



## **⚠ IMPORTANT SAFETY INSTRUCTIONS FOR INSTALLATION**

### **WARNING – INCORRECT INSTALLATION CAN LEAD TO SEVERE INJURY FOLLOW ALL INSTALLATION INSTRUCTIONS**

Before installing the operator check that the door is in good mechanical condition, and correctly balanced, and that it opens and closes properly.

- Do not use the force adjustments to compensate for a binding or sticking garage door. Excessive force will interfere with the proper operation of the Safety Reverse System or damage the garage door.
- Do not wear rings, watches or loose clothing while installing or servicing a garage door operator.
- To avoid serious personal injury from entanglement, **remove any ropes** connected to the garage door before installing the door operator.
- Install a remote mounted push button within sight of the door but away from any moving parts and at a height of at least 1.5 metres.
- **The safety reverse system test is very important.** The garage door must reverse when obstructed on closing. **Failure to properly adjust the operator may result in serious personal injury from a closing garage door.** Repeat the test once a month and make any needed adjustments (see Menu **4** and Menu **5** on page 12 of this manual).

Installation and wiring must be in compliance with your local building and electrical codes.

- If the garage has no service entrance door then an exterior release kit **MUST** be fitted. This accessory allows manual operation of the garage door from outside in case of power failure.
- Disconnect electric power to the garage door operator before making repairs or removing covers.
- Use the manual release lever to disengage the motor drive **ONLY** when the drive is switched OFF and, if possible, when the door is fully closed.
- Examine the installation, in particular the cables, spring and mountings, for signs of wear, damage or imbalance. Do not use if repair or adjustment is needed since a fault in the installation or an incorrectly balanced door may cause injury.

### **IMPORTANT SAFETY NOTE**

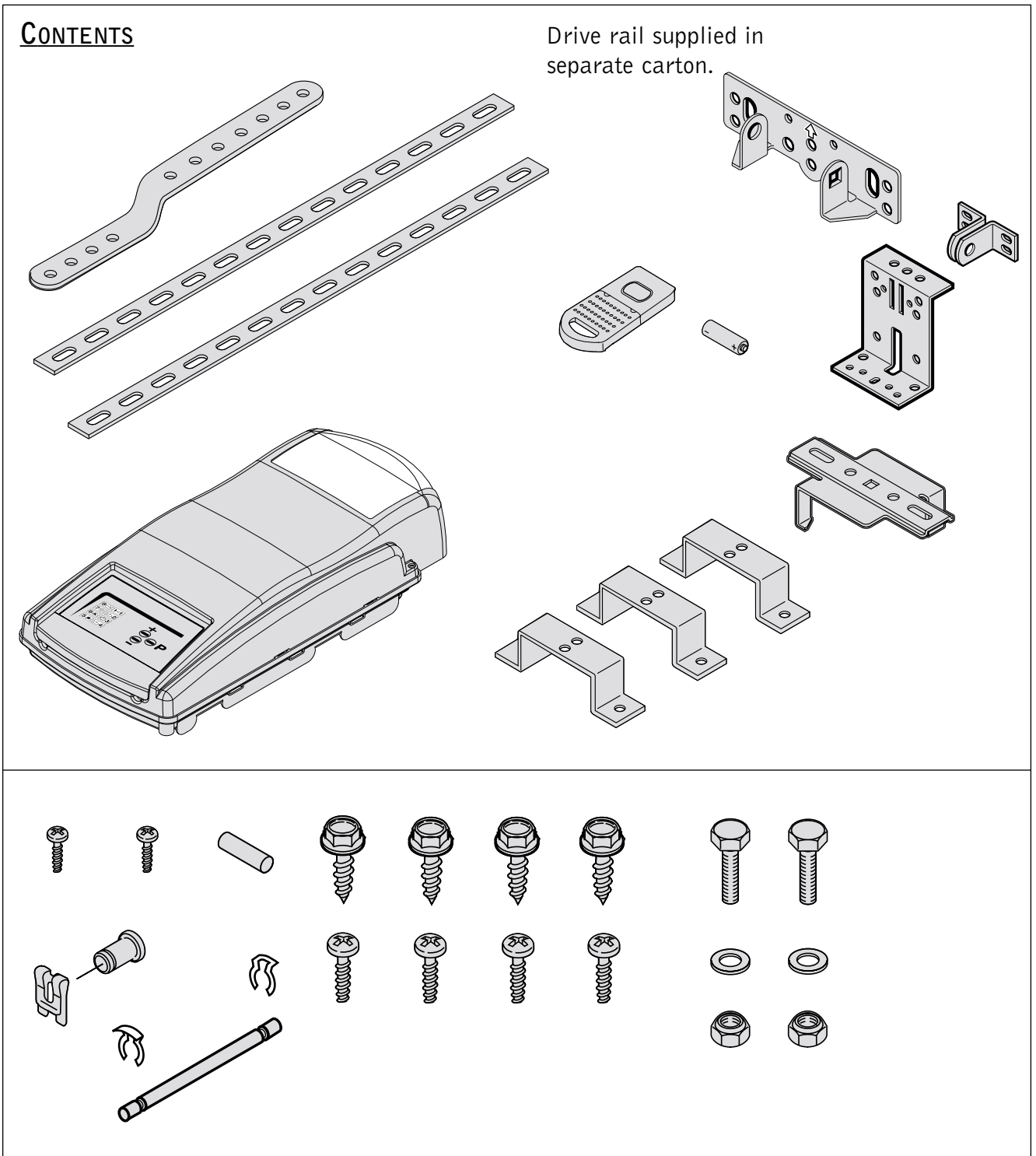
**Only operate the door when the door is in full view, free of obstacles with no persons (particularly children) near the door. Nobody should be allowed to enter or leave the garage whilst the door is in motion.**

Please keep this manual for future reference, repair and maintenance.

### INTRODUCTION

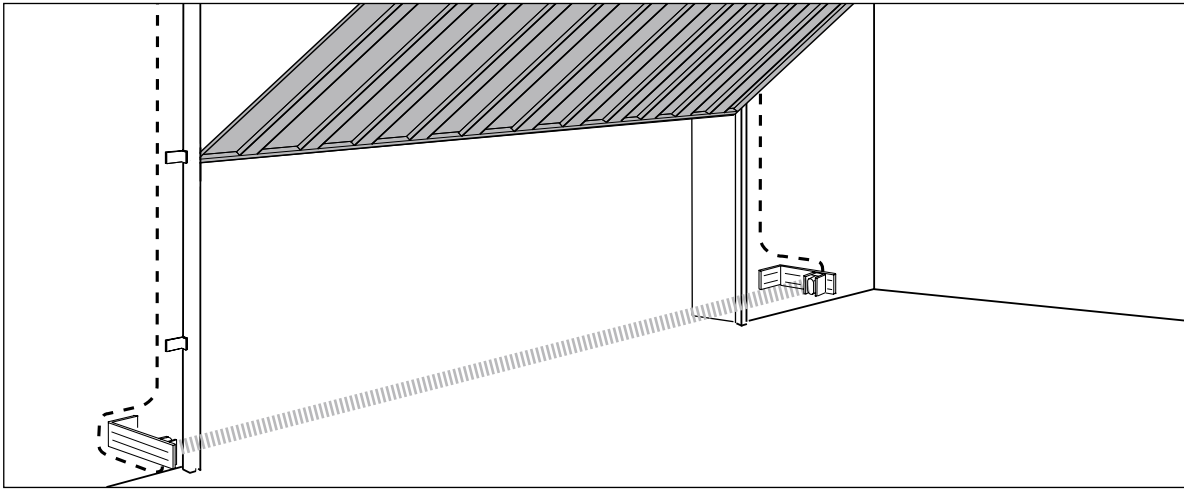
Congratulations on the purchase of your new automatic garage door operator. It is designed to offer you convenience, durability and quality. This operator has been factory tested to ensure maximum quality and safety.

