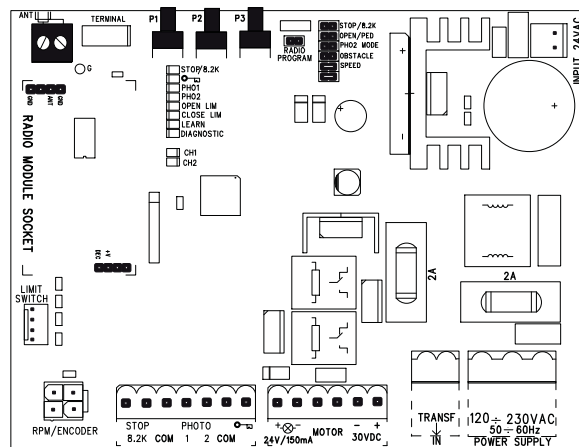


LiftMaster™



de	Anleitungen	CB202
fr	Instructions	CB202
en	Instructions	CB202
cs	Návody	CB202
es	Instrucciones	CB202
sv	Instruktioner	CB202
hu	Útmutatók	CB202
hr	Upute	CB202
it	Istruzioni	CB202
nl	Instructie	CB202
sk	Obrázky	CB202
pl	Instrukcja	CB202





AT/BA/BE/BG/CH/CY/CZ/DE/DK/ES/
FR/GB/GR/HR/HU/IE/IS/IT/LU/MT/NL
NO/PL/PT/RO/RU/SE/SI/SK/TR/YU


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IMPORTANT FITTING AND OPERATING INSTRUCTIONS

PLEASE START BY READING THESE IMPORTANT SAFETY RULES

 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.

 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.

 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.

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

 Entrapment protection devices **MUST** be installed to protect anyone who may come near a moving gate. Locate entrapment protection devices to protect in **BOTH** the open and close gate cycles. Locate entrapment protection devices to protect between moving gate and **RIGID** objects, such as posts.

 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.

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

 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.

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

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

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

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

 Lightweight gates must be substantially reinforced to avoid gate damage. The best solution is to check with your gate manufacturer for an opener installation reinforcement kit.

 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.

 Gate must not extend over public byway during operation.

 Controls must be far enough from the gate so that the user is prevented from coming in contact with the gate while operating the controls.

 Activate opener only when the gate is in full view, free of obstructions. Do not allow children to play near the gate.

 Automatic drive – Keep away from the area of the gate since it may operate unexpectedly.

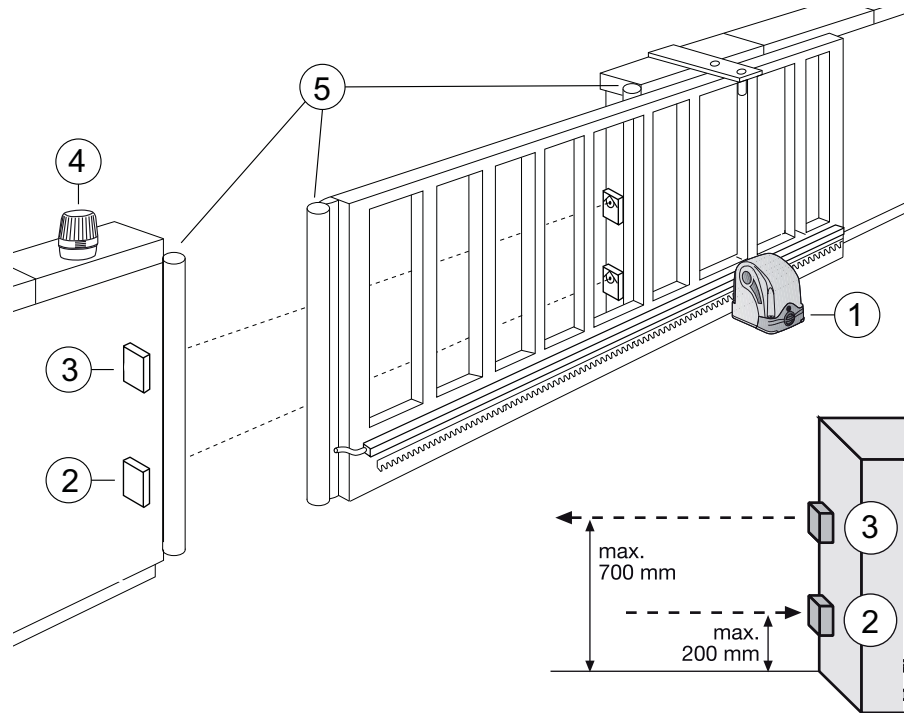
 Keep additional accessories away from children. Do not allow children to play with pushbuttons or remote controls. A gate can cause serious injuries as it closes.

 Humidity and water destroy the control board. Make sure under all circumstances that water, humidity or dammed-up water cannot penetrate the control board covering.

SAVE THESE INSTRUCTIONS

TYPICAL CONFIGURATION OF A UNIT

1. Drive with control board
The drive is located on a height-adjustable mounting plate.
2. Photocell min. 150- max200 mm (optional)
First photocell.
Detects low objects.
3. Photocell max. 700 mm (optional)
Second photocell.
Detects vehicles and higher objects.
4. Flashing light (optional)
Important visual information indicating gate movement.
5. Safety edge (optional)
Detects obstacles and avoids risks produced by gate movement.
Safety edges can be mounted on the gate or on the pillars. If the gate has openings exceeding 45mm, a safety edge is required on the pillar (accessory).
If required, safety edges must be mounted at a height of up to 2.5m.



