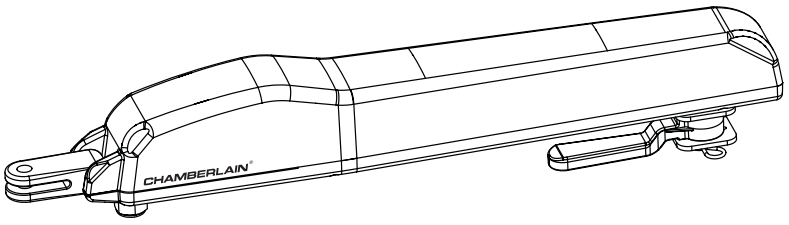
CHAMBERLAIN®



Mechanical & electrical installation TPD10-05

WARNING / ATTENTION

IMPORTANT FITTING AND OPERATING INSTRUCTIONS

PLEASE START BY READING THESE IMPORTANT SAFETY RULES • SAVE THESE INSTRUCTIONS

The manual consists of these operating instructions and the Declaration of Conformity.

This safety alert symbol means "Caution" - failure to comply with such an instruction involves risk of personal injury or damage to property. Please read these warnings carefully.

This gate drive mechanism is designed and tested to offer appropriately safe service provided it is installed and operated in strict accordance with the following safety rules.

Incorrect installation and/or failure to comply with the following instructions may result in serious personal injury or property damage.

When using tools and small parts to install or carry out repair work on a gate exercise caution and do not wear rings, watches or loose clothing.

Installation and wiring must be in compliance with your local building and electrical installation codes. Power cables must only be connected to a properly earthed supply.

Any entrapment possibility by the moving wing between wing & walls must be secured with safety edges or IR-sensors.

Please remove any locks fitted to the gate in order to prevent damage to the gate.

After the installation a final test of the full function of the system and the full function of the safety devices must be done.

This drive cannot be used with a gate incorporating a wicket door unless the drive cannot be operated with the wicket door open.

This appliance is not intended for use by persons (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Frequently examine the installation for imbalance and signs of wear or damage to cables, hardware and mountings. Do not use if repair or adjustment is necessary. Gates which stick or jam must be repaired immediately. *Employ a qualified technician to repair the gate, never attempt to repair it yourself.*

Keep additional accessories away from children. Do not allow children to play with pushbuttons or remote controls. A gate can cause serious injuries as it closes.

Disconnect electric power to the system before making repairs or removing covers.

A disconnecting device must be provided in the permanently-wired installation to guarantee all-pole disconnection by means of a switch (at least 3mm contact gap) or by a separate fuse.

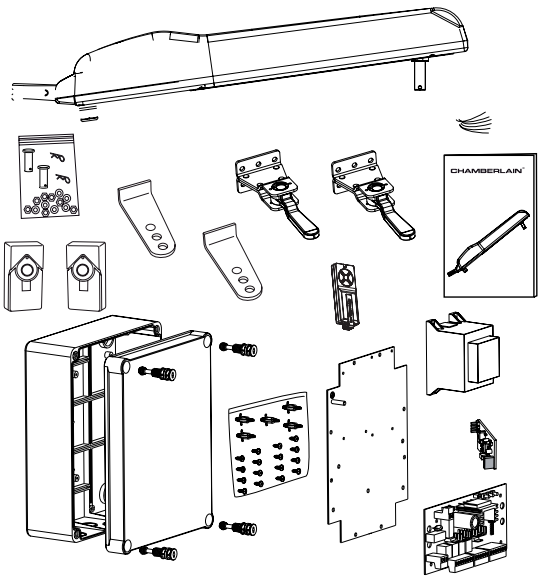
Make sure that people who install, maintain or operate the gate drive and/or the control board are qualified and follow these instructions.
Keep these instructions in a safe place so that you can refer to them quickly when you need to.

The full protection against potential squeeze or entrapment must work direct when the drive arms are installed.

Children should be supervised to ensure that they do not play with the appliance.

Carton content

Operators	**2x**
Box for control board	**1x**
Cover for box	**1x**
Hinges for box	**4x**
Control	
Transformer	**1x**
Baseplate for transformer	**1x**
Remote control	
Radio module	**1x**
Hardwarebag for box	**1x**
Pillar fittings	
Gate fittings	**2x**
Hardwarebag	**1x**
Instruction manual	**1x**
Photocells	**1x**



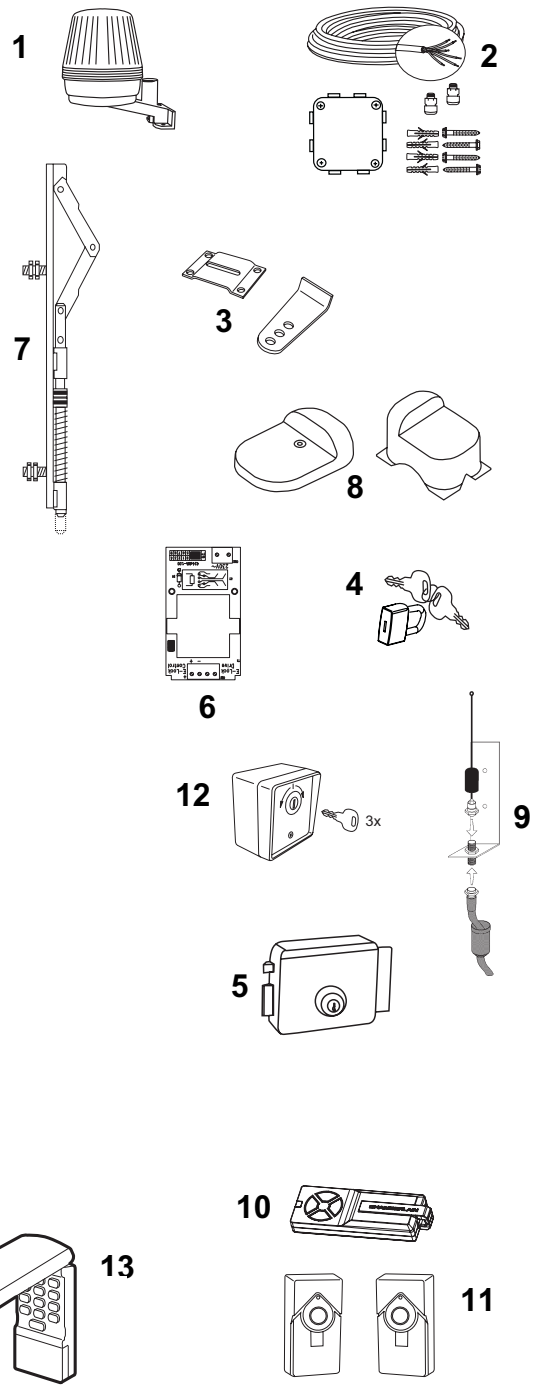
INSTALLATION CHECKLIST - PREPARATIONS

Check the carton contents and read the instructions carefully. Make sure your gate equipment operates perfectly. The gate must run evenly and smoothly and must not stick at any point. Remember that the ground level may be several centimeters higher in winter. The gate must be stable and as free of backlash in order to prevent any unwanted movement. The easier the gate movement the less power is needed by the motor.

Write down any materials you still need and obtain them before starting to install. Heavy-duty plugs, bolts, gate stops, cables, distribution boxes, tools, etc.

Optional accessories

1. Flashing lamp	FLA1-LED
2. ECK7	Kit for cable extension of one installation unit. Consists of 7 m of cable 6-pole with identical colours, distribution box IP44, cable screw joints and fastening material
3. Pfeilerbeschl	2 pieces with large 4-hole baseplate 041ASWG-0092, 041ASWG-0090
4. Padlock	55124VO (2 keys per lock)
5. . E-lock	203285 (12 Volts)
6. Trafo for E-lock	207399
7. Floor locking	203339 (in combination with E-lock)
8 Stops for gates	203315 standard 203322 high
9. External antenna	041ASWG-ANT
10. Remote control	TX4RUNI
11. Photocells	771REV
12. Key switch	41REV
13. Wireless keypad	8747EML



BEFORE YOU BEGIN

Leave room on the side of the motor for arms and installation work. Make sure to leave sufficient space.

Windload: Even light wind may cause the motor to reverse (safety-reverse) as the forces effecting the gate are very high. This applies especially to solid panel gates.

Note: An E-lock in combination with a floor locking device should always be installed in order to relieve the motor. In extreme cases strong wind may bend fittings and door and /or damage the motor .

