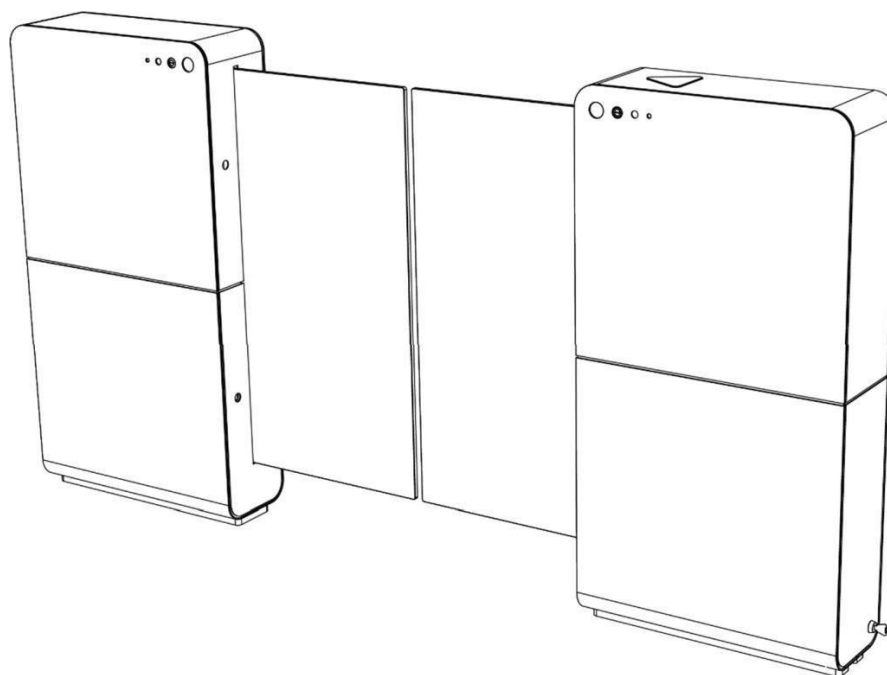


SigmaGate – Entrance & Exit

Kmart SigmaGate
Installation Manual (75mm gap)



Version Control

Version	Date	Comments	Issued by
1.0	2025-04-14	<ul style="list-style-type: none"> First version. 	Alexander Johansson
1.1	2025-06-12	<ul style="list-style-type: none"> First revision – remote control settings updated. 	Ray Casey
1.2	2025-10-02	<ul style="list-style-type: none"> Most chapters have been refined for clarity, and the remote-control configuration has been updated according to Kmart's requirements. 	Jonathan Gunnarsson
1.3	2026-03-27	<ul style="list-style-type: none"> Updated manual with MPB 2.0 instructions, added breakout bracket force, added Kmart LED colours and updated potentiometer timings as per Kmart request. 	Jonathan Gunnarsson
1.4	2026-04-08	<ul style="list-style-type: none"> Chapter 5, pages 7 to 9: Updated dimensions to Sigma with MPB 2.0 bracket. Chapter 6.2, page 10: Added note that bracket spacing must be increased by 45 mm to achieve the required 75 mm gap. Chapter 6.3, page 10: Added requirement that drilled holes must not exceed $\varnothing 10$, and recommendation to use M8 x 75 mm bolts with chemical anchoring. Chapter 6.5, page 11: Reinforced use of M8 x 75 mm bolts and clarified that chemical anchoring is required. Chapter 6.9, page 13: Marked section as "to be updated" based on discussion. Chapter 6.14, page 17: Relocated bracket cable routing content. Chapter 6.15, page 18: Fully updated with clearer instructions for GateCOM cable wiring and connection with MPB 2.0 bracket. Chapter 6.16, page 19: Added SigmaGate isolation switch installation instructions. Chapter 8, page 28: Updated radar trigger distance to 1500 mm for entry gates and retained 2000 mm for exit gates. Added note that entry gates may be reduced to 1000 mm if required. Chapter 11, page 31: Updated entry gate potentiometer settings to 2 seconds on DELAY/SCO and 0 seconds on SECURE/SCO. Chapter 13, page 33: Updated button 4 description from Permanent open to cleaning mode. Added remote control function details and usage guidance. Chapter 17, pages 44 to 47: Updated commissioning checklist to include a checklist for each entry and exit gate. 	Jonathan Gunnarsson
1.5	2026-04-09	<ul style="list-style-type: none"> Chapter 6.9, page 13: Updated the MPB force to the correct value of 110 N and added an image indicating where the force is measured on the gate. 	Jonathan Gunnarsson
1.6	2026-04-28	<ul style="list-style-type: none"> Chapter 8, page 28: Updated entry & exit gate trigger distance to 1800 mm as standard. Minimum trigger distance set to 1500 mm where required. Added exit gate minimum trigger distance of 1500 mm where required. Chapter 17, pages 44 to 47: Updated pages to pass fail N A format. Chapter 17, pages 47 to 48: Added exit gate minimum trigger distance of 1 m where required. Chapter 17, pages 48 to 49: Added two additional exit gate checklist sections to align with final inspection template. 	Jonathan Gunnarsson
1.7	2026-05-08	<ul style="list-style-type: none"> Chapter 6.4, page 17: Added a second option for feeding the power supply and GateCOM from underneath a finished floor. Chapter 12, page 32: Updated the bridging cable connection from pins 2 and 3 to pins 2 and 4 to ensure the correct arm colour pattern. 	Jonathan Gunnarsson

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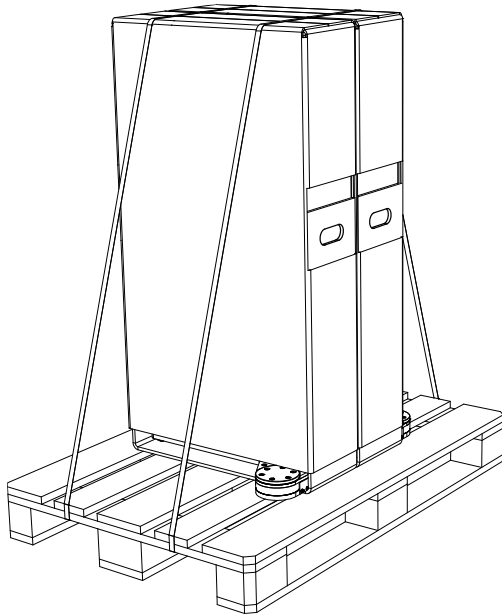
1. Contact Information

Shipping address: Unit 6/ 5-7 Malta St Fairfield East
Ray Casey – 0403 304 600 rc@radfordretail.com
Dominic Casey – 0411 881 904 dc@radfordretail.com
Support – support@radfordretail.com
Service – service@radfordretail.com

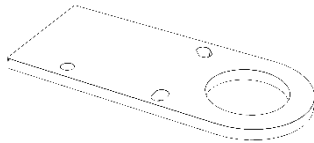
2. Shipment Content with MPB

Note

Make sure that the following content is delivered before starting installation. Below content is based on a saloon installation of SigmaGates. Keys are attached with cable ties behind the service hatch.



2X SigmaGate MPB
2.0



2X 10mm floor shims



2X forth fixing

Remotes

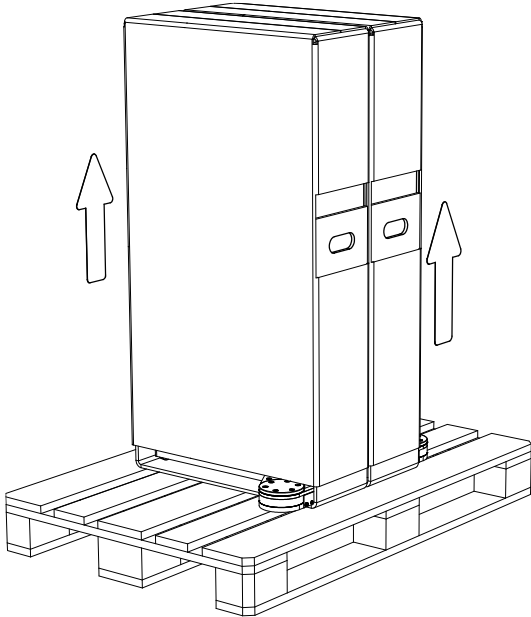
Base plate lifter

Name:.....

Date:.....

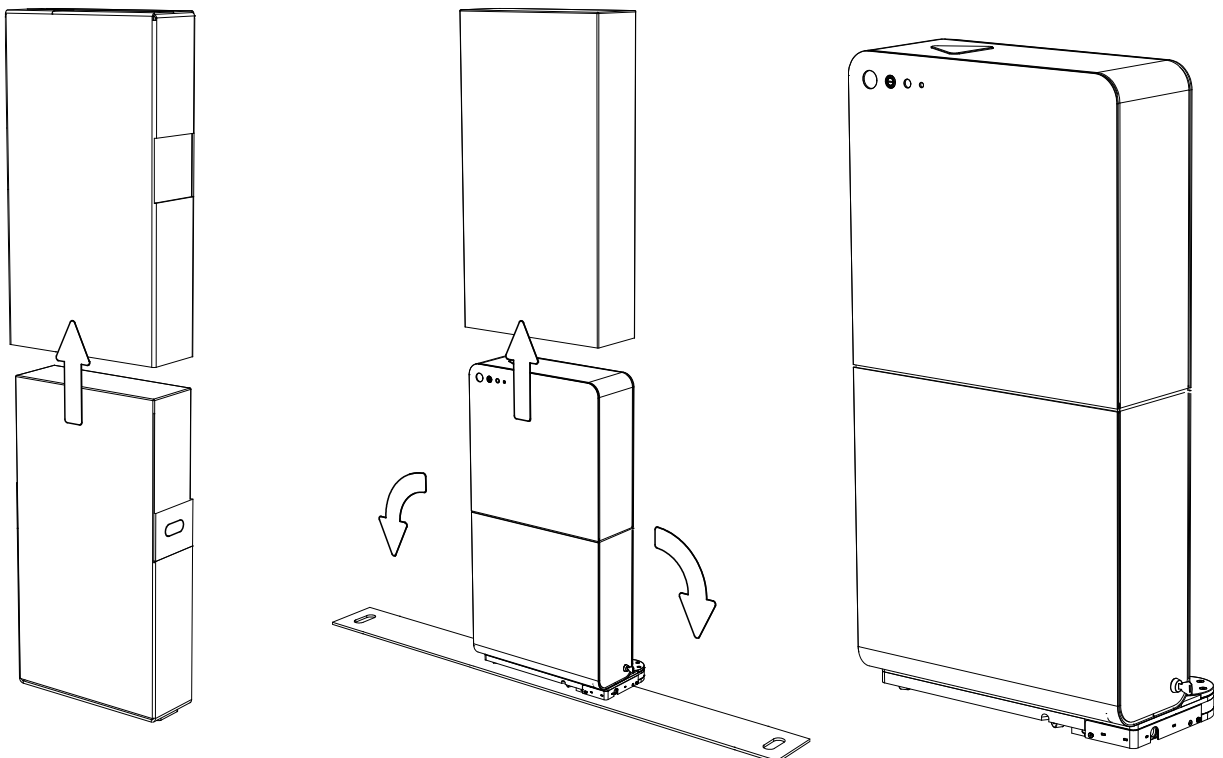
Please sign to confirm all items have arrived and are in good working condition.

3. Unpack SigmaGate with MPB

**⚠ WARNING**

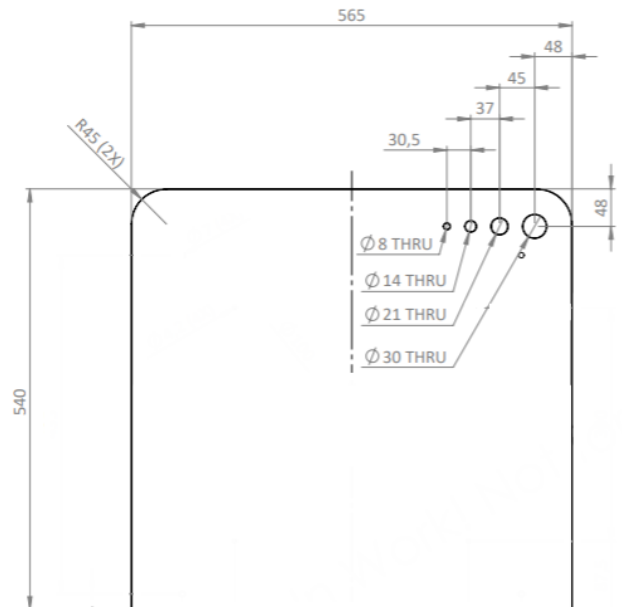
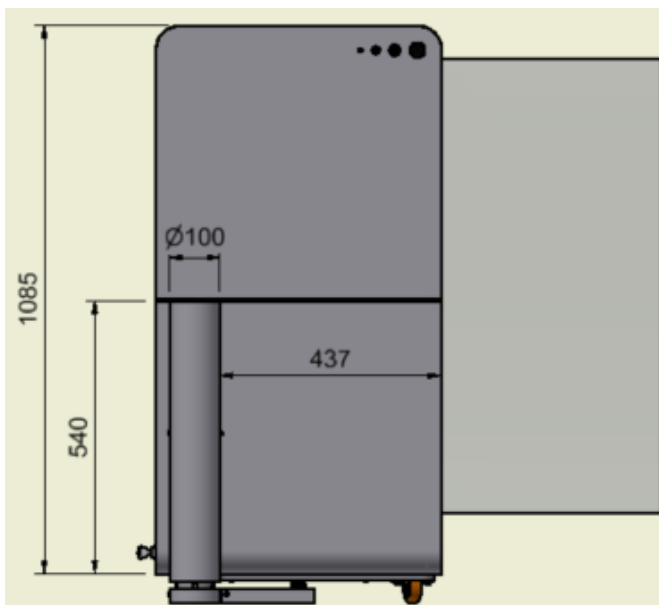
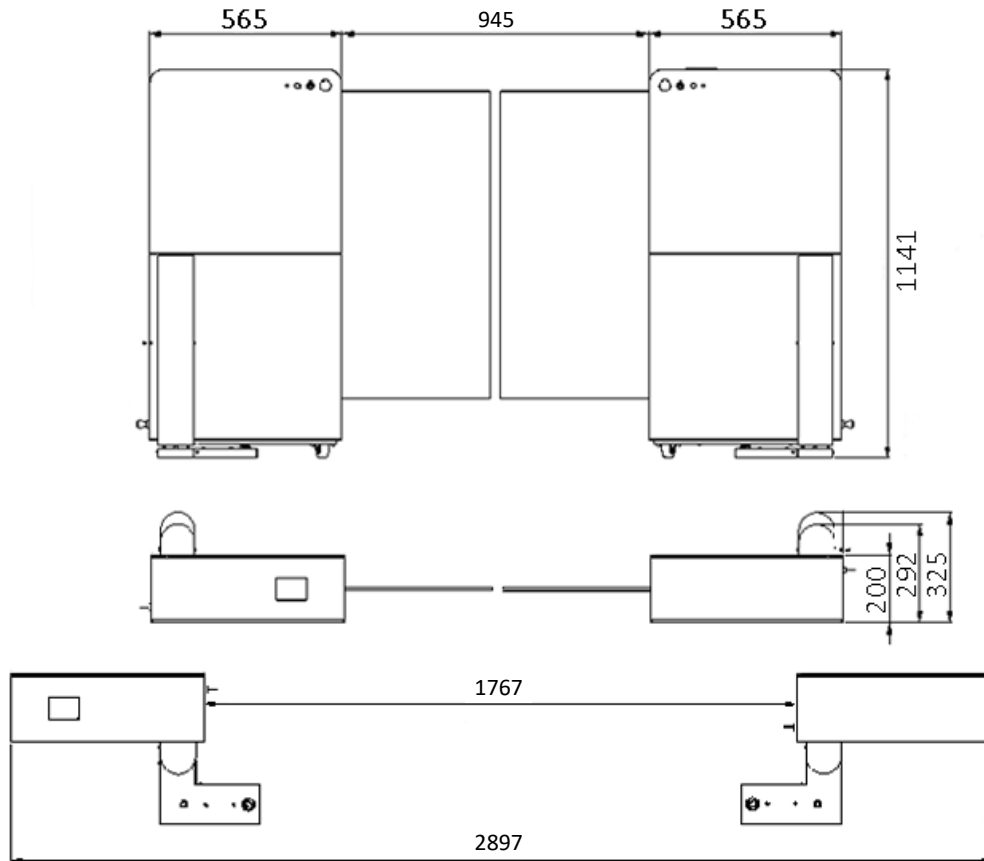
The SigmaGate are heavy. Be careful and don't lift it higher than necessary for removing it from the pallet.