INSTALLATION OF CONTROL BOARD

The CB202 control board was designed for installation in a special covering under the housing of the sliding gate drive.

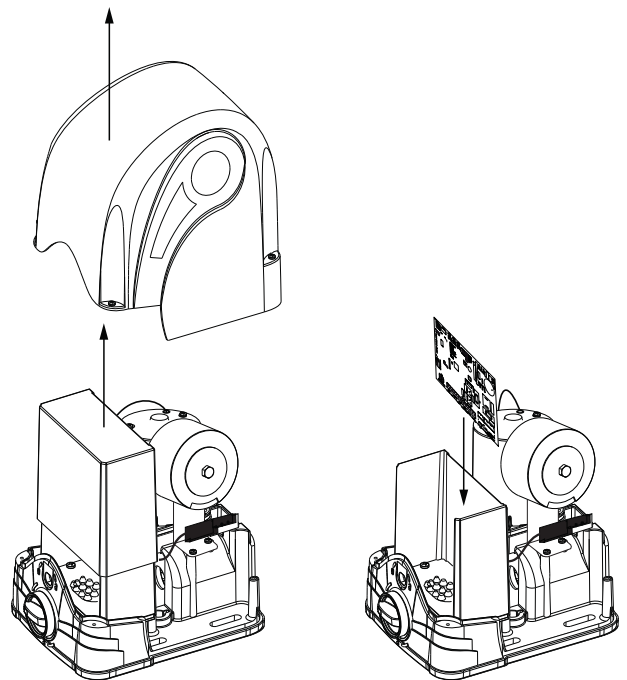
The installation of the electrical controller is allowed only after the completion of the mechanical installation. All work on the controller must be performed after disconnecting it from the mains. Turn on the power only when it is prompted in the section INITIAL OPERATION/ BASIC SETTING.

To operate, at least the following connections have to be established: -

- "Power supply"
- Transformer "Input & Transf"
- Motor "MOTOR"
- Plug limit switch "LIMIT SWITCH"
- Plug "RPM/ENCODER"

If necessary assemble the following optional connections:

- photocells
- safety edge
- flashing light
- external antenna
- key switch or other external control devices



WIRING OF CONTROL BOARD

The cables for the power supply and the connected equipment are routed from below into the sliding door operator through the rubber seal at the bottom of the control covering.

The controller is to be mounted with the terminal strips down as shown in the picture.

Generally avoid:

- 230Volt and low voltage in the same power line. Not allowed by electrical rules.
- Wiring of the photocells, switches, flashing lamps require a cable separately from the motor wiring.
- Other wirings like telephone intercoms, lights for garden etc. must be in separate cables.
- Rigid copper cables especially when thicker diameters are difficult to manage during the installation and may result in bad connections with functional issues. Use flexible cables instead.
- Cable material not suitable for outside use. Use cables suitable for outside use and underground. Run the cables in conduits if the cable is not suitable for placing in the ground (armoured or suitably protected). You may also consult your local electrician.

Terminals:

The terminal blocks on the controller can be removed (pull) to facilitate a convenient wiring and are pushed back only while installing the controller. Even if a terminal strip is not in use, it must be pushed back. The wiring is done as described in the wiring diagram.

Plugs (available on the motor and the transformer):

These plugs must be connected to the controller (plugged in). The cable of the connectors are not routed from below, but from the back of the controller (see picture).

1. 230 Volt transformer feeder TRANSF IN and INPUT 24 VAC
2. Limit switch
3. Motor connector RPM/Encoder

Motor wiring:

connect to designated terminals as per wiring diagram

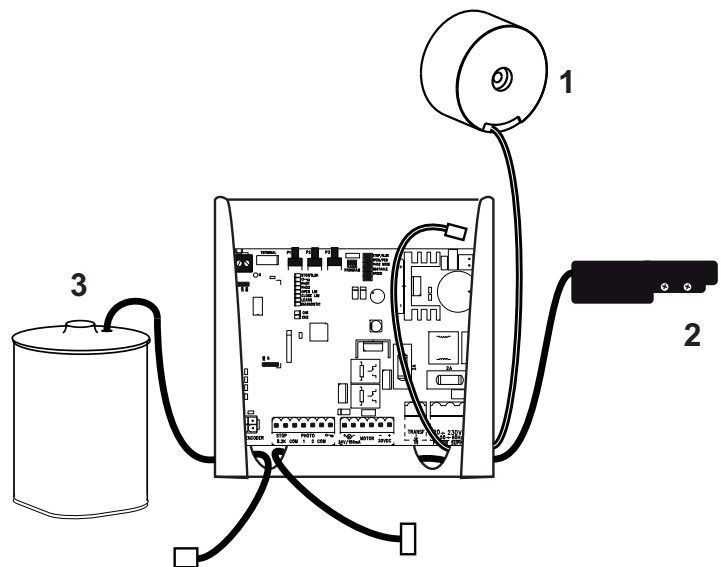
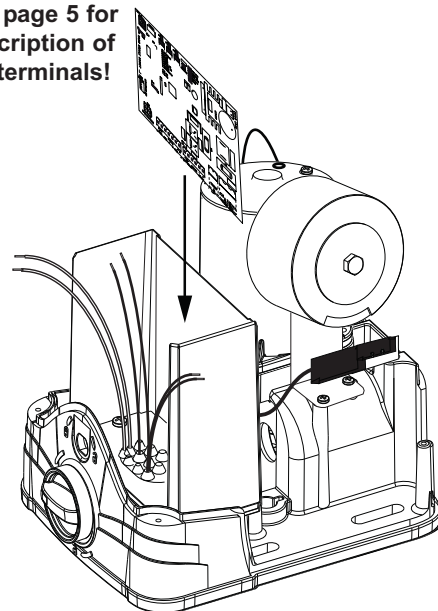
Radio:

The radio system is supplied as a small radio module separately from the main controller and plugged in when needed as shown in the wiring diagram. A short cable antenna is always pre-assembled at the factory.