There are many important factors when deciding on the correct motor. Assuming a well functioning gate, the initial force is the most difficult moment. When the gate is moving it generally requires a considerably smaller amount of force.

Gate Size: Gate size is an important factor. Wind can slow down gate or distort it, leading to higher amount of required force.

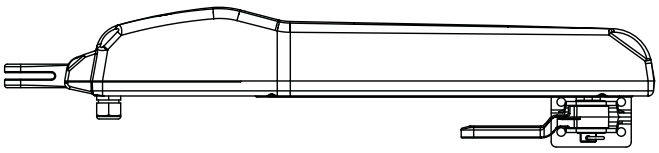
Gate weight: Specification of gate weight represents only a rough parameter, which can vary according to actual demand. Operation is important.

Influence of temperature: Low outdoor temperatures can impede or even prevent starting torque (ground deformation etc.). High outdoor temperatures can lead to premature initiation of temperature protection (approx. 135°)

Attention: Motors are not designed to run continuously (continuous operation). The motor warms up and can reach a temperature at which it shuts down until operating temperature is reached again. Outside temperature and gate represent important parameters for actual operating duration.

TECHNICAL DATA:

Motor voltage	24V
Nominal power	10W
Max. power	40W
Max. thrust	300daN
Spindle travel	300mm
Cycles/24h	5-10
Rated operation time	4 min

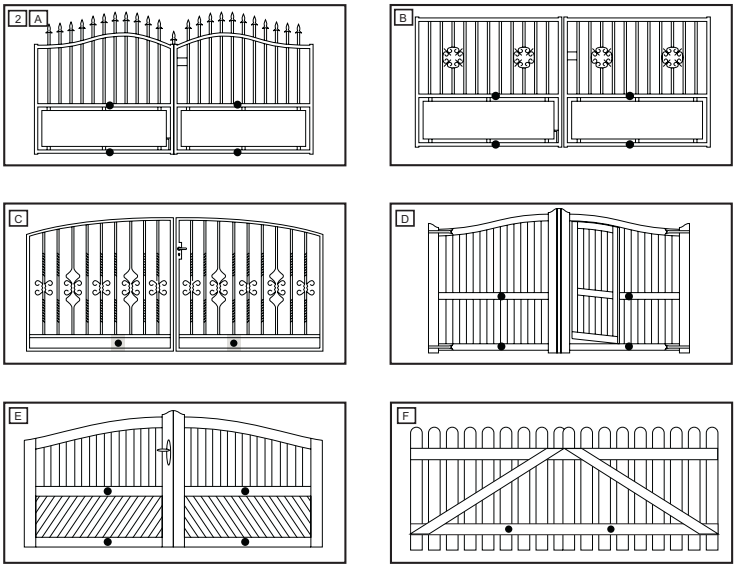


GATE TYPES

The location of the motor installation depends on the type of gate. If the gate stop is on the floor the motor should also be installed as low as possible in order for the gate not to be distorted. Only use frame elements for fastening.With steel gates the fittings should be fastened to the main frame. If you are not sure about the stability of the frame in question then reinforce it.
With wooden gates the frame has to be drilled through completelywhere the fittings are to be fastened. Attaching a plate from the outside is recommended in order to prevent fastening from becoming loose. Thin wooden gates must be reinforced additionally as they do not withstand the strain otherwise.

Max gate width/weight	2,5m per wing / 150Kg
	2,0m per wing / 200Kg
	1,5m per wing / 250Kg
Max gate height	1,5m

Specifications calculated without windload



For gates opening towards the outside (accessory: 50-19503) both parameters gate weight and wing length are to be reduced by 25%.

GATE CONFIGURATION

How far must the gate wing open?

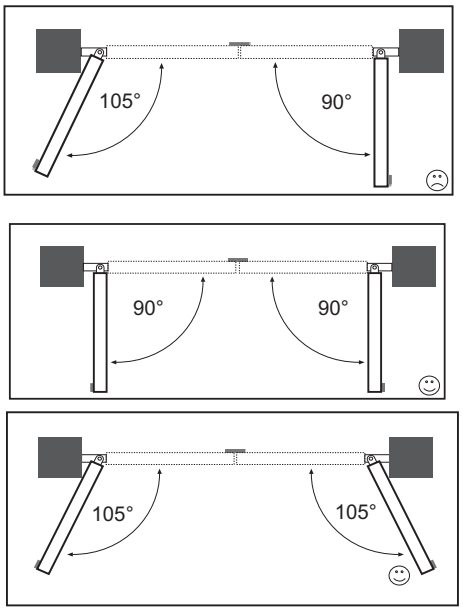
90 degrees or up to 105 degrees.

Different opening angles of the wings: (inclined gateways)
The motor has no ability at all to operate different opening angles.
It is essential to check the following before installation:

If you have 2 gates (1Pair) you may findthey have an overlap and one of them has to open first if so we will call this **Gate 1** and the other one **Gate 2.**

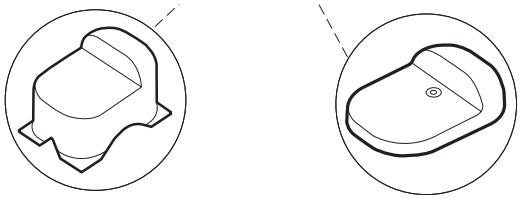
Gate 1 will open first and close second and should be connected in to PCB as **Motor Master**.

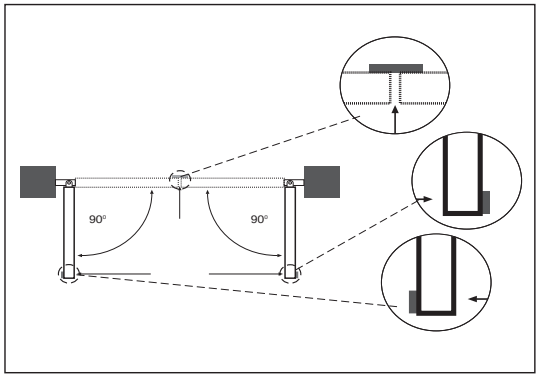
Gate 2 will open second and close first and should be connected in to PCB as **Motor Second**.



GATE STOPS

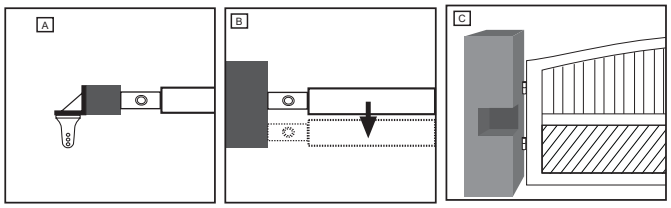
A SWING GATE NEEDS A FIXED GATE STOP IN BOTH THE OPEN AND CLOSE POSITIONS. Gate stops save wear and tear on the motor, gate and fittings. Operating a gate without fixed limit stops results in poor performance. It is often dangerous, leads to premature wear and voids your warranty!





INSTALLATION OF FITTINGS

First read all of the following 3 sections. It is important for the motor to be installed horizontally. The space between pillar and gate “Tensioning distance” is crucial for later operation. Precision is necessary. If you are not sure , attach fittings to the motor on a trial basis, hold it against the gate and measure for best position. Allow for sufficient time during this phase of installation. (Asking someone to help will ease installation process.)



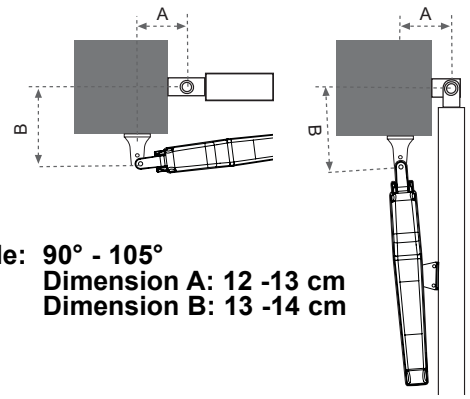
PILLAR FITTING

The correct position of the pillar fitting is crucial for later operation of the application.

It determines the distance between pivot of the motor to pivot of the gate and therefore the opening angle.
They are called dimension A and dimension B.

Do not underestimate the influence of these dimensions on function and operation. You must achieve the best dimension for the opening angle under all circumstances and as precisely as possible. See table for dimensions A/B.

