

## **Cantilever sliding gates**



# **Bekamatic SC 6000 Line**

## **Installation Manual**

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## **1. Warnings**

These warnings constitute an integral and essential part of the product and must be issued to the user. Carefully read the warnings in this chapter as they supply important information concerning the safety issues during installation, use and maintenance. This handbook must be kept safely for any future consultation.

### **1.1. Warnings for installer and end user**

After removing the packaging, make sure that the equipment is in a good & serviceable condition. If this is not the case, please do not use the equipment until it has been checked by professional qualified personnel. Children should not be allowed to come into contact with packaging elements (plastic bags, expanded polystyrene, nails, etc.) as they are potential sources of danger.

The installation must be carried out by qualified personnel, which have received technical training on the product, in accordance with current regulations and according to the manufacturer's instructions. The installation regulations can vary from country to country. Incorrect installation can cause harm to humans, animals and foreign objects, for which the manufacturer cannot be held responsible.

In case of a failure and/or poor functioning of the equipment, apply exclusively only professional qualified personnel, ideally the manufacturer or a certified installer. Only original spare parts should be used to carry out the repairs to the product. A lack of observance of that mentioned above could compromise the safety of the equipment.

This gate should only be used for that what it has been expressly designed for (the complete system). Any other use breaching this, should be considered improper and therefore dangerous. Betafence cannot be held responsible for eventual damage caused by improper, incorrect and unreasonable use.

### **1.2. Special points to note**

- Avoid operating close to mechanical moving components, this could lead to a dangerous situation, should parts of the body or clothing become caught up in them. The difficulty of freeing oneself from their grasp is not always possible and can lead to serious injury.
- Only set the gate in motion when it is completely visible and free from all

hazards and obstacles.

- Do not try to stop the gate manually once in motion, this can lead to damage or serious injury.
- Please note that the gate can generate a considerable force during operation, which could be a source of danger. Do not move into the operating area of the gate during motion.
- Do not allow children to play by opening and closing the gate.
- Do not allow children to play within the opening area of the gate.
- Ensure that the wing lock is installed, functioning and locked properly when the gate wing is closed.
- When you close the door, take care that the lock is in the open position, to avoid damage to the counter lock on closing (Risk of breaking the lock).
- Ensure that the wing is held properly (manual operation) during the opening or closing of the gate so that uncontrolled movement of the wing can be excluded.  
Reduce speed when reaching the fully open and fully closed positions to avoid unnecessary wear when coming into contact with the buffers.
- Under extreme weather conditions (heavy wind), hold the wing securely during the opening or closing of the gate so that uncontrolled movement of the wing can be excluded.
- Persons are not allowed to ride on the wing during operation because of the following crush hazards:
  - Between the guiding post and the wing as this can cause serious injuries to arms and legs.
  - Between the guide rollers and catcher as this can cause serious injuries to hands and fingers.
  - Between the support roller and ramp.
  - Between the wing and the lock post.
  - Between an object at the rear of the wing on opening.

Please adhere to the following to prevent persons from getting caught between any of these mentioned elements and serious injury.

- Do not climb onto the wing
- Inform all users of these hazards. Ideally this information should be displayed at a suitable place either on or close to the gate.
- To guarantee the efficiency of the installation and its correct functioning, it is imperative that the manufacturers guide lines are observed.

### **1.3. Safety rules for end user**

- Attention: In all cases once the gate has been installed and taken into service the user is, from this point on responsible for his gate.
- The user is responsible for the following:
  - That all safety related hazards are correctly controlled (Photocell, Safety Strips).
  - Correct functioning.
  - Yearly maintenance.
  - Safety Inspection (dependent on country of use)
  
- Under the safety and correct functioning of the gate it is understood that the user checks on a regularly basis (minimum once a year) if all safety devices and access control options are still working properly as they should.
  
- Under the yearly maintenance it is understood that the maintenance that is described by the manufacturer has been followed. If a maintenance contract between the customer and Betafence exists, Betafence will carry of this maintenance in cooperation with the user.
  
- For gates installed in Germany the user must ensure that every 12 months the gate is inspected as per ASR A 1.7. Once inspected the testing agency raises a report. If the gate meets all requirements, then this is indicated in the report and a test sticker is applied to the gate. If the gate fails, then the faults are captured in the report and communicated to the user. The user is then responsible for the repairs and the re-submission of the gate for re-inspection.
  
- For older gates which have not been built according to DIN EN 13241-1, the user is obligated legally to ensure that his gate meets all new standards / regulations issued.

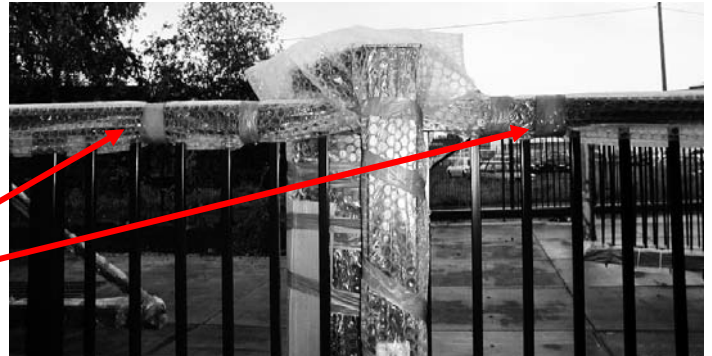
## **2. Guidelines for installation**

- Only licensed technicians or installers who have had adequate product training provided by Betafence should be permitted to install the gate.
  
- The integration of the gate into a fence must not create additional dangers / hazards. Please read carefully the warning document and consider the integration examples in the document package delivered with the gate.

- The connection to the electrical power supply must be carried out by a qualified technician and in accordance with the regulations and standards that are applicable in the country of installation.

### 3. Guidelines for gate lifting

- Gates are delivered to the construction site completely assembled.
- Lift-up points for unloading and positioning during the installation.



- The gate may only be lifted using the correct lifting tackle. This should have an up to date test certificate and be sufficiently dimensioned for the weight of the gate. By preference use undamaged flexible lift slings with sufficient lifting capacity.