Wire sizes:

see chart

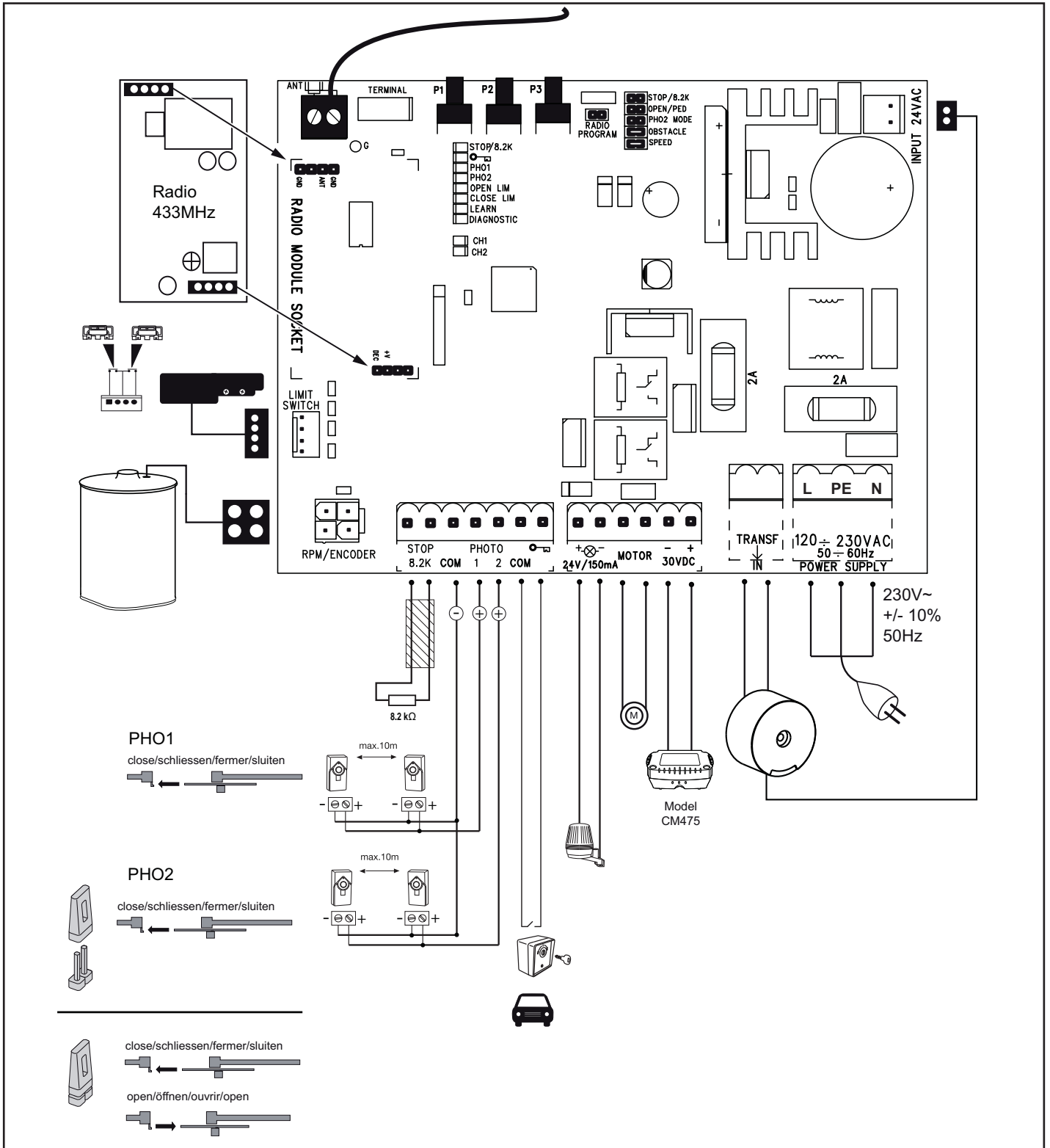
See page 5 for Description of the terminals!



	Distance 0m - 6m	Distance 6m - 10m	Distance 10m - 12m	Distance 12m – xx
External antenna (Remove original antenna of logic board)	Coax cable (Satellite cable) 50 or 75 Ohm	Coax cable (Satellite cable) 50 or 75 Ohm	Coax cable (Satellite cable) 50 or 75 Ohm	Coax cable (Satellite cable) 50 or 75 Ohm (max. 25m)
Switches, Flashing lamp etc.	2x 0,5mm ²	2x 0,5mm ²	2x 0,75mm ²	Min. 2x 0,75mm ² Max. 30m
Photocells, safety edge	2x 0,5mm ²	2x 0,5mm ²	2x 0,75mm ²	Min. 2x 0,75mm ² Max. 20m
Power supply	3x 0,72mm ²	3x 0,72mm ²	3x 1,5mm ²	3x 1,5mm ²

Note:

The terminals are designed for a max. cable diameter of 1,5mm² (flexible wire).