If pillar is not wide enough, an adapter plate must be made (A). If pillar is too wide it must be recessed (C) or the gate must be relocated (B).

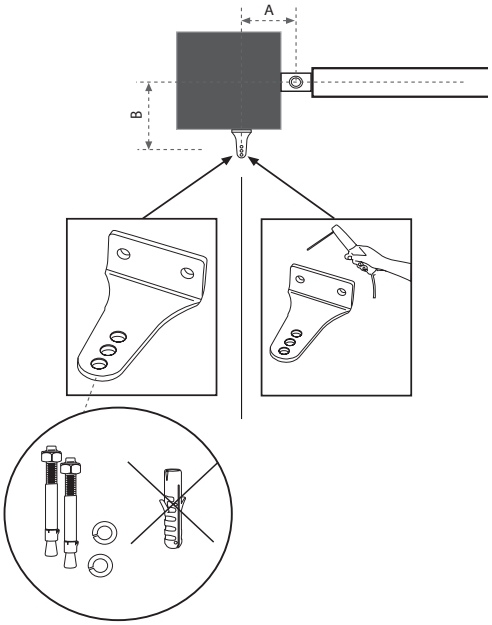


For opening angle: 90° - 105°
Dimension A: 12 -13 cm
Dimension B: 13 -14 cm

NOTE: It is imperative to meet Dimension A and B, otherwise the operator may touch the gate with its front housing. If so, Dimension A and B must be adjusted.

INSTALLATION:

Instead of steel- or plastic – expanding anchors, which are less suitable, use adhesive-composite anchors, where a set screw is glued into brickwork free of stress. With pillars made of bricks a larger steel plate (covering a few bricks) should be attached allowing for the hinge plate to be welded to it.



The pillar fitting has 3 drilled holes for the installation of the motor. Normally the outer drilled hole is used. If pillar is wider, the inner ones can also be used. In this case the fitting must be shortened in order for the motor not to be damaged.

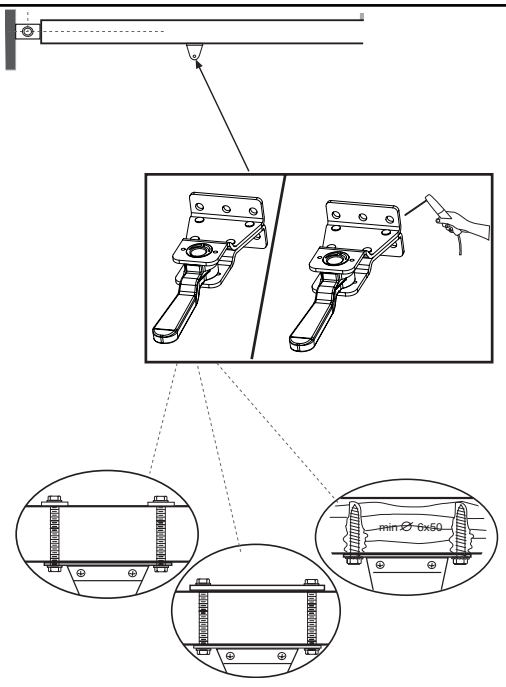
GATE FITTING

With steel gate the fastenings should either be welded on or drilled through completely. If drilling then attach large washers or a plate to the back of the frame. The force transferred from the motor to this connection is very high.

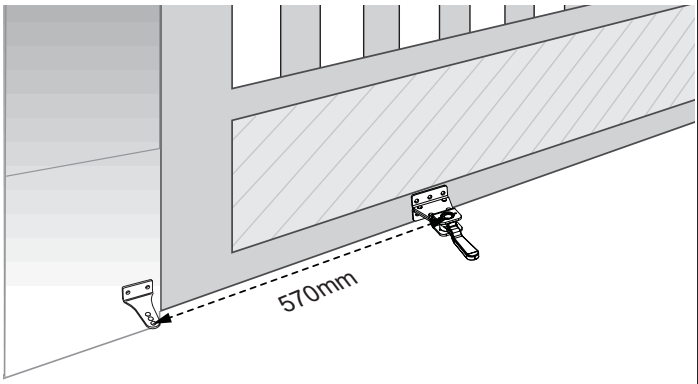
With wooden gates the gate frame has to be drilled through completely where the fittings are to be fastened. Wood gives under pressure and screw joints will loosen. Under on going pressure and movement the wood will keep on giving until the gate does not close correctly anymore and repair becomes necessary.

Attach reinforcement plate on the outside and inside of the gate in order to prevent wood from giving and the connection to become loose.

Thin wooden gates without metal frame must be reinforced additionally, as they do not withstand the strain otherwise.



TENSIONING DISTANCE



The space between the fittings is called tensioning distance. When the gate is closed the trolley on the spindle is in the front and travels during the opening process towards the rear.

Note: Adhere to tensioning distance under all circumstances! Dimensions see picture.

Before attaching the fitting measure tensioning distance precisely.

1. Close gate completely

2. Attach motor to previously mounted pillar fitting.

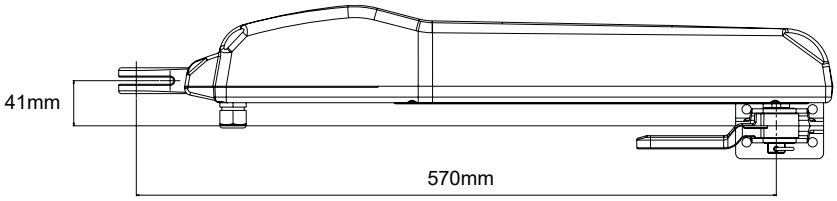
3. Motor is in factory setting Gate-Closed position (1-2cm away from the front position)

4. Attach gate fitting to motor and secure.

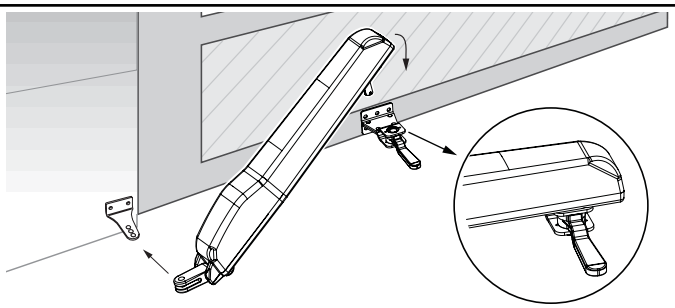
5. Turn release-lever on gate fitting towards the gate pillar.

6. Hold motor with fitting against gate and mark installation position of the fitting. Pay attention towards height of pillar fitting in order for the motor to be installed horizontally.

Attention: The motor must be installed horizontally. This causes an offset of approx. **41mm** between pillar fitting and gate fitting.



INSTALLATION OF MOTOR ARMS

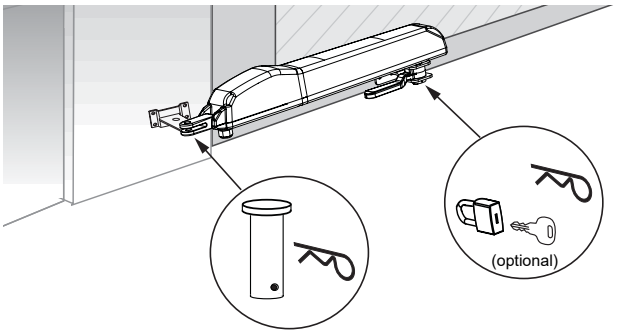


Once the gate fitting is attached the motor can be mounted. Turn release-lever towards yourself – approx. 90°. Slip motor on. Secure pin with “R” clip. Turn release-lever towards pillar. Done! The gate should now be slightly open. This will be corrected during the learn cycle later on.

