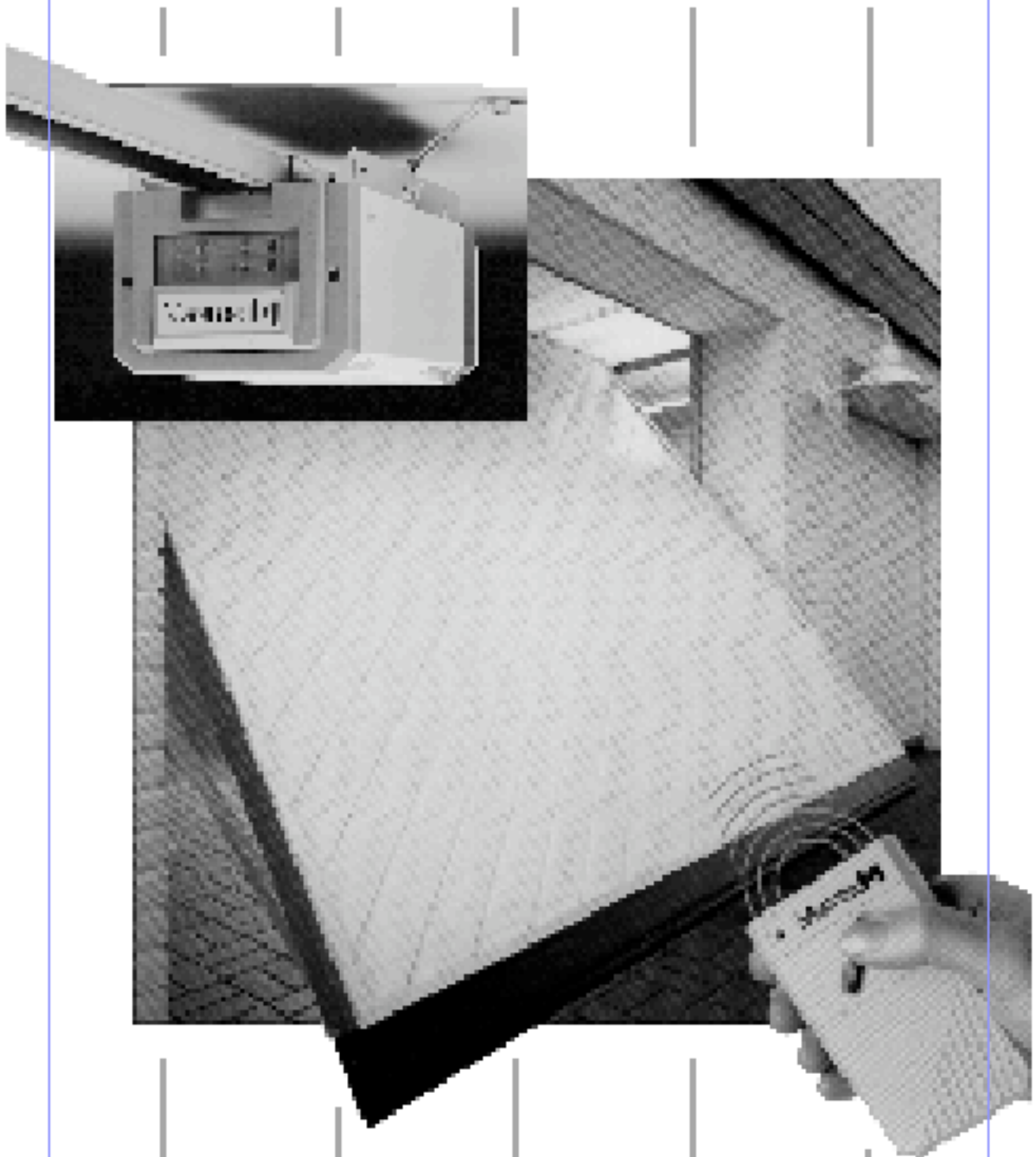
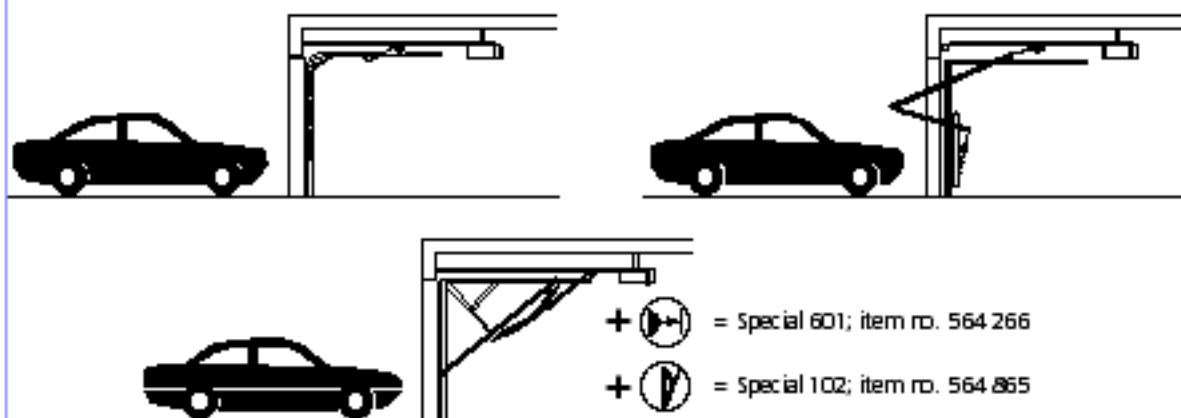


# Comfort 240

## Installation Instructions



Please follow the installation and fitting instructions carefully to avoid wrong installation or damage to the door and door operator. Keep these instructions for later reference.



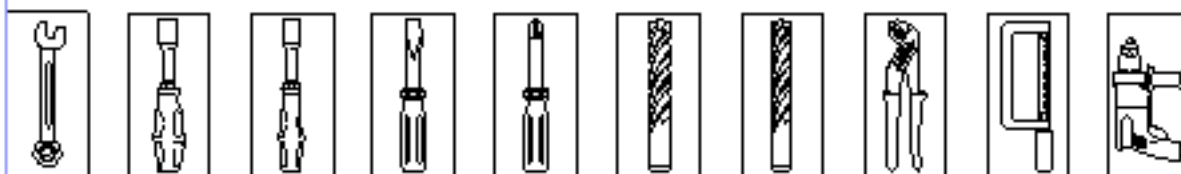
1

Unpack the boom, motor housing and accessories ready for installation.