1. Use the handles to remove the SigmaGates from the pallet.



2. Lift the packaging and remove the SigmaGate.

4. SigmaGate Dimensions with MPB 2.0

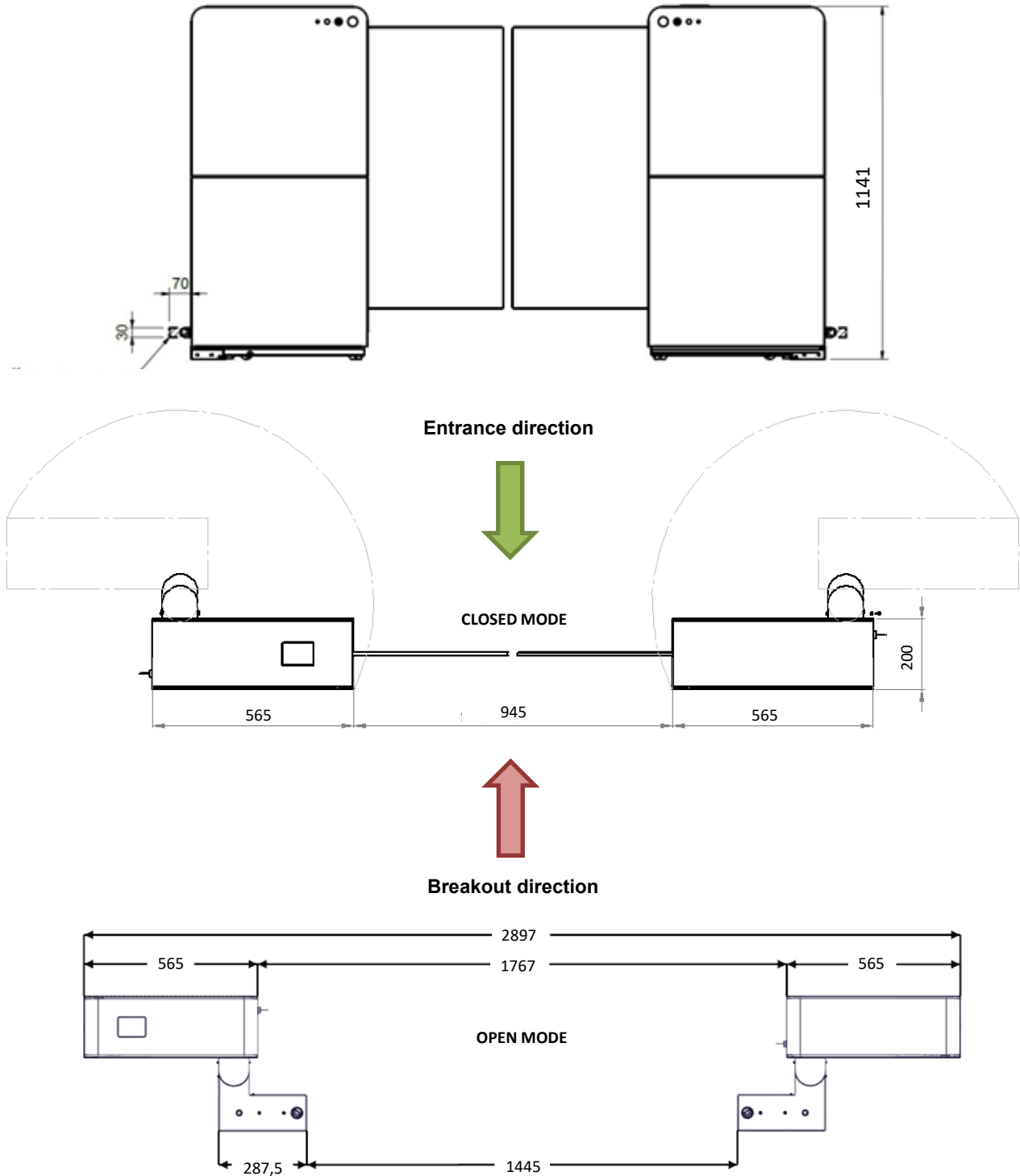


Do not place the gates closer than 70 mm to nearest object to be able to access the key.

(Standard ITAB uprights can be placed as close as the bracket cover allows as long as the key switch is not blocked)

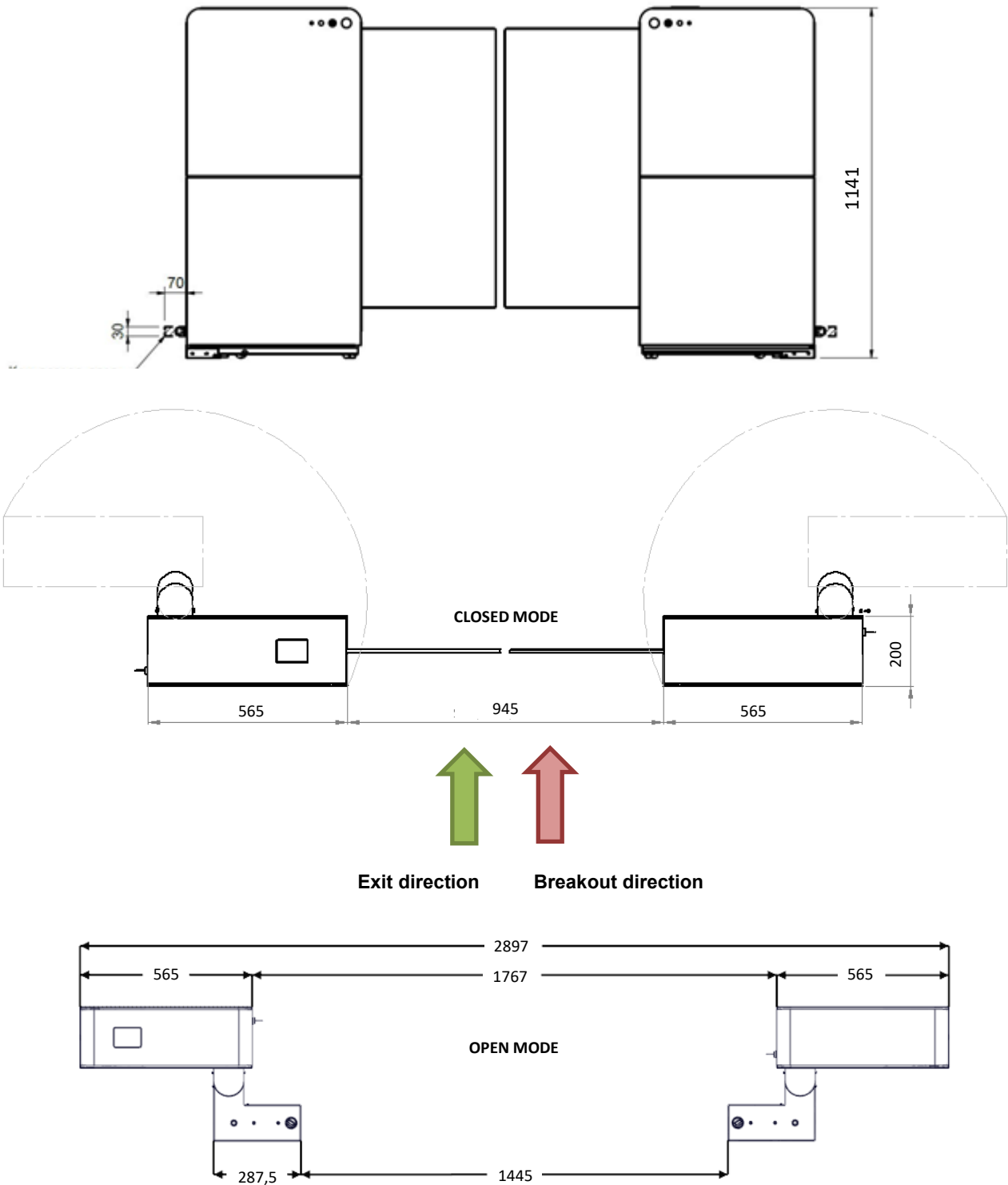
5. SigmaGate Dimensions with MBP function (Entry & Exit)

5.1. Entrance



Do not place the gates closer than 70 mm to nearest object. (Standard ITAB uprights can be placed as close as the bracket cover allows as long as the key switch is not blocked)

5.2. Exit



Do not place the gates closer than 70 mm to nearest object. (Standard ITAB uprights can be placed as close as the bracket cover allows as long as the key switch is not blocked)

6. Mounting of the gate with MPB 2.0

6.1. Prepare the site

Make sure the floor where SigmaGate MPB 2.0 will be placed is flat and clean.

6.2. Mark where to drill

If available, use a drilling template and place it on the floor where SigmaGate MPB 2.0 is to be located.

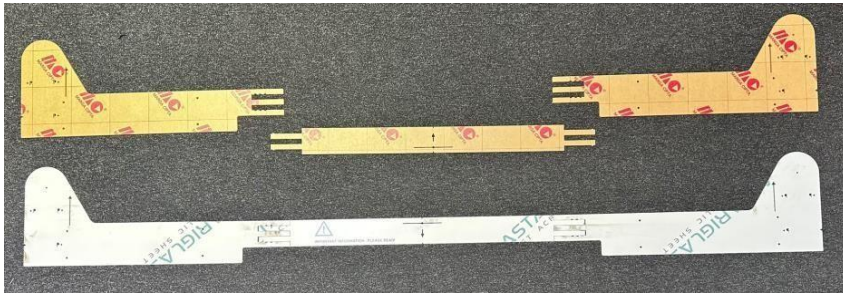
Then, mark where to drill.

If no template is available, use the gate bracket as a guide to mark the drilling points.

Note: Increase the template dimensions by 45 mm to achieve a 75 mm gap between the glass doors (up from the standard 30 mm).

Make sure the distance **from inner bracket edges is measured to 1445 mm.**

See all dimensions on pages 7 to 9.



6.3. Drill the holes

Drill hole positions should be marked in advance for the fasteners for each SigmaGate MPB 2.0.

Drill holes up to a maximum diameter of **Ø10 mm to suit M8 fixings.**

This provides appropriate clearance for installation.

It is recommended to use **5 × M8 × 75 mm bolts per gate bracket.**

Ensure the hole depth is suitable for the selected fasteners and the floor construction.

When installing a pair of SigmaGate MPB 2.0 in parallel, ensure both drill templates are accurately aligned.

Proper alignment is critical to keep the gates parallel and to ensure smooth operation without misalignment.

Chemical anchoring must be used for all installations.

The installer must select a suitable chemical anchoring product based on the floor material and condition.

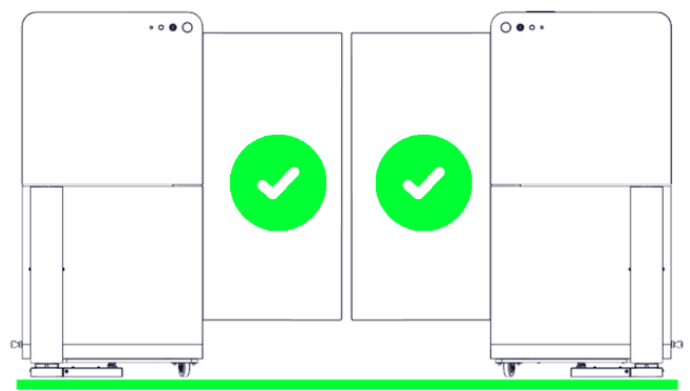
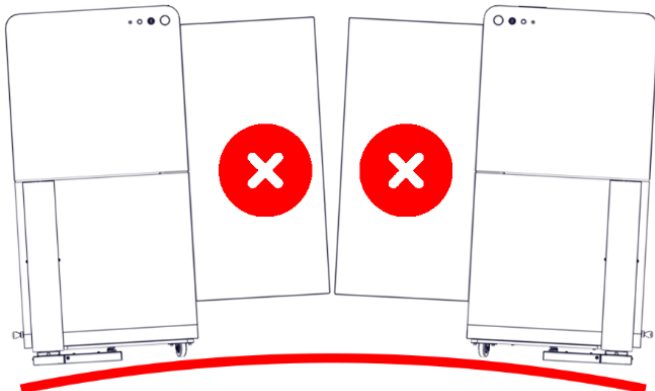
Fixing type and embedment depth must be determined on site to ensure adequate strength and long-term stability of the installation.

6.4. Ensure the floor is level

When installing a pair of SigmaGate MPB 2.0, it's especially crucial to ensure that the floor is level.

Proper levelling is important both for the functionality of the gates and for their aesthetic appearance.

An uneven floor can lead to operational issues and detract from the visual symmetry between the paired gates.