Note:

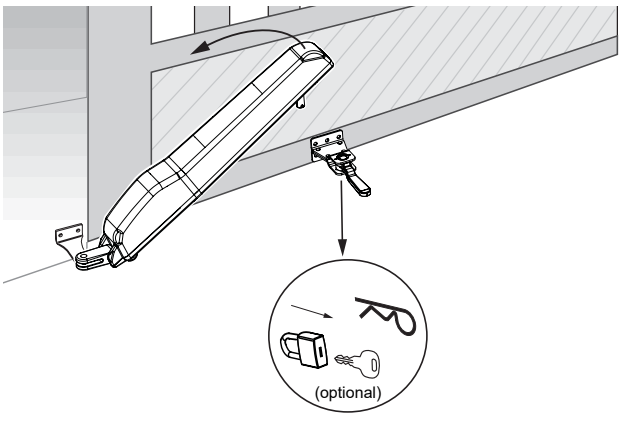
- The hinge on the gate must be lubricated slightly.
- If motor cannot be slipped on because gate is already completely shut, this can also be corrected during the learn cycle. If more than 5mm are missing the tensioning distance should be measured again and be corrected.
- **Motors can only be driven/moved electrically. Trying to turn motors mechanically may result in damage.** First the wiring and control board have to be fully connected. (refer to WIRING THE CONTROL/SUMMARY)

RELEASE/ MANUAL GATE OPERATION

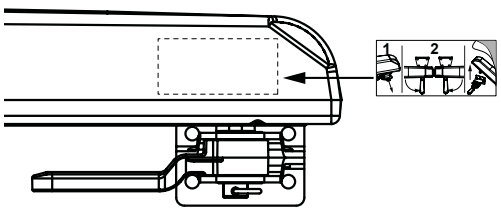


In case of power failure the motor can be released. Underneath the motor there is a black lever. Turn this lever towards yourself. Pull the “R” clip out from underneath the gate fitting. Lift motor up in one strong jolt and put it to the side.
If motor was secured using a padlock (optional) instead of the “R” clip, then the lock must be removed using a key. The lock must be shielded against humidity, so it does not freeze in winter.

Note: Check proper functioning of release on a monthly basis.

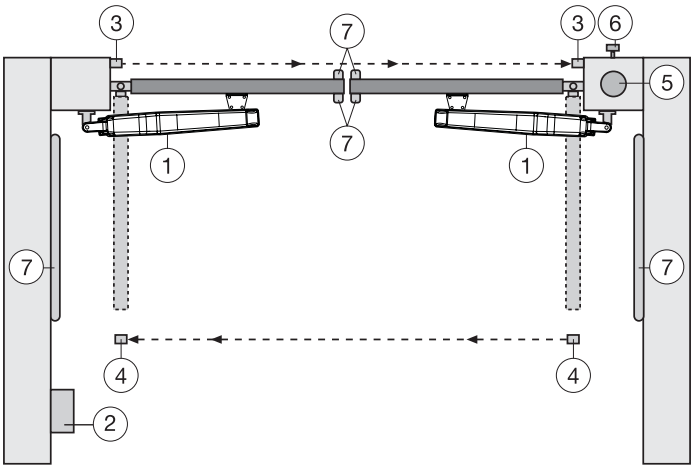


The activation of the manual release may cause uncontrolled movement of the driven part due to mechanical failures or an out-of-balance condition.

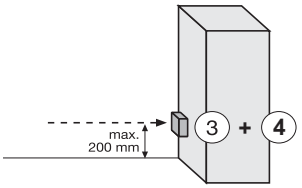


TYPICAL CONFIGURATION OF A UNIT:

1. Motor
2. Control board
3. Photocell (active for closing), max. height 200 mm
   First photocell.
4. photocell (active for opening and closing), max. height 200 mm
   Second photocell (optional).
5. Flashing light (optional)
   Important visual information on the movement of the gate.
6. Key-operated switch or wireless keypad (optional)
   Is mounted on the outside. The gate is opened by key or by entering a number.
7. Contact strip (optional)
   Safeguards the gate on being touched. Contact strips can be mounted on the gate or on the pillars. If required, contact strips must be mounted at a height of up to 2.5m.



The control board complies with the latest EU guidelines. One of these guidelines specifies that the closing forces at the gate edge must not exceed 400 N (40 kg) for the last 500 mm before the door is CLOSED. Above 500 mm, the maximum force at the gate edge must not exceed 1400 N (140 kg). If this cannot be ensured, a contact strip must be mounted on the gate at a height up to 2.5 m or on the pillar on the opposite side (EN12453).

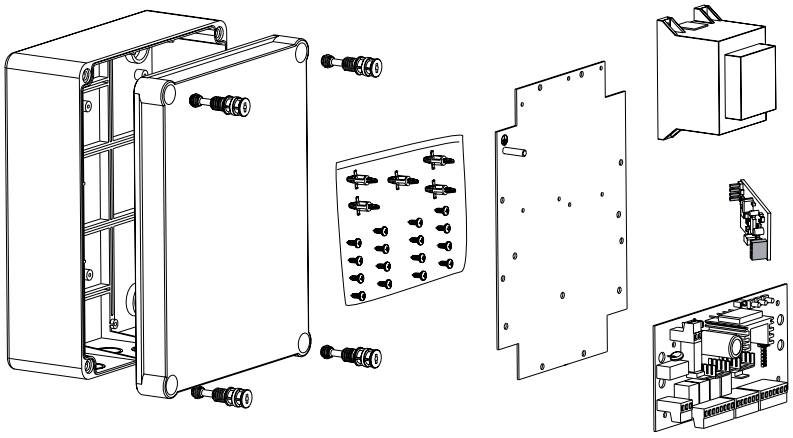


Note: The listed accessories on page 2 are especially suited for the professional installation of a gate system.

INSTALLATION OF CONTROL BOX

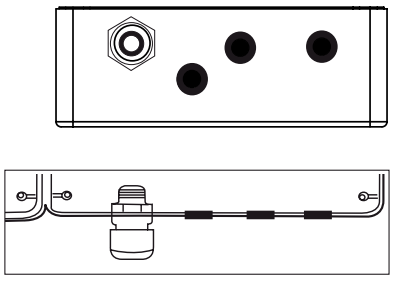
Find the following parts in the control box:

- Exterior installation box	1
- Cover for box	1
- Control	1
- Transformer	1
- Baseplate (pre-assembled)	1
- Cable bushing large	1
- Cable bushing small	3
- Fastening clips	5
- Screws 3,5x 9,5 mm	16
- large closure screws	4



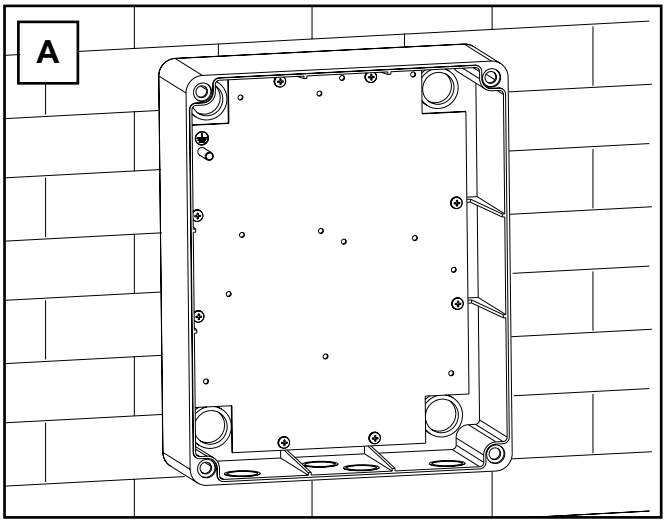
PREPARING THE CONTROL BOX

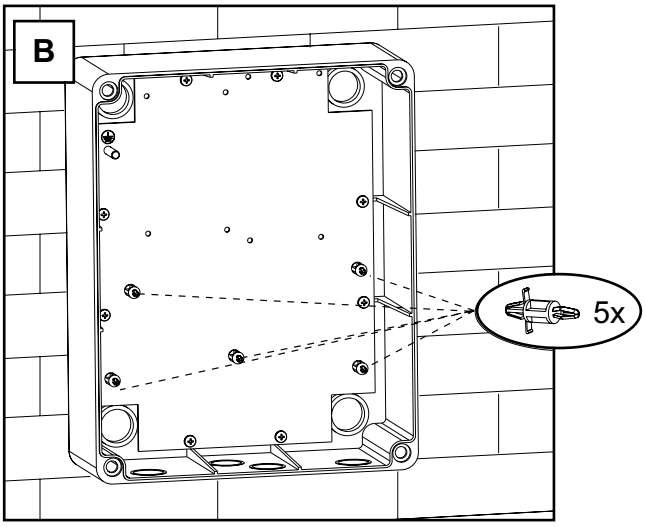
Open the 4 pre-cut holes at the bottom of the casing with a screwdriver or a similar device.
Attach large cable bushing on the left then the rest as shown in picture.
Humidity and water destroy the control. All openings and cable bushings must be sealed against water (waterproof). The control box with the motor control is to be mounted with the cable bushings facing down.