2

The following tools are required:

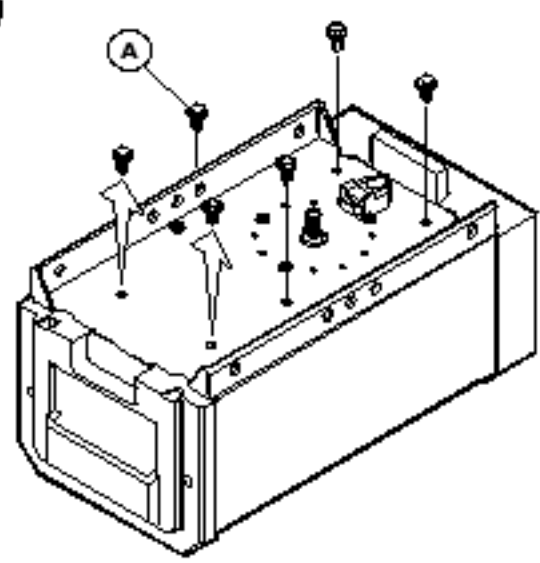
- combination wrench SW 10
- combination wrench SW 13
- Socket wrench SW 10
- Socket wrench SW 13
- screwdriver  $\zeta$  size 8
- screwdriver  $\zeta$  size 5
- Phillips screwdriver  $\zeta$  size 2
- masonry drill 10 mm dia.
- masonry drill 6 mm dia.
- metal drill 5 mm dia.
- pliers
- hack saw
- electric drill



**Important!**

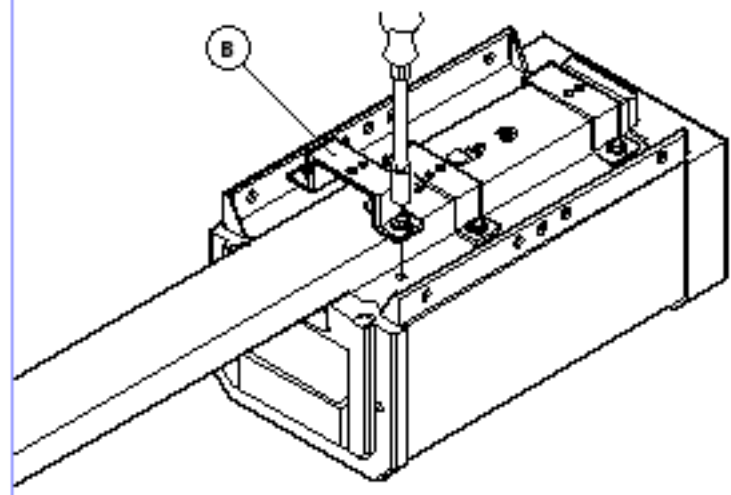
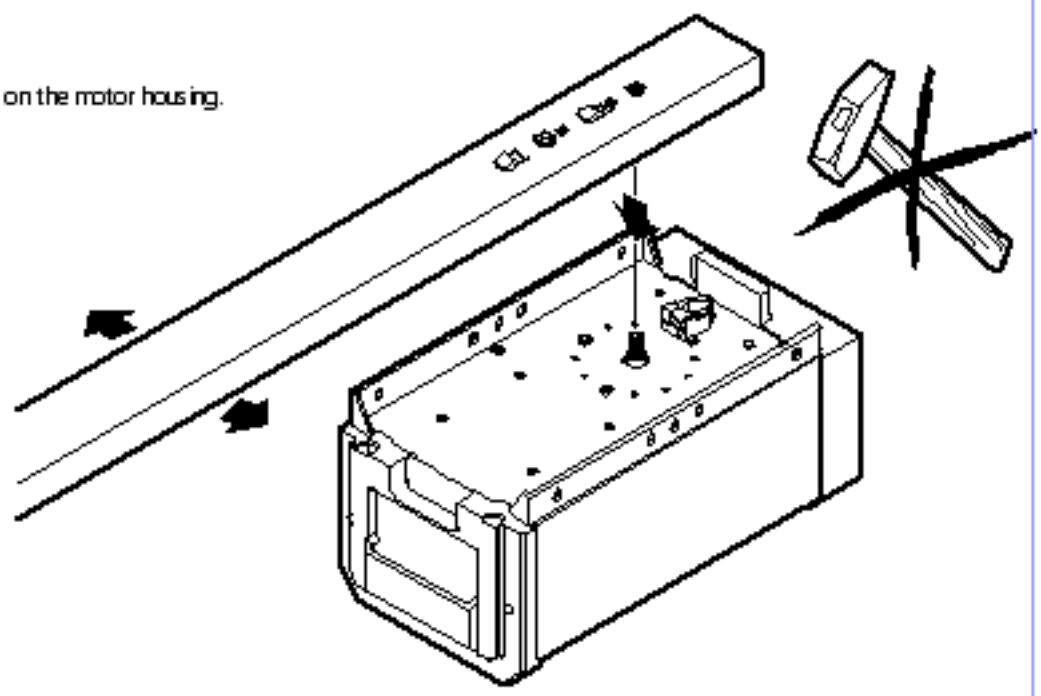
Before drilling, cover over the motor with foil, film or cardboard.  
Drilling dust and chippings can lead to malfunctions.

3



Unscrew the 6 locking screws (A).

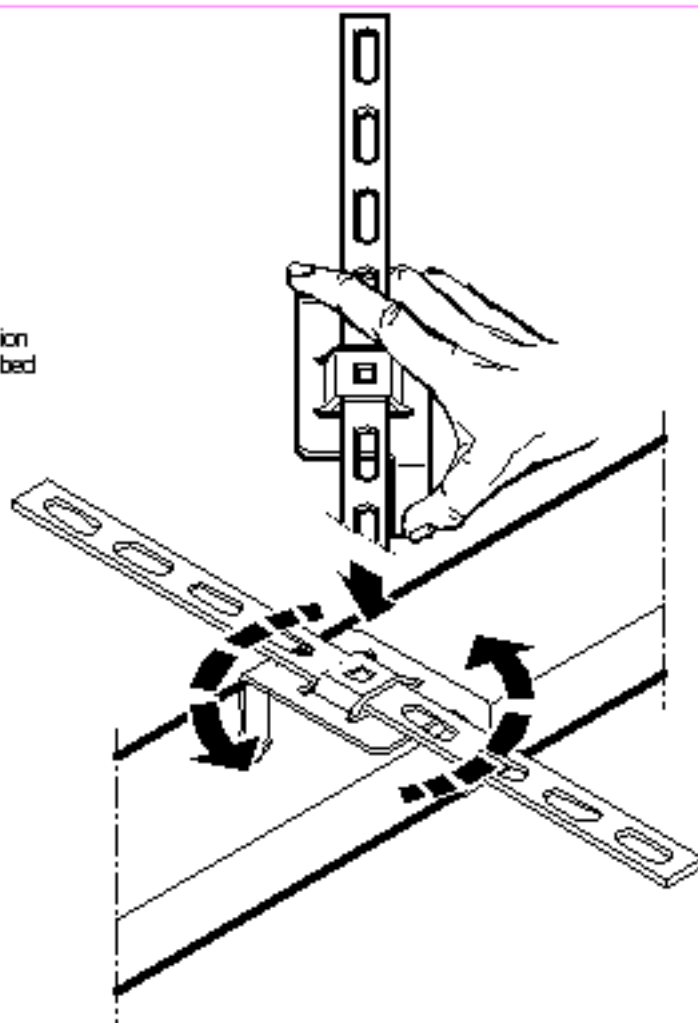
Place the boom on the motor housing.



Screw the boom to the motor housing using 3 clamp straps (B).