In order to prevent damage to the garage door or garage door operator and to comply with the Machinery Directive it is important that this operator is fitted in accordance with these instructions.



## SAFETY FEATURES

- **Automatic Door Reverse**  
An unmodified closing door will automatically reverse within 2 seconds if door is obstructed by person or object.
- **Automatic Time Reverse**  
Closing door will automatically reverse if the door is not fully closed within 88 seconds.
- **Safety Stop**  
Opening door will immediately stop when obstructed by person or object.
- **Beam Break**  
For additional safety we recommend a Beam Break is installed. If the INFRARED BEAM is broken by a person or object whilst the door is closing, it will automatically reverse to the fully open position without actually having touched the closing door itself.



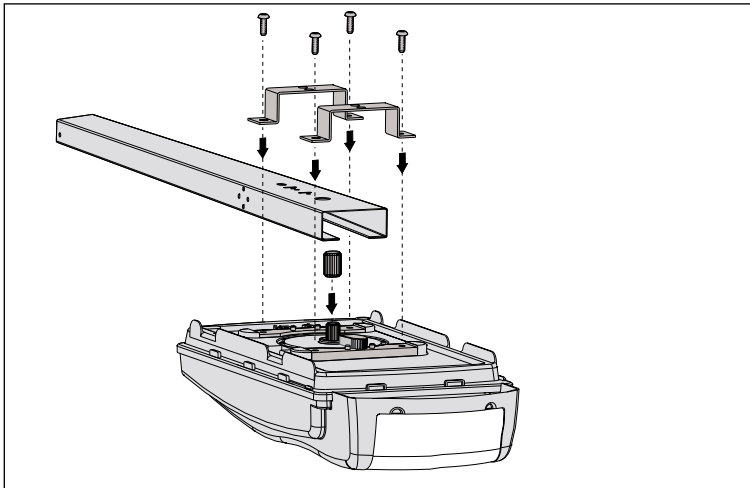
## IMPORTANT

For optimum sensitivity you must adjust the independent open & close force control (see Menu 4 and Menu 5 on page 12 of this manual).

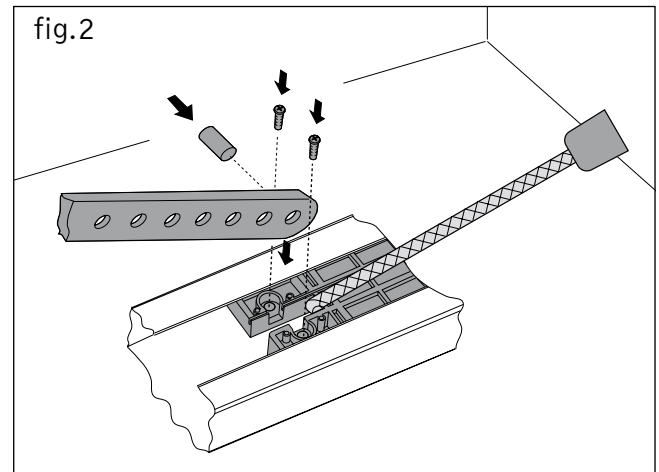
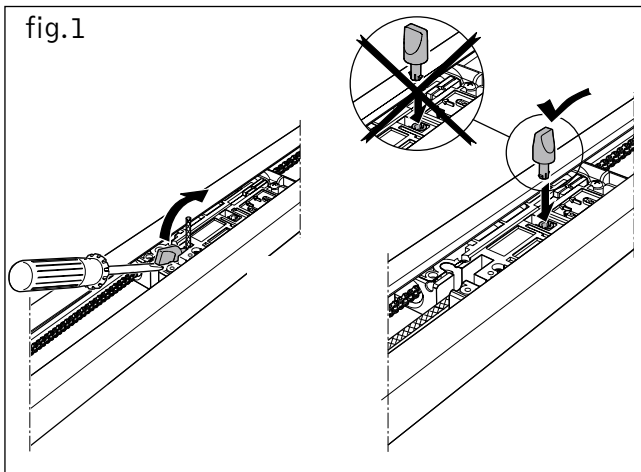
## OPERATOR ASSEMBLY

**Note:** Where the operator has been specified with a 2-piece boom, please refer to the assembly instructions for this item supplied with the boom.

- 1** Install grey motorshaft adapter onto motorshaft.  
Bolt rail with brackets and screws to motorhousing.  
Make sure the screws are tightly fastened.



- 2** Fit the red slider that re-engages the emergency release and operator pull bar onto carriage.
  - Refer to fig.1 to fit the red slider that re-engages the emergency release knob onto carriage.
  - Refer to fig.2 to fit pull bar onto carriage. Note position of emergency release cord to ensure correct cord position after installation.



### 3 Carriage quick release.

- a. Pull cord "a" to disengage. Carriage re-engage remain disengaged. See fig. 3
- b. Move red slider "b" in direction of arrow to re-engage carriage at next movement. Start operator. See fig. 4.