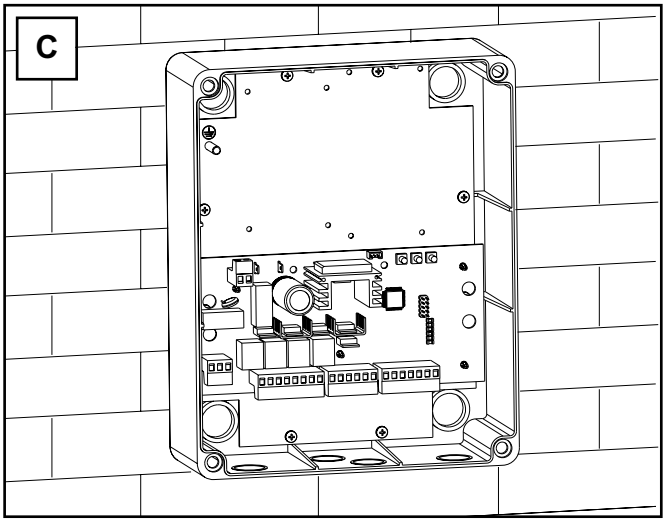


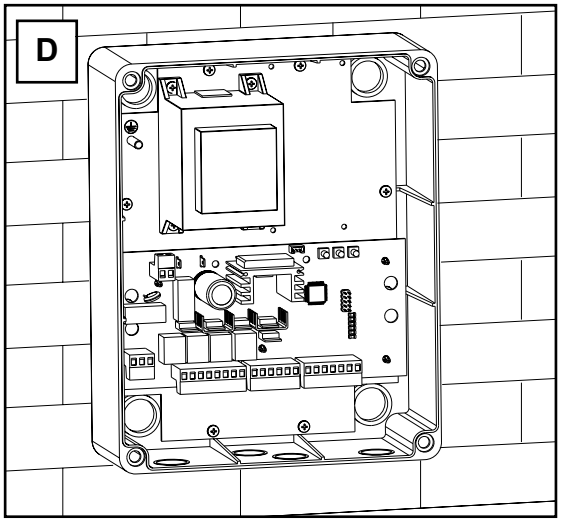
RECOMMENDED PROCEDURE:

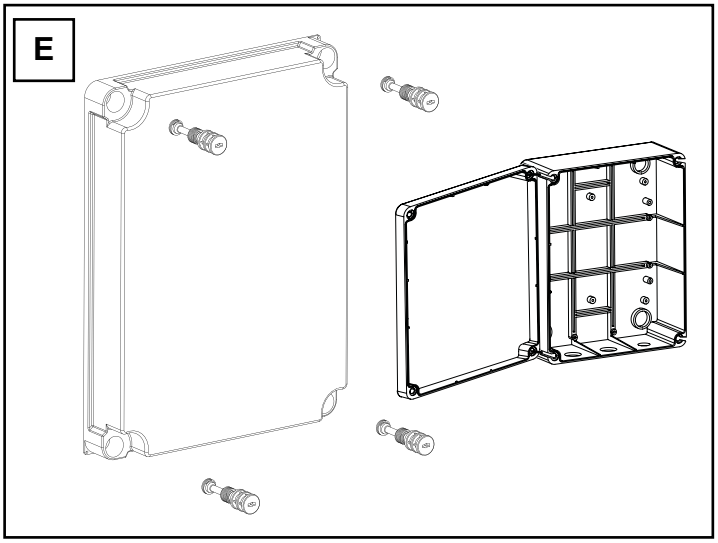
Fasten exterior installation box to wall, after previously measuring required distances and establishing correct position of drill-holes (Hardware not included). Baseplate for transformer is already pre-assembled (A).
Push fastening clips in designated holes (B) .
Push controlboard onto fastening clips (C).
Fasten transformer onto baseplate using the large screw and large washer (D).
Put the 4 large closure screws through cover of the box. Fasten 2 of them (left or right) approx 2cm into the box.
After that the cover can be opened to the side (E).
Close box on a trial basis turning the screws all the way in. If the lid does not close completely, then the box is not fitted to the wall evenly and is therefore distorted. This must be corrected. It is very important for the box to be waterproof once closed.











TECHNICAL DATA OF MOTOR CONTROL:

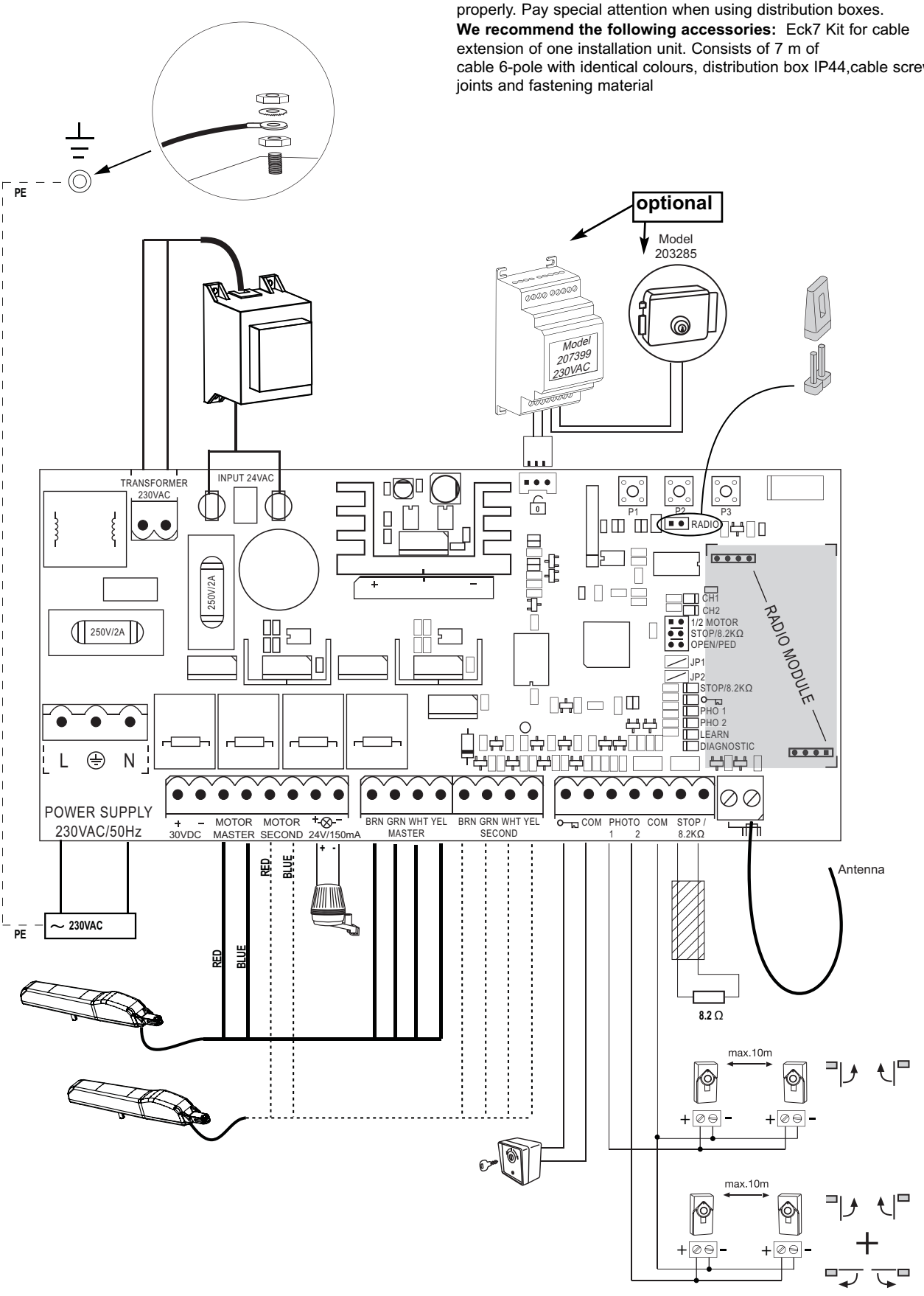
Voltage	230VAC / 50-60 Hz
Transformer	230/24VAC minimum60VA
Output motor	24VDC max.
Supply accessories	24VDC - 100mA
Operating temperature	-20°C - +55°C
Degree of protection	IP54

WIRING OF CONTROL / SUMMARY

a) start with still dead 230Volts supply cable on the left side of the box.
b) Attach cable eye to ground wire. Then connect ground wire to base plate with washer and nut (exactly as shown in picture detail). Connect all other cables to control.
c. For the drives: Use cables which are suitable for outside use (Thickness: 0,75mm²). If needed, use the same cable twice.