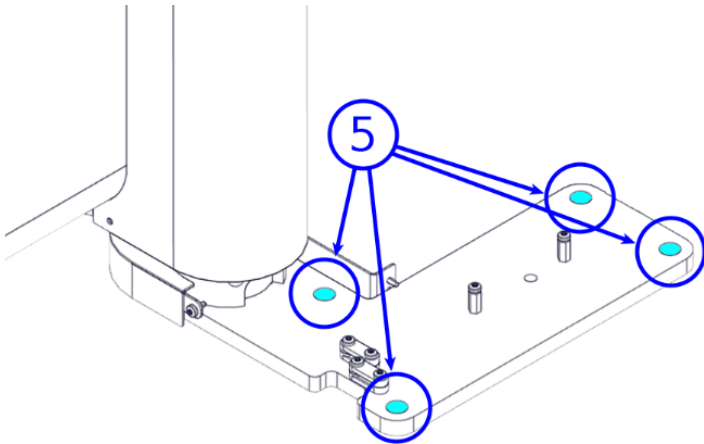
6.5. Fasten the bracket to the floor

Place SigmaGate MPB 2.0 over the predrilled holes and align the bracket with the hole pattern (5).

Secure the bracket using **5 × M8 × 75 mm bolts per bracket** as recommended.

Install the anchors according to the manufacturer's instructions, ensuring correct embedment depth and curing time before applying load.

Chemical anchoring must be used for all installations



NOTE
 Always ensure that no fixing materials or chemical cement are present between the floor and the gate's bracket when securing the gate bracket to the floor.



Note: It is very important to ensure base plates sits above floor tile level.

If the fasteners are not holding the MPB block strong enough to the floor, the gate position can be incorrect leading to interrupted photocell signals and faulty behavior of the gates. To prevent this, the five holes must be filled with chemical anchoring to lock the position after making sure the gates are in line with each other.

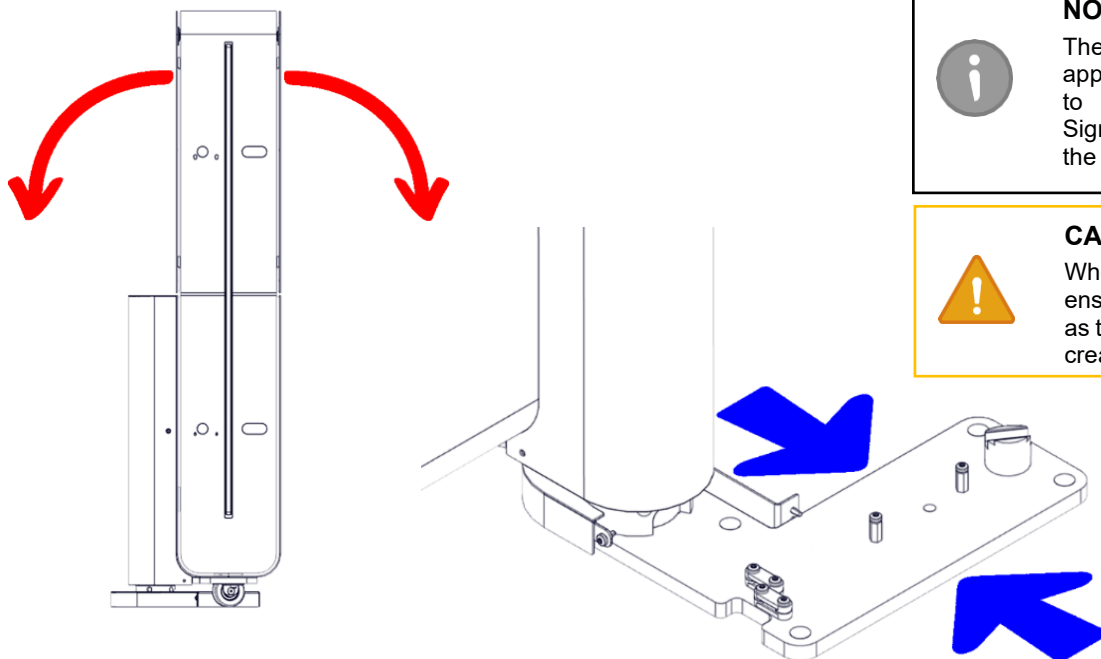
Ensure all fasteners are tightened securely and the bracket is firmly fixed to the floor.

6.6. Sideways levelling

To level SigmaGate MPB 2.0 sideways, it is possible to use shims under the bracket.

To place shims under the bracket, first, loosen the fastening bolts. Then, put the shims between the floor and the bracket where needed.

After using a spirit level to ensure the gate is level retighten the bolts properly.

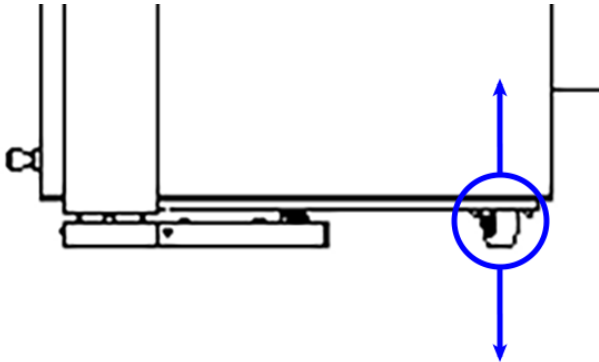


NOTE
 The shims used should be of an appropriate material and large enough to ensure they do not destabilize SigmaGate MPB 2.0. Use only shims at the sides indicated in the image.

CAUTION
 When installing SigmaGate MPB 2.0, ensure that the cables are not pinched, as this can lead to product damage and create a safety hazard.

6.7. Adjust the front wheel

It is possible to further level SigmaGate MPB 2.0 by adjusting the height of the front wheel.



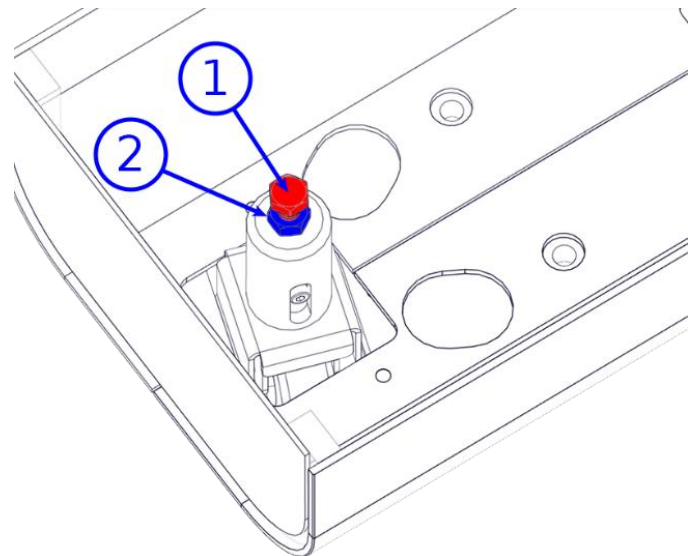
Start by loosening the locking nut (2)

Use the wheel adjustment screw (1), which is located inside at the front end of SigmaGate MPB 2.0.

By tightening the screw, you will lower the wheel and loosening it will raise the wheel.

After adjusting the wheel to the desired height, retighten the locking nut (2) to secure the wheel in its new position.

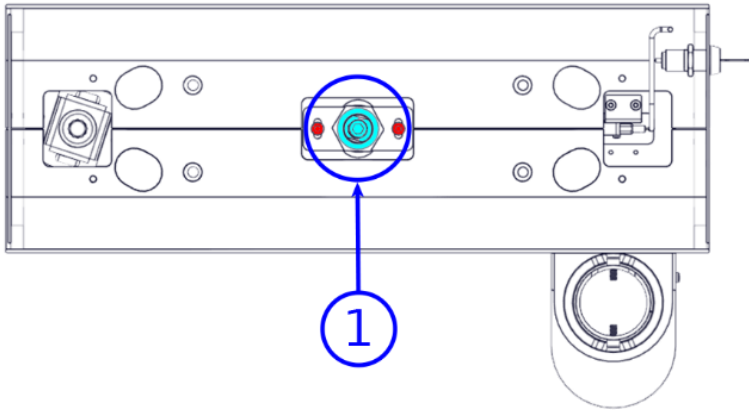
These steps allow you to effectively control the positioning of the front wheel, enhancing the functionality and stability of SigmaGate MPB 2.0.



NOTE

The front wheel should always be in contact with the floor.

6.8. Set the Mechanical Panic Breakout (MPB) holder



Follow the steps below to adjust the MPB holder to the correct height:

1. Untighten the locking nut (1) with a wrench (36 mm).
2. Turn the MPB holder (1) clockwise until the bottom of the holder just touches the bracket. You may need an 18 mm wrench to do this.
3. Turn the MPB holder (1) half turn anticlockwise to create a small distance between the MPB holder and the bracket.
4. Retighten the locking nut (1).

Always test the function after adjusting.

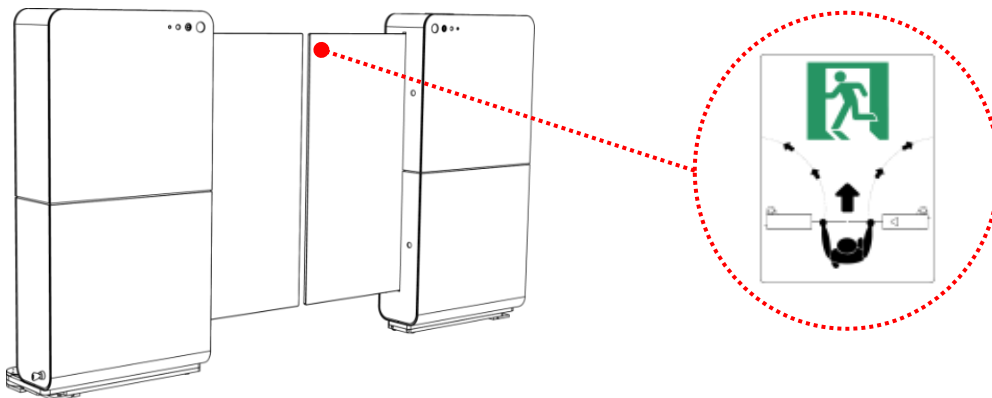
6.9. Set MPB force

The default MPB force for **SigmaGate MPB 2.0** is factory set to a maximum of **110N**, measured 1000 mm from the floor level and at the outer edge of the gate door.

Should it be necessary to change the MPB force it can be adjusted with the 8 mm Allen bolt.

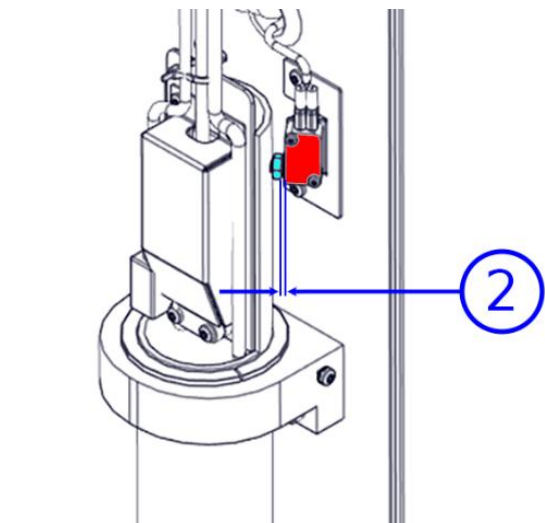
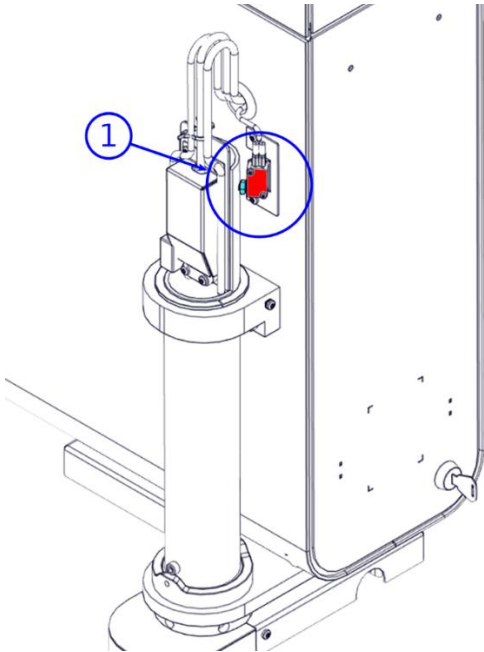
Turn the Allen bolt anticlockwise to decrease the MPB force.

If the MPB force has been decreased earlier, it can be increased by turning the Allen bolt clockwise.



6.10. Set the Mechanical Panic Breakout Trigger

The Mechanical Panic Breakout (MPB) trigger (1) is set using the MPB trigger adjustment screw, which is located on the side of the upper part of the MPB column.



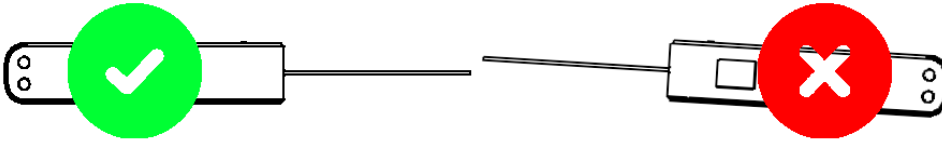
MPB trigger gap (2)

To adjust the MPB trigger correctly, follow these steps:

1. Remove the MPB cover to expose the MPB trigger adjustment.
2. Adjust the MPB trigger adjustment screw clockwise until the LED indicator on the bottom of the MPB sensor emits a steady yellow light, indicating that the MPB trigger adjustment screw is correctly adjusted. The gap is normally around 1 mm.
3. Test the function by pushing the gate open. The gate should trigger the alarm.

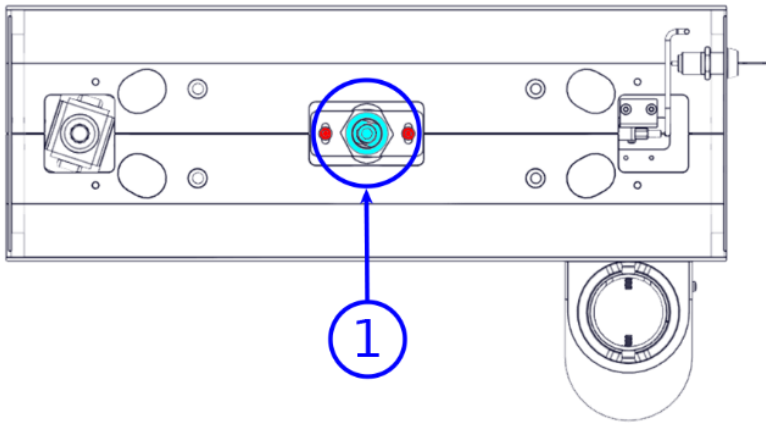
Note: The alarm should not activate in response to a light or minor push.

6.11. Align two SigmaGate MPB 2.0



If two parallel mounted SigmaGate MPB 2.0 need fine alignment after they have been secured to the floor the alignment can be fine adjusted. To align two gates, follow these steps:

Start by loosening the two Allen bolts **(1)** located at the bottom part of each gate. These bolts allow for adjustments to be made to the gate's position.



