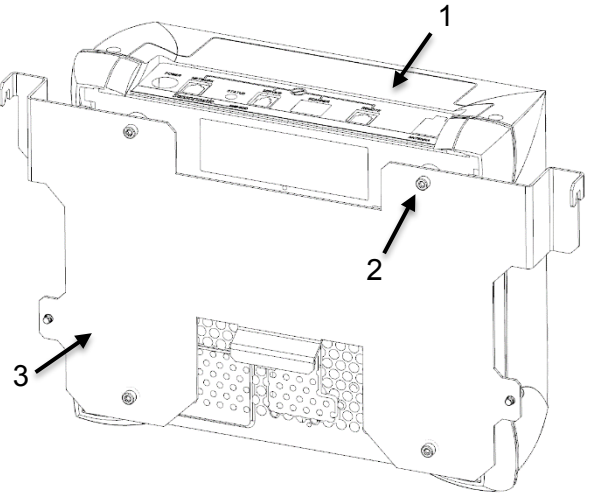
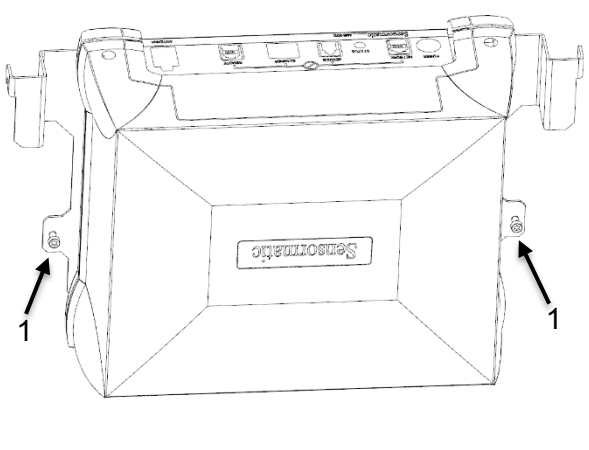
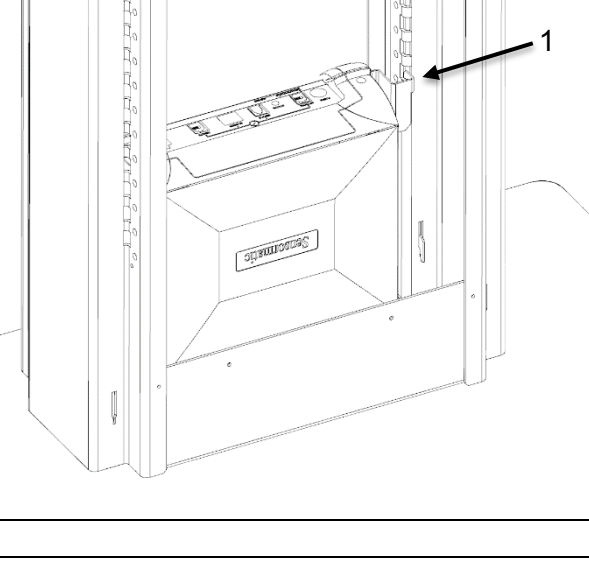
1. Clip the coupon printer shelf with the upper hook into the top opening on the mounting pillar.



2. Insert the safety plate from the inside as shown in the diagram alongside [1] and secure from the outside using two M6x10 cheese head screws [2].