Attention: Check repeatedly that cable colours are connected correctly to motor. Otherwise motor might be damaged or will not operate properly. Pay special attention when using distribution boxes.

We recommend the following accessories: Eck7 Kit for cable extension of one installation unit. Consists of 7 m of cable 6-pole with identical colours, distribution box IP44,cable screw joints and fastening material



DESCRIPTION		FUNCTION
L		Connector L 230V supply
N		Connector N 230V supply
Battery		Connector for a battery kit +/- 475E + 041ADBL-0115
24V/150mA		Flashing light (accessory)
MASTER	Motor1	
BRN		brown cable
GRN		green cable
WHT		white cable
YEL		yellow cable
SECOND	Motor2	
BRN		brown cable
GRN		green cable
WHT		white cable
YEL		yellow cable
"Key symbol"		key switch
COM		negative pole
PHOTO1		Photocells 1
PHOTO2		Photocells 2
COM		negative pole
STOP 8.2KOhms		connector for emergency switch or safety edge with 8.2KOhms
E-lock symbol		connection for E-lock control board
INPUT 24VAC		24V power input from transformer. Can be connected with any polarity.
Transformer 230VAC		230V supply to transformer. Can be connected with any polarity.
250V/2A		Fuse 250V/2A (2x included)

DESCRIPTION OF PUSH BUTTONS

P1 button to program "simple" mode
P2 button to program "individual" mode
P3 button to program "Timer to close"

Description of LED's (light-emitting diode)

Description	Colour	Function
STOP/8.2KOhms	green	monitors emergency switch or safety edge ON: blocks control board OFF: OK
"Key symbol"	red	key switch ON: key switch is operating OFF: key switch is not operating
PHO2	red	Photocells 2 ON: OK (active) OFF: no photocell fitted
PHO1	red	Photocells 1 ON: OK (active) OFF: no photocell fitted
LEARN	yellow	learn mode indication ON: learn mode active OFF: learn mode inactive
DIAGNOSTIC	red	diagnosis mode Refer to FAQ's

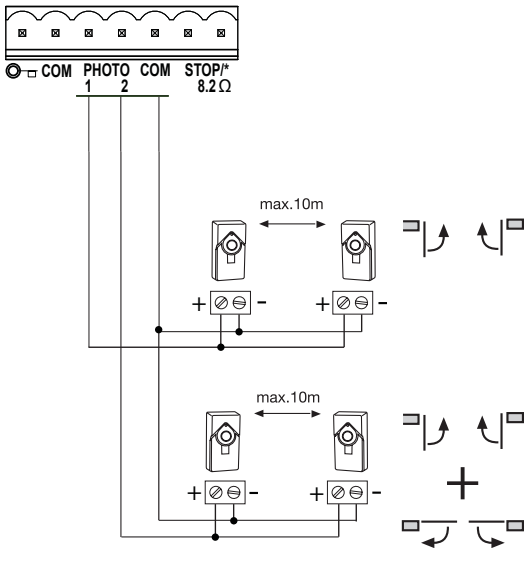
⚠ Only modify settings when control bord is disconnected. Otherwise modifications will not be accepted!!!

PHOTOCELLS (OPTIONAL)

The photocells are for safeguarding the gate and must be used. The fitting location depends on the gate's design. EN12453 specifies that a pair of photocells must be installed at a height of 200 mm and activated to "Close". The photocells consist of a transmitter and a receiver and must be opposite each other. The photocell is mounted on the wall using small screws and wall plugs. To enable the "Automatic Closing" function, the Chamberlain failsafe photocell must be installed. The Chamberlain failsafe system (2-cable system) has small LEDs (light) that can be seen from the outside on both sides to indicate the status of the photocell.

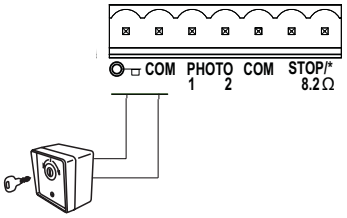
Diagnosis at the Chamberlain failsafe photocell
LED constant = OK
LED flashes = photocell disables control board
LED off = no current, incorrect connection or polarity

Diagnosis on the control board
LED PHOTO1, 2 **off = OK no photocell connected**
LED PHOTO1, 2 **on constantly = OK**
LED PHOTO1, 2 **flashes = photocell disables control board**



KEY SWITCH (OPTIONAL)

The system can be operated by key switch. It is possible to operate only 1 wing or two wings. This depends on how the JUMPERS are used (connectors: key symbol and COM)



E-LOCK (OPTIONAL)

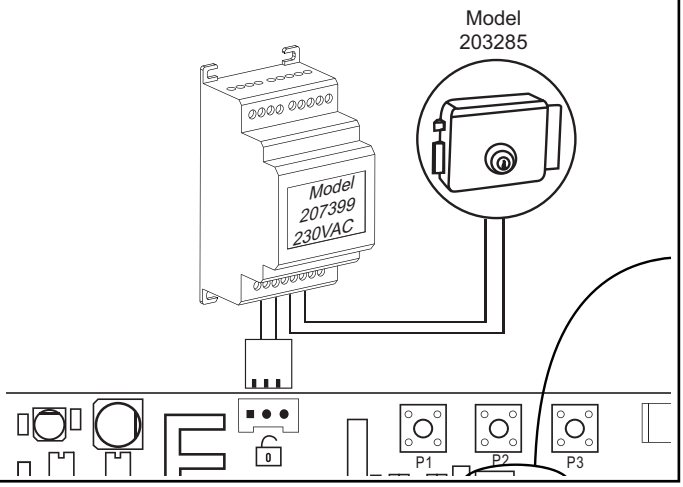
The control board allows the use of a 12V E-lock. (instructions included with E-lock).

A support board must be connected for the E-lock on the main board.

Attach support board next to the transformer on to the baseplate using screws.

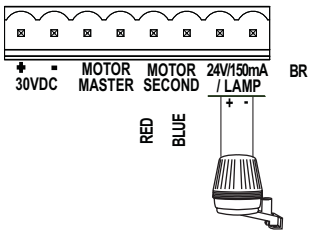
Open its casing and make all necessary electrical wiring.

Plug support board in to where the E-lock symbol is depicted.



FLASHING LAMP (OPTIONAL)

A flashing lamp can be connected to the control board. It warns when the gate is being moved. The flashing light should be fitted as high as possible and in good clear view. The control board emits a constant signal that the lamp converts to a flashing signal.
Cable cross-section: 0.5 mm² or more.
Voltage: 24 V DC

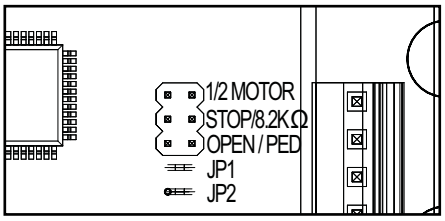


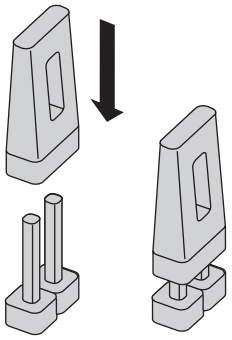
JUMPERS

1 / 2 Motor
1 or 2 motors are connected to the control board.
FREE: both motors connected
LINKED: only one motor connected

STOP / 8.2 KOhms
Defines if connector STOP / 8.2 KOhms is used for an emergency stop switch or for a safety edge. The emergency stop switch stops any movement of the system immediately. The safety edge causes the wings to reverse for one second.
FREE: Factory setting is for 8.2 KOhms. In this case safety edge must be installed or a 8.2 KOhms resistor must be connected.
LINKED: used for emergency stop switch, in this case the pre-installed resistor has to be removed from terminals and replaced by a suitable switch or terminals have to be bridged.

Open / Ped
Defines if key switch operates only one wing (Master) or both wings
FREE: only one wing (Master)
LINKED: both wings





PROGRAM TX4UNI

Insert radio module on designated pins, if not pre-installed.