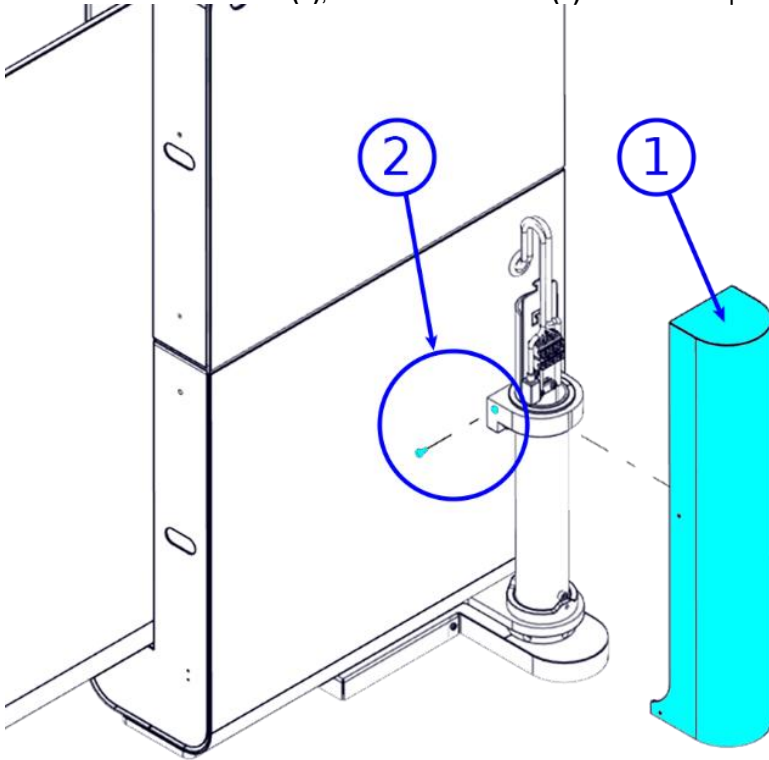
Use a straightedge or a similar tool to check the alignment of the two gates. Adjust the position of each gate until they are perfectly aligned with each other.

Once the gates are aligned correctly, retighten the Allen bolts **(1)** to secure the gates in their new positions. Make sure the bolts are tight enough to hold the gates firmly, but avoid overtightening, which could damage the bolts.

The above steps ensure that the gates are aligned not just for functional performance but also for aesthetic consistency.

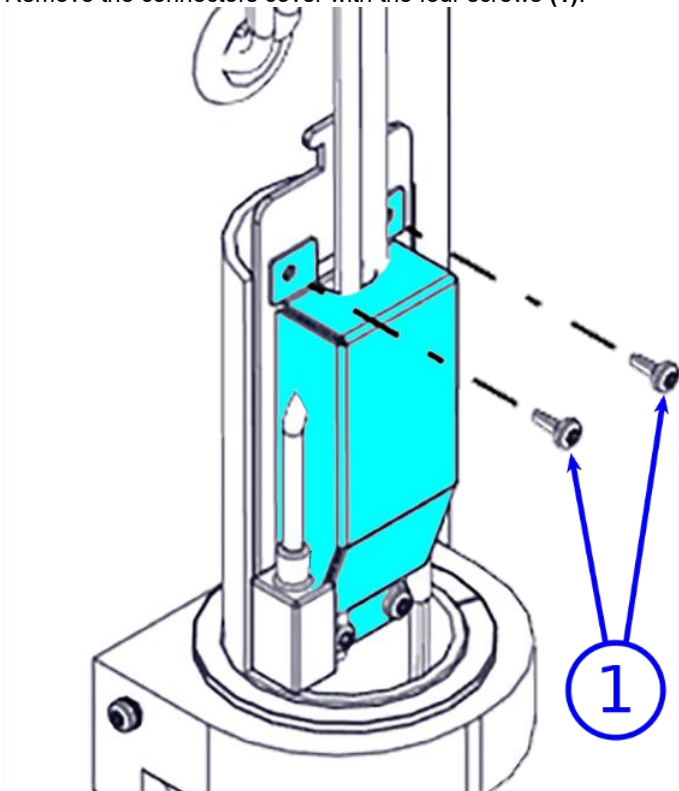
6.12. MPB cover

To remove the MPB cover (1), unscrew the screws (2) shown in the picture.



6.13. Connectors cover

Remove the connectors cover with the four screws (1).



6.14. Cable routing

There are 2 recommended ways of routing the power and GateCOM signal cables as shown below.

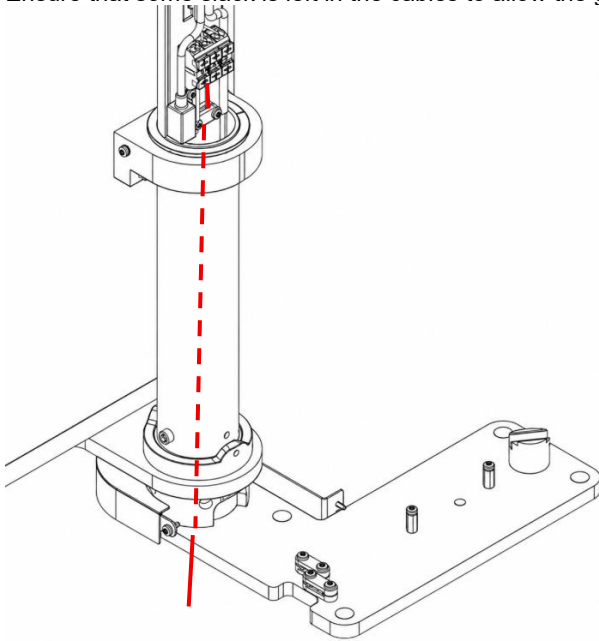
When routing cables, ensure that there are no sharp grades, bends or tight angles that could damage the cables. Confirm that all cables are properly routed, correctly positioned, and free from being pinched or strained.

Note: Do not store any excess cable inside SigmaGate MPB 2.0.

OPTION 1 - to be used when power supply is coming from below Finished Floor (ie Core hole or chased)

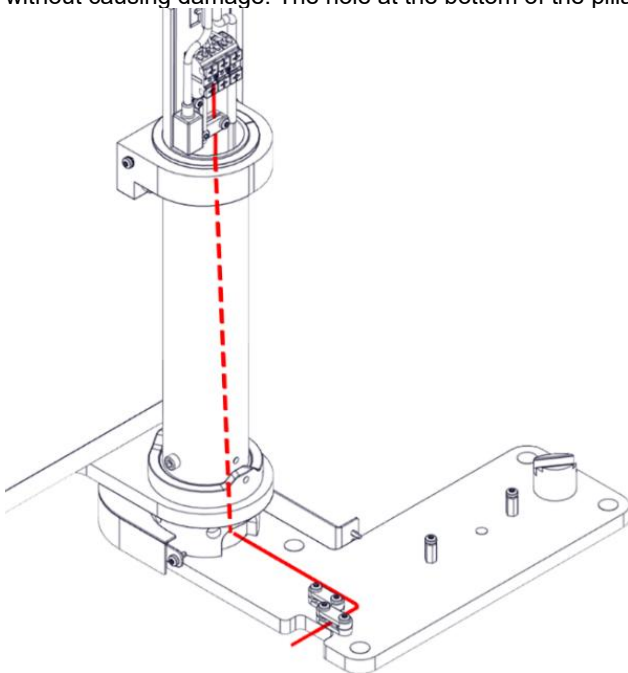
Secure them incoming cables using the cable strain relief at the top of the pillar.

Ensure that some slack is left in the cables to allow the gate to move without causing damage.



OPTION 2 – to be used with power supply is surface mounted to the Finished floor

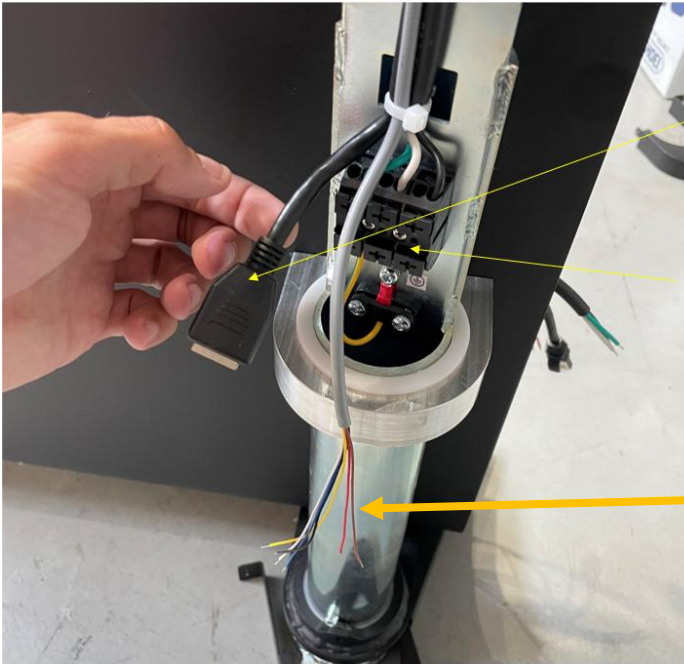
Secure them incoming cables using the three cable strain reliefs. Ensure that some slack is left in the cables to allow the gate to move without causing damage. The hole at the bottom of the pillar measures approximately 20×10 mm.



6.15. Connect GateCOM cabling

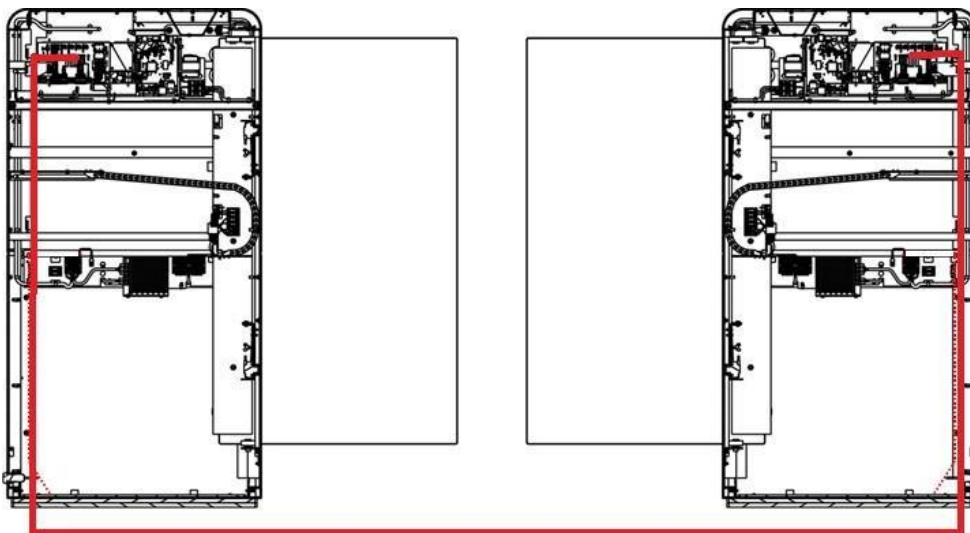
The electrical connections are located behind the connectors cover.
Connect the incoming GateCOM/sync cable and any other signal cable going into the gate as per the instructions below.

Incoming cabling



Connect gatecom cable between the gates (this 6-core cable can also be used for the fire alarm or other functions).

Note: Use recommended cables with nominal cross section area 1.5 – 2.5 mm².



6.16. SigmaGate isolation switch installation

The isolation switch provides a dedicated means to disconnect power to the gates for servicing, maintenance, or emergency shutdown. All gates installed need to be connected to an isolation switch.

Recommendations

Switch type:

- 10A minimum grey isolator, *Clipsal IP56 Series 56SW110-GY* (or equivalent).

Labelling:

- Must be clearly labelled "EXIT GATE POWER." Or "ENTRY GATE POWER."

Ingress protection:

- Minimum IP56 rating for moisture and dust protection.

Circuit connection:

- Connect to the UPS power circuit that supplies the exit gate.
- Ensure total gate load (120 W max per gate) does not overload the circuit.
- Install a dedicated UPS circuit if necessary.

Mounting location & details

- Mount the isolator directly above the black metal wall duct serving the exit or entry gate.
- Duct specification: 2-channel black metal duct, 150 × 50 mm (ECD or Cableway).
- The isolator should be easily accessible to store staff and service personnel.
- No service poles are to be used in the exit or entry gate area.

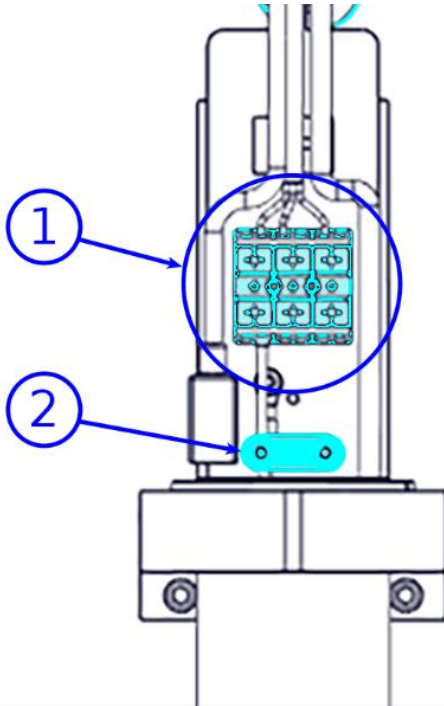
Installation notes

- All wiring must comply with AS/NZS 3000 electrical standards.
- Coordinate location and connection with the electrical contractor responsible for gate power routing.
- Verify isolator function as part of commissioning and handover testing.



6.17. Connect incoming power 220 – 240V

The power connection terminal block is located behind the same connectors cover as where the GateCOM cables were connected.

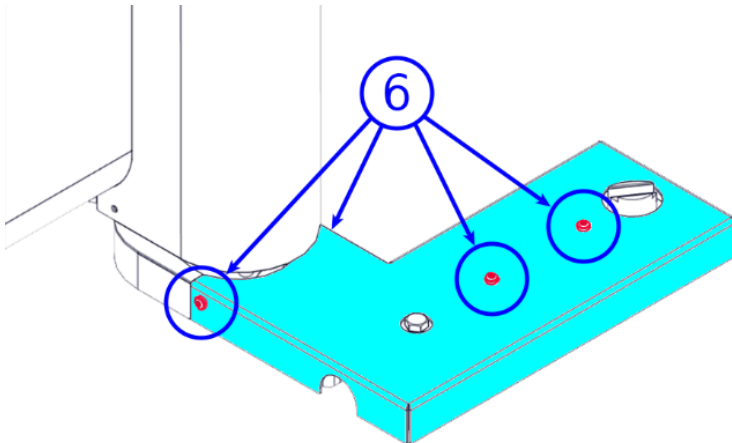


Connect SigmaGate MPB 2.0 to Mains 220 - 240V by following these steps:

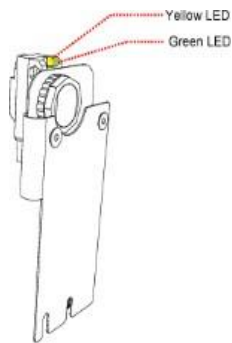
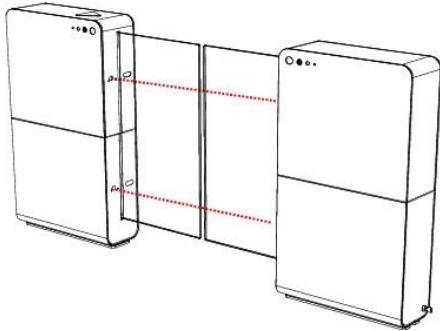
1. Adjust the cable length.
2. Connect the cable to the terminal block **(1)** according to the markings on the terminal.
3. Fasten the cable to the strain relief **(2)**.