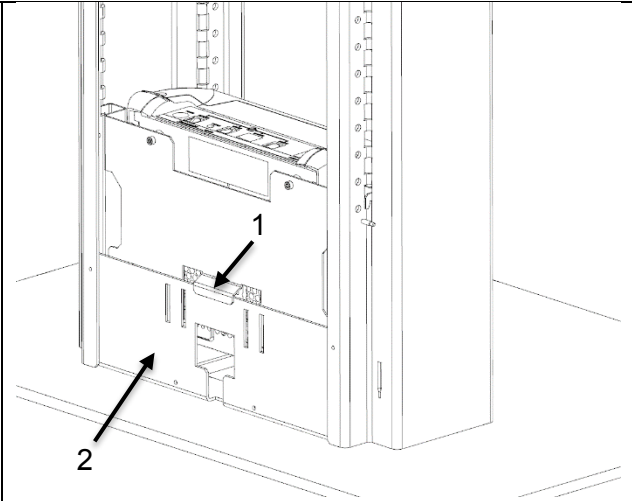


## 9.11 Installation Sensormatic Controller

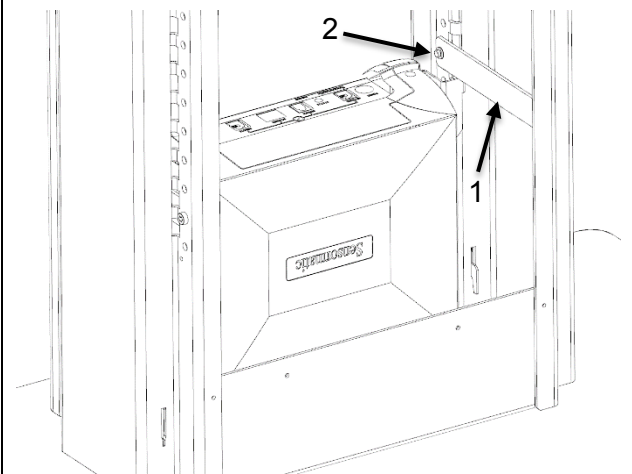
<p>1. Remove the rubber feet from the controller and fix the Sensormatic Controller [1] with 4 screws M4x8 [2] to the controller mounting plate [3].</p>	
<p>2. The two screws M4x14 [1] are pre-assembled in the retaining plate. Screw in the screws only 3 turns.</p>	
<p>3. Now hang the retaining plate with the controller on both sides into the lower openings [1] of the support column.</p>	

4. Insert the lug of the retaining plate [1] between the base plate [2] and the rear wall of the pedestal.

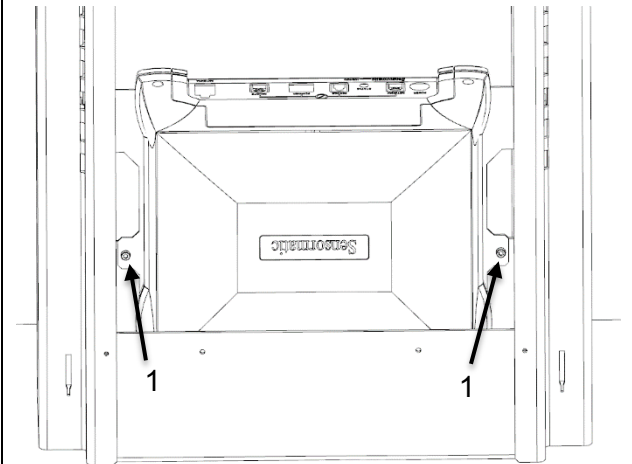
(Illustration without rear panel)



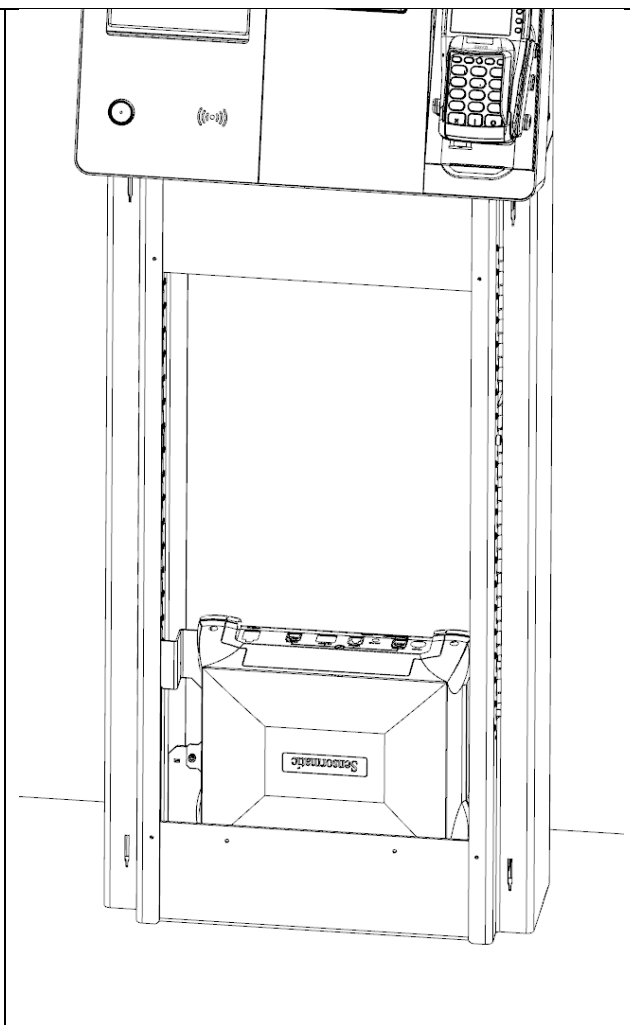
5. Insert the two locking plates [1] as shown in the adjacent illustration on the left and right and fix them from the outside with two M6x10 cylinder head screws [2] each.