TECHNICAL DATA OF CONTROL BOARD

Voltage:	230 V~ / 50 Hz ±10%
Transformer:	230 V / 24 V, 105 VA
Output Motor:	24 VDC
Consumption max.:	max. 400 W (in operation)
Consumption Standby:	max. 4 W (without accessories)
Operating temperature:	-20° C + 55° C
Modes:	Standard, Automatic
Measurements:	145 x 110 mm (without box)
Protection class Box:	IP45
Fuse:	2 x 2 A (slow-blow fuse)
Remote control:	max. 180 x Rolling Code
feasible frequencies:	433 MHz, 868 MHz

The motor control unit is a highly modern electronic unit controlled by a microprocessor. It has all wiring facilities and functions required for safe operation. The electronics provides an ideal and matching closing force. When installed and adjusted correctly the gate can be stopped manually. During operation, the gate can be stopped via remote control, push-button or key-switch. The gate requires a firm stop for "OPEN" and "CLOSED" position.

Humidity and water destroy the control board. Make sure under all circumstances that water, humidity or dammed-up water cannot penetrate the control board covering. All openings and cable entries must be sealed watertight.

DESCRIPTION OF TERMINALS	
Description	Function
120 -230 VAC 50 - 60 Hz POWER SUPPLY	connector
TRANSF IN INPUT 24 V	230 V to transformer 24 V from transformer
30 VDC	output 30 VDC or terminal for battery kit CM475 + 041ADBL-0115
Motor Motor	blue cable red cable
24 V / 150 mA	flashing light (accessory)
Key symbol COM	keyswitch, other control devices negative pole
PHOTO2 PHOTO1 COM	photocells 2 (accessory) photocells 1 (accessory) negative pole
STOP 8.2 kOhms	stop switch or safety edge with 8.2 KOhms (accy)
RPM / ENCODER	socket for rpm-sensor
LIMIT SWITCH	socket for limit switch
RADIO MODULE SCKT	socket for radio module
ANT	terminal for antenna
2 A	2x slow-blow fuse included 250V/2A

DESCRIPTION OF LEDS (LIGHT EMITTING DIODE)		
DESCRIPTION	COLOUR	STATUS
STOP / 8.2 kOhms	green	Stop Switch ON: Stop Active OFF: OK (Requires wire bridge if no switch is connected)
EDGE	green	Safety Edge 8.2KOhm ON: Activated OFF: OK (Requires 8.2KOhm resistor if not used)
"Key symbol"	red	Key-switch ON: Activated OFF: OK
PHO 1	red	Photocell 1 (close) ON: OK, photocell connected OFF: No photocell connected
PHO 2	red	Photocell 2 (adjustable) ON: OK, photocell connected OFF: No photocell connected
OPEN LIM	yellow	limit switch GATE OPEN
CLOSE LIM	yellow	limit switch GATE CLOSED
LEARN	yellow	Programming indicator ON: (flashing) programming is active OFF: off
DGN	red	Diagnostic, also refer to page 12
CH1	red	Remote control programming for complete opening ON: New remote can be programmed OFF: off
CH2	red	Remote control programming for partial opening (Refer to CH1)

DESCRIPTION OF PUSH BUTTONS P1, P2, & P3	
Button	Function
P1+P2+P3	Limit setting: Push P1+P2+P3 simultaneously. The LED LEARN starts to flash as long as feature is activated.
P1	Button P1 operates Motor . Deactivate: Wait for 20 seconds or disconnect logic board from power.
P1	Force / travel distance - setting "BASIC" ; from position CLOSE LIM
P1 + P2	Force / travel distance - setting "ADVANCED" ; from position CLOSE LIM; with option Soft-Stop setting
P2 ; P3	Timer to close. Factory setting: off. When the photocell beam is interrupted, the gate closes immediately without delay. Activate: Press P2 + P3 until LED "lern" flashes. 1x = off, 2x = on
P3	Software-reset to factory defaults. Push & hold for 10 seconds. Does not reset memory (see section "radio").
Radio jumper + P1	Programming Remote for Channel 1 Command for OPEN completely
Radio jumper + P2	Programming Remote for Channel 2 Command for OPEN partially

BACKUP BATTERY (OPTIONAL) MODEL: CM475 (24V/AC)

The terminals serve to reload an externally installed storage battery (Terminal: 30 VDC). In case of power failure the battery provides power to the drive. A fully charged storage battery may provide power for more than 24 hours. Storage batteries are subject to deterioration and lose capacity. Replace storage batteries after approx. 2-3 years. CM475 is not for outside use and requires a suitable enclosure.

FLASHING LAMP (OPTIONAL) MODEL: FLA24-2, FLA1-LED

A flashing lamp can be connected to the control board (Terminals: 24 V / 150 mA). It indicates gate movement. The flashing light should be mounted as high as possible and in good clear view. The control board emits a constant signal that the lamp converts to a flashing signal.

KEY SWITCH (OPTIONAL) MODEL: 100010, 100027, 100034, 100041

The system can be operated by key switch (Terminals: key symbol and COM). Also see OPEN/PED under "Jumper Settings".

STOP SWITCH (OPTIONAL) MODEL: 600084

A stop switch to stop the movement of the gate in any direction can be connected to this output (Terminals: Stop / 8,2 kOhm). Also see STOP/8.2kOHM under "Jumper Settings".

SAFETY EDGE (OPTIONAL) MODEL: 600046, 600053, 600077, 600060

(Jumper must be free)
A safety edge working according to the 8.2 kilo ohm principle can be connected to the control board (Terminals: Stop / 8,2 kOhm), i.e. a 8.2 kilo ohm test resistor is attached to the end of the safety edge. It ensures that the electric circuit is monitored permanently. The control board is supplied with an 8.2 kilo ohm resistor installed. Several safety edges are connected in series. Also see STOP/8.2kOHM under "Jumper Settings".