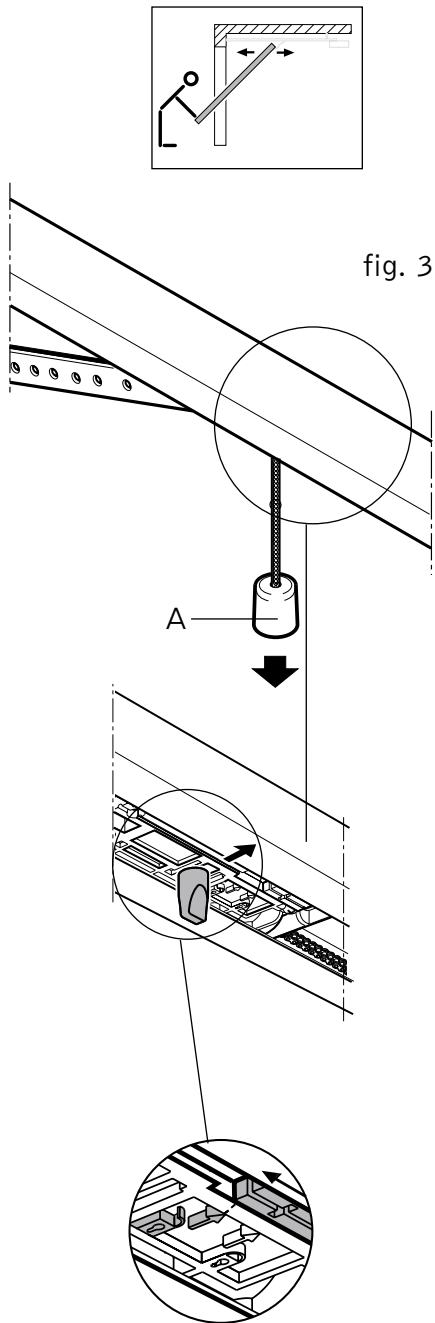


fig. 3

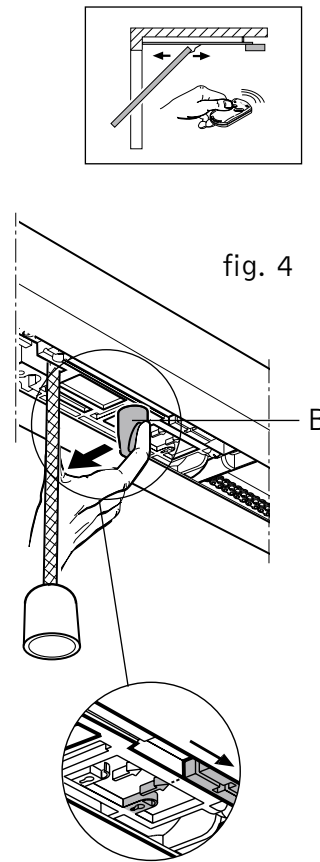


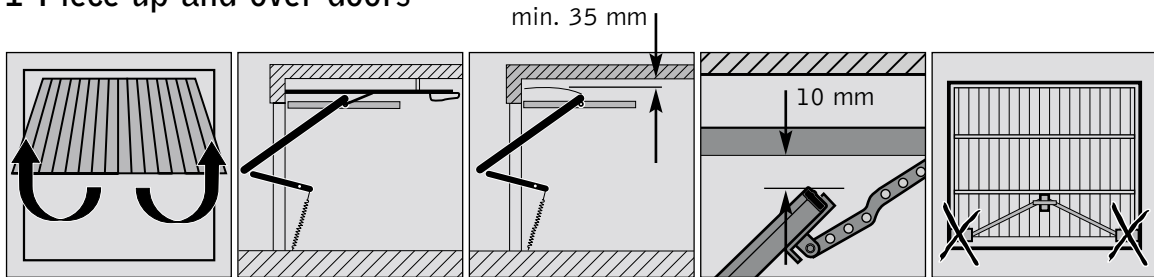
fig. 4

## OPERATOR INSTALLATION

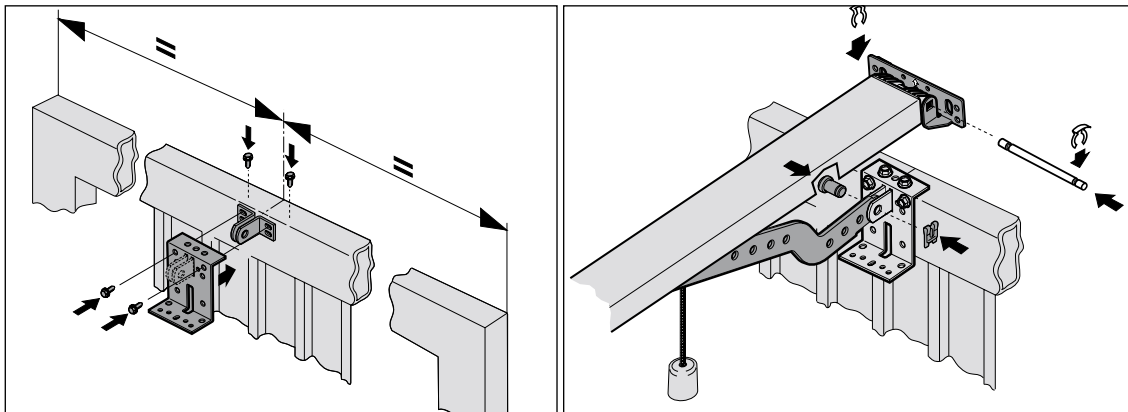
### DETERMINE GARAGE DOOR TYPE

Determine your garage door type as indicated in Step **4A**, **4B**, **4C** or **4D**. Follow the individual instructions required for your specific garage door type. If your garage door type is not included, please contact your distributor. Special accessories or operator modifications may be required.

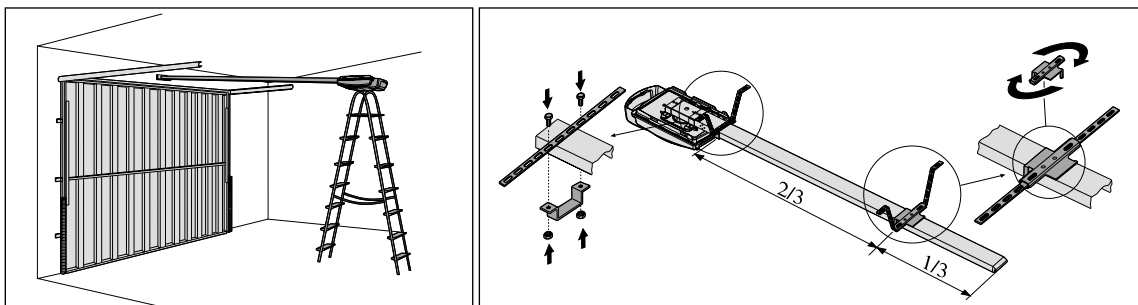
#### **4A** 1-Piece up-and-over doors



- Install door bracket at centre position of door and rail bracket on centre position above door. Make sure there is at least 10 mm. clearance between highest travel point of door and rail.

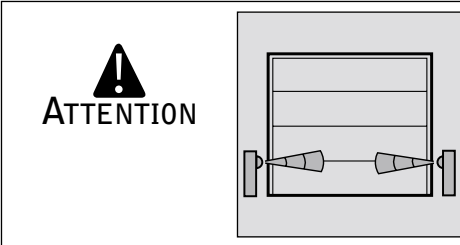
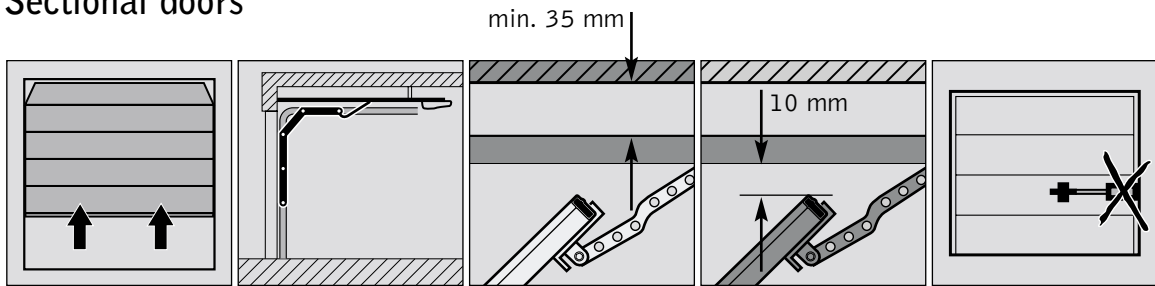


- Level and mount operator.



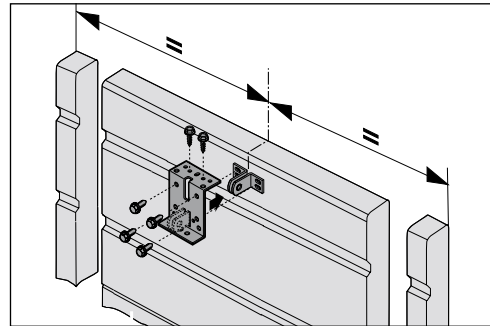
- Disengage carriage from chain or belt! Door may only be moved with moderate speed.
- Connect operator pull bar to door bracket.

**Note: Remove or disable all door locks before installation!**

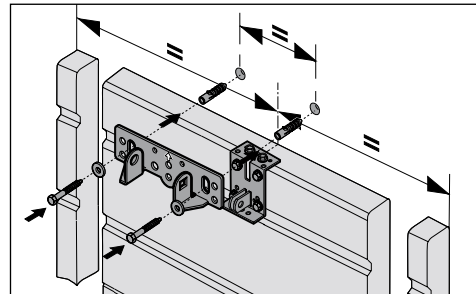
**4B****Sectional doors**

A beam break is strongly recommended for use with sectional doors (available separately).