6. Screw the two pre-assembled screws M4x14 [1] against the rear panel until the controller is firmly seated.






## 7. Verkabelung.....





## 9.12 Assembly instructions: Wall mounting

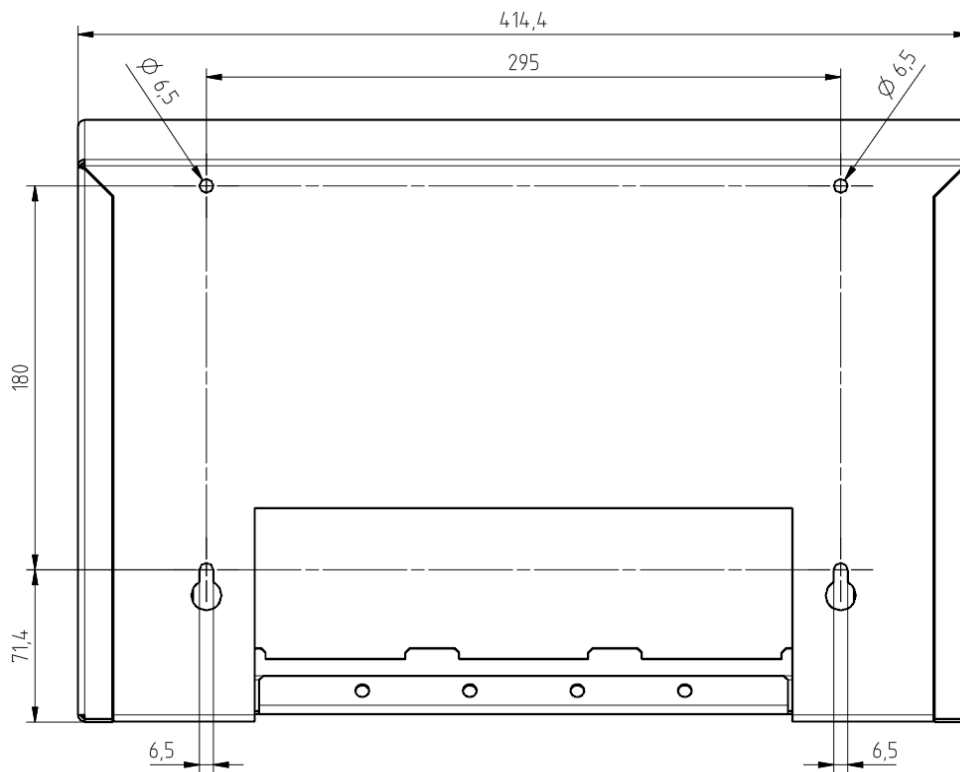
### 9.12.1 Requirements

	<p><b>NOTICE</b></p> <p>Installation including wall mounting must be carried out by a trained engineer after assessing and evaluating the structural conditions on site.</p>
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	<p> <b>CAUTION</b></p> <p>The installation must be carried out by two persons.</p> <p>Risk of crushing! Always wear safety gloves and safety shoes with toe cap, closed heel area and energy absorbing heel area while transporting or assembling the device.</p> <p>USA: Safety shoes with class 1 toe cap according ASTM F 2412 and ANSI Z41.1 in its current versions.</p>