6.18. Mount bracket cover

Place the bracket cover **(6)** and fasten them with the provided screws.



7. Adjustment of Gate PEC



Make sure the two photoelectric cells (PEC) are pointing at the reflectors on the other gate.

Adjust by using 2mm Allen keys through holes next to PEC sensor on outside of gate.

Step 1

Turn Allen key all the way LEFT until yellow connection light turns off.

Step2

Turn Allen key all the way RIGHT until yellow connection light turns off, counting the amount of turns in between.

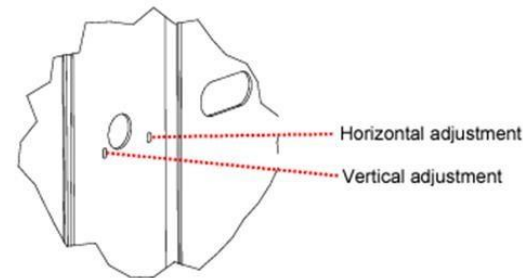
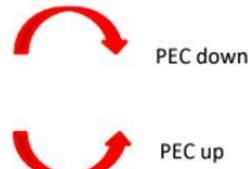
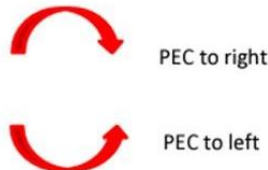
Step3

Wind Allen key back to mid position.

EG. If it takes 6 full turns from left position to right position, then turn back 3 full turns.

IMPORTANT NOTE:

This must be done in both vertical and horizontal directions.



Note: Some of the newer gates come with a different PEC sensor installed. This sensor got a sensitivity dial on the back side. Please make sure this dial is turned all the way up clockwise to maximum sensitivity.



PEC sensor sensitivity dial

8. Approach Radar installation

Note: Approach Radar installation is required on all the gates.

1. Find the SigmaGates and make sure you are installing the radars facing the customers as they are about to walk through the gates.



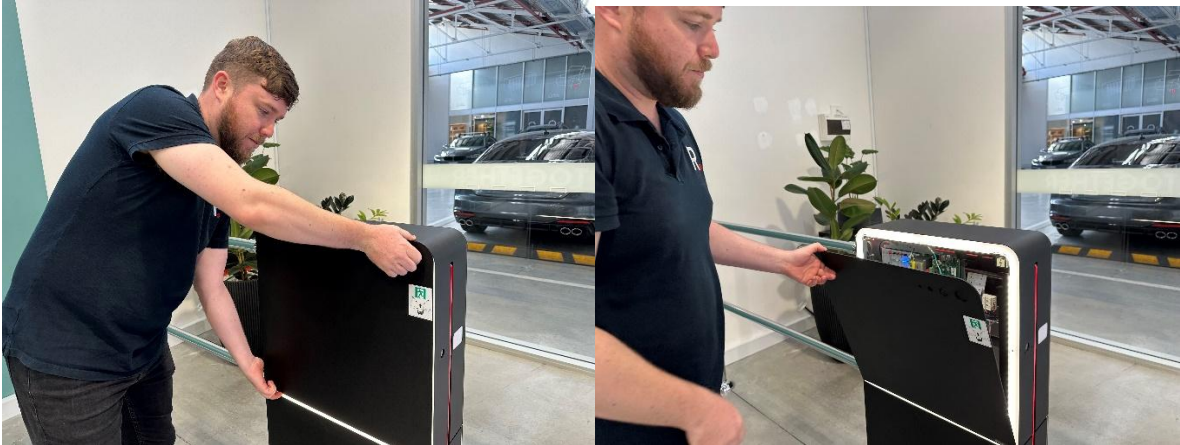
2. Open SigmaGates using the remote and then turn gate off by turning the key to the vertical position or cut the power to the gate.



3. Unlock Service hatch by using a flat head screwdriver to turn the lock into the vertical position.



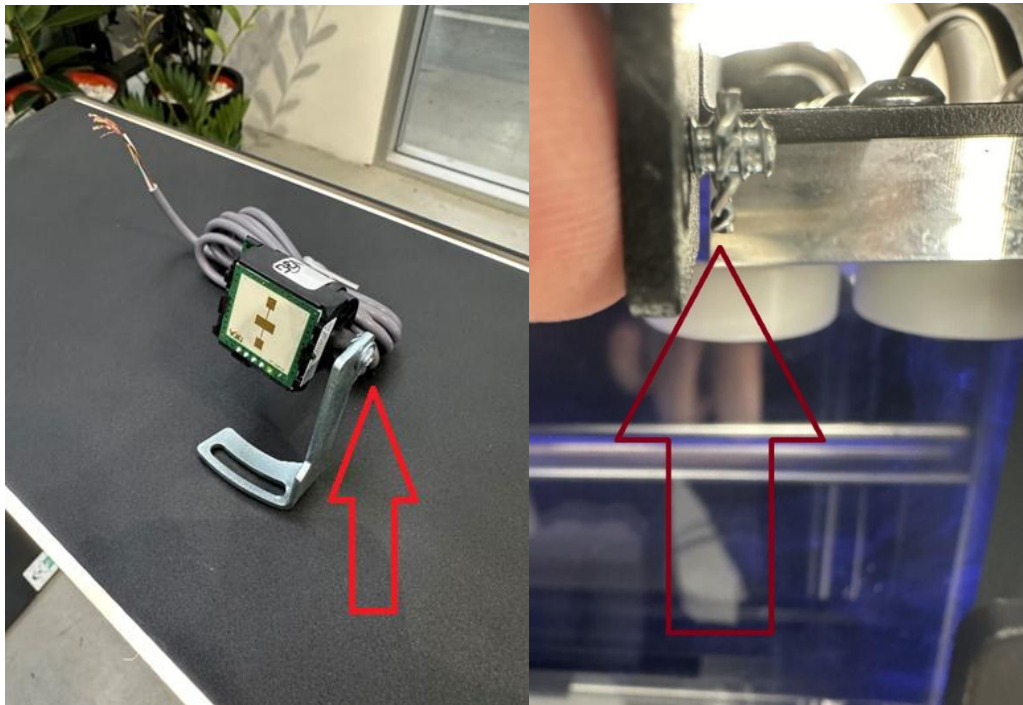
4. Lift the service hatch up and away from the SigmaGate.



5. Disconnect the earth cable from service hatch.



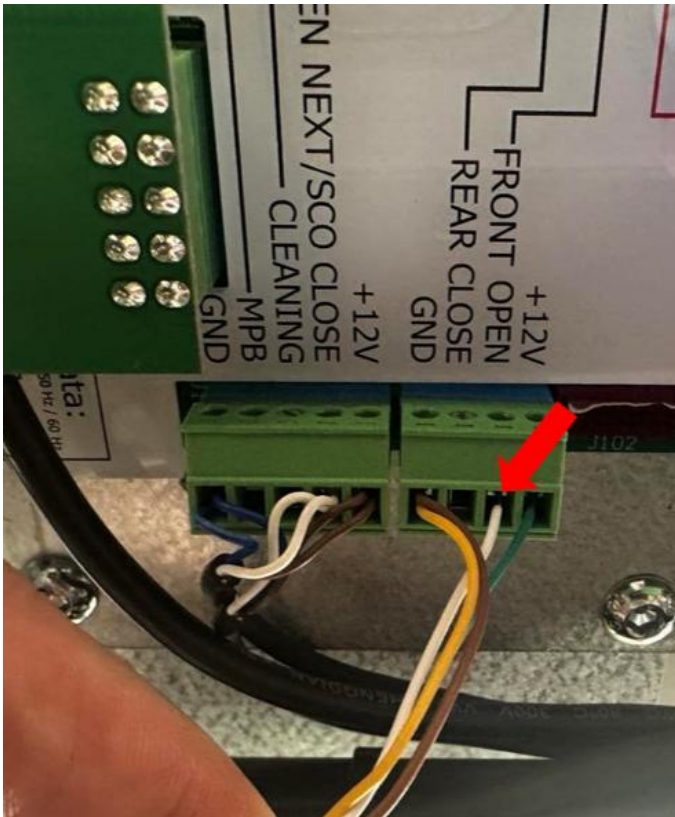
6. Disconnect the power to the gate sides.



7. Remove the screw from the bracket and discard the bracket if supplied. Use the bracket screw and washer to mount the customer facing radar to in the corner of the SigmaGate with the washer between the mounting plate and radar **THIS IS IMPORTANT!** so that the radar does not slip after install.
8. It is also particularly important when tightening the screw that the radar is tilting downwards. This is to make sure that the radar picks up all customers.



9. Connect the radar according to the picture.



+12v = Green wire (can be left disconnected on an exit gate for remote control configuration)

GND = Brown and Yellow wires

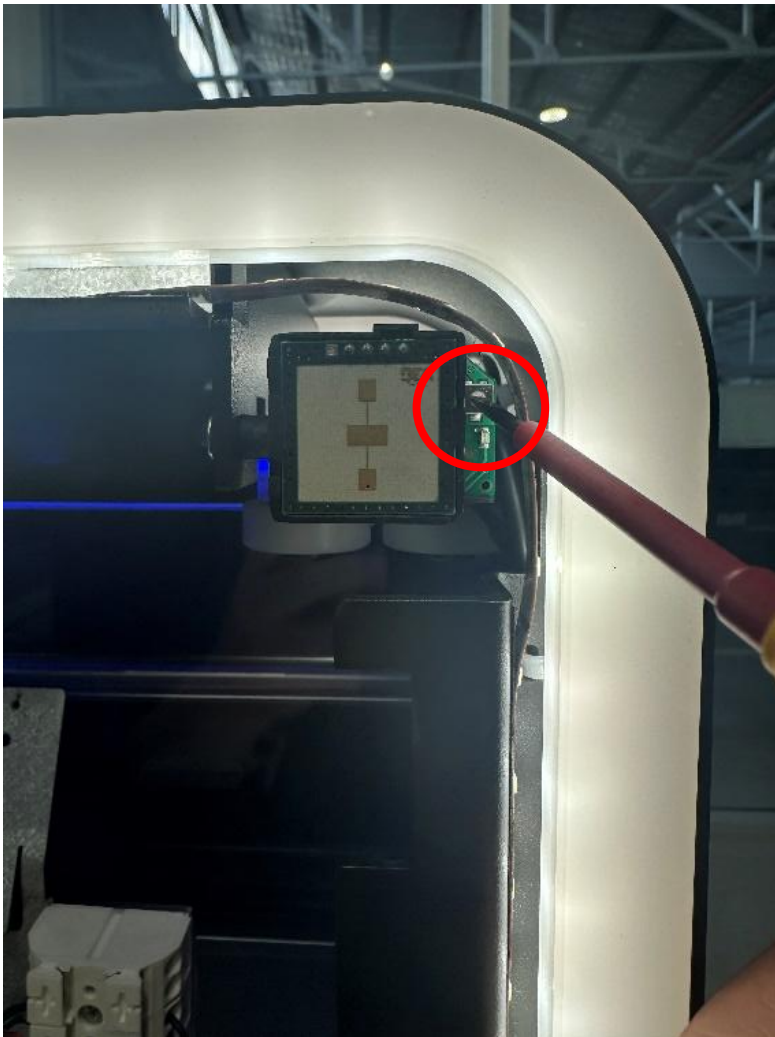
FRONT OPEN = White wire

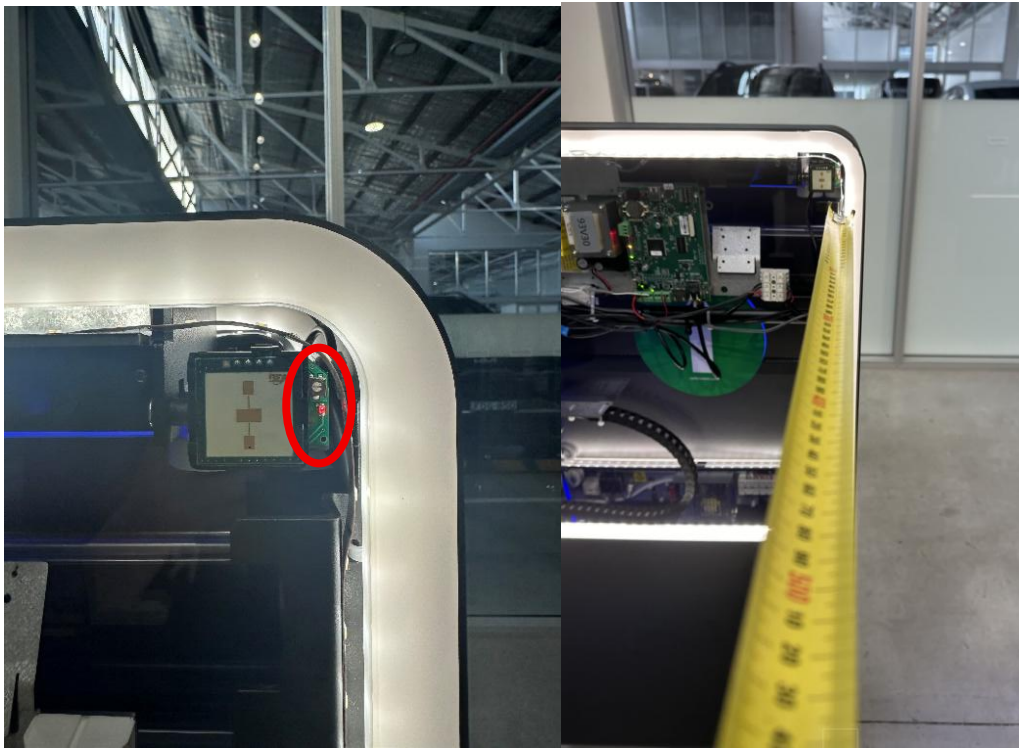
- Adjust the potentiometer on the side of the radar as shown in the image below left to set the detection range. The radars red LED will illuminate when a customer is detected as shown in the image below right.

Maximum sensitivity: Potentiometer turned all the way clockwise.

Minimum sensitivity: Potentiometer turned all way anticlockwise.