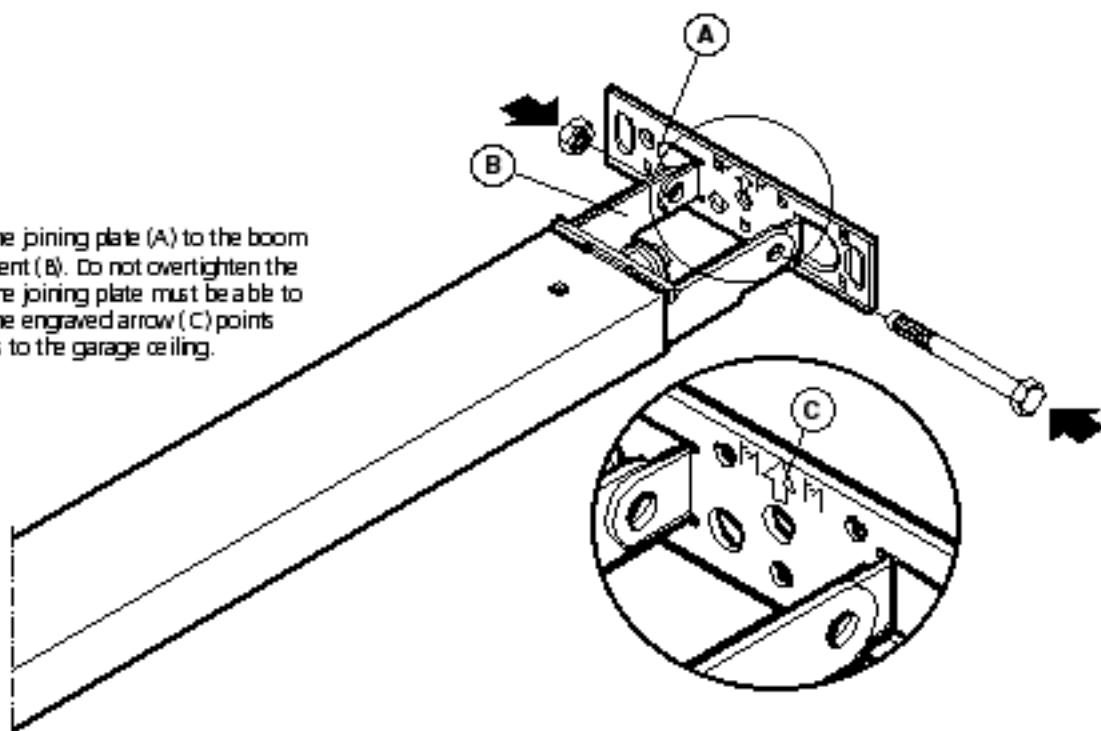
4

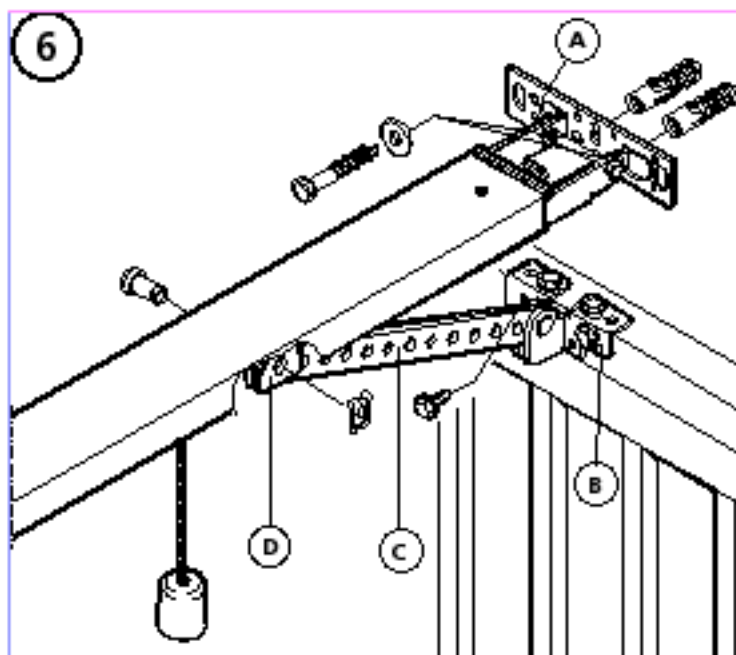
Attach the support clamp to the boom. The function and positioning of the support brackets are described later on in these instructions.



5

Screw the joining plate (A) to the boom attachment (B). Do not overtighten the nut as the joining plate must be able to pivot. The engraved arrow (C) points upwards to the garage ceiling.





#### Up-and-over doors:

Screw joining plate (A) with boom onto the top surround, lintel or ceiling, making sure that the top edge of the door at its highest point of opening clears the bottom edge of the boom by 10 mm (see pt. 10).

Screw the door link bracket (B) onto the top edge of the door (5 mm dia. drill). Connect door link (C) to carriage (D) and door link bracket.

Put door locks or put them out of operation.

7

#### Sectional doors:

Sectional door fitting is required: item no. 564 611 (not part of Comfort 240 supply package).

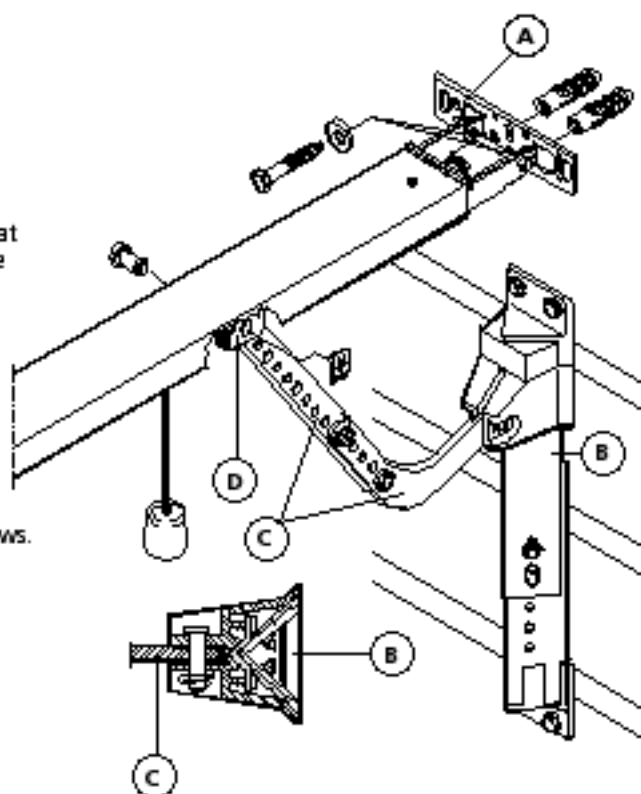
I Fit the joining plate (A) with boom to the lintel or ceiling using plugs, positioning the top door section at its highest point of opening to clear the bottom edge of the boom by 10 mm (see pt. 10).

II Fix the adjustable door connector attachment (B) to the top door section. For steel sections, use a 5 mm dia. drill.