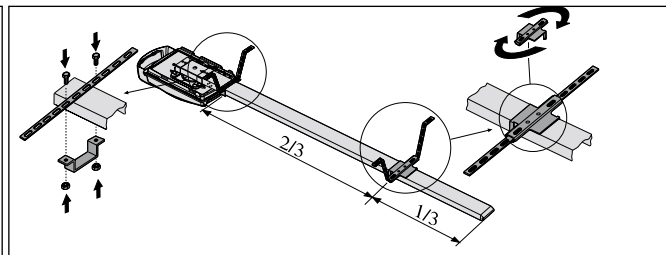
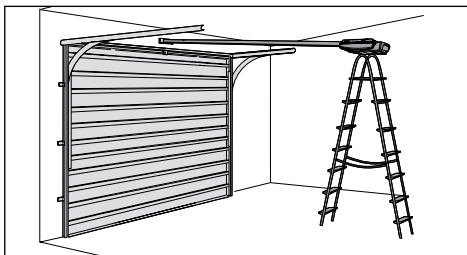
- Fix adjustable door fitting bracket to top section at the centre of the door.



- Install rail bracket on centre position above door. Make sure there is at least 10 mm clearance between highest travel point of door and rail.



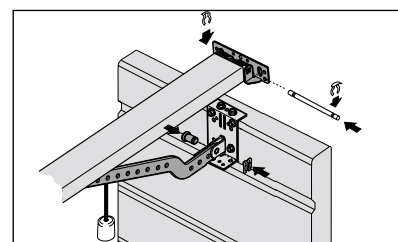
- Level and mount operator.



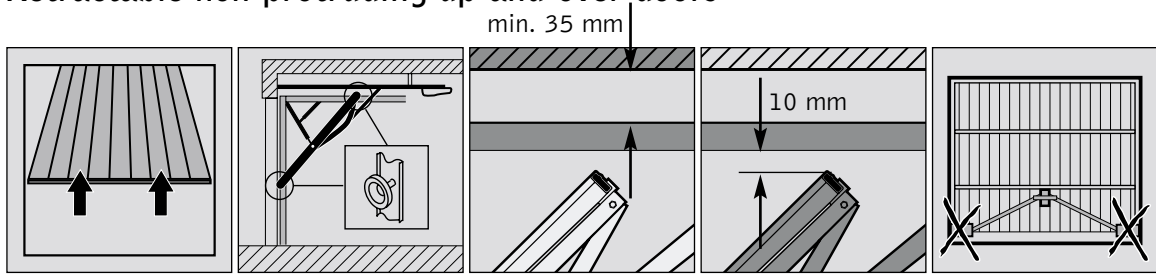
- Disengage carriage from chain or belt. Door may only be moved with moderate speed.
- Connect 2-piece adjustable operator pull bar to door bracket.


**Note:**

**Remove or disable all door locks before installation!**

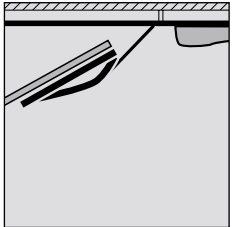
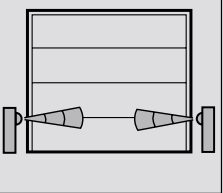


#### 4C Retractable non-protruding up-and-over doors



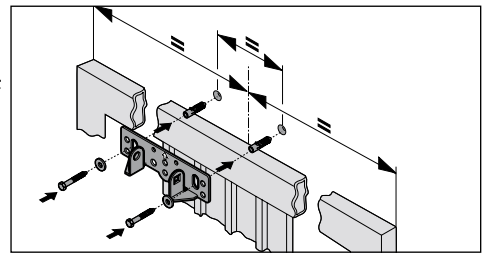


**ATTENTION**

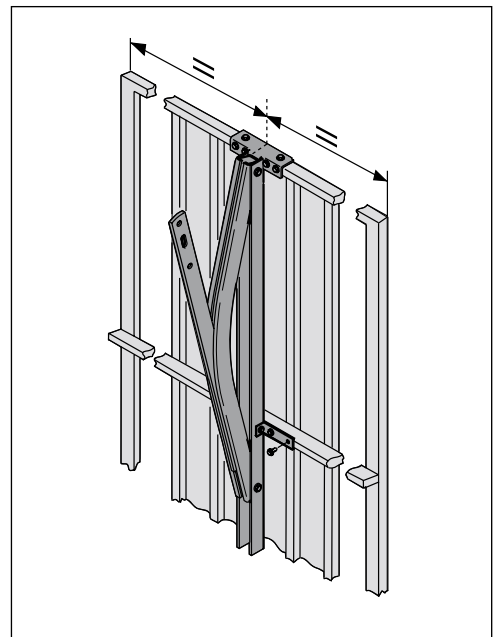
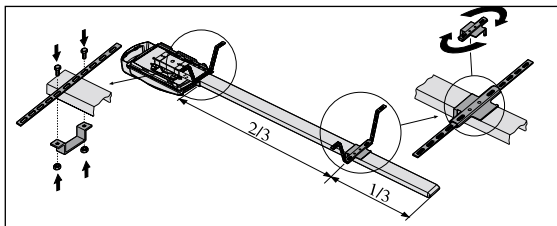
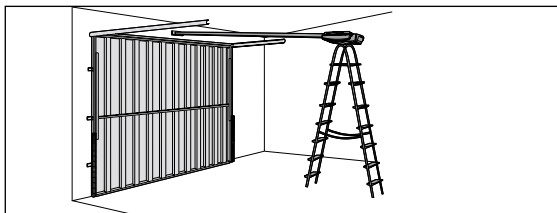



Special adapter arm (curved door arm) is required.  
An optical sensor is strongly recommended (not included; have to be ordered separately).

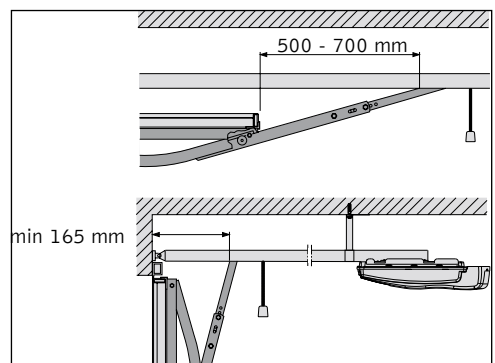
- Install rail bracket on center position above door. Make sure there will be at least 10 mm. clearance between highest travel point of door and rail.