Note: The tuning of the radar will be the same no matter if it got the dial on the right or left side of the radar.





11. Set the radar trigger distance with the cover installed, using a measuring tape and the red LED indicator (in red circle above) to confirm detection.

- **Entry gates** should be set to trigger at **1800 mm (minimum 1500 mm if necessary)**.
- **Exit gates** should be set to trigger at **2000 mm (minimum 1500 mm if necessary)**.

Important:

If the entry gates are positioned less than 1800 mm from the store entrance/exit where there is high foot traffic, the trigger distance may be reduced to **1500 mm minimum** to not trigger to open when people passing by the gates. This should be assessed and set by the installer during commissioning.

It is also important to ensure that adjacent gates do not trigger open when a customer passes through a neighbouring lane. Each gate should only respond to movement within its intended detection area.

Similar applies to the exit gate to make sure nothing triggers the gate to open when it shouldn't.

Note: When setting the distance with the cover installed, the actual trigger range will decrease slightly. Ensure there are no surrounding objects or environmental factors that may unintentionally trigger the gate.

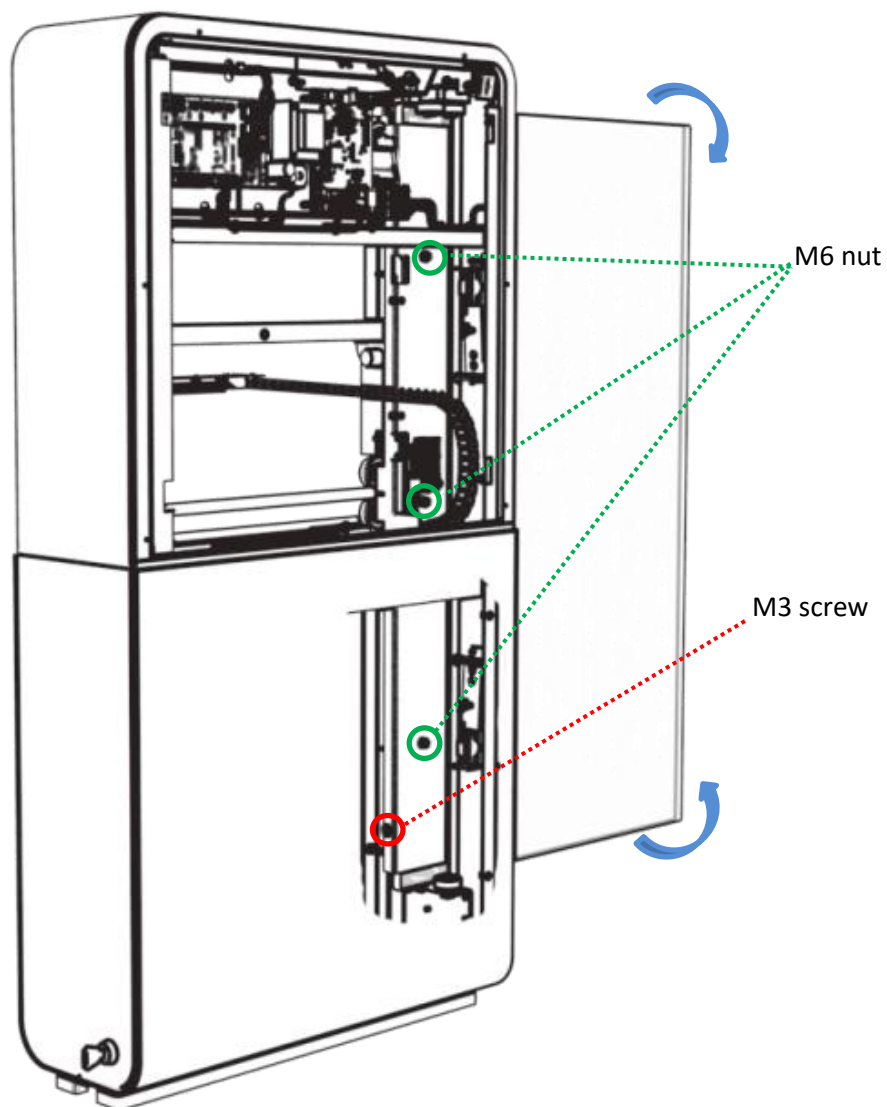
12. Close up the SigmaGate by doing the inverse of the opening procedure.
- Place service hatch on gate
 - Connect earth cable
 - Close service hatch
 - Close lock by using a flat head screwdriver turning it into the horizontal position
 - Power up the gate again.
 - Return gate functionality by using the remote.

9. Adjustment of Glass Door

If the glass doors need to be adjusted an adjustment screw (Allen screw M3) located on the lower section of the glass door can be adjusted (marked in red).

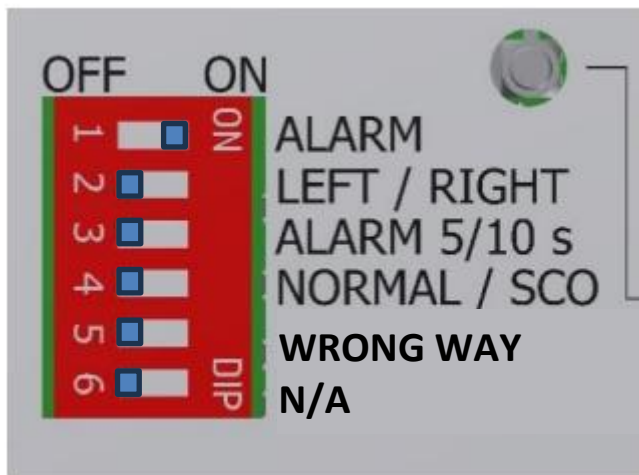
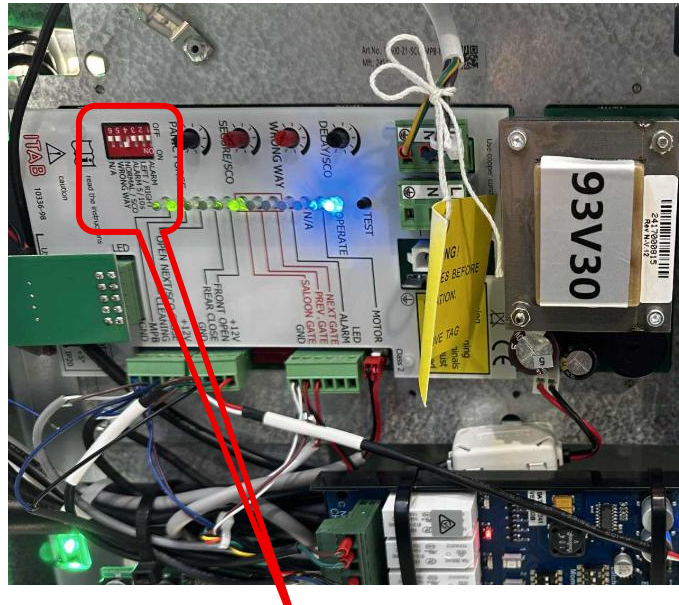
Before adjustment, three M6 nuts need to be loosened (marked in green).

Note: After adjustment, make sure to tighten the M6 nut.



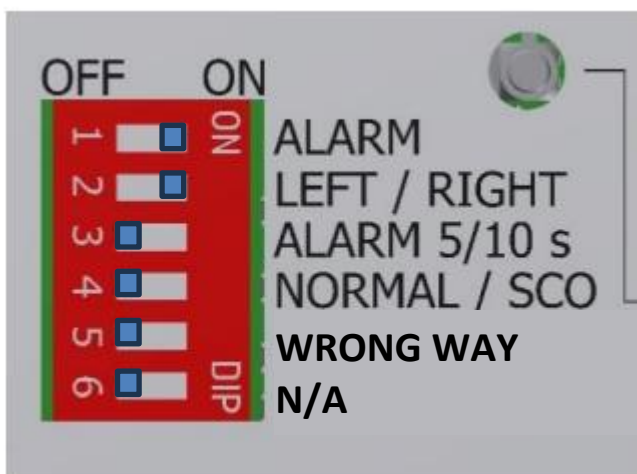
10. Master & Slave Dip Switch Settings

The purpose of the Master and Slave function is to make it easier to set the timer functions on the main board. In a saloon configuration the right-hand gate (in the direction of the customers' travel) is ALWAYS the Master.



LEFT GATE

1. ALARM = Right (ON)
2. LEFT/RIGHT = Left (OFF)
3. ALARM 5/10s = Left (OFF)
4. NORMAL/SCO = Left (OFF)
5. WRONG WAY = Left (OFF)
6. N/A = Left (OFF)



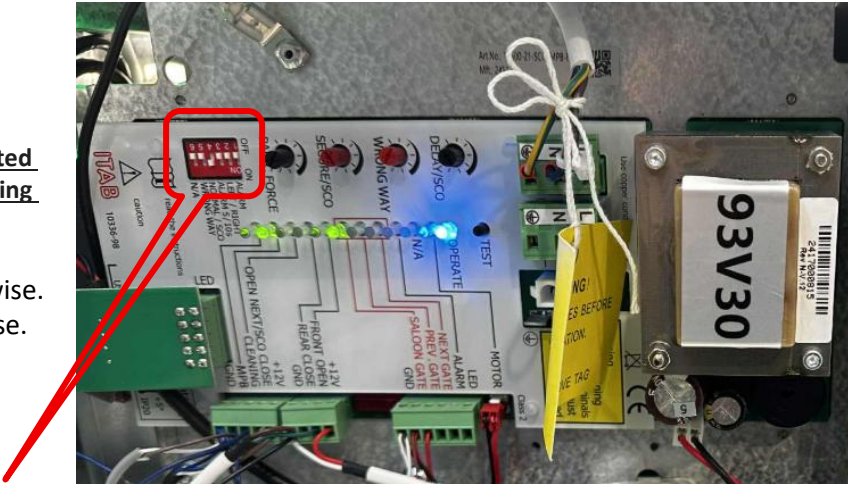
RIGHT GATE

1. ALARM = Right (ON)
2. LEFT/RIGHT = Right (ON)
3. ALARM 5/10s = Left (OFF)
4. NORMAL/SCO = Left (OFF)
5. WRONG WAY = Left (OFF)
6. N/A = Left (OFF)

11. Master & Slave Potentiometer settings

Note: For the Master and Slave function to be operational the gate configuration must be connected with GateCOM crossover cable (Sa loon) to the opposing gate *See page 16.

0% = Potentiometer turned all the way anticlockwise.
 100% = Potentiometer turned all the way clockwise.



ENTRY GATE SETTINGS:

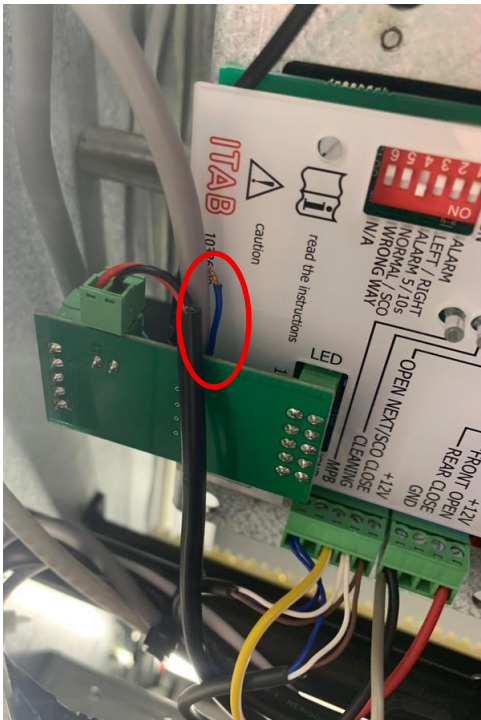
	LEFT GATE	RIGHT GATE
1.	Maximum (100%)	20% (2 seconds)
2.	Maximum (100%)	Maximum (100%, 2 seconds)
3.	Maximum (100%)	Minimum (0%)
4.	Minimum (0%)	Minimum (0%)

EXIT GATE SETTINGS:

	LEFT GATE	RIGHT GATE
1.	Maximum (100%)	20% (2 seconds)
2.	Maximum (100%)	Maximum (100%, 2 seconds)
3.	Maximum (100%)	Minimum (0%)
4.	Minimum (0%)	Minimum (0%)

12. Set glass arm LED to Kmart settings

Set the LED colours of the glass doors by opening the gate and removing the LED chip from the LED connector on the main PCB board. Remove the blue cable from pin 4 and connect the green wire to pin 2 instead. This will ensure the glass remains green when in closed position. Then add a short wire to bridge pins 2 and 4. This will cause the glass to flash red while opening, closing, and during alarm mode.



Colour of the LED light cable

Cable colour	Function/LED colour
Black	12V
Green	Green
Red	Red
Blue	Blue

Number on socket	Function
1	No Function
2	Closed position
3	Closing and Alarm
4	When opening
5	12V

If the same colour wants on two functions, just add a cable between the two functions in the socket.

13. Remote Installation (Gen 3 Remotes) multiple Gates triggered by the remote controls

The following instructions will explain how to install a remote receiver inside a Sigma gate and how to set up the remote's functions if there are only two or more gates in the store controlled by the remote controls.

Remote Control Functions

Auto Close

When the Auto Close button is pressed, the gate receives a pulse signal. This will trigger the gate to open for 2 seconds and then automatically close again without requiring any further action. This function should be used if the gate does not open for a customer and you need to allow them to exit.

Cleaning Mode

When the Cleaning Mode button is pressed, the gate receives a latched signal that keeps it open. The gate will remain open until the same button is pressed again, which releases the signal and causes the gate to close immediately.

This mode should only be used if the gates are not functioning as expected, or when the gates need to remain open for operational reasons, such as cleaning activities or moving items through the gate.