### 4. Foundations

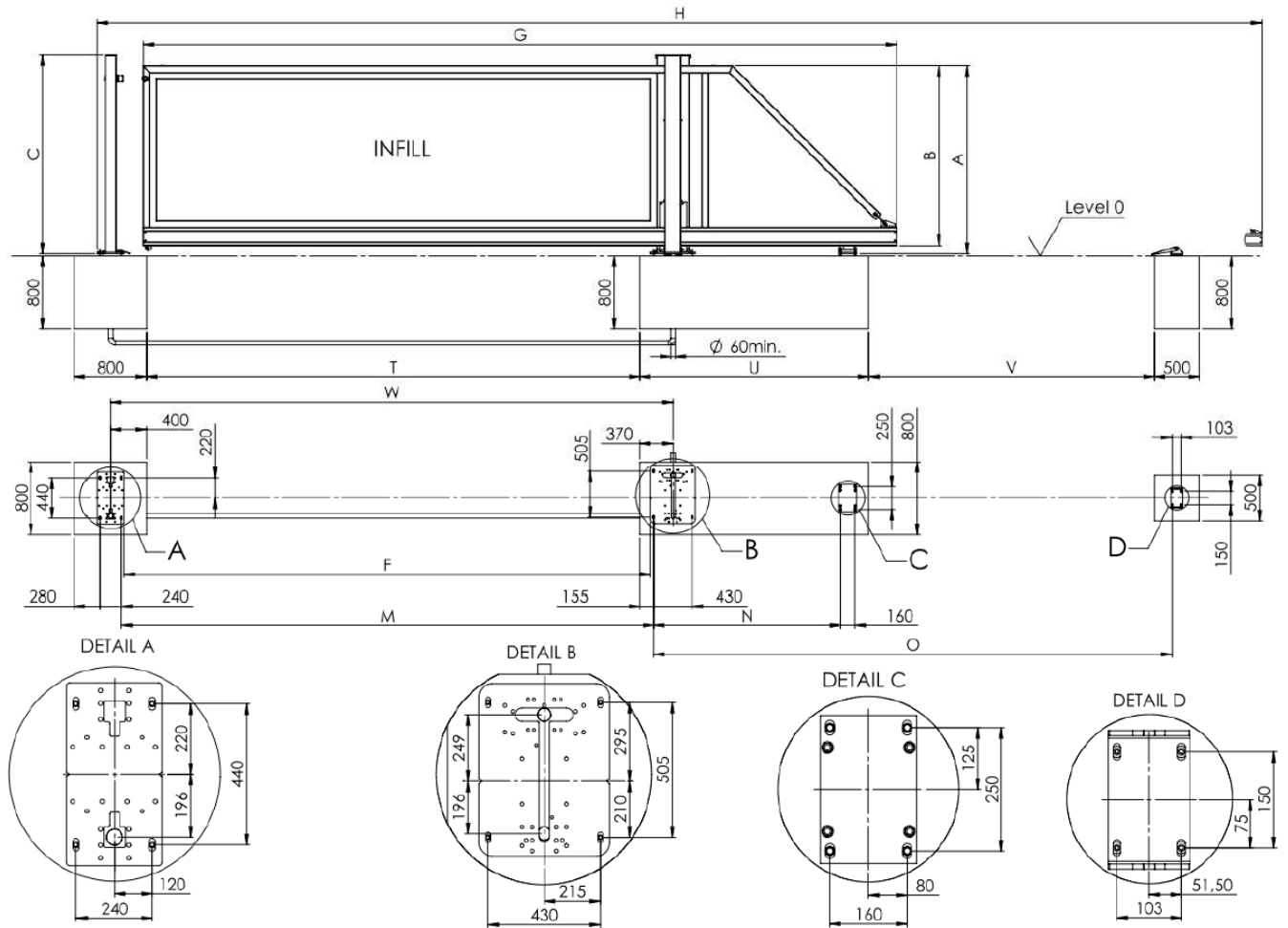
- Foundations prepared according to the corresponding drawing.
  - For standard range of gates see page 5 and 6. For the drawings and dimensions see page 7.
  - For all non-standard executions and gate combinations, please consult the special foundation drawings supplied with the gate.
  - The gate must not be installed following the slope of the construction site. Make sure that the foundation for the lock post is at the same level as the foundation for the guiding post.
  - 1 cable pipe for the connection between the power source and the gate guiding post.
  - Install an extra cable pipe between the gate and the place of operating (signal cables).
  - 1 cable pipe for the cable connections between the guiding post and the lock post (Photocells).
  - **DO NOT LAY SIGNAL CABLES IN THE POWER SUPPLY CABLE PIPE!**

**Warning:**

THE FOUNDATION PLANS PROVIDED ON THE FOLLOWING PAGES SERVE ONLY AS AN EXAMPLE!  
ALWAYS USE THE PLANS PROVIDED WITH THE ORDER DOCUMENT.

- Concrete quality: C25 = cubic pressure resistance 25 N/mm<sup>2</sup>.

### 4.1. Gates opening to the right



**Bekamatic R2000 (End Post 120x80)**

	3000	4000	5000	6000	7000	8000	9000
G	4660	5928	7010	8420	9645	10935	12610
F	2907	3852	4797	5877	6957	7767	8847
U	1820	2140	2280	2555	2700	3260	3860
H	8058	10271	12298	14788	17093	19193	21948
T	2537	3482	4427	5507	6587	7397	8477
N	1298	1621	1758	2088	2233	2713	3308
V	0	0	0	3189	4054	3869	4044
W	3307	4252	5197	6277	7357	8167	9247
M	2972	3917	4862	5942	7022	7832	8912
O	0	0	0	5787.5	6797.5	7172.5	7947.5