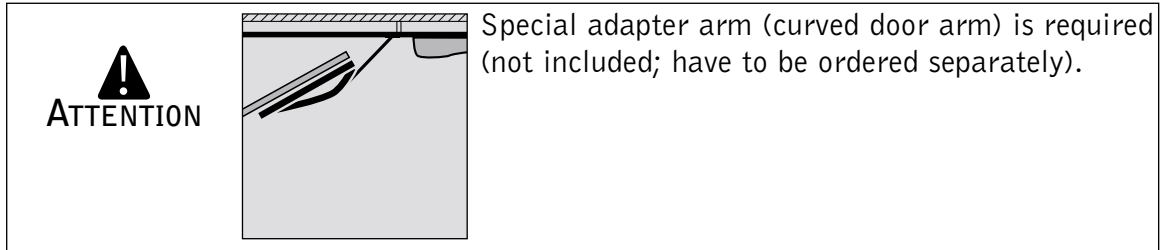
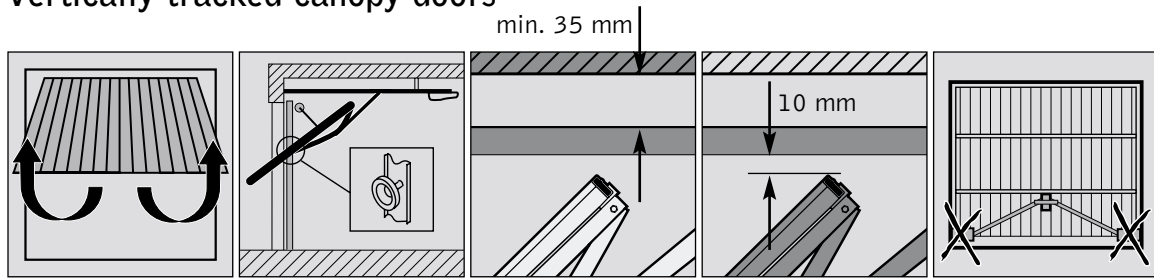
- Fit the adapter arm (curved door arm) according to instructions of adapter arm supplier.
- Level and mount operator.



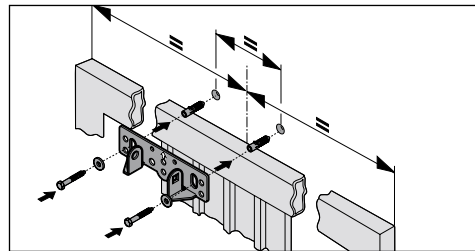
- Disengage carriage from chain or belt! Door may only be moved with moderate speed.
- Fully open garage door and connect pull bar to adapter arm. Manually close door and check if the minimum door-carriage distance of 165 mm. has not been exceeded.



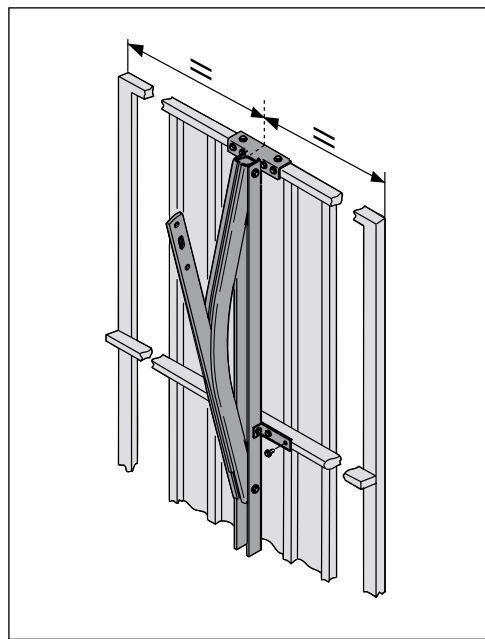
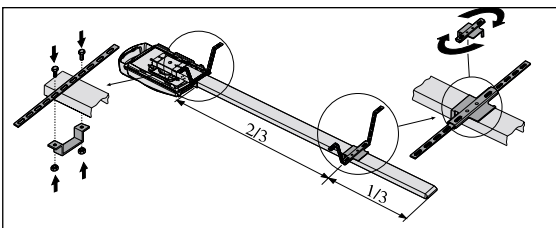
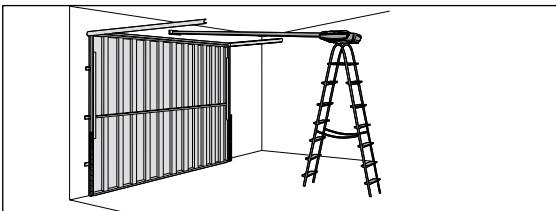
## 4D Vertically tracked canopy doors



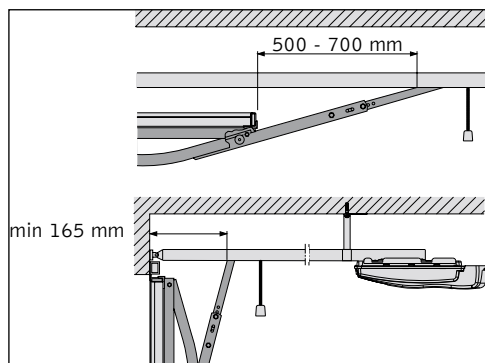
- Install rail bracket on center position above door. Make sure there will be at least 10 mm. clearance between highest travel point of door and rail.



- Fit the adapter arm (curved door arm) according to instructions of adapter arm supplier.
- Level and mount operator.



- Disengage carriage from chain or belt! Door may only be moved with moderate speed.
- Fully open garage door and connect pull bar to adapter arm. Manually close door and check if the minimum door-carriage distance of 165 mm. has not been exceeded.



FOR ALL OTHER DOOR TYPES PLEASE CONTACT YOUR DISTRIBUTOR!

**5** Make sure motorhousing and rail are mounted correctly and secured.  
Strengthen where needed.









**6** Install light bulb.  
Type E14, max. 40 Watt (not included).

**!** Attention: before you start Operator programming please make sure your carriage is engaged to chain or belt and door arm is attached to door.




## OPERATOR CONTROL PANEL INDICATIONS

Your automatic door operator is provided with an easy to read LED display panel with 8 light icons and three program buttons.













### Light icons

-  external beam break
-  door fully open
-  automatic timer
-  door fully closed
-  operator 230V light
-  malfunction
-  operator impulse (slow flash when on vacation lock)
-  power on (230V)

### Adjustment buttons

-  Program button "decrease" and CLOSE test button
-  Program button "increase" and OPEN test button
-  Programming button

### LEGEND

LED off	i.e. 	Default setting:	i.e. 
LED illuminated	i.e. 		
LED blinking	i.e. 		
LED rapid blinking	i.e. 		
Button pressed	 or  or 		
Operator light bulb	on:  off: 		
External Lights	on:  off: 		

## OPERATOR PROGRAMMING - BASIC SETTINGS

When the door operator is turned on (plug in power cord) it runs a self-test; all 8 LEDs will glow and operator 230V light will illuminate for approximately 2 seconds. When the light is off and LED **B** is illuminated the operator is in normal operating mode.

### ADJUSTMENT BUTTONS:

All settings and adjustments can be made with the three adjustment buttons. Press and hold **OP** for approximately 2 seconds to change from operating to programming mode. When all LEDs are illuminated and LED **H1** starts to blink, release **OP**. You are now in the programming mode for basic operator menu settings.

Use **+** and **-** to change settings of chosen program menu  
**OP** to store menu setting and go to next menu.

### MENU OVERVIEW:

- ① Add optional beam break
- ② Set door OPEN position
- ③ Set door CLOSED position
- ④ Set maximum opening force
- ⑤ Set maximum closing force
- ⑥ Program hand transmitter

### TO SET UP THE OPERATOR:

#### Menu ①

ADD BEAM BREAK\* **H1**

1. Press **OP** for 2 seconds until LED **H1** blinks and all others are illuminated.
2. A. Press **+** if a beam break is to be installed (LED **H1** illuminated)  
B. Press **-** if no beam break is to be installed (LED **H1** blinks rapid)
3. Press **OP** to store settings and to go to Menu ②.  
\*Beam break is an optional accessory.

#### Menu ②

SET DOOR OPEN POSITION **H2**

1. LED **H2** blinks and all others are illuminated.
2. To move the garage door to desired fully OPEN position press & hold the **+** until desired DOOR OPEN position is reached.  
For fine-tuning use the **+** (OPEN) and **-** (CLOSE) buttons.
3. Press **OP** to store and to go to Menu ③.