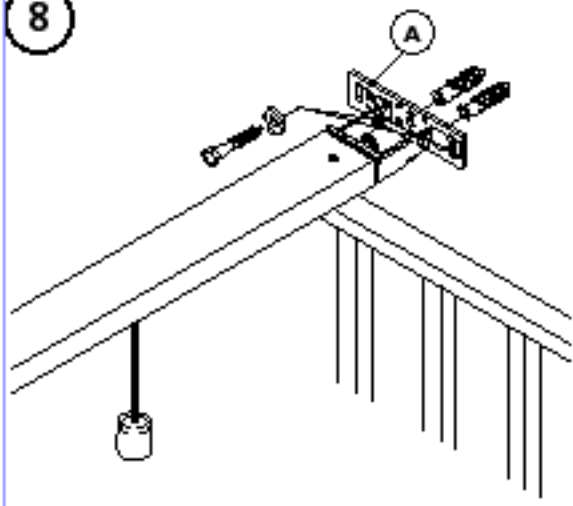
- If necessary, the drive unit can be installed 200 mm off-centre.
- For wooden sections, use the supplied wood screws.

III Connect the 2-piece door link (C) to carriage (D) and door connector attachment (B).

Remove door locks or put them out of operation.



8



**Canopy and non-protruding up-and-over doors:**

Special 102 adapter arm, item no. 564 865 and Special 601 photocell, item no. 564 266 are required (not part of the Comfort 240 supply package).

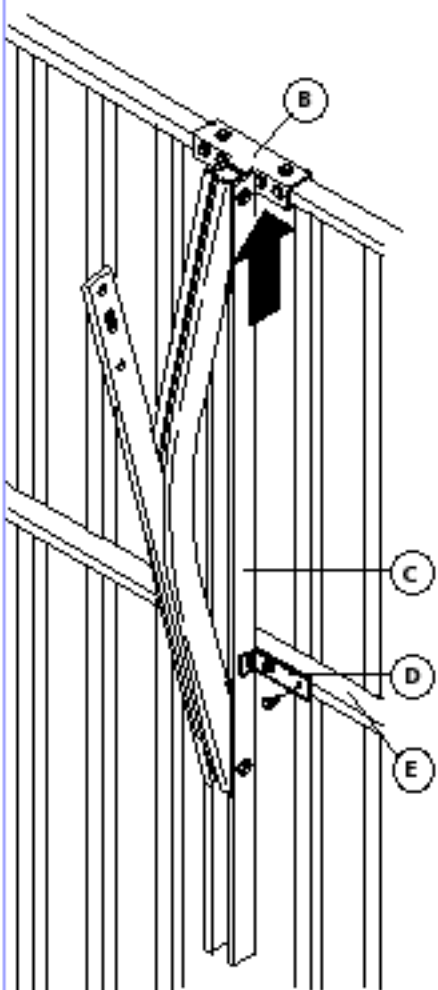
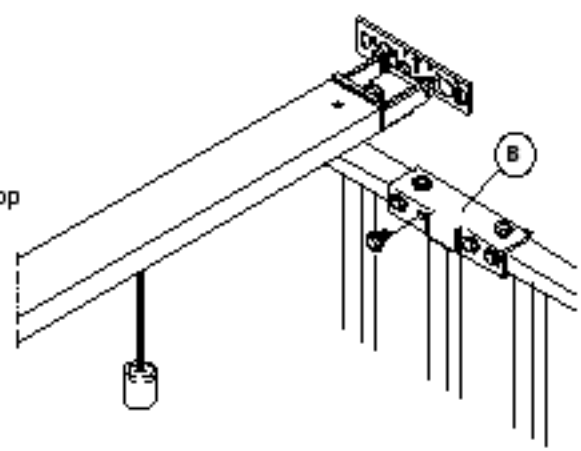
Before installing the drive unit, remove the door locks or put them out of operation.

Screw the joining plate (A) with boom to the top of the door surround, lintel or ceiling in such a way that the top edge of the door at its highest point of opening clears the bottom edge of the boom by at least 10 mm (see pt. 10). Until subsequently fixed to the ceiling, support the drive unit housing using a trestle or other suitable object.

**Fitting the adapter arm :**

Screw support bracket (B) with 6 self-tapping screws to the top edge of the door (5 mm dia. drill).

The support bracket and boom meet centre to centre.