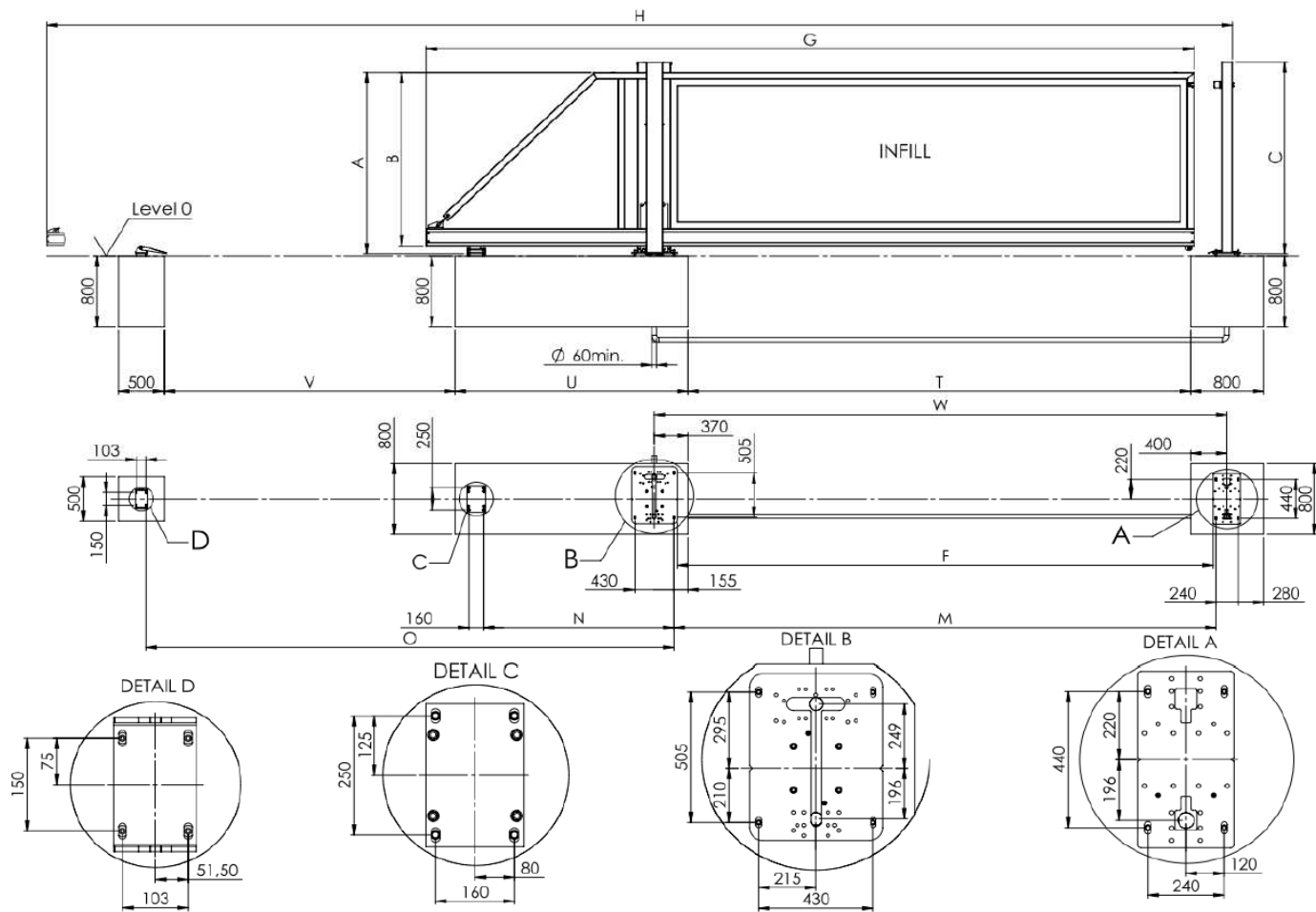
**Bekamatic R2800 (End Post 120x80)**

	8000	9000	10000	11000	12000
G	10935	12610	13710	15080	15310
F	7767	8847	9891	11106	11646
U	3260	3860	4010	4170	3860
H	19105	21860	23915	26500	27270
T	7397	8477	9521	10736	11276
N	2713	3308	3413	3568	3308
V	3869	4044	4730	5225	5675
W	8167	9247	10291	11506	12046
M	7832	8912	9956	11171	11711
O	7172.5	7947.5	8783.5	9438.5	9578.5

Height	A	B	C
1000	1055	967	1170
1200	1255	1167	1370
1500	1555	1467	1670
1700	1755	1667	1870
2000	2055	1967	2170
2400	2455	2367	2570



## 4.2. Gates opening to the left



**Bekamatic R2000 (End Post 120x80)**

	3000	4000	5000	6000	7000	8000	9000
G	4660	5928	7010	8420	9645	10935	12610
F	2907	3852	4797	5877	6957	7767	8847
U	1820	2140	2280	2555	2700	3260	3860
H	8058	10271	12298	14788	17093	19193	21948
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W	3307	4252	5197	6277	7357	8167	9247
M	2972	3917	4862	5942	7022	7832	8912
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Height	A	B	C
1000	1055	967	1170
1200	1255	1167	1370
1500	1555	1467	1670
1700	1755	1667	1870
2000	2055	1967	2170
2400	2455	2367	2570

## **5. Preparations before gate installation:**

### **5.1. Fixing requirements**

- Chemical anchors M16 x 250 mm with "Fender" type washers (minimum 125 mm anchor depth and minimum 100 mm above finished Ground Level).
- For the mounting and securing of:
  - Guiding post (4 anchors)
  - Lock post (4 anchors)
  - Rear guiding roller set (4 anchors)
- Chemical anchors M10 x 200 mm. 4 anchors for the mounting and securing of the support roller assembly (when fully open).

### **WARNING!**

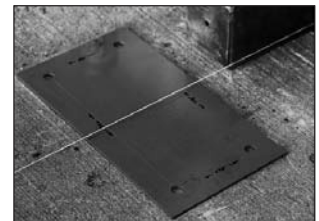
**DO NOT USE MECHANICAL ANCHORS AS THEY ARE NOT SUITABLE FOR THIS APPLICATION!**

The max distance between the concrete and post base plate should not be more than 50mm. Otherwise the stability is reduced.

(Within the warranty period, should the user report that "the gate does not move smoothly" and it is established that the gate position is not correct while this rule has not been followed, then the claim will not be accepted).