#### Menu ③





SET DOOR CLOSE POSITION **H4**

1. LED **H4** blinks and all others are illuminated.
2. To move the garage door to desired fully CLOSED position press & hold the **-** until desired DOOR CLOSE position is reached. For fine-tuning use the **-** (CLOSE) and **+** (OPEN) buttons.
3. Once door position is correct press **OP** to store and go to Menu ④.

































































## Menu 4


### SET MAXIMUM OPENING FORCE AND


Whilst your new operator has automatic force learning we strongly recommend that you manually set the maximum force. The manual programmed force always overrules automatic learned force when it exceeds the maximum manual set opening force!

1. LED  and LED  blink and all others are illuminated.
2. By pressing  and  set the desired maximum lifting force.

Each illuminated LED represents 1/8 of the maximum total force.

        1/8	        2/8	        3/8	        4/8	        5/8	        6/8	        7/8	        8/8
---	---	---	---	---	---	---	---





3. Once maximum opening force is set press  to store and go to Menu 5.

 Attention: Set lifting force as sensitive as possible (max. 150 N at closing edge)

































































## Menu 5


### SET MAXIMUM CLOSING FORCE AND


Whilst your new operator has automatic force learning we strongly recommend that you manually set the maximum force. The manual programmed force always overrules automatic learned force when it exceeds the maximal manual set closing force!

1. LED  and LED  blink and all others are illuminated.
2. By pressing  and  set the desired maximum closing force.

Each illuminated LED represents 1/8 of the maximum total force.

        1/8	        2/8	        3/8	        4/8	        5/8	        6/8	        7/8	        8/8
---	---	---	---	---	---	---	---

3. Once maximum closing force is set press  to store and go to Menu 6.

 Attention: Set closing force as sensitive as possible (max. 150 N at closing edge)

## SAFETY NOTE:



Test operation of safety sensitivity every month and adjust if necessary.

## Menu 6




### PROGRAM THE TRANSMITTER CODE

(Internal receivers only)

**Note:** Where specified, please install external receiver and program transmitter according to instructions included with your individual radio set.

1. LED  blinks and all others are illuminated.
2. Press transmitter button until LED  blinks rapidly










## STORE PROGRAMMING:

Press  to store multi-bit transmitter code and to finish basic programming. LEDs will automatically turn off starting at LED  and ending at LED .

The operator is now in operational (normal) mode .

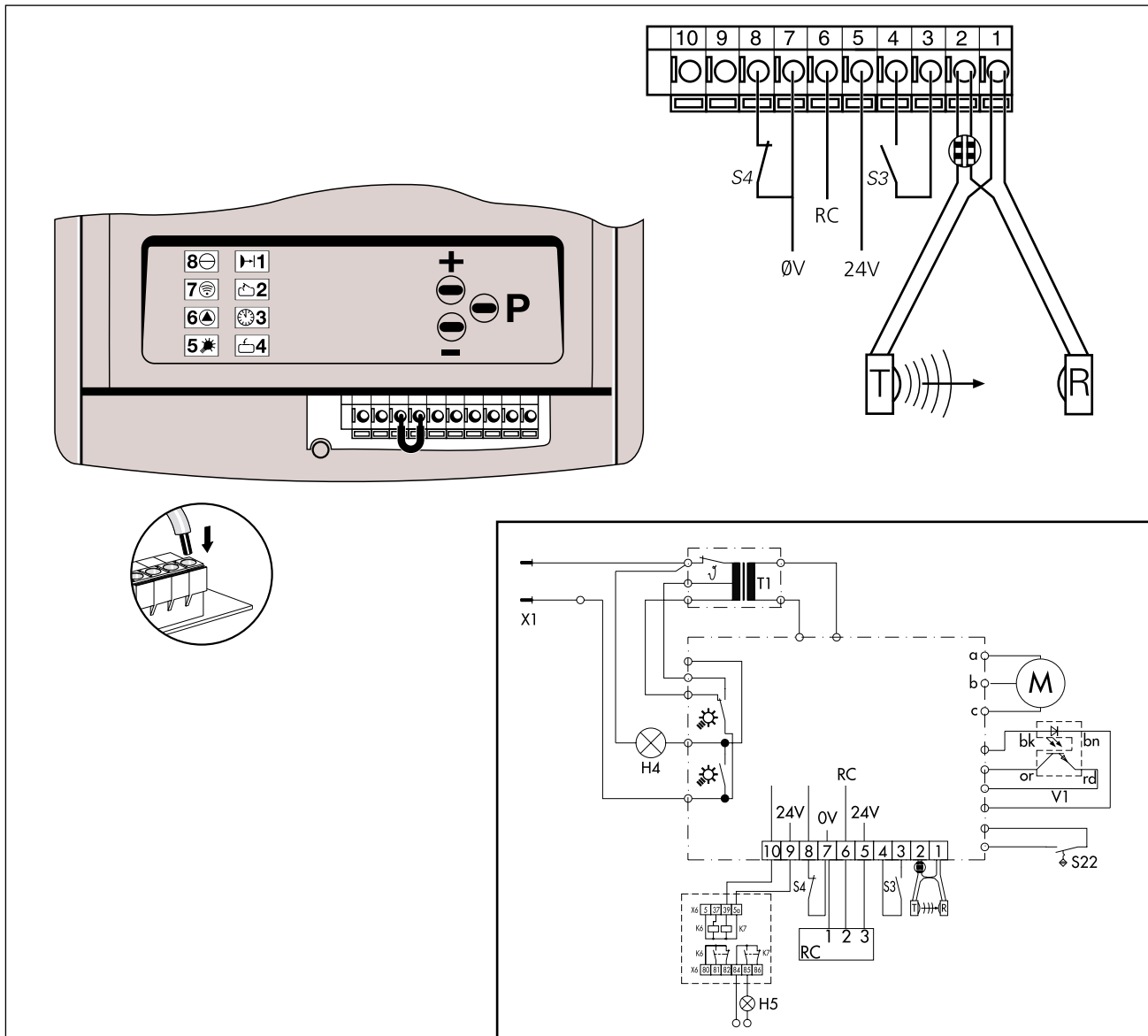
## MAKING ADJUSTMENTS:

To change the settings of an individual menu:

1. Press  for approximately 2 seconds until LED  blinks
2. Repeatedly press  until desired indicator blinks (e.g. LED  and LED  for programming maximal closing force). If an individual programming menu is skipped its settings remain unchanged.
3. Follow individual instructions for Program menu
4. Repeatedly press  to scroll through the menus. When you reach menu 6 pressing  again will finish the programming cycle. The LEDs will automatically turn off starting at LED  and ending at LED .

Please note that the operator will abort Programming mode and return to normal operating state if any of the three program buttons have not been touched for more than 30 seconds (error message 7).

## EXTERNAL CONNECTIONS



- M motor
- T1 transformer
- V1 RPM sensor
- S22 reference point switch
- T photocell transmitter
- R photocell receiver
- S3 push button IMPULSE
- S4 push button STOP
- X1 plug 1~N 220-240V 50Hz
- H4 light bulb
- H5 signal light
- 24V 24 VDC, 50mA max.
- 0V masse (ground)
- RC Relays contact

- bk black
- bn brown
- or orange
- rd red
- a brown
- b green/yellow
- c green

### Wall control (push button impulse):

It is possible to either connect a push button or a 3-function wall console with impulse, light on/off and an electronic vacation lock functions. When operator LED 8 burns and LED 7 flashes the 'vacation' lock is activated.