CONTACT EDGE (OPTIONAL) MODEL: 604042

Prevents whole installation from damages as it redistributes forces occurring at the limits. Do not use if safety edge is already installed. A detailed description comes with product 604042.

ANTENNA (OPTIONAL) MODEL: ANT4X-1LM

The control board is supplied with a wire antenna as standard. An external antenna (accessory) can be connected (Terminal: ANT) as shown. A larger range (radio) can thus be achieved. For best range results mount antenna as high as possible.

For appropriate cable diameters see chart on page 3.

PHOTOCELLS (OPTIONAL) MODEL: 771E / 772E

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 outside 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.

Programming of IR sensors:

- connect IR sensors
- program the travel of the gate

Deletion of IR sensors:

Disconnecting already connected IR sensors will cause the control board to block the functionality of the terminals it was connected to. To delete IR sensors correctly:

- cut control board from current
- disconnect IR sensors
- program travel distance
- reconnect to power

Diagnosis of the photocell 771E / 772E (772E with open cover)

LED constant = OK

LED flashes = photocell disables control board

LED off = no current, incorrect connection or polarity

Diagnosis on the control board LED PHO1 / PHO2

LED constant = OK

LED off = OK no photocell connected

LED flashes = photocell disables control board

Connection between 1 & COM:

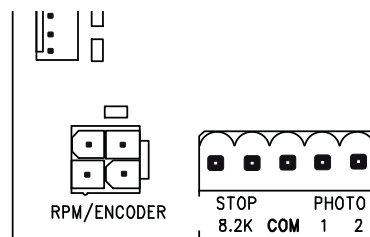
Active when gate is closing (reverses gate to open)

Connection between 2 & COM:

adjustable:

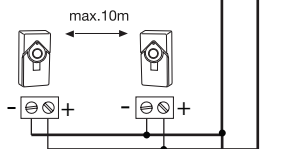
Jumper "PHO 2 MODE" free >> active when gate is closing

Jumper "PHO 2 MODE" plugged >> active when gate is closing and opening



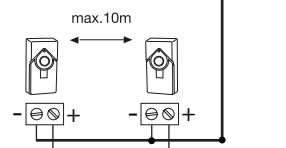
PHO1

close/schliessen/fermer/sluiten



PHO2

close/schliessen/fermer/sluiten



close/schliessen/fermer/sluiten



open/öffnen/ouvrir/open



RADIO AND RADIO PROGRAMMING

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

PROGRAM / DELETE REMOTE CONTROLS

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 fully opens the gate.

Receiving a signal from another programmed remote control button, CH2 partially opens the gate (pedestrian mode).

PROGRAMMING

1. Insert (connect) jumper "RADIO"
2. Briefly push button P1 (for CH1) or P2 (for CH2) and the respective LED lights up.
3. Press and hold a selected button on your remote control until LED goes out after short flashing. Done!
Repeat for all remote controls (a maximum of 180 remote controls can be programmed to each channel).

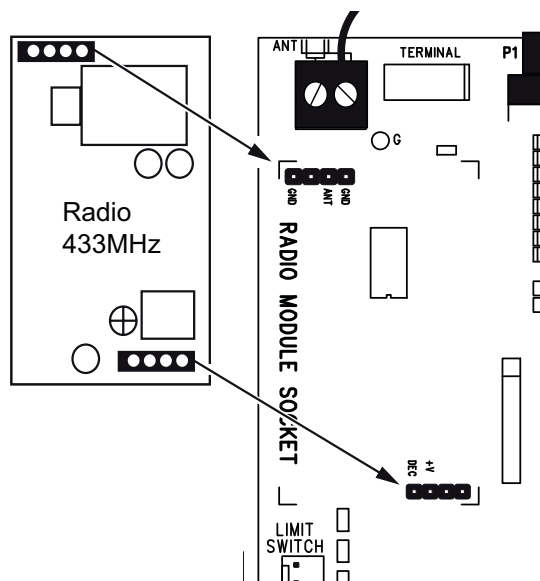
Important: To finish programming, remove (disconnect) jumper "Radio"!

Note: Make sure not to program the same remote control button to CH1 and CH2, otherwise the gate will work improperly.

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 (disconnect) jumper "Radio"



LOOP DETECTOR (OPTIONAL)

Jumper OPEN/PED must be plugged

Loop detectors react to metal and the most common use is for cars or trucks but not for bikes or pedestrians.

Exit loop / Gate Opening Loop

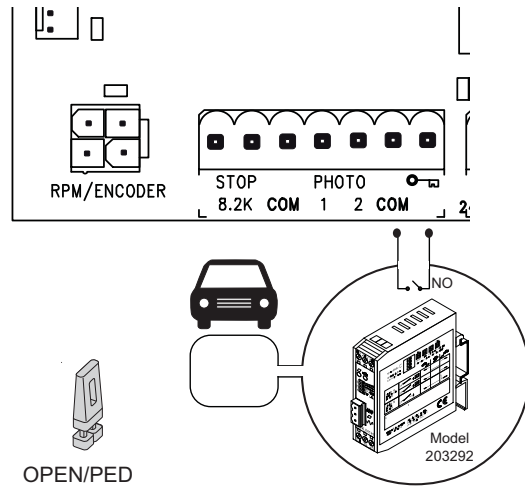
An exit loop is behind the gate and opens the gate when closed, keeps it open or re-opens the gate.

The jumpers OPEN/PED must be PLUGGED (in place).

The gate requires installed photocells and timer to close activated.

In addition, the feature "Fast closing" can be activated.