### **5.2. Installation of the ground anchors:**

- 1) Lay a tension line through the central axis of the foundations to indicate the exact position where the gate is to be installed. This incorporates the lock post, the guide post, the rear roller assembly and the rear support roller.
- 2) Position the templates for the guiding and lock posts and rear roller assembly. Using the tension line as a guide, align the center markings of the templates, ensure that the distances between the templates are adhered to as laid down in the foundation plans provided with the order document.
- 3) Mark the position of the holes with a small diameter concrete drill. This will help to centralize the final drilling to the required diameter.



- 4) Drill the corresponding holes for the fixation of the chemical anchors according to the supplier's installation instructions. Drilled holes must be vertical.



- 5) Remove any dust and small particles from the drill holes using a brush and hand pump. This will ensure perfect adhesion between the resin, ground anchor and the concrete foundation.



- 6) Place the chemical anchors according to the supplier's instructions. Resin drying times must be observed.

### 5.3. Preparing installation levels:

- 1) Screw the lower adjustment nuts onto their ground anchors some 25mm above the concrete and place the 3D washers onto the nuts.
- 2) Using a spirit level (see photo) adjust the height of all 4 nuts so that they are horizontal to one and other. The guiding post position serves as a reference point for the installation of the other main components (Roller assembly, lock post and support roller).
- 3) The nuts of each mounting position (rear roller assembly and lock post) should be perfectly horizontal and relative to another, so that the horizontal and vertical positions for the main support elements of the gate are correctly aligned before the gate is lowered onto the anchors.



## **6. Installation of the gate onto the ground anchors:**

### **Important:**

Ensure your electrical cables have been passed through the cable pipes that are provided in the concrete. This enables an easier installation of the cables into the main guide post.

The cables should protrude at least 1500mm above the concrete.

Once this has been established the installation of the gate can begin.

- 1) The gate is positioned as a complete unit with the guiding post and the rear roller assembly onto their corresponding ground anchors.
- 2) Chronological order of actions:
  - 1) Remove packaging from the guiding post. Do not remove the strap that holds the under beam and base plate together.
  - 2) Position the gate with the guiding post above the ground anchors approximately 500mm above the ground.
  - 3) Open the main upper access door of the guiding post cabinet.  
Open the small lower door of the guiding post cabinet.
  - 4) Identify the cables which go to the end post (photocells, key switch etc.).
  - 5) Pull these cables through the cable pipe to the lock post.
  - 6) Pass the exposed ends of the power supply and other cables through the hole in the base plate of the guiding post into the cabinet.
  - 7) Cut off the straps which hold the rear roller assembly to the under beam.
  - 8) Now lower the gate until the rear roller assembly and the guiding post are resting on the washers of the ground anchors. Fit a washer and nut to each ground anchor. Tighten the nuts slightly for temporary fixation. Remove straps from the base plate of the guiding post.



**ATTENTION!**

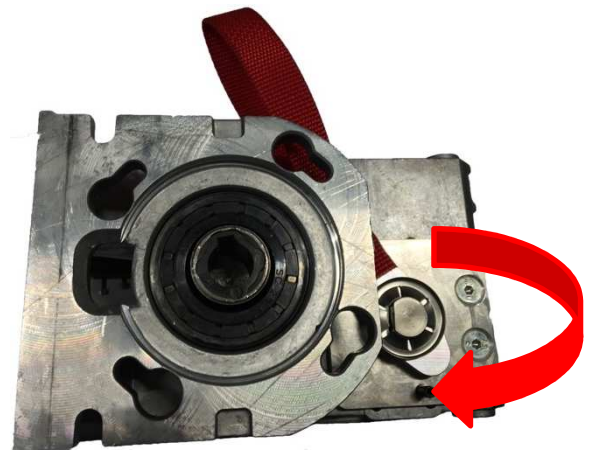
Ensure that cables and wires are not crushed between surfaces while lowering and positioning the gate onto the ground anchors.

**7. Installation of the lock post onto the ground anchors:**

- 1) Remove the lock post from the gate wing and suspend it over its ground anchors. Pull out the cables from under the lock post and connect the corresponding (colour-coded) connectors together. We have provided one or two boxes with connectors for these connections.
- 2) Push the cables back into the tube of the lock post until the connectors are also in the tube. This will protect them against water and will facilitate the uninstalling (replacement) of photocells.
- 3) Position the lock post onto the ground anchors and install the upper washers with nuts. Tighten the nuts slightly for temporary fixation.

**8. Alignment and levelling of the gate:**

- 1) Put the gate in manual (disengaged) mode by turning the red sling clockwise.
- 2) Align the rear roller assembly and the guiding post according to the gate center axis line. Ensure that the wing is running parallel through the guiding post.



The guiding post and the rear roller assembly can be moved laterally in the oblong holes of the base plates.

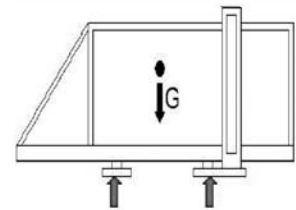
Once the alignment between the rear roller assembly and the guiding post is complete, slightly tighten the ground anchor nuts of the guiding post and rear roller assembly.

Check if the gate moves freely by hand over the complete span of the wing during opening and closing. Do this slowly as not all adjustments are done.

- 3) Close the gate almost completely by hand and align the lock post. Make sure that the guiding rollers on top of the wing enter the catcher centrally. If excessive force is being exerted onto one of the catcher sides, then the set-up is not acceptable (this indicates misalignment).

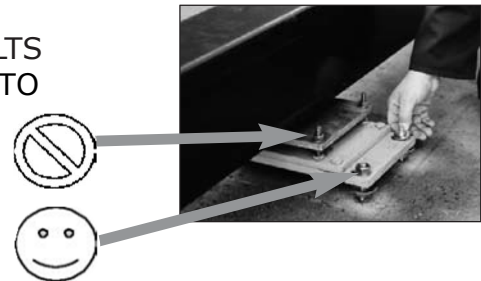


- 4) Position the wing such that the rear roller assembly and guide post support it. Place a spirit level between the two sets of rollers. Adjust the level of the wing by means of the rear roller assembly ground anchor nuts. Keep the base plate level.