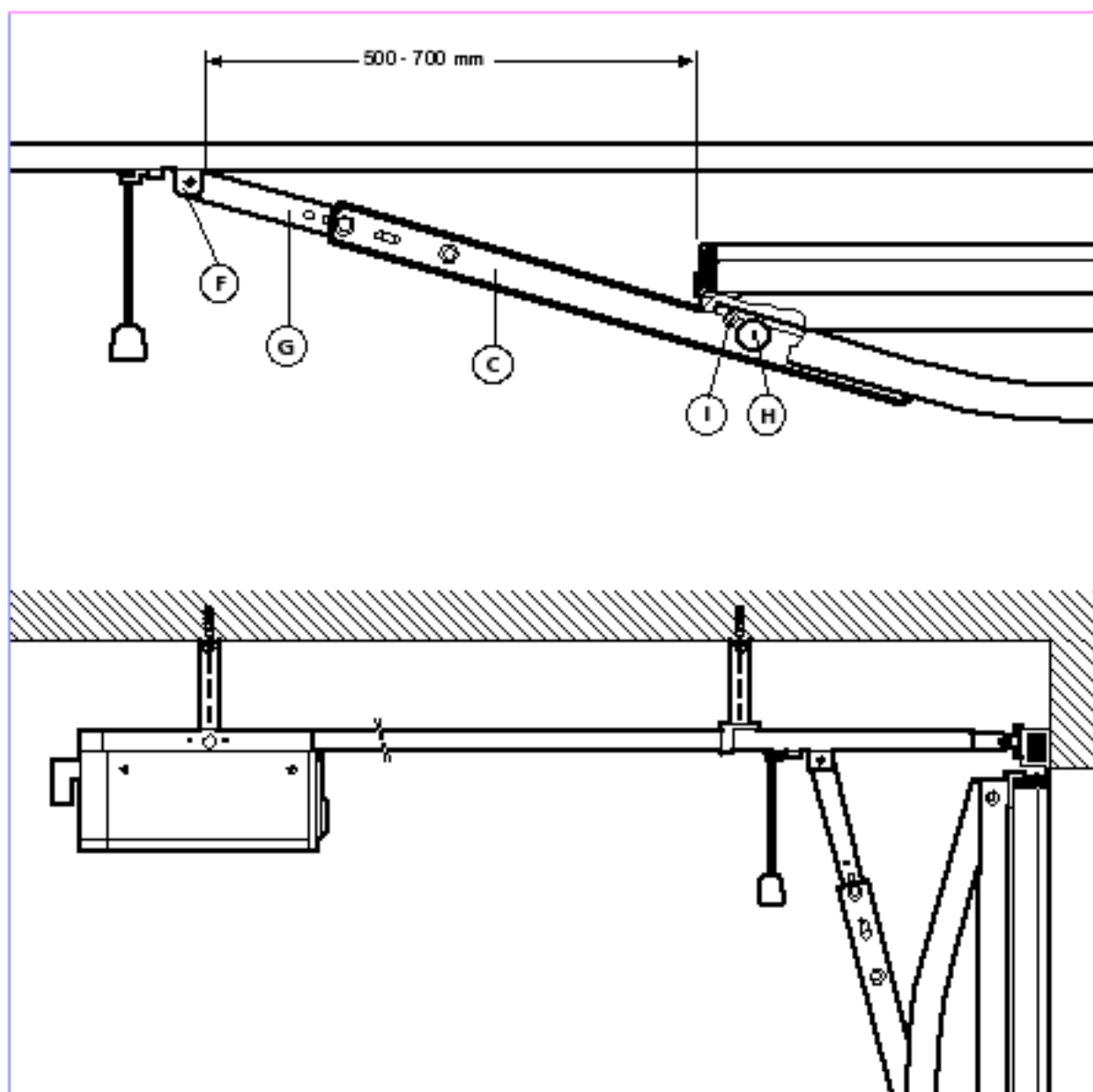


Slot adapter arm (C) into support bracket (B) and using two angle plates (D) screw to the cross struts of the door (E).

(5 mm dia. drill hole) in the door cross struts (4x)

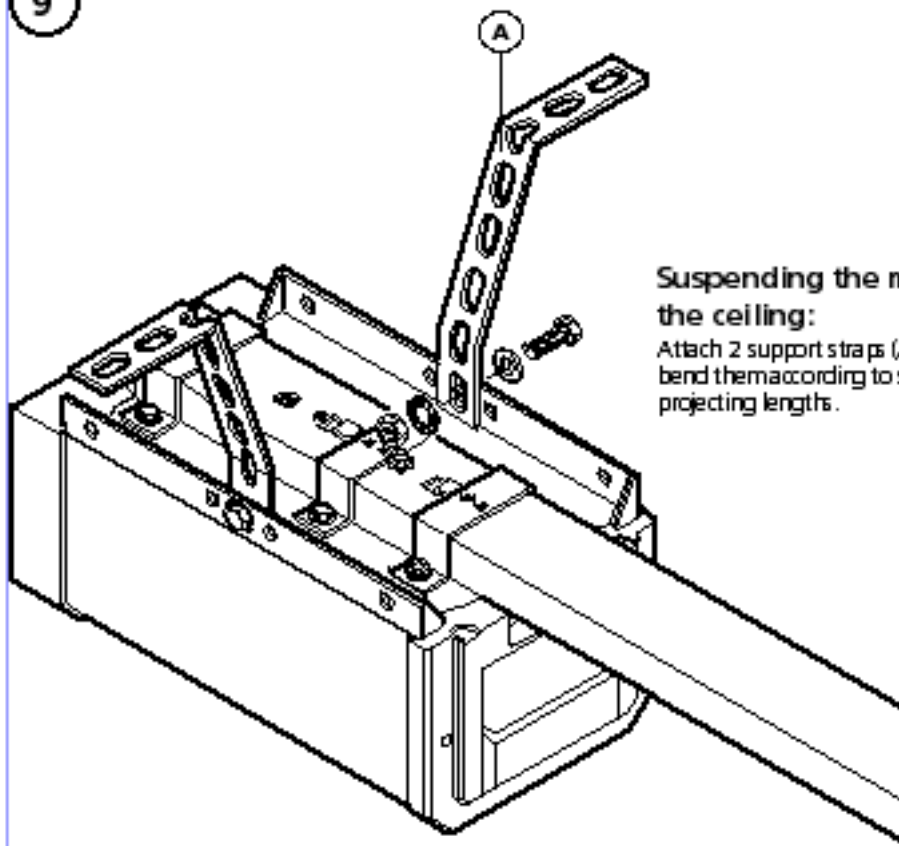
(7 mm dia. drill hole) in the adapter arm (2x).

The angle plates are screwed to the adapter arm using two M6 x 10 screws and hex nuts.



Open the door fully, connect carriage (F) and linking bar (G) to the adapter arm (C) observing the given dimensions. By lowering the carriage and extending the linking bar, the door opening is enlarged. The linking bar may only be pulled out to the extent that the internally located pressure rollers (H) do not abut against the check screws (I).

9

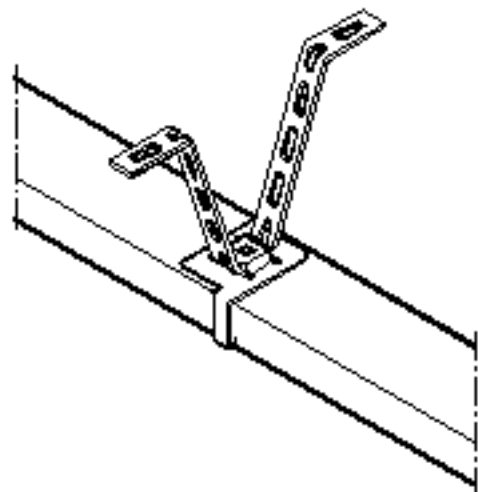


**Suspending the motor housing from the ceiling:**

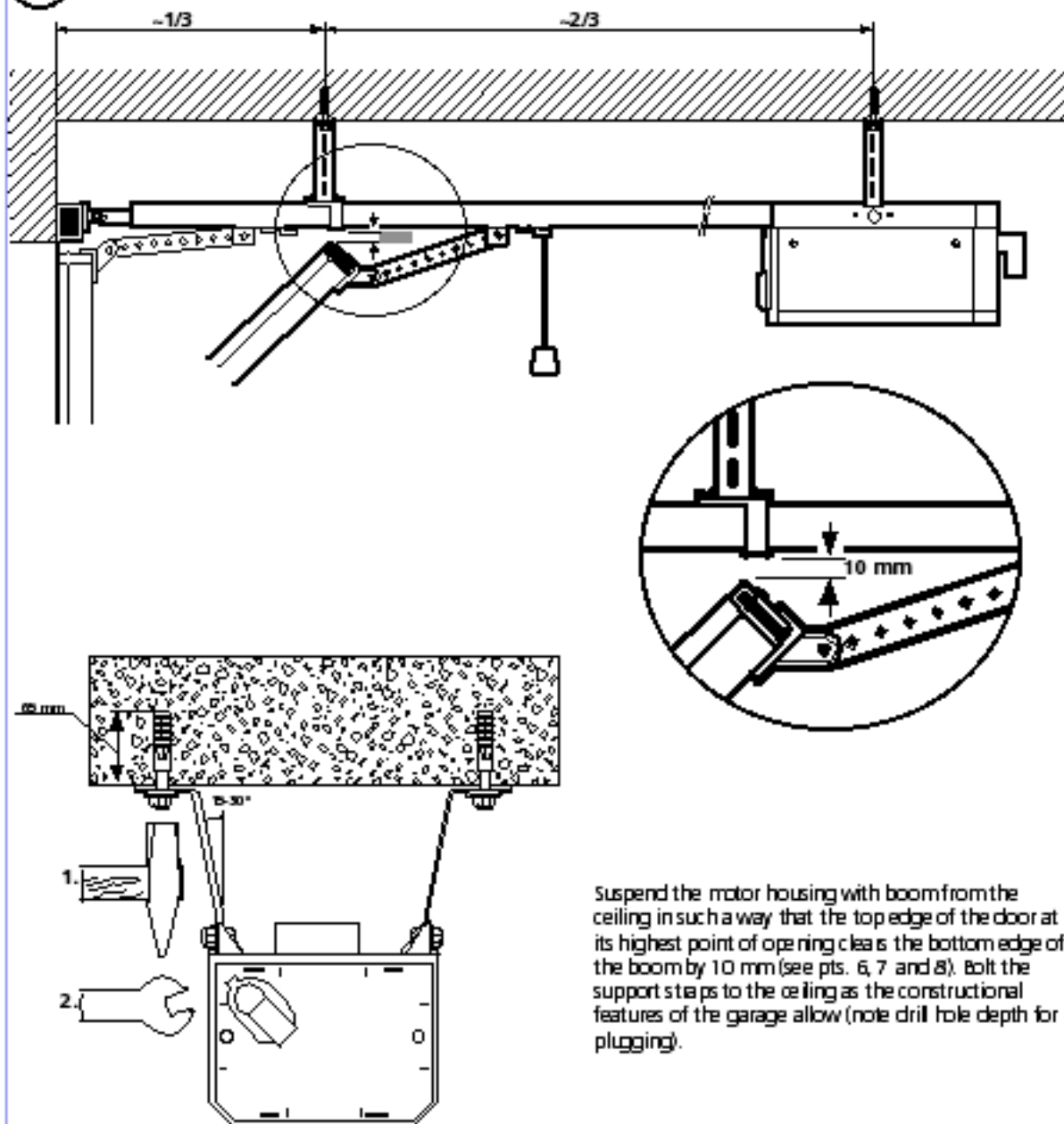
Attach 2 support straps (A) to the motor housing and bend them according to site requirements. Saw off any projecting lengths.