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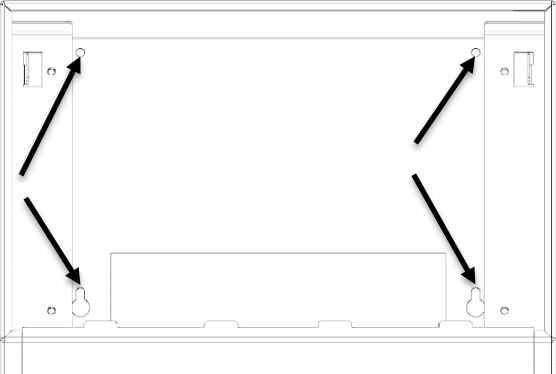
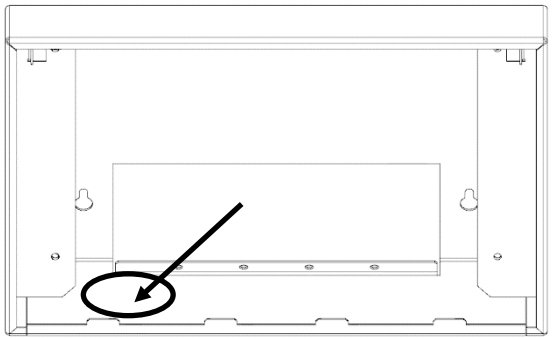
	<p> <b>CAUTION</b></p> <p>Risk of injury! Improper installation can lead to fire or electric shock.</p> <p>Ensure that no cables are crushed or insulation damaged during installation.</p>
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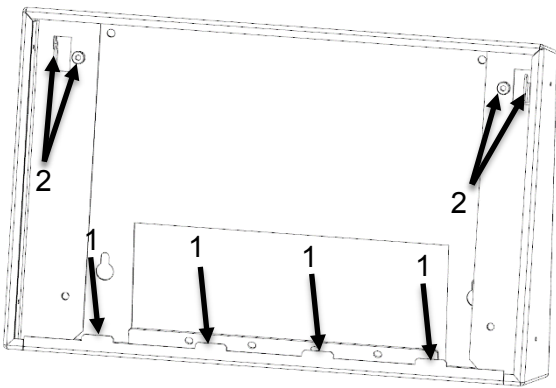
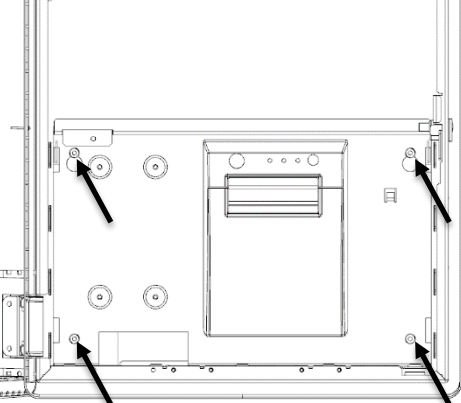
### 9.12.2 Hole pattern for wall mounting (dimensions in mm)



Use four screws of max. 6mm in diameter and suitable dowels depending on the structural conditions on site. The 19" BEETLE /iScan EASY eXpress+ weighs approx. 30kg, while the 15" BEETLE /iScan EASY eXpress+ weighs approx. 28kg. The wall mount itself weighs approx. 3kg.