**WARNING!**

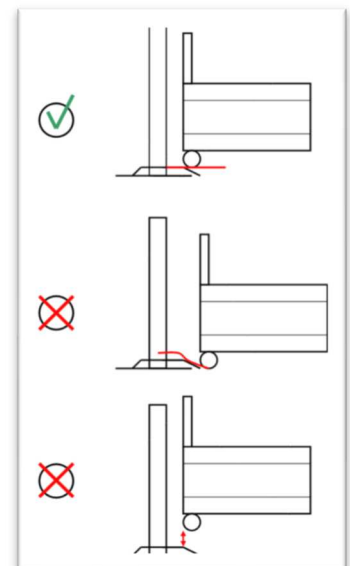
DO NOT ADJUST THE M10 NUTS AND BOLTS WHICH SECURE THE ROLLER ASSEMBLY TO THE BASE PLATE:



- 5) After alignment of the lock post and horizontal levelling of the wing, adjust the height of the lock post so that the support wheel under the front of the under beam is just touching the ramp (of the lock post). Ensure that the vertical level and position in the catcher is maintained. The height adjustment is made with the ground anchor nuts.

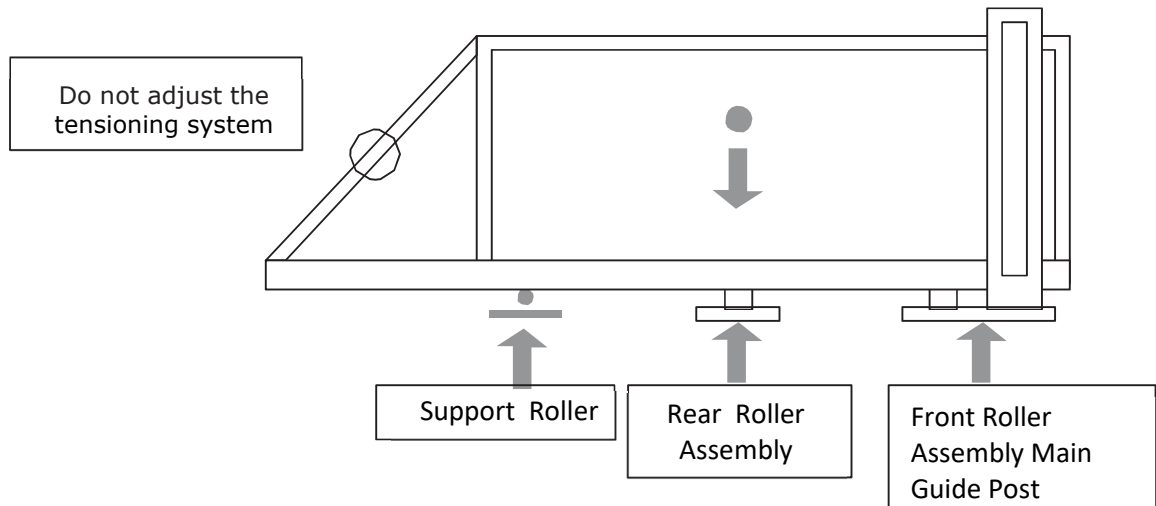
**ATTENTION!**

The support wheel in the under beam must not be forced up the ramp to enter the lock post.



- 6) After full adjustment of the gate, tighten all ground anchor nuts. Then cut the lengths of the ground anchor bolts to 5mm above the nuts, and paint with corrosion resistant paint (Do this only when the gate function has been tested and the installation is complete).
- 7) Gates with a free passage of more than 6000mm have a roller to support the wing in the open position. The installation of this support roller is described in paragraph 8.

- 8) Correct adjustment of this roller is crucial for the correct functioning of the gate.



- 9) The roller must be adjusted in height but also, it's perpendicularity in relation to the under beam of the wing.

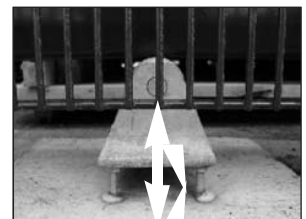


- 10) A support roller installed too high will add undesired friction to the wing which increases the further the wing is opened.

- 11) The height of the support roller must be adjusted once the wing is approximately 500mm away from the completely open position.



- 12) In this position the support roller should start to contact the under beam. Adjust the height as necessary.





Remarks:

It's very important to fill the space under the plate of the Guiding and lock post with shrinkage-compensated concrete.

## 9. Adjustment of the mechanical end stops:

### ATTENTION!

The verification and/or the adjustment of the mechanical end buffering must always be carried out. When the end buffering is not adjusted properly it may cause severe irreversible damage to some parts of the gate.

The mechanical end buffering is located on the front and rear roller assemblies found in the under beam. To gain access to them, the front and rear end caps of the under beam must be removed.

### 9.1. Adjustment of the front mechanical end buffering:

If the gate is installed correctly according to the foundation plan, then the front buffer does not need to be adjusted as the factory default setting of 60mm will be sufficient.

However, if there is some deviation from the foundation plan, or an obstacle at the rear side of the gate prevents the wing opening over its full course, then adjust according to the description below.

- 1) Pull the lower part of the safety pressure strip from its aluminum fixation profile.
- 2) Remove the front cover plate from the under beam by unscrewing the 4 screws (2 on each side).
- 3) Loosen the counter nut. Turn the threaded rod anti-clockwise so that the rubber stop protrudes out of the under beam by 5mm to 10mm. Retighten the counter nut.
- 4) Replace the cover plate to close the under beam and tighten the screws with moderate force.





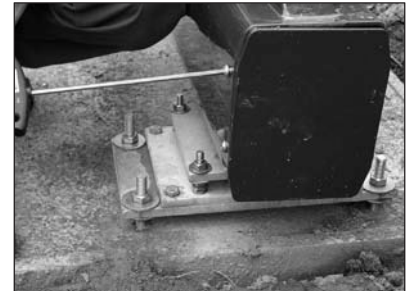
- 5) Refit the safety pressure strip into the aluminum profile. To aid this, spray some silicone lubricant onto the rubber profile on the rear of the strip and push it into place.