Refer to section "Description of Push Buttons P1, P2 & P3"



JUMPER SETTINGS

RADIO

The radio jumper is required to program remote controls. For programming procedure please refer to the respective section in this manual.

- FREE: No programming of remote controls possible
- PLUGGED: Programming of remote controls possible

Important: Keep jumper "RADIO" free (disconnected) if not in use!

STOP/8,2 KOhm

Defines whether the terminal STOP/8,2KOhm is used in emergency stop mode or safety edge mode. With an emergency stop any movement of the gate will be stopped. When used for a safety edge the gate reverses for approximately 20 cm.

- FREE: Factory setting is 8,2KOhm. Safety edge or 8.2kOhm resistor is required.
- PLUGGED: Emergency stop required. In this case the resistor must be removed and replaced by the switch or a switch circuit.

OPEN/PED

Defines if a key switch opens the gate completely or partially. Note: If the jumper OPEN/PED is plugged and timer to close is activated as well, the functionality of the terminals "key symbol" and "COM" changes. See section "Loop Detector" above.

- FREE: opens partially (ca. 100 -150 cm)
- PLUGGED: opens completely

PHO 2 MODE

Defines whether the second photocell is active in closing or in closing & opening.

- FREE: active in closing
- PLUGGED: active in closing and opening

FIXED WIRE JUMPER:

OBSTACLE

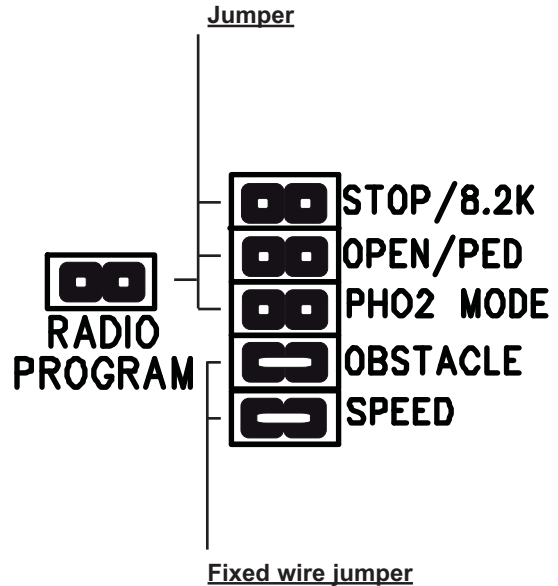
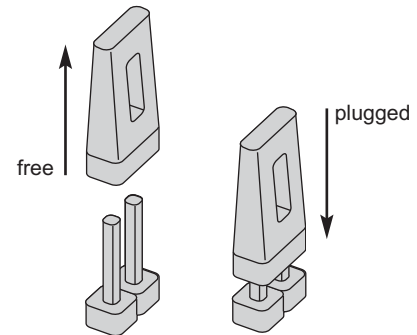
Factory-equipped with fixed wire jumper. Cutting through increases the operating power at the control.

CAUTION: If the jumper is severed, the door system **must be** secured with additional safety devices (safety edge, etc.).

SPEED

Factory-equipped with fixed wire jumper. Cutting through increases the operating speed of the gate.

CAUTION: If the jumper is severed, the door system **must be** secured with additional safety devices (safety edge, etc.).



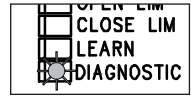
INITIAL OPERATION / BASIC SETTING

Proceed step by step. When in doubt, start again at the beginning. Take sufficient time to make these settings.

1. Are all components required for operation connected? Motor, photocells, safety safety edge, stop switch.
2. Limit switches are fixed to the rack?
3. Setting of jumpers => all removed (settings can be done later on)
4. Make sure nobody is present in the gate area.

Note:

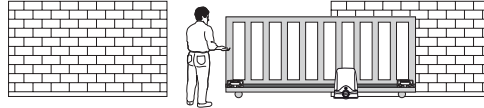
When connecting the control board for the first time (no basic setting has been done) the Diagnosis-LED will indicate the status of the photocell terminals and, depending on the configuration, blink between 4 and 7 times. This indication is regular and can be ignored until Basic Setting (also see page 12 "Diagnosis-LED").



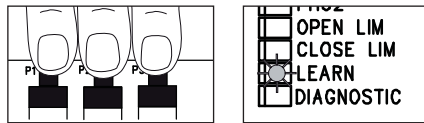
Now connect control board to power

BASIC SETTING:

1. Move the gate manually to a position between the two limit switches OPEN - CLOSE and lock drive.

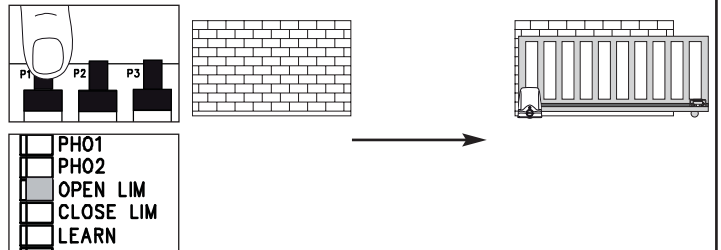


2. Press buttons P1, P2 and P3 at the same time for about 2-3 sec. LED "LEARN" starts to flash.

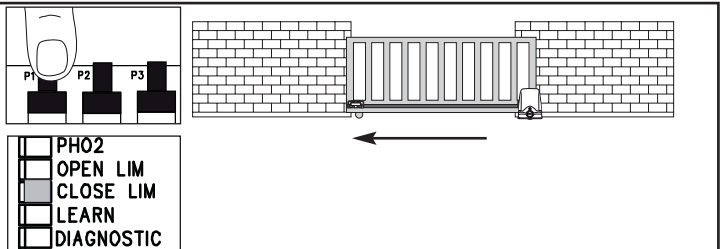


3. Now watch the gate. The gate can be moved in both directions using the button P1. Press the button P1 several times (1-2 seconds each time) to understand the function of the button. If none of the buttons are pressed for about 15 seconds, the control switches back to normal operation. Repeat step 2 in this section.