De-activate 'vacation' lock on 3-function wall console or by briefly pressing **EP** button on operator.

# TROUBLESHOOTING

Fault	Cause	Remedy
Indicator 8 does not glow.	No voltage.	Check mains supply. Check electric socket.
	Thermal protection in mains transformer activated.	Allow mains transformer to cool down.
	Defective control unit.	Cut off mains supply to operator. Remove lamp cover and motor cover. Unscrew control unit, pull slightly forward and withdraw the connecting plug. Remove control unit and have it checked.
Indicator 6 flashes. Fault 10	Automatic cut-out set too sensitively. Door operation too sluggish. Door blocks.	Re-set automatic cut-out to be less sensitive (Menu 4, Menu 5 page 12). Ensure door moves easily.
Indicator 6 flashes. Fault 6 or 15	External photocell defective or interrupted.	Remove obstruction or have photocell checked.
Drive only operates in "OPEN" but not in "CLOSE" direction. Fault 15	Photocell programmed, but not connected Menu 1 page 11.	Reprogramme photocell function or connect photocell.
No response on impulse. Indicator 7 glows.	Connecting terminals for "IMPULSE" button bridged, e.g. due to short-circuit or wrong terminal connection.	Temporarily isolate cabled key switches or interior push buttons from control unit. Remove plug, insert plug and look for cable fault.
No response on impulse. Fault 36	Short-circuit label removed, but "STOP" button not connected.	Connect "STOP" button.
If no external receiver: Indicator does not flash rapidly on impulse from hand transmitter	Hand transmitter coding is not consistent with receiver coding.	Check coding Menu 6, page 12.
	Flat battery.	Insert new 12V A 23 battery. Flashing LED in transmitter indicates battery condition.
	Hand transmitter or control unit defective.	Have both components checked.
Insufficient range of remote control (less than 5 m).	Flat battery in hand transmitter.	Insert new 12V A 23 battery. Flashing LED in transmitter indicates battery condition.
Indicator 6 flashes. Fault 9	RPM sensor defective.	Have operator checked.
	Door too sluggish.	Check door.
Transmitter command does not respond but wall control does (LED 8 on, LED 7 flashes)	Operator is in electronic 'vacation' lock	De-activate 'vacation' lock on 3-function wall console or by briefly pressing <b>EP</b> button on operator.

## LED flashes erratically

6

7

8

8 + 11

8 + 2

8 + 3

8 + 7

8 + 7 + 11

8 + 7 + 6 + 5 + 2

8 + 7 + 6 + 5 + 11

8 + 7 + 6 + 5 + 4 + 3 + 2 + 11

## Error number

6

7

8

9

10

11

15

16

28

27

36

## Fault

Photocell actuated

Programming aborted

Reference point switch defective

Defective RPM sensor  
Anti-lock system actuated

Power limit

Excess travel stop

Photocell self-monitoring unit not o.k.

Power limit self-monitoring unit

Learned power limit

Response sensitivity of power limit

Static current circuit broken

## OPERATOR PROGRAMMING - ADVANCED SETTINGS

Warning – Programming the advanced features of this operator must only be undertaken by fully trained and qualified personnel. Please contact your dealer for details.

### ADVANCED PROGRAMMING FEATURES:

- Set automatic closing (Level 3)
- Limit learned force (Level 4)
- Control external light relay (Level 5)

### Level 3 SET AUTOMATIC CLOSING:

Warning – When using this feature a beam break kit must be connected and programmed in accordance with Menu 1 in the basic settings.

#### MENU OVERVIEW Level 3:

- 1 Set door open period
- 2 Set warning phase
- 3 Set start-up warning
- 4 Set door to close after driving through beam break
- 5 Re-set level 3 menus

#### TO SET UP AUTOMATIC CLOSING:

Level 3 Menu 1

SET DOOR OPEN PERIOD (AUTOMATIC TIMER)

Operator is in normal operating mode

1. Press , and simultaneously for 10 seconds until LED blinks and all others are illuminated
2. Release whereafter LED blinks
3. Use and to change the door open period (time open)  
 minimum time: 5 seconds  
 maximum time: 255 seconds

timer	5	10	15	20	25	30	35	40	50	80	100	120	150	180	255
activated	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds

4. Press to store and go to Menu 2

**Level 3 Menu 2**

SET WARNING PHASE

After having programmed the automatic timer function LED **2** will blink.

1. Make sure LED **2** is blinking and all others are illuminated
2. Use **+** and **-** to change the warning phase  
 minimum phase: 2 seconds  
 maximum phase: 70 seconds

timer deactivated	2	5	10	15	20	25	30	35	40	45	50	55	60	65	70																		
	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds																		

3. Press **P** to store and go to Menu **3**.

**Level 3 Menu 3**

SET START-UP WARNING

1. Make sure LED **3** is blinking and all others are illuminated.
2. Use **+** and **-** to change the start-up warning phase  
 minimum phase: 0 seconds  
 maximum phase: 7 seconds

0 seconds	1 seconds	2 seconds	3 seconds	4 seconds	5 seconds	6 seconds	7 seconds																										

3. Press **P** to store and go to Menu **4**.

**Level 3 Menu 4**

SET DOOR TO CLOSE AFTER DRIVING THROUGH BEAM BREAK

1. Make sure LED **4** is blinking and all others are illuminated.
2. Use **+** and **-** to choose the required setting:
  - A. LED **1** blinking: Door will close after set door open period
  - B. LED **1** illuminated: Door will close immediately after driving through the Beam Break

Door will close after set door open period													Door will close immediately after driving through the Optical Sensor										

3. Press **P** to store and to finish setting up the automatic closing feature.

The LEDs will automatically turn off starting at LED **8** and ending at LED **1**. Operator is now in operational (normal) mode (recognizable by illuminated LED **8**) and possible LED **2** (door fully open) or LED **4** (door fully closed).

**Level 3 Menu 5**

**RE-SET LEVEL 3 MENUS:**

Press and hold and simultaneous for longer than 20 seconds.

Re-set is completed when LED's will automatically turn off starting at LED and ending at LED .

Operator is now in operational (normal) mode (recognizable by illuminated LED ) and possible LED (door fully open) or LED (door fully closed).

**Level 4 LIMIT LEARNED FORCE**

Warning – Changes to the force settings must only be undertaken by fully trained and qualified personnel. Please contact your dealer for details.

**MENU OVERVIEW Level 4:**

- 1** Set period light remains on
- 2** Set offset automatic learned force limitation
- 3** Set offset automatic learned force limitation in slow speed

**TO LIMIT THE LEARNED FORCE:**

- From the normal operating mode, press , and simultaneously for 10 seconds until LED blinks rapidly and all others are illuminated
- Continue to press and use or until LED blinks rapidly
- Release

**Level 4 Menu 1**

**SET PERIOD LIGHT REMAINS ON (💡)**

- LED blinks and all others are illuminated.
- Use or to set desired period  
 minimum phase: 90 seconds  
 maximum phase: 240 seconds

90	95	100	110	120	130	140	150	160	170	180	190	200	210	220	240	
seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds	seconds

- Press to store and go to Menu **2**

**Level 4 Menu 2**

**SET OFFSET AUTOMATIC LEARNED FORCE LIMITATION**

- LED blinks and all others are illuminated.
- Use or to change offset in increments of 1/15 of the maximum.  
 minimum offset: 1/15  
 maximum offset: 15/15

deakti- vated	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15	13/15	14/15	15/15	

- Press to store and go to Menu **3**

**Level 4 Menu 3**

**SET OFFSET AUTOMATIC LEARNED FORCE LIMITATION IN SLOW SPEED**

- LED blinks and all others are illuminated.
- Use or to change offset in increments of 1/15 of the maximum.  
 minimum offset: 1/15  
 maximum offset: 15/15

deakti- vated	1/15	2/15	3/15	4/15	5/15	6/15	7/15	8/15	9/15	10/15	11/15	12/15	13/15	14/15	15/15				

- Press to store and to finish setting up the learned force settings.