## **9.2. Adjustment of the rear mechanical end buffer:**

The rear mechanical end buffer is an integral part of the rear roller assembly and is adjustable in length up to 450mm maximum (Exception: for gates up to 4000mm the adjustable length is up to 200mm maximum). This is the maximum adjustment with allows a good functioning of the gate under the applied forces. Therefore, we strongly advise, always adhere to the dimensions laid down in the foundation plans.

- 1) Remove the rear cover plate from the under beam by unscrewing the 4 screws (2 on each side).



- 2) Close the gate so that there is 10mm to 20mm between the upper guiding rollers on top of the wing and the bottom of the catcher on the lock post.



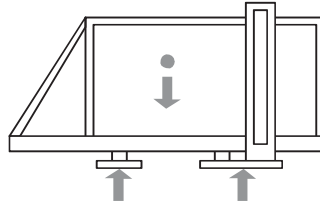
- 3) Loosen the counter nut. Turn the threaded rod anti-clockwise so that the rubber stop protrudes out of the under beam by 5mm to 10mm. Re-tighten the counter nut.



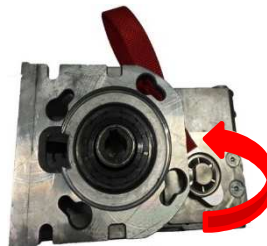
- 4) Replace the cover plate to close the under beam and tighten the screws with moderate force.

## 10. Motor height Adjustment:

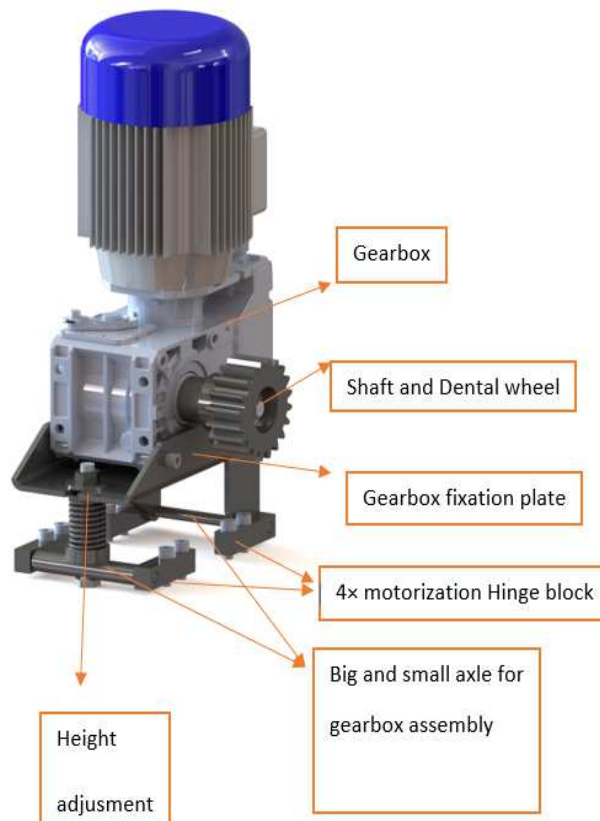
- 1) Place the wing into the position where it is being supported by both the front and rear roller assemblies.



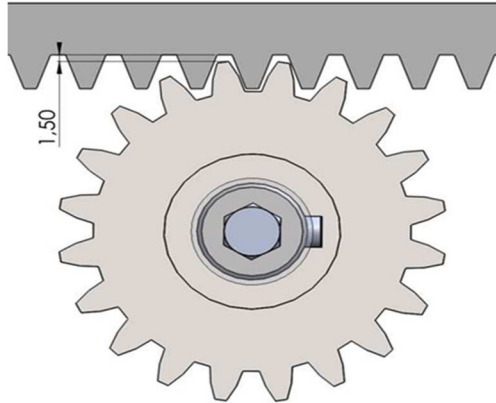
- 2) Turn the red sling anti-clockwise to engage the motor and gearbox.



- 3) Adjust the height of the pinion by turning the M12 nut allowing the spring to raise the drive assembly upwards. Raise until the dental wheel is fully meshed with the dental rack. The spring ensures that a good meshing between dental rack and dental wheel is maintained during movement.

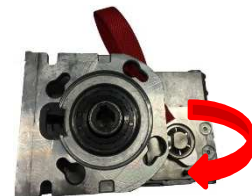


- 4) The height of the dental wheel is very important and in combination with a correctly levelled wing ensures a trouble-free operation (See set up Menu 8 Para 4). The normal rule is 1.5 mm space between dental wheel and dental rack.



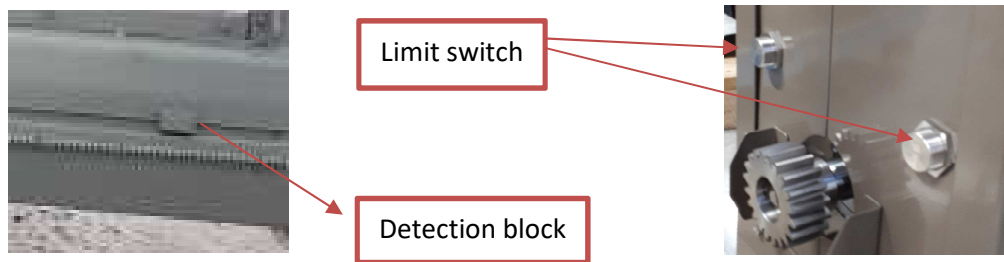
Once the adjustment has been done. Move the wing over the complete length of movement observing the dental wheel and rack. Should meshing problems occur in certain positions, these can be regulated by either moving the dental rack up or down on the under-beam (oblong holes).

- 5) Disengage the gearbox by turning the red sling clockwise

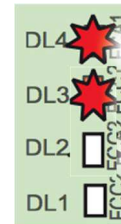


- 6) Move the wing back and forth by a small amount. Check that the dental wheel is engaged over the whole width of the dental rack. If not, adjust the dental rack.

## 11. Set-up of the end position:



- 1) Fully open the gate and move the detection block on the dental rack in front of the sensor for open. You will hear a "click" and the LED 'FCA1' switches off. Position for open is OK.