**Suspending the boom from the ceiling:**

Push one support strap through the support clamp and bend projecting lengths as illustrated. Positioning of boom support as per fig. 10.



10

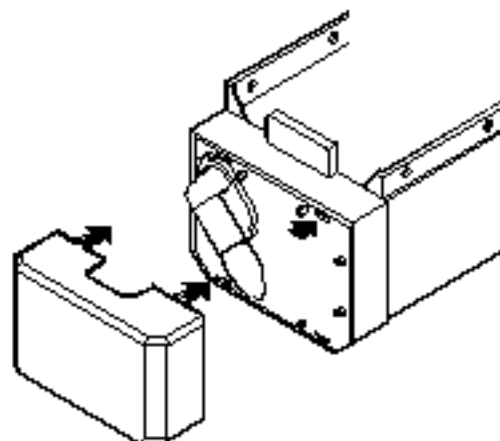


Suspend the motor housing with boom from the ceiling in such a way that the top edge of the door at its highest point of opening clears the bottom edge of the boom by 10 mm (see pts. 6, 7 and 8). Bolt the support stays to the ceiling as the constructional features of the garage allow (note drill hole depth for plugging).

11

Screw in the light bulb (max. 40 Watt) and clip on the lamp cover. After impulse operation, the light bulb stays on for a approx. 3 minutes.

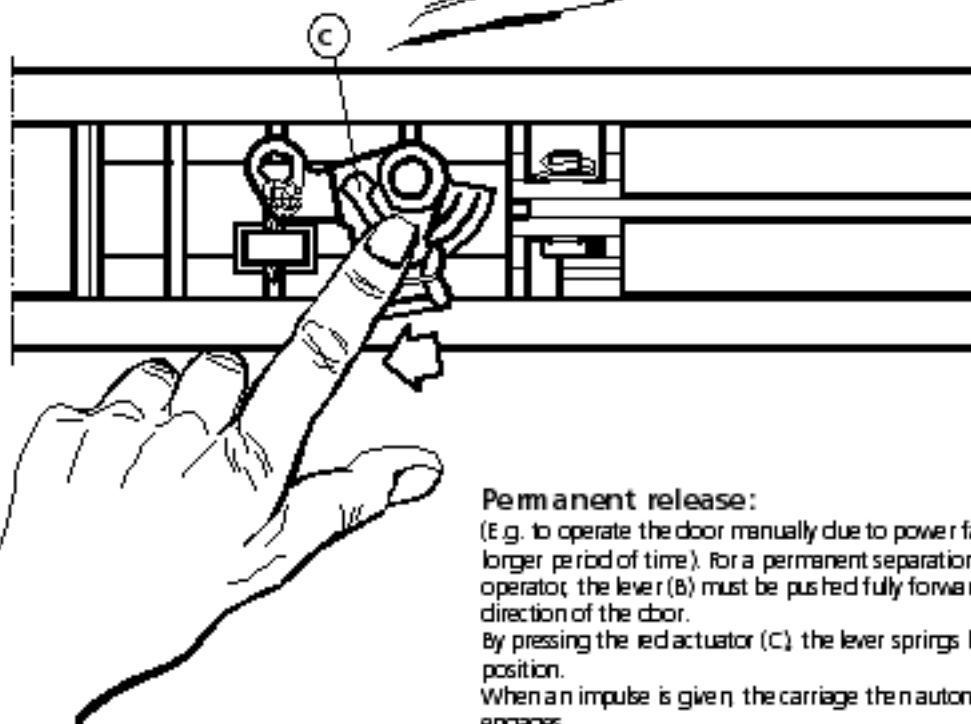
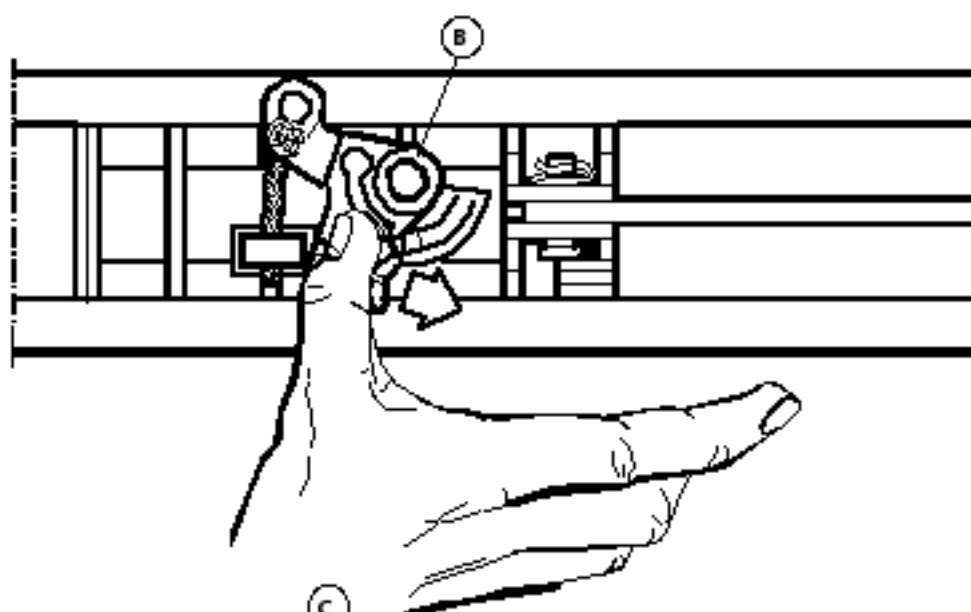
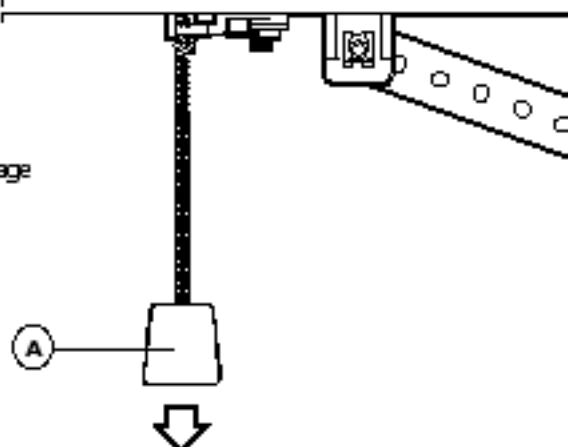
Light bulbs are not covered by the guarantee.