4. Fully open the gate with the button P1. Keep P1 pressed until the controller turns off by itself at the limit switch OPEN. (Do not release beforehand). Control: The LED "OPEN LIM" (yellow) = limit switch OPEN should now light up and the gate can be opened as required. Otherwise, change the limit switch position before further settings are made.



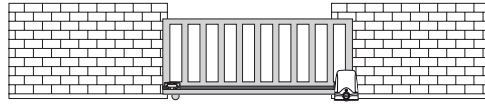
5. Close the gate with the button P1 till it is turned off at the limit switch CLOSED. (Do not release beforehand). Control: The LED "CLOSE LIM" (yellow) = limit switch CLOSED should now light up and the door can be closed as desired.



Basic setting is completed.

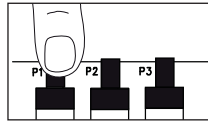
PROGRAMMING THE TRAVEL DISTANCE AND OPERATOR FORCE

1. Gate is closed, gate position is "Close Limit".
LED "CLOSE LIM" glows.



<input type="checkbox"/>	PH02
<input type="checkbox"/>	OPEN LIM
<input checked="" type="checkbox"/>	CLOSE LIM
<input type="checkbox"/>	LEARN
<input type="checkbox"/>	DIAGNOSTIC

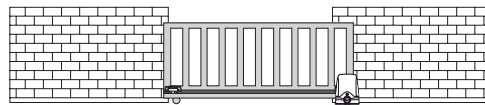
2. Press the button P1 until the door starts to open.
(LED "LEARN" glows)
The automatic programme starts (slow speed).



<input type="checkbox"/>	PH02
<input type="checkbox"/>	OPEN LIM
<input type="checkbox"/>	CLOSE LIM
<input checked="" type="checkbox"/>	LEARN
<input type="checkbox"/>	DIAGNOSTIC

3. The drive moves the gate to the limit switch OPEN,
stops briefly and then moves back to the limit switch CLOSED.

4. After reaching the limit switch CLOSED, the LED
"LEARN" goes out. The programming of the distance and
the force required is completed.



<input type="checkbox"/>	PH02
<input type="checkbox"/>	OPEN LIM
<input type="checkbox"/>	CLOSE LIM
<input type="checkbox"/>	LEARN
<input type="checkbox"/>	DIAGNOSTIC

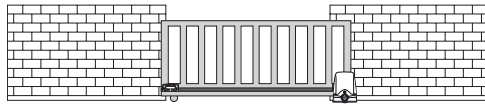
Proceed with "Radio an Radio Programming" and "Completion of Installation".

Alternative:

PROGRAMMING THE DISTANCE "ADVANCED" (INDIVIDUAL)

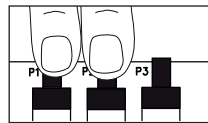
Note: The button P1 must be pressed several times in this program. With each press of the button, the position at which the soft-stop (slow speed) starts is saved. Long or short soft-stop settings are possible.

1. Gate is closed, gate position is "Close Limit".
LED "CLOSE LIM" glows.



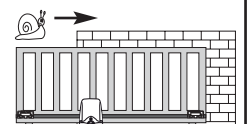
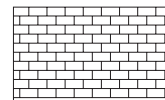
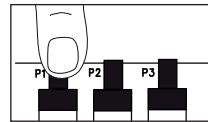
<input type="checkbox"/>	PH02
<input type="checkbox"/>	OPEN LIM
<input checked="" type="checkbox"/>	CLOSE LIM
<input type="checkbox"/>	LEARN
<input type="checkbox"/>	DIAGNOSTIC

2. Press P1 and P2 simultaneously for a longer time (about
5-6 seconds) until the door opens.
Release buttons! LED "LEARN" flashes.

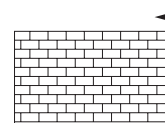
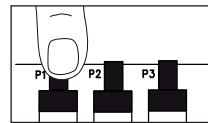


<input type="checkbox"/>	PH02
<input type="checkbox"/>	OPEN LIM
<input type="checkbox"/>	CLOSE LIM
<input checked="" type="checkbox"/>	LEARN
<input type="checkbox"/>	DIAGNOSTIC

3. Press P1. Soft-stop in the OPENING direction starts from
this position.



4. Press P1 again when the gate moves in CLOSING
direction, soft-stop starts from this position.



When LED "LEARN" goes out, the programming is completed successfully.