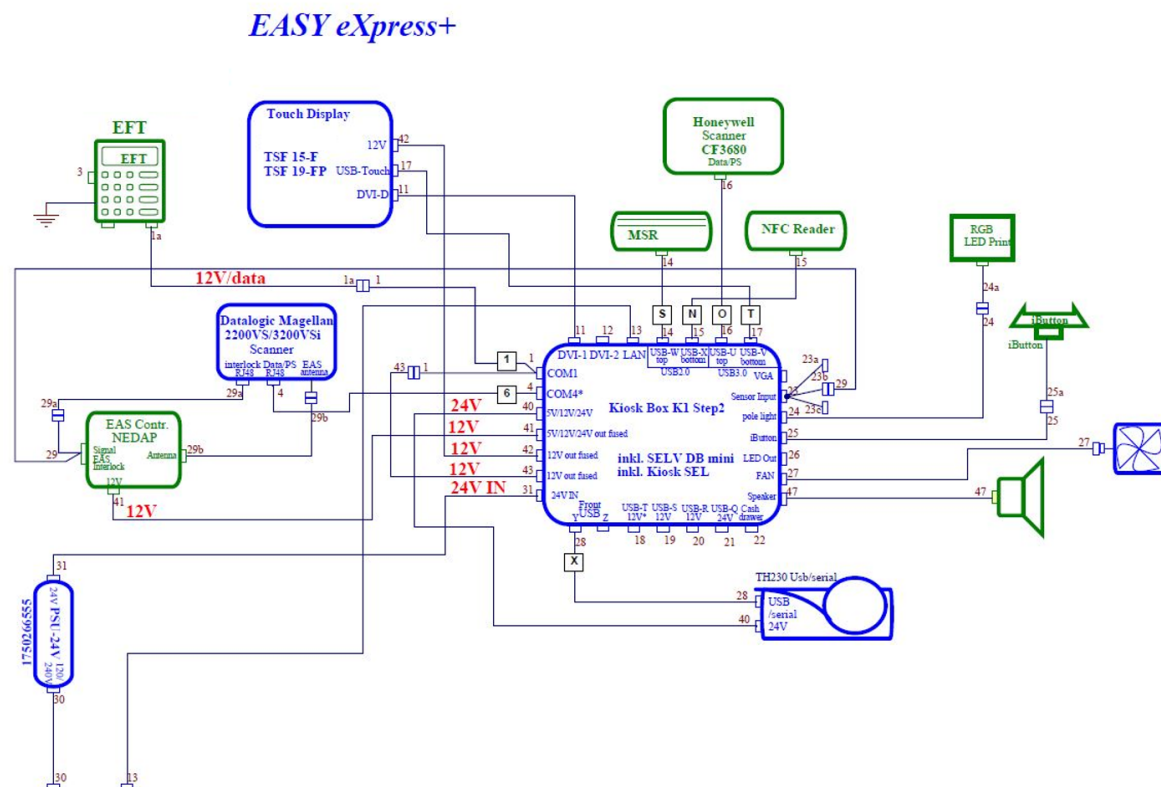
### 9.12.3 Installing the wall mount

<p>1. Drill the holes for the appropriate dowels as indicated in the hole pattern of the wall mount. Then screw the lower two screws approximately halfway into the dowels in the wall.</p>	
<p>2. Clip the wall mount into the lower two screws through the keyholes and press downward to align all four holes in the wall mount to the dowels in the wall.</p>	
<p>3. Screw in the two missing screws and tighten all four screws.</p>	
<p>4. Slide all necessary cables (power cable, LAN cable, etc.) through the opening in the wall mount and secure in the holes with the cable ties. Position the connectors in the front left-hand area so that they can be connected to the BEETLE /iScan EASY eXpress<sup>+</sup> in the next steps.</p>	

<p>5. Screw the upper two M6x10 cheese-head screws halfway into the wall mount.</p>	
<p> <b>Attention:</b> Two people are needed to position the kiosk on the pillar.</p> <p>6. First insert the closed BEE-TLE /iSCAN EASY eXpress<sup>+</sup> below into the sheet metal tabs of the pillar adapter [1].</p> <p>Then raise the BEETLE /iSCAN EASY eXpress<sup>+</sup> and clip into the upper snap hooks and screws of the pillar adapter [2].</p>	
<p>7. Open the BEETLE /iScan EASY eXpress<sup>+</sup> and insert the two missing M6x10 screws in the underside and tighten all four screws.</p>	
<p>8. Please consult the Installation Guide for information on connecting the device.</p>	



## 10 Block diagram



The optional components are highlighted in green.



Diebold Nixdorf  
D-33094 Paderborn  
Order no.: 01750301911A