3-Gate Store Configuration

Button 1 – will be programmed to activate '**Auto Close**' on Gate 1 (Exit Gate)

Button 2 – will be programmed to activate '**Auto Close**' on Gate 2 (Entry Gate) & Gate 3 (Entry Gate)

Button 3 – will be programmed to activate and deactivate the Radar on Gate 1 (Exit Gate)

Button 4 – will be programmed to activate and deactivate '**Cleaning mode**' on Gate 1 (Exit Gate), Gate 2 (Entry Gate) & Gate 3 (Entry Gate)

4-Gate Store Configuration

Button 1 – will be programmed to activate '**Auto Close**' on Gate 1 (Exit Gate) & Gate 2 (Exit Gate)





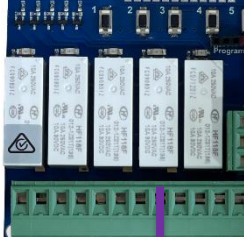

Button 2 – will be programmed to activate '**Auto Close**' on Gate 3 (Entry Gate) & Gate 4 (Entry Gate)


Button 3 – will be programmed to activate and deactivate the Radar on Gate 1 (Exit Gate) & Gate 2 (Exit Gate)

Button 4 – will be programmed to activate and deactivate '**Cleaning mode**' on Gate 1 (Exit Gate), Gate 2 (Exit Gate), Gate 3 (Entry Gate) & Gate 4 (Entry Gate)





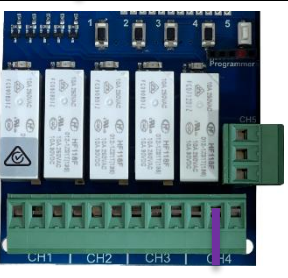

13.1. Wire the Receivers to the Sigma Gates Control Board

All Exit Gates

Receiver	Sigma Gate Control Board
<p>Supply +</p> 	<p>12V</p>
<p>Supply -</p> 	<p>Ground</p>
<p>Ch1 NO</p> 	<p>Front Open</p>
<p>Ch1 C</p> 	<p>Ground</p>
<p>Ch3 NO</p> 	<p>Radar green wire</p>
<p>Ch3 C</p> 	<p>12V</p>

<p>Ch4 NO</p>  <p>The diagram shows a terminal block with four channels labeled CH1, CH2, CH3, and CH4. A purple wire is connected to the CH4 terminal. Above the terminal block is a blue PCB with four relays and a 'Programmer' label.</p>	<p>Cleaning</p>
<p>Ch4 C</p>  <p>The diagram shows a terminal block with four channels labeled CH1, CH2, CH3, and CH4. A blue wire is connected to the CH4 terminal. Above the terminal block is a blue PCB with four relays and a 'Programmer' label.</p>	<p>Ground</p>

All Entry Gates

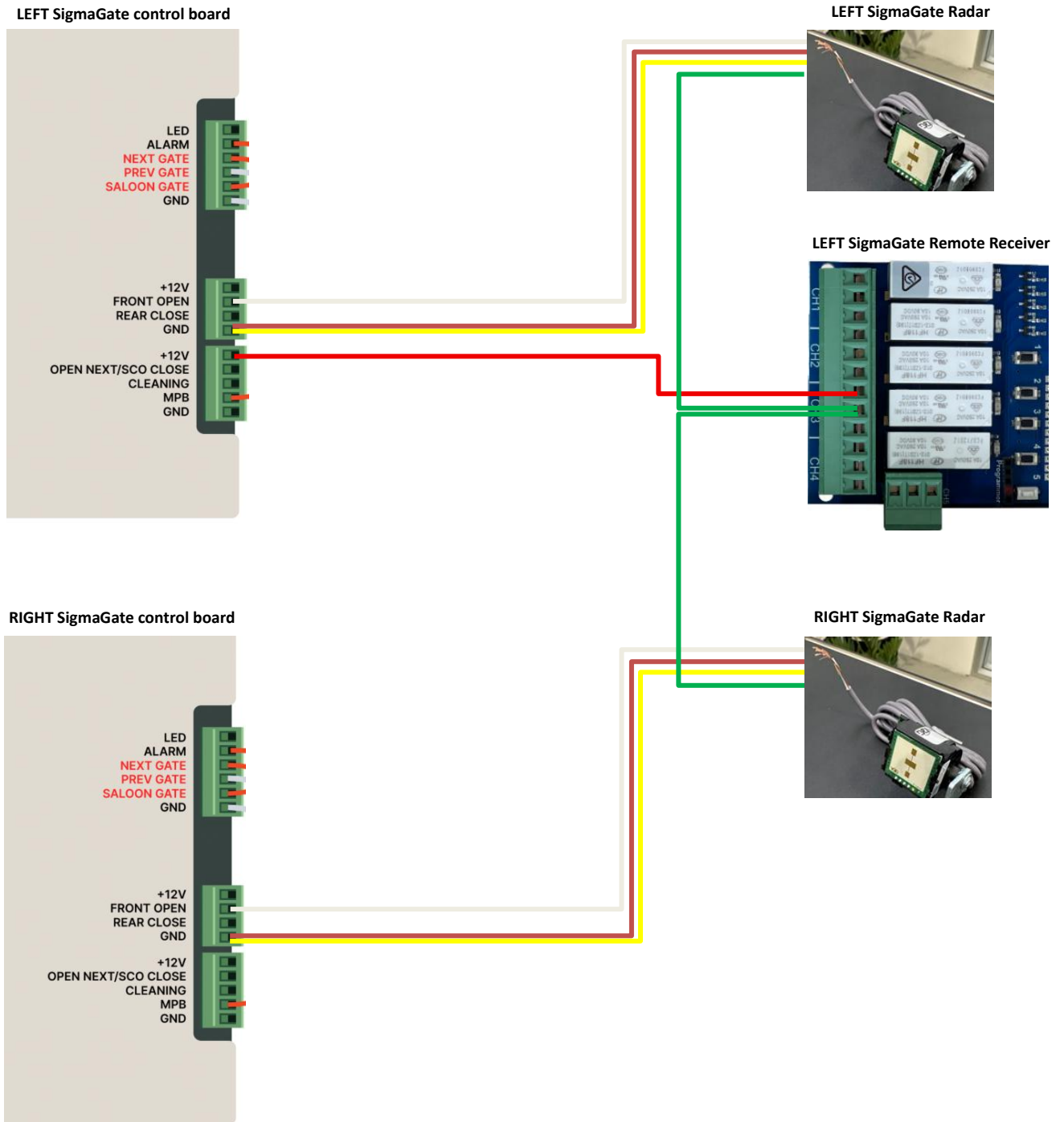
Receiver	Sigma Gate Control Board
<p>Supply +</p> 	<p>12V</p>
<p>Supply -</p> 	<p>Ground</p>
<p>Ch2 NO</p> 	<p>Front Open</p>
<p>Ch2 C</p> 	<p>Ground</p>
<p>Ch4 NO</p> 	<p>Cleaning</p>
<p>Ch4 C</p> 	<p>Ground</p>

14. Connect Approach Radars to Exit Gate Remote Receiver

To enable activation and deactivation of the approach radars via the remote control, the radars must be wired to receive +12V from the remote receiver. This allows the user to switch the radars on and off using the remote.

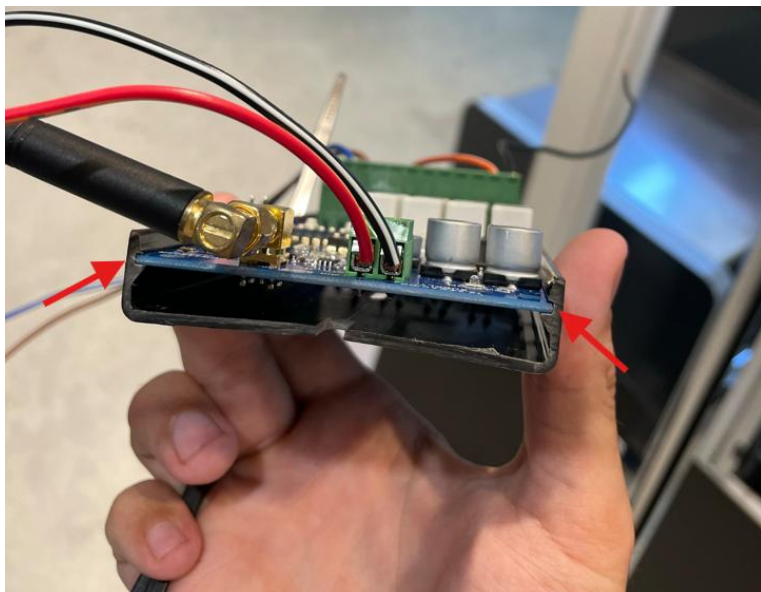
This function is always assigned to **Button 3** on the remote control, which corresponds to **Channel 3** on the receiver on an **Exit Gate**.

Note: Because the green radar wires are bundled with other wires in the same cable, it will be difficult to connect them directly to the receiver without extending the wiring. In particular, the extended wire from the right-hand radar (the unit without the receiver) must be routed together with the crossover cable in order to reach the connection point. The below wiring has to be done on all Exit Gates in the setup.



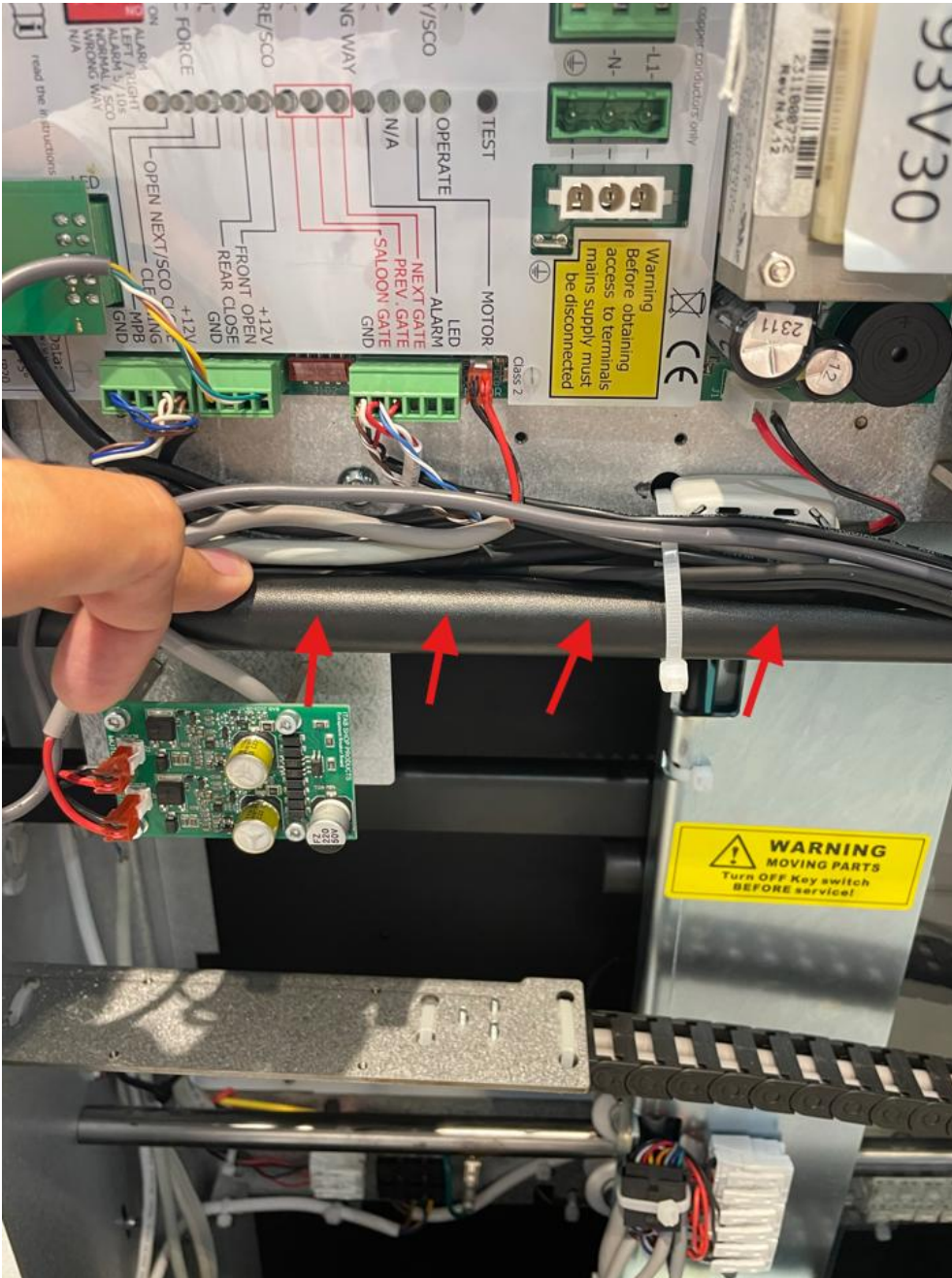
15. Mount the receivers

Fit the receiver into the plastic bracket. Fit it into the trace, see second picture.



Remove cables from rail (creates extra space, otherwise the receiver can hit the cover when putting it back).

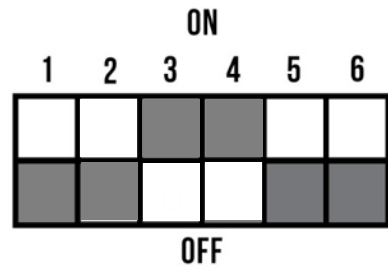
Note: if you don't have the plastic bracket, don't remove the cables. The cables will protect getting metal against metal.



16. Set the DIP Switches & Pair Remotes

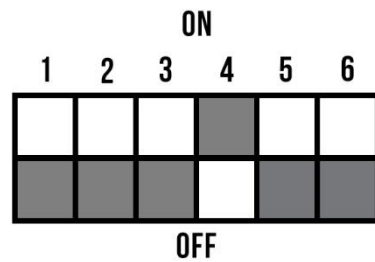
All Exit Gates

1. Change Mode Selection on 6 DIP switches (outlined in red below) to OFF OFF ON ON OFF OFF or Down Down Up Up Down Down.



All Entry Gates

2. Change Mode Selection on 6 DIP switches (outlined in red below) to OFF OFF OFF ON OFF OFF or Down Down Down Up Down Down.

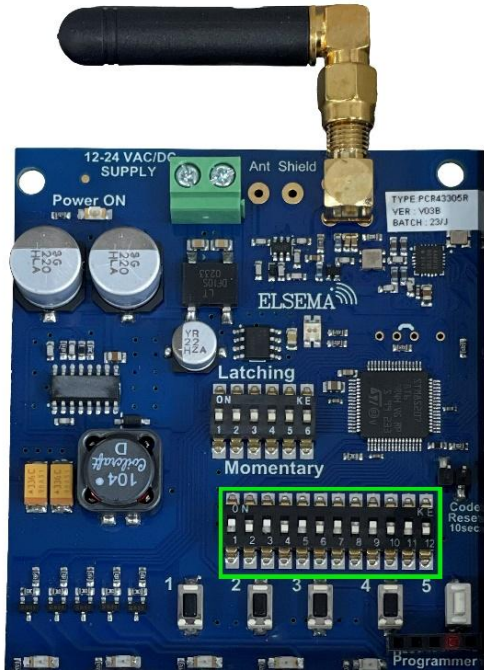


- On all the receivers, set switches 1-10 (outlined in green below) to match the store number using the examples in the table below. As an example, if the store has a number 8 in the store number set DIP switch 8 to the On/Up position and ignore any zeros in the store number. If the store has the same number more than once like 8888 only switch 8 must be set to On/Up and rest will be OFF/Down.

Note: If a store has two entrances, configure the DIP switches as follows:

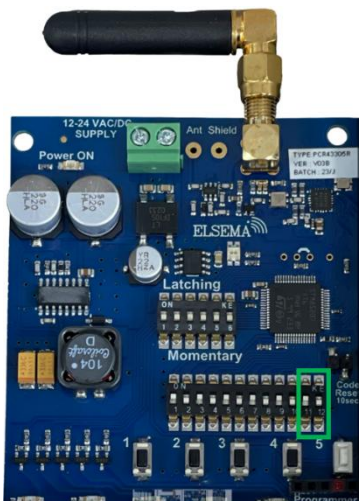
- For **Entrance 1**, set all gate DIP switches to the store number.
- For **Entrance 2**, set all gate DIP switches to the store number + **DIP switch 10 (On)**.