Only active, if **no** Limit switch is activated.

- 2) Move the wing to the closed position. Now move the second detection block in front of the sensor for closed. You will hear a "click" and the LED 'FCC1' switches off. Position for close is ok.
- 3) Now move the wing manually into the open and closed positions, checking that the position of the wing in relation to the LED's in the steering is switching correctly.

## 12. Power Supply:

- 1) Power source must be 230V AC. Connect the power supply cable to the main switch connectors. There are three connectors foreseen for connection of the power supply. The cable from the main board to the gate must be secured according to the latest electrical installation regulations.  
Use a low voltage solid cable with a section according to the table underneath. (For example: NYJZ 3 x 2,5mm<sup>2</sup> according to VDE0276 part 603, VDE 0271 and IEC 52)

Section (mm <sup>2</sup> )	Maximum distance (m)
2.5	300
4	600
6	900

2) Switch the current on by turning the main switch position to "ON".



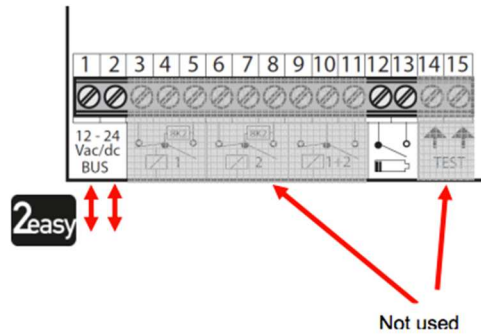
**WARNING:**

THE CABLE DIAMETER CALCULATIONS ARE BASED ON OUR GATE WITH ALL OUR POSSIBLE ACCESSORIES. IF YOU ARE CONNECTING MORE CONSUMERS TO IT, IT MAY BE NECESSARY TO USE A BIGGER CROSS-SECTION.

### **13. Adjustment and testing of safety equipment:**

#### **13.1. Wireless transmission system for safety strip on the wing**

- The radio system simplifies the installation of safety edges in any position (including complex ones) with no need for physical cable connections between safety edges and the automation's control board.
- The radio system comprises of an XRS 868 radio receiver able to communicate with XTS 868 transmitters; one or two resistive safety edges (8.2 k Ohm XS55) or auxiliary devices (N.C. contacts) which can be connected to each transmitter input (No.2). Each radio receiver XRS 868 can manage up to 6nr XT S 868 transmitters, i.e. up to 12 safety edges mod. XS55 (8.2 k Ohm).
- Cabling to FAAC control boards equipped with BUS 2easy is done with just two non-polarized wires. The receiver communicates via BUS-2 Easy on two dedicated addresses (opening protection and closing protection), you do not need any other cabling to comply with safety regulations. The terminal output "Transmitters Battery level" is the only usable one.



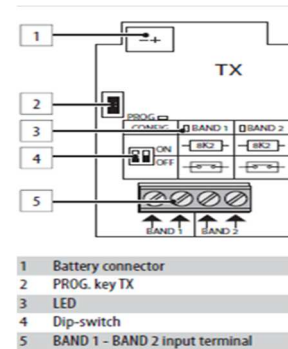
Below the technical specifications:

**Receiver**

	<b>XR S 868</b>
Power supply voltage	BUS 2easy or 12-24V
Installation type	wall
Receiving Frequency	868 Mhz
Frequency Self-Regulation	on 4 channel
Absorbed current	54 mA
Programming	4 each transmitter
Max no. of transmitters	6 (XT S 868)
Terminal board input	Power supply/BUS, Test (FAIL-SAFE)
Terminal board output	Relay 1 (N.C. o 8K2) - Relay 2 (N.C. o 8K2) - Relay 1+2 (N.O./N.C.) – Battery level
Protection class	IP55
Dimensions (LxDxH)	84 x 36.5 x 112
Operating ambient temperature	-20°C +55°C

**Transmitter**

	<b>XT S 868</b>
Power supply voltage (*)	2 lithium batteries AA 1.5 V
Installation type	wall
Transmission Frequency	868 Mhz
Frequency Self-Regulation	on 4 channels
Nominal flow	max 20 m
Max number of edges	2
Edges technology	mechanic (N.C. contact) and/or resistive (8.2 KOhm)
Protection class	IP55
Dimensions (LxDxH)	50 x 31.5 x 158.5
Operating ambient temperature	-20°C +55°C

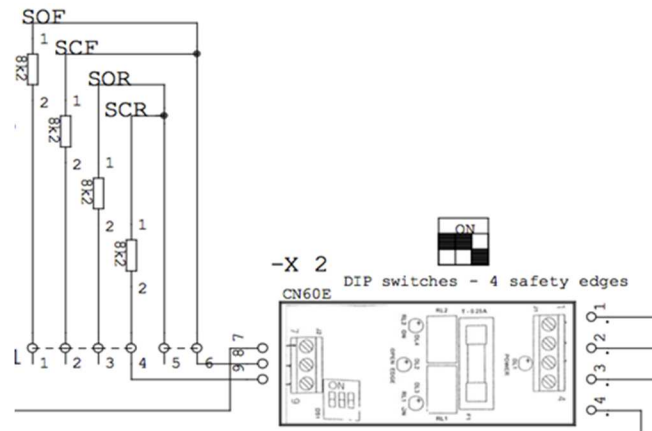


**Important:**

To ensure a correct function of the system, the batteries must be renewed on a yearly basis.

### 13.2. Safety strips:

Wiring diagram for the safety edges fitted to the guiding post is presented below:



Check if all safety strips are functioning

Four safety strips are connected to CN60E module.  
CN60E is connected to the "safety" input on the control board (input 5).

### 13.3. Photocells:

The photocells are connected on a BUS system. They need only two wires without polarity. Each set consists of a transmitter and receiver. Both devices must be set on the same channel, this is achieved by selecting the correct dip switch. You can program the photocells so that they work in:

- Closing direction
- Opening direction
- Both directions

The photocells work in pairs and must be aligned so. A maximum of 7 pairs can be fitted to one gate.

Follow the procedure as described below:

After alignment each individual interruption of the IR-beam triggers "a line of the segment" an indication on the display.