<input type="checkbox"/>	PH02
<input type="checkbox"/>	OPEN LIM
<input type="checkbox"/>	CLOSE LIM
<input type="checkbox"/>	LEARN
<input type="checkbox"/>	DIAGNOSTIC

Proceed with completion of Installation / programming

COMPLETION OF INSTALLATION / PROGRAMMING

Once the travel distances are programmed, the remote controls can be programmed as well.
(Refer to "Radio and Radio Programming")

1. You can now let the gate run 2 complete cycles by pressing a key on the remote or a connected switch and observe the process. Close the gate again, WITHOUT making another setting.
2. 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 (AUTO-CLOSE)

**NOTE: Only possible with connected photocells (PHOTO + COM).
Time frames from 2 seconds up to 120 seconds are possible.**

Activate:

<ol style="list-style-type: none"> 1. Press and hold P2 until yellow LED starts flashing 2. Now count the time you wish to program 3. Press P2 again. Done! 	
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Deactivate:

<ol style="list-style-type: none"> 1. Press and hold P2 until yellow LED starts flashing. 2. Press P3. Yellow LED goes out. Done! 	
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FORCE / TORQUE OF MOTOR

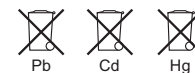
Thrust of the motor is set automatically while programming the travel distance. Thrust can only be modified by programming the travel distance again. If gate movement is impeded by weather or changes to the installation (rust or inappropriate lubrication) it may have to be repaired.



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 400N (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 safety edge must be mounted on the gate at a height up to 2.5 m or on the pillar on the opposite side (EN12453).

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.



DIAGNOSIS LED

The LED diagnostics always shows the latest upcoming issue. If several issues occur the LED diagnostics does not show them.
 Example: The gates' guiding rail is soiled and the drive performs a safety reversal due to too high force. After that the photocell beam got interrupted. Diagnosis: As long as the photocell beam is interrupted the diagnosis LED flashes 6x respectively 7x.

Indication	Description	Remedy
1x blinking	Motor has insufficient connection to control board	Cables not wired or badly connected. Check terminals precisely. Consider wire lengths
2x blinking	Limit switch GATE CLOSED	Programming travel distance failed because the gate never reached the limit switch GATE CLOSED. Repeat programming the travel distance according to instructions
3x blinking	Limit switch GATE OPEN	Programming travel distance failed because the gate never reached the limit switch GATE OPEN. Repeat programming the travel distance according to instructions
4x blinking	Interruption of programming / no programming	A: Button P1 was pressed too often during "Programming Travel Distance Advanced" B: The control board has never been programmed
5x blinking	Force too high. Force very unsteady	A: Gate too heavy or rough running B: Gate blocked / or rough running at a certain position C: Gate not balanced D: Faulty mechanical installation All: consult gate dealer/specialist
6x blinking	Photocells 1 block installation A: Obstacle interrupts beam B: poor alignment of the lenses C: power supply for photocells not sufficient	A: remove obstacle B: check alignment C: check terminals and wire diameter
7x blinking	Photocells 2 block installation	refer to 6x blinking
8x blinking	Emergency stop blocks installation	A: check wires and wiring B: check basic setting of control board (jumpers)
9x blinking	Safety edge blocks installation A: Obstacle pushes safety edge B: Safety edge defective C: Power supply too low or wire damaged	A: remove obstacle B: check wires, wiring and 8.2kOhm resistor C: check basic setting of control board (jumpers)
10x blinking	Power supply to control board too low A: 230V supply defective or faulty connection B: damaged wire in powercable C: Back up battery (optional accessory) empty	A: check terminals/connections B: consult dealer/specialist C: charge battery min. 24h
11x blinking	EEPROM Fault Power up failed	Replace control board
12x blinking	Defect on relay or major electrical component A: Overload B: Bad wiring (wrong) D: water in photocells (bad installation) E: a photocell was connected before but not removed (disconnected)	Replace logic board Check wiring Reprogram the travel distance from gate fully closed

FAQs

Pressing P1, P2 and P3 does not show any reaction		Jumper "RADIO" must be removed Check whether the radio module is seated correctly.
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. Check whether the radio module is seated correctly.
Immediately after the gate has started moving, it stops and reverses.	Obstacle in area of gate. Gate rough running (consult dealer)	Check gate area for objects check photocells reprogram travel distance
Gate can only be opened	photocell blocks	Function and connection must be checked
"Timer to close" doesn't work.		Only works if the 2-cable photocell 771E(ML) or 772E(ML) 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.	Photocell, a safety edge or the emergency stop disables the control board Only one photocell was connected for OPEN	At least 1 pair of photocells active in OPEN or CLOSED must be connected
The gate opener doesn't respond at all, although the controller has been connected (LEDs are on).	1. Remote control not 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 diagnostic LEDs). 3. Check photocell connection / programming. 4. Check terminals and connections.
Control board does not work with transmitter	1. transmitter not programmed 2. photocells block 3. Jumper "RADIO"	1. Program transmitter 2. Check photocells, check diagnostic LEDs 3. Jumper "RADIO" must be plugged.
Control board does not work	travel distance not programmed	Program travel distance. See initial operation / diagnosis LED
Gate doesn't open completely	Gate heavy / rough running	re-program travel distance consult dealer/specialist
Travel distance can't be programmed.	1. Jumper setting not correct 2. see Diagnostic LED 3. interferences in wiring of photocells, switch or safety edge 4. Gate moves for 1 second only and stops without reversal during programming 5. Magnetic limit switch	1: follow the instructio of "Initial Operation" closely 3: remove for checking, then re-program travel distance 4: check RPM sensor/Encoder on control board 5: install magnetic limit switch properly
The operator sometimes movess slowly	Powerfailure	Common procedure. After powerfailure the operator performs a selftest. Depending on the operator model this can take a few seconds or a complete cycle. Do not interrupt this test via remote control or switch, otherwise the limits may change. If this is the case reprogram travel distance using P1.
Limit switches OPEN and CLOSED nicht correctly indicated	incorrect programming	During programming the limit switch OPEN must be reached using P1, then limit switch CLOSED. Switching motor cables is not required.
Gate opens instead of closing automatically (Timer to close activated)	incorrect programming	repeat programming as described in these instructions
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.	
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.	