The receiver has two channels CH1 and CH2.
The respective LEDs CH1 and CH2 are assigned to these two channels.
Receiving a signal from a programmed remote control button, CH1= P1 opens the gate partially.
Receiving a signal from another programmed remote control button, CH2 = P2 fully opens the gate.

Program the remote control using button P2 (fully opens the gate, shown adjacent):

1. Insert jumper “Radio"

2. Press and hold left and right button of the remote control simultaneously for about 5 seconds until its LED comes on constantly for approx. 30 seconds. Now select one of 4 buttons you wish to operate the gate with (do not press yet).

3. Press button P2. LED CH2 comes on for approx 10 seconds.

4. Within these 10 seconds
   - press now the previously selected button of the remote control
   - as control board and remote control are now going to adjust a matching code, the button on the remote control must be possibly pressed a second or third time.
   - Once LED CH2 has flashed twice proceed with step 5.

5. Press one of the remaining 3 buttons of the remote control to end programming using P2.

   Note: If step 4 failed wait for the LEDs (control board and remote control) to go out. Then start again with step 2.

Up to 180 remote controls can be programmed likewise.

In case no remote control is to be be programmed with button P1, the jumper “RADIO PROGRAM” must now be removed.

Program the remote control using button P1 (partially opens the gate):

1. Press and hold left and right button of the remote control simultaneously for about 5 seconds until its LED comes on constantly for approx. 30 seconds. Now select **another** button of the remote control to operate only one wing (do not press yet).

2. Press button P1. LED CH1 comes on for approx. 10 seconds

3. Within these 10 seconds
   - press now the newly selected button of the remote control
   - as control board and remote control are now going to adjust a matching code, the button on the remote control must be possibly pressed a second or third time.
4. Once LED CH1 has flashed three times proceed with step 4.

4. Press one of the remaining 3 buttons of the remote control to end programming.

   Note: If step 3 failed wait for the LEDs (control board and remote control) to go out. Then start again with step 1.

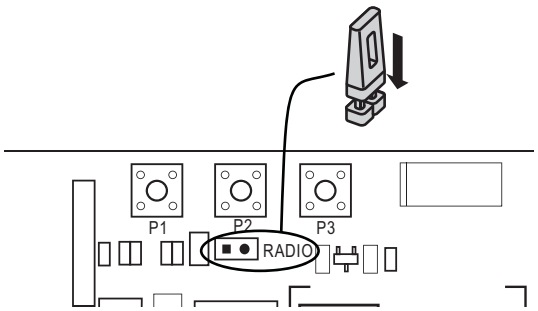
Up to 180 remote controls can be programmed likewise.

5. Remove jumper “RADIO"

DELETE
1. Insert (connect) Jumper “Radio"
2. Press and hold buttons P1 (for CH1) or P2 (for CH2) until the respective LED goes out again (approx. 10 seconds).
   Single remote controls can not be deleted. All remotes programmed to this channel are deleted.

Important: To finish deleting, remove jumper “Radio”.

1



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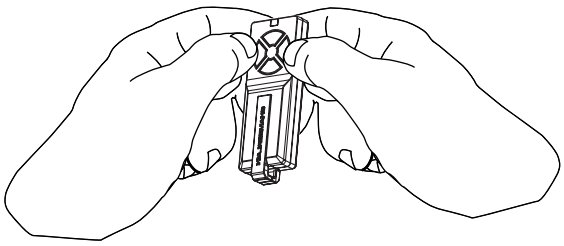

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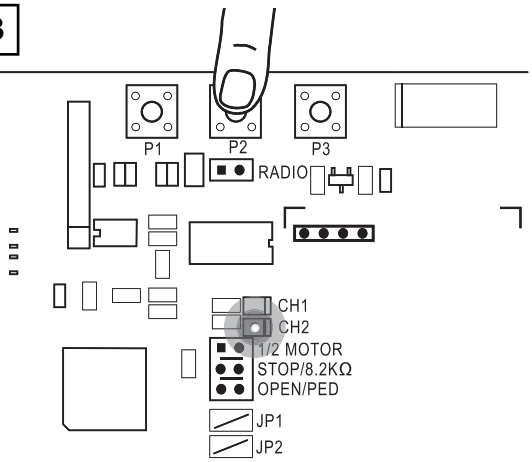

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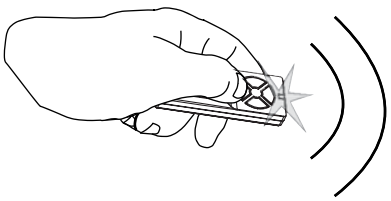

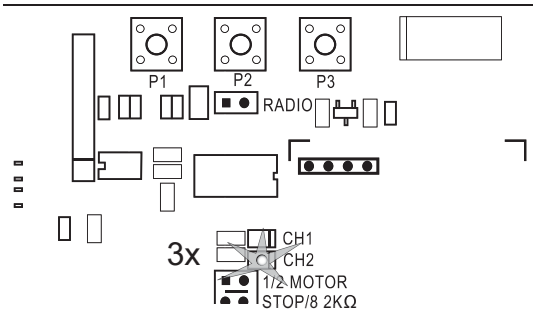

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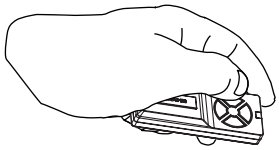

INITIAL OPERATION
BASIC SETTING

Proceed step by step. If you are not sure, start again at the beginning. Take sufficient time to make these settings.

Important: Before connecting the control board to the mains the jumper "RADIO" must be off. After connecting the control board to the mains, the diagnosis LED will flash 7 or 8 times. Nevertheless the control board can be operated.

1. Are all components required for operation connected? Motors, photocells, safety contact strip, stop switch.
2. Make sure that nobody is present in the range of the gates.
3. Close the gate/s and attach motor/s. Secure motors with the “R” clip and turn the release lever towards the gate pillar. The motor/s are now locked.

NOTE: If attaching the motor/s is not possible, check if spindle travel is sufficient. If not, check tensioning distance. Fittings may have to be aligned again.

Now connect the mains supply (230V) to the control board.

BASIC SETTING:
1. Press buttons P1, P2 and P3 simultaneously for approx. 2-3 seconds until yellow LED flashes.
2. Monitor the gate. Press and hold P1 for 1-2 seconds. The wing with motor 1 opens. (Do not open gate completely, only short distances.) If motor 1 closes, it is wired incorrectly and the red and blue wires of the motor cable must be inverted. (Caution: Disconnect Power!) Repeat steps 1 and 2. Leave gate/s in partially open position.

NOTE: General operation – if you release the button, the gate will immediately stop. By pressing the button again the gate will move in the opposite direction until you release the button, and so on.

3. Press and hold P2 for 1-2 seconds. The wing with motor 2 must open. (Do not open gate completely, only short distances.) If motor 2 closes, it is wired incorrectly and the red and blue wires of the motor cable must be inverted. (Caution: Disconnect Power!) Repeat steps 1 and 2. Leave gate/s in partially open position.

NOTE: The control board is active for this manual setting mode for approx. 20 seconds. If necessary, start again by pressing P1, P2 and P3 simultaneously.

Now check the following:

1. During opening the front housing must not touch the gate. Stop opening several times and check. If housing touches the gate dimensions A/B must be checked and if necessary, underlay the gate pillar with flat washers in order to enlarge clearance.

2. Both wings must open completely. Do not open the wings too far! If there are no stops, choose and mark a position for maximum opening.

3. Both wings must close completely. (Ideally the trolley stops approx. 1 cm before the end of the spindle.) If not, correct tensioning distance(s).

Wait until learn-LED goes out (20 seconds after a button was pressed).

PROGRAMMING TRAVEL DISTANCES “SIMPLE I”

NOTE: only with stops in OPEN and CLOSE position

1. Wings must be closed
2. Press P1 until wing / motor 1 starts opening (learn-LED flashes)
   Automatic programming starts (slow travel)
   Wing 1 moves to the stop in OPEN position
   Wing 2 moves to the stop in OPEN position
   Then wing 2 moves to the stop in CLOSE position.
   Then wing 1 moves to the stop in CLOSE position.
   When the learn-LED goes out the programming has finished.

Note: If the wings are closing instead of opening, the operators are are connected the wrong way. Invert red and blue cable.

PROGRAMMING TRAVEL DISTANCES “SIMPLE II”

NOTE: If there are no stops at the OPEN position, the wing should be stopped at opening angle of 90 degrees.