Dip1	Dip2	Dip3	Dip4	
ON	OFF	OFF	OFF	CLOSING (max 7 pairs)
ON	OFF	OFF	ON	
ON	OFF	ON	OFF	
ON	OFF	ON	ON	
ON	ON	OFF	OFF	
ON	ON	OFF	ON	
ON	ON	ON	OFF	

### 13.4. Remote controls:

#### 13.4.1. Programming Remote control devices to the board:

- The gate controller has a two-channel receiver integrated into the board. You can only program one transmitter with the receiver using this direct method.
- To activate the receiver for Channel 1 push and hold button +/R1 for > 5 secs, once the LED DL11 starts to flash release the button +/R1.
- Take your 2-channel transmitter and push and hold both buttons until the led on the top of the transmitter starts to flash. Release both buttons.
- Choose now on your transmitter the button that you want to program. Push this button until the led DL11 illuminates and stays on. Release the button.
- Push the programmed button twice in quick succession. The second push sets the gate in motion.
- If this happens the programming was successful.

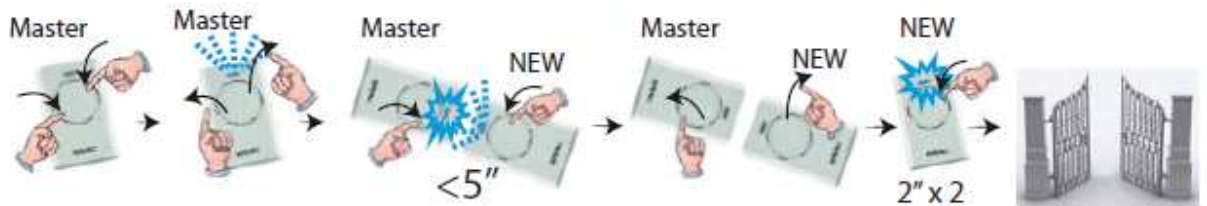


#### 13.4.2. Programming a transmitter to another transmitter:

- Using the programmed transmitter (function tested).
- Push both buttons (2 to 3 secs.) until the LED on the top starts to flash. Release both buttons. Transmitter is in programming mode.



- Take the transmitter which is to be programmed and hold it together (head to head) with the **Master** transmitter which is already in programming mode (see diagram below).
- Push the programmed button on the Master and simultaneous the button to be programmed on the second transmitter.
- When the LED on the Master stays on, release both buttons.
- Finally push the programmed button on the second transmitter twice in quick succession. LED DL11 on the controller illuminates.
- If this happens the programming was successful.



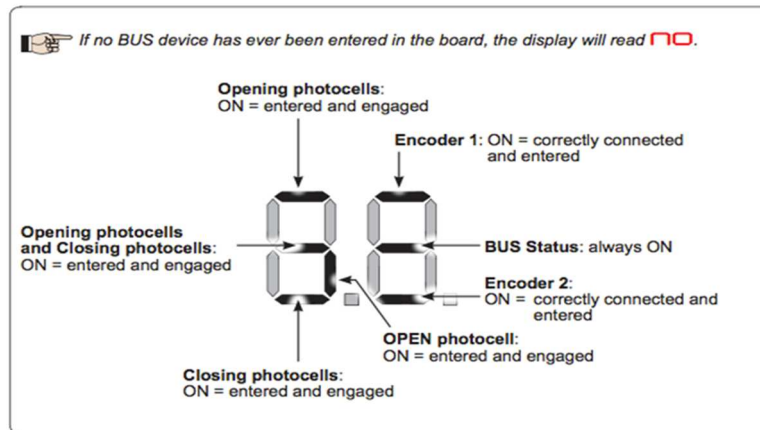
## 14. Different Set-up systems:

### 14.1. Set-up for Bus-system:

This set up has already been done in the factory. Every tool that is connected to the bus system, must be learnt by the controller.

The following process describes how this is to be carried out:

- Access BASIC programming (with button F) and scroll through the functions up until **bu**.
- When **F** is released, the display will show the **BUS-2EASY** devices status (see the following diagram).
- Carry out the following: simultaneously press and hold **+** and **-** for at least **5 sec.** (during this time, the display will blink) **Y** will appear as a confirmation of entry completion.
- Release the **+** and **-** buttons. The status of the BUS-2EASY devices will be displayed.



## 14.2. Start the Self-Learning procedure

### ATTENTION!

DURING SET UP ALL SAFETY DEVICES ARE DISABLED! THEREFORE, ONLY CARRY OUT THE OPERATION WHEN NO TRAFFIC IS IN THE WING MOVEMENT AREA.

If a system without an encoder is installed, mechanical stops are required for the wings. We did the set-up for the Bus devices and the end positions are stated. The gearbox is engaged.

At this point the self-learning process can be initiated, this is always started with the gate in the closed position.

- 1) Enter BASIC programming (With F) and go to the parameter tL, when F is released -- will appear.
- 2) Ensure that the gate wing(s) are closed. Otherwise, proceed as follows:
- 3) Press button +/R1 to close the gate.

Should by pressing button +/R1 the gate wing (s) open, switch off the power and, on terminal board J2, invert the phase cables of the corresponding motor (s) (terminals 2-3 for wing motor).

- 4) When the gate wing is closed, launch SETUP by pressing and holding + and - until S1 begins to flash on the display (Approx. 3 secs).
- 5) Release + and -. The wing begins its opening movement.
- 6) Once installation and programming are completed, ensure that the system is operating correctly.
- 7) Be especially careful that the safety devices operate correctly and ensure that the system complies with all current safety regulations.
- 8) Close the cover in the provided seat with gasket.

To set-up personalized parameter settings follow the procedure as indicated in the technical handbook:  
FAAC E145

THE GATE CAN NOW BE OPERATED IN AUTOMATIC MODE

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**15. Maintenance:**

We recommend checking system operation every six months, paying special attention to the safety devices (including the motor thrust power, this must comply with the local regulations in force) and release devices.

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Revision Update installation manual Roller set bumper distance	Date 14-05-2019 23-03-2020	Person Vdb Wim Szymon Schmidt
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