12

**Quick release:**

Pull the cord knob (A) to separate the door from the operator.  
When an impulse is given whilst the door is released, the carriage will automatically re-engage.



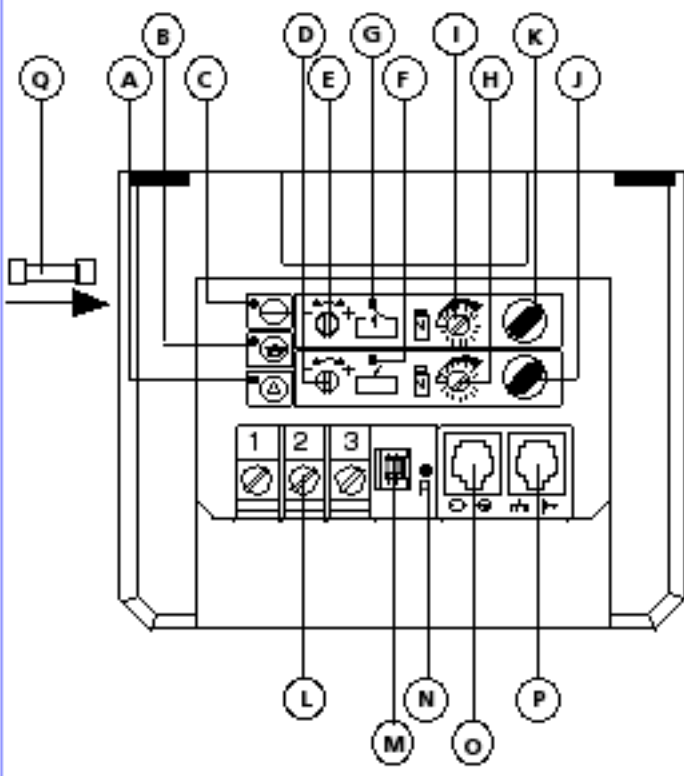
**Permanent release:**

(E.g. to operate the door manually due to power failure for a longer period of time). For a permanent separation of door and operator, the lever (B) must be pushed fully forward in the direction of the door.

By pressing the red actuator (C) the lever springs back to its home position.

When an impulse is given, the carriage then automatically re-engages.

13

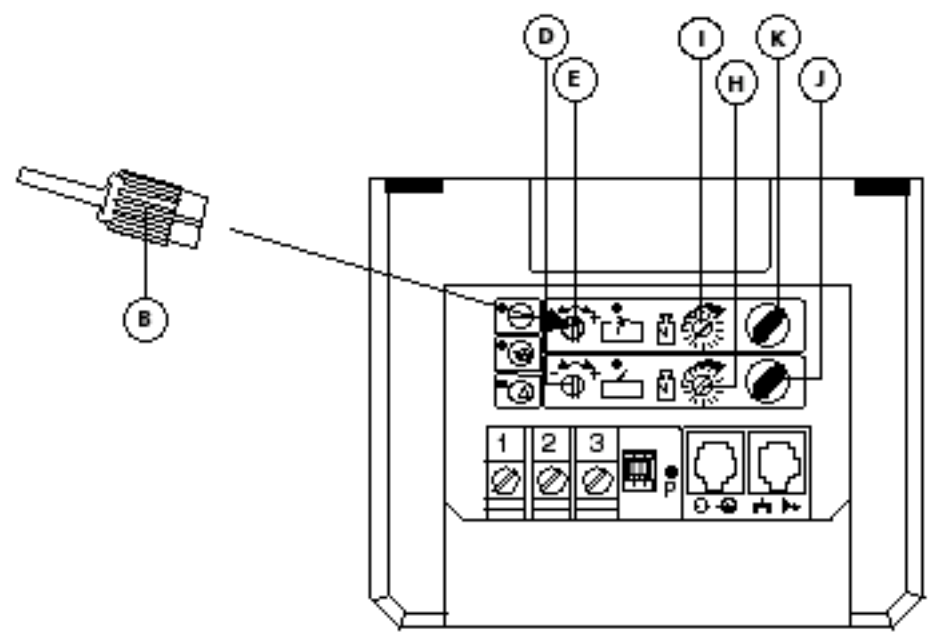


Symbols	Explanation
	on, mains voltage
	impulse
	malfunction
	Door open
	Door close
	power limit
	external connecting terminals
	2-digit code switch
	hole for programming button
	stop button
	external control elements
	electronic aerial
	external photocell, transmitter

**Electronic controls:**

- A Malfunction indicator lights up red - when automatic cut-out actuated  
- when travel time limit actuated
  - B Impulse indicator flashes red - when external photocell defective or interrupted  
lights up yellow - when button pressed  
flashes yellow - when reference point passed  
- on valid signal from hand transmitter  
- on programming of remote control
  - C Power supply indicator lights up green - when voltage ok
  - D Travel limit adjusting screw "close"
  - E Travel limit adjusting screw "open"
  - F Indicator "close" - lights up when closing limit is reached
  - G Indicator "open" - lights up when opening limit is reached
  - H Automatic safety cut-out adjusting screw "close".  
Turn clockwise for more thrust power.
  - I Automatic safety cut-out adjusting screw "open".  
Turn clockwise for more pulling power.
  - J Test button "close"
  - K Test button "open"
  - L Connecting terminals for external impulse buttons (if installed)
  - M 1 - Programming switch for connecting external "stop" button  
2 - Programming switch for connecting external photocell
  - N Hole for programming button for coding the remote control
  - O Plug socket for "external control elements"
  - P Plug socket for "electronic aerial", "external photocell"
  - Q Mains fuse 2.5 A max.
  - R Motor fuse 10 A max.
- } The most sensitive setting is at the 12 o'clock position.  
To return to the previous setting, complete one full turn (adjustable in 16 stages).
- } Access possible after disconnecting from the mains and removing the control unit.