1. Both wings must be closed.
2. Press P1 until wing / motor 1 starts opening
3. Press P1 hard when wing / motor 1 reaches OPEN position. Wing 2 starts.
4. Press P1 hard when wing / motor 2 reaches OPEN position. After that wing 2 closes automatically. The wing 1 closes automatically.
5. The motors “learn” the CLOSE position automatically.
   If required, individual CLOSE positions can be programmed as well. Press P1 hard at the desired CLOSE position for each wing. When the learn-LED goes out the programming has finished.

PROGRAMMING TRAVEL DISTANCES “ADVANCED”

NOTE: With every time the button is pressed a position (time) is stored. (This allows programming of SOFT-STOP (slow travel) in order to adjust to application. Long or short phases of SOFT-STOP are possible.

1. Both wings must be closed.
2. Press P1 and P2 for approx.5-6 seconds until wing / motor 1 starts opening.Release buttons!!!
3. Press P1 again. SOFT-STOP for wing / motor 1 in OPEN direction starts at this point.
4. Press P1 again when OPEN position is reached.Now wing / motor 2 starts automatically to open.
5. Press P1 again. SOFT-STOP for wing / motor 2 in OPEN direction begins at this point.
6. Press P1 again when OPEN position is reached. Now wing / motor 2 starts closing automatically.
7. Press P1 again. SOFT-STOP for wing / motor 2 in CLOSE direction begins at this point.
8. Press P1 again when CLOSE position is reached. Now wing / motor 1 starts automatically to close.
9. Press P1 again. SOFT-STOP for wing / motor 1 in CLOSE direction begins at this point.
10. Press P1 again when CLOSE position is reached.
    Done!

NOTE: If one wing reaches a stop and button P1 is not pressed, then the motor moves towards the stop and stores this position automatically.

COMPLETION OF INSTALLATION / PROGRAMMING

Once the travel distances are programmed, the remote controls can be programmed as well.
(Refer to PROGRAMM / DELETE REMOTE CONTROLS).

1. Operate the gate with a remote control or with a connected switch and monitor the direction. Close the gate again WITHOUT any interuptions.
2. If all adjustments are done, check operation of photocells, switch, flashing light, remotes, accessories, etc.
3. Advise people using the gate with regard to gate operation, safety functions and how to release the gate in order to operate it manually.

TIMER TO CLOSE
NOTE: Only possible with connected photocells (PHO1 + COM). Time frames from 2 seconds up to 120 seconds are possible.

Activate:
1. Press and hold P2 until yellow LED starts flashing
2. Now count the time you wish to program
3. Press P2 again. Done!

Deactivate:
1. Press and hold P2 until yellow LED starts flashing.
2. Press P3. Yellow LED goes out. Done!

TORQUE OF MOTOR
Thrust of the motor is set automatically while programming the travel distance. Thrust can only be modified by programming the travel distance again. If gate movement is impeded by weather or changes to the installation (rust or inappropriate lubrication) it may have to be repaired.

The control board complies with the latest EU guidelines. One of these guidelines specifies that the closing forces at the gate edge must not exceed 400 N (40 kg) for the last 500 mm before the door is CLOSED. Above 500 mm, the maximum force at the gate edge must not exceed 1400 N (140 kg). If this cannot be ensured, a contact strip must be mounted on the gate at a height up to 2.5 m or on the pillar on the opposite side (EN12453).

DISPOSAL
The packaging is made from environmentally friendly materials. It can be disposed of in the local recycling bin. According to the European Directive 2002/96/EC on waste electrical and electronic equipment, this device must be properly disposed of after use to ensure the reuse of materials. The information on the possibilities of this waste disposal is provided by the local government or municipality.

BATTERY DISPOSAL
Batteries and rechargeable batteries may not be disposed along with domestic waste, but are obliged to be returned.
After use they can be returned free of charge locally e.g. in trade or at municipal collecting points.
Batteries and rechargeable batteries are marked with a crossed waste container as well as with the chemical symbol which describes their toxic element, “Cd” for cadmium, “Hg” for mercury and “Pb” for lead.

INDICATION OF THE DIAGNOSIS LED

Indication	Description	Remedy
1x blinking	Motor 1 has insufficient connection to control board	Green or white cable not wired or badly connected Check terminals precisely. Consider wire lengths
2x blinking	Motor 2 has insufficient connection to control board	Refer to 1x blinking
3x blinking	Limits for motor 2 have not been accepted A: After or during programming travel: Wing 1 did not open wide enough and did not meet the integrated passpoint which is located inside the operator halfway above the spindle. B: Motorcables have insufficient connection to contol board Yellow or white cable not wired or badly connected	A: Open gate wide enough when programming the travel (50% over maximum) B: Check terminals precisely. Consider wire lengths
4x blinking	Limits for motor 1 have not been accepted	Refer to 3x blinking
5x blinking	Travel has not been programmed The process of programming has been interrupted	Repeat programming travel
6x blinking	Force to operate the gate is too high A: Gate is out of order B: Gate is rough-running C: Gate stopped through windload	 A: Repair gate B: Check if gate can be easily moved C: Do not operate gate by windstorm D: Reprogram travel to achieve sufficient level of fo
7x blinking	Photocells 1 block installation A: Object blocks photocells B: Alignment of the lenses is incorrect C: Power supply to photocells is insufficient	 A: Remove object B: Check alignment C: Check cable widths and contacts
8x blinking	Photocells 2 block installation	Refer to 7x blinking
9x blinking	Emergency stop switch blocks installation	A: Check wiring B: Check basic setting of control board (Jumpers)
10xblinking	Safety edge blocks installation A: Object obstructs safety edge B: Defective safety edge C: Power too low or broken wire in supply	 A: Remove object B: Check wiring. Check resistor 8.2KOhms C: Check basic setting of control board (Jumpers)
11xblinking	Power supply to control board is too low A: Defective supply 230V or malfunctioning contact B: Broken wire in supply cable (copper cable) C: The battery (accessory) to operate the gate whilst power failure is dead.	 A: Check electric contact B: Check by electrician C: Allow battery to charge 24 hours
12xblinking	EEPROM Fault Power up failed	 Replace contol board

FAQs

The gate opener doesn't respond at all; no LED is on.	Possibly power failure.	1. Check conductor and zero conductor. 2. Check house fusing.
Immediately after the gate has started moving, it stops and reverses.	Obstacle in area of gate.	Check area of gate for objects
The gate opener does not open the gate fully.	1. Are the post dimensions A+B correct? 2. Has the travel of the controller been set correctly?	1. Check A+B dimensions. 2. Reprogram if required
Gate can only be opened	1.photocell blocks	1.Function and connection must be checked
"Timer to close" doesn't work.		1. Only works if the 2-cable photocell 770E(ML) or 771E(ML) has been installed.
The control board does not work any more using the transmitter, only with the switch and even then only as long as a button is pressed and kept pressed.	A safety photocell, a contact strip or the stop disables the control board Only one photocell was connected for OPEN	At least one photocell must be connected and activated for CLOSED or OPEN.
The gate opener doesn't respond at all, although the controller has been connected (LEDs are on).	1. Remote control has not been programmed. 2. LEDs indicate a fault. 3. Photocell connected incorrectly. 4. Motor terminal possibly not connected properly.	1. Programming remote control. 2. Find and rectify fault(s) (see description of LEDs). 3. Check photocell connection / programming. 4. Check terminals and connections.
Control board does not work with transmitter	1.transmitter not programmed 2.An photocell blocks	1.Program transmitter 2.Check photocells
The control board is not running	No travel has been learned	Learn travel. See Initial operation
The wings do not open completely.	1.Insufficient force in the event of high wind loads (entire gates) 2.Gate sluggish/heavy	1.Reset force (increase) 2.Improve ease of movement 3.Program control board again
The remote control's range is too short.	The installation of an external aerial is recommended as the controller with the short cable aerial is located either behind the post or near ground level in most cases. The optimum location of the aerial is as high as possible in all cases. An appropriate aerial with installation kit can be obtained from Chamberlain as an accessory with the product ref. no. ANT4X-1LM.	
The gate must follow a slope.	Not recommended! Change gate! The gate can move in an uncontrolled (dangerous) manner if the gate opener has been released. A stronger force is needed in the upwards direction of the slope and then, in the opposite direction, the gate opener's force is too strong.	
The gate post is so thick that I am unable to comply with the requisite A+B dimensions.	Reduce post thickness or shift gate location.	

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