This prevents remotes from accidentally triggering the wrong gate.



Store #	DIP Switches 1-10
0043	ON 1 2 3 4 5 6 7 8 9 10 DIP
0333	ON 1 2 3 4 5 6 7 8 9 10 DIP
3571	ON 1 2 3 4 5 6 7 8 9 10 DIP
3344	ON 1 2 3 4 5 6 7 8 9 10 DIP
1364	ON 1 2 3 4 5 6 7 8 9 10 DIP

- The table below explains Dip switch 11 and 12. The first receiver should always have Off/Off. If you the store has two receivers. The first should have Off/Off and the second should have On/Off. Follow the table for all the different set ups.

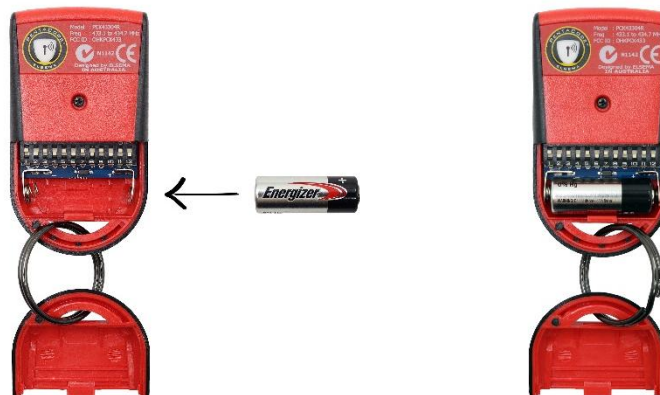


	Receivers Dip Switch 11	Receiver Dip Switch 12
Receiver 1	Off	Off
Receiver 2	On	Off
Receiver 3	Off	On
Receiver 4	On	On

- Set DIP switches 1-10 in the remote exactly the same as the receivers it should be triggering. Dip switch 11 and 12 should always be Off/Off.



- Lastly, insert the battery and test the functions.



17. Commissioning sign-off checklist for installer

The below checklists must be filled out and reported for each gate commissioned in the store. If any forms aren't applicable, just leave it blank.

ENTRY GATE 1		✓	✗	
Installer to check that gates are fully operational by ticking the boxes below after installation is completed.		Pass	Fail	N/A
Record	Check			
VIDEO	Gates triggered at 1800mm. Min trigger distance 1500mm if necessary.			
VIDEO	Gates closing behind customer after 2 seconds.			
VIDEO	Gates display Kmart colour scheme (Green = Closed) (Red = Closing/alarming)			
VIDEO	Gates do not close on patron obstructing PEC sensors.			
VIDEO	Gates can be pushed into breakout position and being closed/reset.			
VIDEO	Remote button 2 triggering gates to open (then auto close once someone walks through).			
VIDEO	Remote button 4 activating/deactivating cleaning mode.			
PHOTOS	Show gates and rails from different angles.			
PHOTOS	Gate decals have been applied to the glass panels.			
PHOTOS	Opening between all gates is 945mm (+/- 10mm) and they must be parallel.			
PHOTOS	Distance between glass panels at 75mm (+/- 10mm).			
PHOTOS	Show from above, the glass is parallel and not skewed.			
PHOTOS	Gate fixings are > = M8 x 75mm Chemset and tightened.			
PHOTOS	Earth, power and neutral connected to terminal in middle of the gate.			
PHOTOS	2 core GateCOM/cross over cable connected to gate terminal in middle of gate and then connected to GND and saloon on gate control board with saloon LED illuminated.			
PHOTOS	Confirm gates are fitted with an IP56 isolation switch.			
PHOTOS	PEC sensors are aligned. Picture required of both lights (4 sensors per gate set).			
PHOTOS	Dipswitch settings on gate control boards.			
PHOTOS	Gate body is clear of debris (no excess cables, no cable ties etc)			
PHOTOS	Key-clamp posts and side rail posts fixings are > = 8mm X 60mm.			
PHOTOS	All key-clamp rail grub screws are flush.			

ENTRY GATE 2		✓	✗	
Installer to check that gates are fully operational by ticking the boxes below after installation is completed.		Pass	Fail	N/A
Record	Check			
VIDEO	Gates triggered at 1800mm. Min trigger distance 1500mm if necessary.			
VIDEO	Gates closing behind customer after 2 seconds.			
VIDEO	Gates display Kmart colour scheme (Green = Closed) (Red = Closing/alarming)			
VIDEO	Gates do not close on patron obstructing PEC sensors.			
VIDEO	Gates can be pushed into breakout position and being closed/reset.			
VIDEO	Remote button 2 triggering gates to open (then auto close once someone walks through).			
VIDEO	Remote button 4 activating/deactivating cleaning mode.			
PHOTOS	Show gates and rails from different angles.			
PHOTOS	Gate decals have been applied to the glass panels.			
PHOTOS	Opening between all gates is 945mm (+/- 10mm) and they must be parallel.			
PHOTOS	Distance between glass panels at 75mm (+/- 10mm).			
PHOTOS	Show from above, the glass is parallel and not skewed.			
PHOTOS	Gate fixings are > = M8 x 75mm Chemset and tightened.			
PHOTOS	Earth, power and neutral connected to terminal in middle of the gate.			
PHOTOS	2 core GateCOM/cross over cable connected to gate terminal in middle of gate and then connected to GND and saloon on gate control board with saloon LED illuminated.			
PHOTOS	Confirm gates are fitted with an IP56 isolation switch.			
PHOTOS	PEC sensors are aligned. Picture required of both lights (4 sensors per gate set).			
PHOTOS	Dipswitch settings on gate control boards.			
PHOTOS	Gate body is clear of debris (no excess cables, no cable ties etc)			
PHOTOS	Key-clamp posts and side rail posts fixings are > = 8mm X 60mm.			
PHOTOS	All key-clamp rail grub screws are flush.			

ENTRY GATE 3		✓	✗	
Installer to check that gates are fully operational by ticking the boxes below after installation is completed.		Pass	Fail	N/A
Record	Check			
VIDEO	Gates triggered at 1800mm. Min trigger distance 1500mm if necessary.			
VIDEO	Gates closing behind customer after 2 seconds.			
VIDEO	Gates display Kmart colour scheme (Green = Closed) (Red = Closing/alarming)			
VIDEO	Gates do not close on patron obstructing PEC sensors.			
VIDEO	Gates can be pushed into breakout position and being closed/reset.			
VIDEO	Remote button 2 triggering gates to open (then auto close once someone walks through).			
VIDEO	Remote button 4 activating/deactivating cleaning mode.			
PHOTOS	Show gates and rails from different angles.			
PHOTOS	Gate decals have been applied to the glass panels.			
PHOTOS	Opening between all gates is 945mm (+/- 10mm) and they must be parallel.			
PHOTOS	Distance between glass panels at 75mm (+/- 10mm).			
PHOTOS	Show from above, the glass is parallel and not skewed.			
PHOTOS	Gate fixings are > = M8 x 75mm Chemset and tightened.			
PHOTOS	Earth, power and neutral connected to terminal in middle of the gate.			
PHOTOS	2 core GateCOM/cross over cable connected to gate terminal in middle of gate and then connected to GND and saloon on gate control board with saloon LED illuminated.			
PHOTOS	Confirm gates are fitted with an IP56 isolation switch.			
PHOTOS	PEC sensors are aligned. Picture required of both lights (4 sensors per gate set).			
PHOTOS	Dipswitch settings on gate control boards.			
PHOTOS	Gate body is clear of debris (no excess cables, no cable ties etc)			
PHOTOS	Key-clamp posts and side rail posts fixings are > = 8mm X 60mm.			
PHOTOS	All key-clamp rail grub screws are flush.			

EXIT GATE 1		✓	✗	
Installer to check that gates are fully operational by ticking the boxes below after installation is completed.		Pass	Fail	N/A
Record	Check			
VIDEO	Gates triggered at 2m. Min distance is 1.5m if necessary.			
VIDEO	Gates closing behind customer after 2 seconds.			
VIDEO	Gates display Kmart colour scheme (Green = Closed) (Red = Closing/alarming)			
VIDEO	Gates do not close on patron obstructing PEC sensors.			
VIDEO	Gates can be pushed into breakout position and being closed/reset.			
VIDEO	Remote button 1 triggering gates to open (then auto close once someone walks through).			
VIDEO	Remote button 3 activating/deactivating the approach radars.			
VIDEO	Remote button 4 activating/deactivating cleaning mode.			
PHOTOS	Show gates and rails from different angles.			
PHOTOS	Gate decals have been applied to the glass panels.			
PHOTOS	Opening between all gates is 945mm (+/- 10mm) and they must be parallel.			
PHOTOS	Distance between glass panels at 75mm (+/- 10mm).			
PHOTOS	Show from above, the glass is parallel and not skewed.			
PHOTOS	Gate fixings are > = M8 x 75mm Chemset and tightened.			
PHOTOS	Earth, power and neutral connected to terminal in middle of the gate.			
PHOTOS	2 core GateCOM/cross over cable connected to gate terminal in middle of gate and then connected to GND and saloon on gate control board with saloon LED illuminated.			
PHOTOS	Confirm gates are fitted with an IP56 isolation switch.			
PHOTOS	PEC sensors are aligned. Picture required of both lights (4 sensors per gate set).			
PHOTOS	Dipswitch settings on gate control boards.			
PHOTOS	Gate body is clear of debris (no excess cables, no cable ties etc)			
PHOTOS	Key-clamp posts and side rail posts fixings are > = 8mm X 60mm.			
PHOTOS	All key-clamp rail grub screws are flush.			

EXIT GATE 2		✓	✗	
Installer to check that gates are fully operational by ticking the boxes below after installation is completed.		Pass	Fail	N/A
Record	Check			
VIDEO	Gates triggered at 2m. Min distance is 1.5m if necessary.			
VIDEO	Gates closing behind customer after 2 seconds.			
VIDEO	Gates display Kmart colour scheme (Green = Closed) (Red = Closing/alarming)			
VIDEO	Gates do not close on patron obstructing PEC sensors.			
VIDEO	Gates can be pushed into breakout position and being closed/reset.			
VIDEO	Remote button 1 triggering gates to open (then auto close once someone walks through).			
VIDEO	Remote button 3 activating/deactivating the approach radars.			
VIDEO	Remote button 4 activating/deactivating cleaning mode.			
PHOTOS	Show gates and rails from different angles.			
PHOTOS	Gate decals have been applied to the glass panels.			
PHOTOS	Opening between all gates is 945mm (+/- 10mm) and they must be parallel.			
PHOTOS	Distance between glass panels at 75mm (+/- 10mm).			
PHOTOS	Show from above, the glass is parallel and not skewed.			
PHOTOS	Gate fixings are > = M8 x 75mm Chemset and tightened.			
PHOTOS	Earth, power and neutral connected to terminal in middle of the gate.			
PHOTOS	2 core GateCOM/cross over cable connected to gate terminal in middle of gate and then connected to GND and saloon on gate control board with saloon LED illuminated.			
PHOTOS	Confirm gates are fitted with an IP56 isolation switch.			
PHOTOS	PEC sensors are aligned. Picture required of both lights (4 sensors per gate set).			
PHOTOS	Dipswitch settings on gate control boards.			
PHOTOS	Gate body is clear of debris (no excess cables, no cable ties etc)			
PHOTOS	Key-clamp posts and side rail posts fixings are > = 8mm X 60mm.			
PHOTOS	All key-clamp rail grub screws are flush.			

EXIT GATE 3		✓	✗	
Installer to check that gates are fully operational by ticking the boxes below after installation is completed.		Pass	Fail	N/A
Record	Check			
VIDEO	Gates triggered at 2m. Min distance is 1.5m if necessary.			
VIDEO	Gates closing behind customer after 2 seconds.			
VIDEO	Gates display Kmart colour scheme (Green = Closed) (Red = Closing/alarming)			
VIDEO	Gates do not close on patron obstructing PEC sensors.			
VIDEO	Gates can be pushed into breakout position and being closed/reset.			
VIDEO	Remote button 1 triggering gates to open (then auto close once someone walks through).			
VIDEO	Remote button 3 activating/deactivating the approach radars.			
VIDEO	Remote button 4 activating/deactivating cleaning mode.			
PHOTOS	Show gates and rails from different angles.			
PHOTOS	Gate decals have been applied to the glass panels.			
PHOTOS	Opening between all gates is 945mm (+/- 10mm) and they must be parallel.			
PHOTOS	Distance between glass panels at 75mm (+/- 10mm).			
PHOTOS	Show from above, the glass is parallel and not skewed.			
PHOTOS	Gate fixings are > = M8 x 75mm Chemset and tightened.			
PHOTOS	Earth, power and neutral connected to terminal in middle of the gate.			
PHOTOS	2 core GateCOM/cross over cable connected to gate terminal in middle of gate and then connected to GND and saloon on gate control board with saloon LED illuminated.			
PHOTOS	Confirm gates are fitted with an IP56 isolation switch.			
PHOTOS	PEC sensors are aligned. Picture required of both lights (4 sensors per gate set).			
PHOTOS	Dipswitch settings on gate control boards.			
PHOTOS	Gate body is clear of debris (no excess cables, no cable ties etc)			
PHOTOS	Key-clamp posts and side rail posts fixings are > = 8mm X 60mm.			
PHOTOS	All key-clamp rail grub screws are flush.			

19. Troubleshooting Schedule

Please read through the following steps:

Gates do not open:

- Check that there is power to the gate.
- Check the motor key switch is turned ON.
- Check if the gates are being held open on the remote controls.
- Check the connections of GateCOM cross over cable.

Gates do not close:

- Check that the motor key switch is turned ON.
- Check that CLEANING MODE is not activated by checking for illuminated LED on main PCB
- Check that the photoelectric cells are pointing directly at the corresponding reflector. See page 20 for adjustment of PEC.
- If the gates are equipped with Mechanical Panic Breakout, check that the gates are in normal position.
- If the problem is still not solved, switch off the mains power to the gate and turn it back on.

The gate alarm is activated:

- Check that the motor key switch is turned ON.
- Check that the photoelectric cells are pointing directly at the corresponding reflex. See page 20 for adjustment of PEC.

The gates do not behave as intended:

- Check the configuration of the gates concerning MASTER & SLAVE on page 30.
- Check that the photoelectric cells are pointing directly at the corresponding reflex.
- If problems continue, contact Radford Support.

For more installation & troubleshooting guides, please visit our knowledge base here:

<https://radfordretail.zendesk.com/hc/en-au>