The LEDs will automatically turn off starting at LED and ending at LED . Operator is now in operational (normal) mode (recognizable by illuminated LED ) and possible LED (door fully open) or LED (door fully closed).

**Level 5 CONTROL EXTERNAL LIGHT**

Your operator allows the connection of an external signal light provided the optional external light relay kit is connected and the automatic closing function is activated.

Signal lights can be programmed to be: - constant illuminated signal light  
 - blinking signal light

**MENU OVERVIEW Level 5:**

- Set timed security cut-out
- Set external signal lights
- Programming lighting
- Programming external light relay kit

**TO PROGRAM THE EXTERNAL LIGHT:**

- From the normal operating mode, press , and simultaneously for more than 10 seconds until LED blinks rapidly and all others are illuminated
- Continue to press and use or until LED blinks rapidly
- Release

**Level 5 Menu 1**

**SET TIMED SECURITY CUT-OUT (MAX TRAVEL TIME)**






- LED blinks and all others are illuminated.
- Use or to change value  
 minimum phase: 30 seconds  
 maximum phase: 240 seconds

















30 seconds	40 seconds	50 seconds	55 seconds	65 seconds	80 seconds	100 seconds	120 seconds	140 seconds	160 seconds	180 seconds	190 seconds	200 seconds	210 seconds	220 seconds	240 seconds				

- Press to store and go to Menu

**Level 5** Menu **2**

SET EXTERNAL SIGNAL LIGHTS (☀/🚪)






1. LED  blinks and all others are illuminated.
2. Use  or  to set the signal light function  
LED  blinks: external signal will be illuminated  
LED  illuminated: external signal will blink

















        external signal will be illuminated	        external signal will blink
---	--

3. Press  to store and go to Menu **3**

**Level 5** Menu **3**

PROGRAMMING LIGHTING (💡/💡)






1. LED  blinks and all others are illuminated.
2. Use  or  to set the signal light function  
LED  blinks: operator light will be illuminated during warning phase  
LED  illuminated: operator light will blink during warning phase

















        operator light will be illuminated during warning phase	        operator light will blink during warning phase
---	--

3. Press  to store and go to Menu **4**






**Level 5** Menu **4**

PROGRAMMING EXTERNAL LIGHT RELAY KIT

1. LED  blinks and all others are illuminated.
2. Use  or  to set the light function  
LED  blinks: external light will be illuminated during lighting phase  
LED  illuminated: external light relay 30 seconds alarm signal on actuation of the safety reverse device

        External light will be illuminated during lighting phase	        External light 30 seconds alarm signal on actuation of the safety reverse device
--	--

3. Press  to store and to finish setting up the external light.

The LEDs will automatically turn off starting at LED  and ending at LED  .  
Operator is now in operational (normal) mode (recognizable by illuminated LED  )  
and possible LED  (door fully open) or LED  (door fully closed).

## PROGRAMMING OVERVIEW MODEL B-SERIES

### Basic Programming **Level 1**

Press **OP** for approximately 2 sec. until **|1|** blinks and all other burn

- Menu **1**  
set photocell
- Menu **2**  
set door OPEN position
- Menu **3**  
set door CLOSE position
- Menu **4**  
set maximum lift force (door open movement)
- Menu **5**  
set maximum push force (door close movement)
- Menu **6**  
learn transmitter code  
(if internal on-board transmitter)

### Advanced Programming **Level 3**

Press **OP**, **+** and **-** for 10 sec. and hold **OP**. Press **+** until **|3|** blinks.

- Level 3** Menu **1**  
programming door open period  
(only when fotocell installed!)
- Level 3** Menu **2**  
programming warning phase
- Level 3** Menu **3**  
programming start-up warning
- Level 3** Menu **4**  
programming early closing
- Level 3** Menu **5**  
Re-set Level 3 Menus

### Advanced Programming **Level 4**

Press **OP**, **+** and **-** for 10 sec. and hold **OP**. Press **+** until **|4|** blinks.

- Level 4** Menu **1**  
set lighting phase
- Level 4** Menu **2**  
offset auto learned force
- Level 4** Menu **3**  
offset auto force limit in slow speed

### Advanced Programming **Level 5**

Press **OP**, **+** and **-** for 10 sec. and hold **OP**. Press **+** until **|5|** blinks.

- Level 5** Menu **1**  
set max. travel time
- Level 5** Menu **2**  
programming external lights
- Level 5** Menu **3**  
programming lighting
- Level 5** Menu **4**  
programming external light relay kit

## TECHNICAL SPECIFICATIONS

### KSC-series Garage Door Operator

#### Connected loads:

230 V  
250 W (in operation with lighting)  
3.9 W (out of operation without lighting)

#### Door travel speed:

0.14 m/s with "soft" start and "soft" stop

#### Push and pull force:

1000 N

#### Excess travel stop:

88 secs.

#### Lighting:

1 x 40 W E14

#### Control voltage:

Low voltage below 24 V DC.

#### Automatic timer:

With additional relay for signal lights connection and photocell to monitor the through-traffic area (both items available as accessories).  
Warning phase adjustable from 2 to 70 seconds.  
Open phase adjustable from 5 - 255 seconds.

#### Automatic cut-out:

Electronic power limit through microprocessor and power sensor.

#### Anti-Block system:

Through microprocessor and RPM sensor.

#### Device to prevent forced opening of door:

Electronic back-drive prevention by permanent protection of the closed door position.  
Door will automatic close after ca. 1cm detected unauthorized reverse movement.

#### Protection category:

For dry buildings only.

**⚠ Attention:** Observe local regulations!  
Always lay mains cable (230V) and control wire (low voltage) separately.

**⚠ Attention:** Only operate garage door when certain there is no person or object in garage door opening and travel path.

### Maintenance

This garage door operator is virtually maintenance-free.

However, all movable parts of the door and operator system should be checked regularly and kept in an easily movable condition.

The OPEN and CLOSE automatic cut-out settings should be checked regularly.

The door must be running smoothly and regularly maintained. Check the lifting regularly.



## Manufacturers Declaration

We hereby declare that the product referred to below, with reference to its design, construction and to the version as marketed by us, conforms to the relevant safety and health requirements contained in the European Council Directives pertaining to electromagnetic compatibility, machines and low voltage.

This declaration becomes null and void in the event of modification or changes to the product not expressly agreed with us.

### E-King KSC-series

Relevant European Council Directives pertaining to electromagnetic compatibility (89/336/EEC, 93/68/EEC and 93/44/EEC), machines (89/392/EEC, 91/368/EEC, 93/68/EEC and 93/44/EEC) and low voltage (73/23/EEC, 93/68/EEC and 93/44/EEC).

To agreed standards: EN55014  
EN60555-2  
EN60555-3  
EN40082-1  
EN60335-1

To National standard and technical specification:  
ETS300220

July 1, 1998 A.M.Q. Enneking

Date / Signature

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P.O. Box 75089  
1070 AB Amsterdam

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