14



**Test run and adjustment of the automatic safety cut-out:**

Connect to the mains and make a test run by activating one of the test buttons (J or K).  
The door travels in the corresponding direction and must have reached its final 'open' and 'close' positions (travel limits).  
Adjust the automatic cut-out using the adjusting pin clipped to the inside of the front cover.  
Adjusting screw I = operating direction "open" (pulling power)  
Adjusting screw H = operating direction "close" (thrust power)  
Turn clockwise to increase the pulling and thrust power.  
Set the automatic cut-out to be as sensitive as possible (150 N max.).

**Check the function regularly!**

**Adjustment of the travel limits:**

Using the adjusting pin (B) to turn the travel limit adjusting screws (D or E) = "open" and = "close", the distance of travel can be increased or reduced as required.  
Turning in the direction of (+) increases the distance of travel, whilst turning in the direction of (-) reduces the distance of travel.  
The travel limit adjusting screws are notched in stages, one notch representing an adjustment in the distance of travel of approx. 3 mm. As soon as the set travel limits are reached, the corresponding LEDs in the electronic control unit light up.

15

### Hand transmitter:

- A Flashing battery control
- B Operation button
- C Battery compartment cover
- D 9V battery IEC 6F22

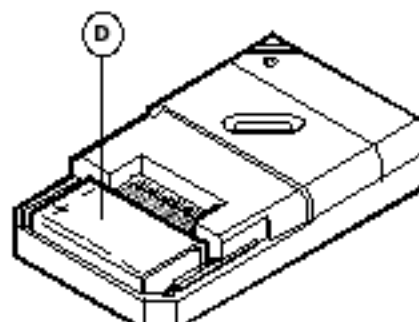
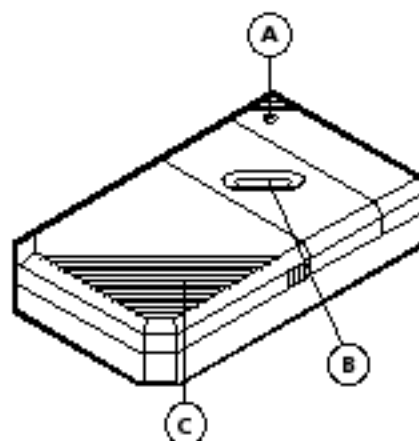
To change and insert the battery, push the cover (C) to one side and slide back.

When changing the battery, be sure to pole correctly.

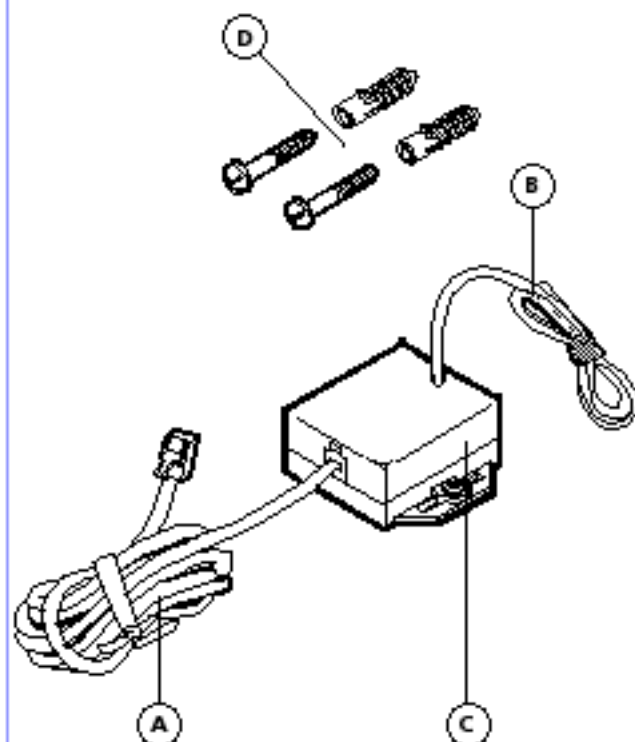
Batteries are not covered by the guarantee.

### Attention!

Never use the hand transmitter without making sure that neither people nor objects stand in the travel area of the door.  
Keep hand transmitters out of the reach of children!



16



### Electronic aerial:

- A Connecting cable to control unit with plug
- B Aerial cordon
- C Box (with 2 holes for screw mounting)
- D Fixings

Plug the connecting plug into the electronic control unit (see pt. 17).

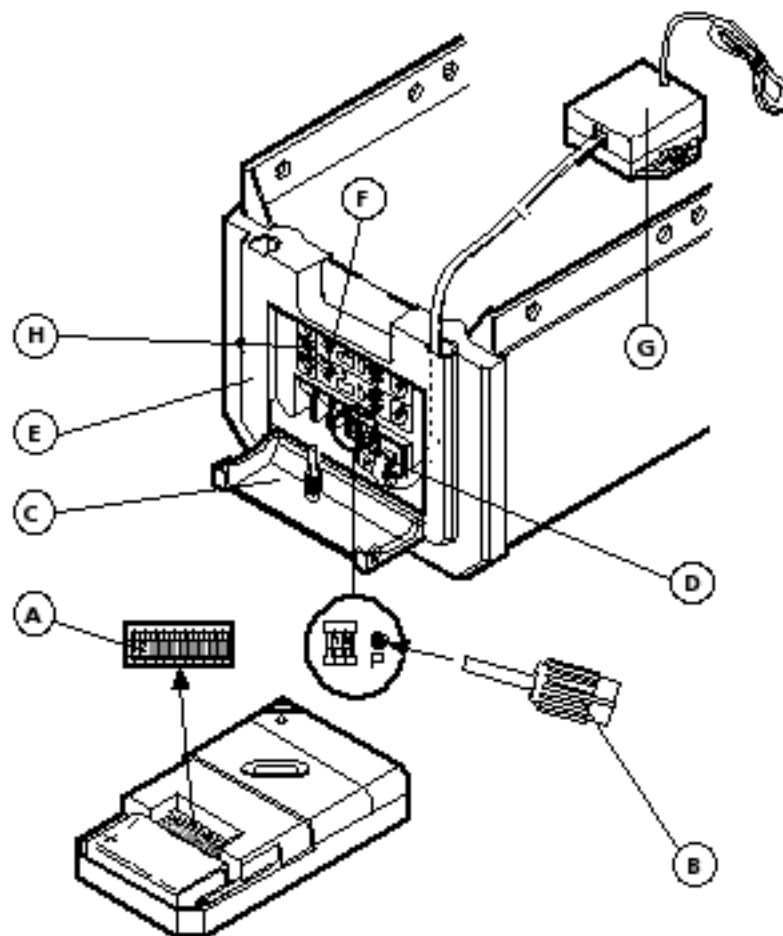
Unroll the connecting cable completely.

After coding and putting the hand transmitter into operation (see pts. 15 and 17), position the box (C) to achieve a good range.

Install away from the door as steel doors have a screening effect. When the optimum range has been achieved, mount the box to the ceiling or wall.

Roll out the aerial cordon (B) and align it.

The range may vary with different digital security codings.



### Connecting the electronic aerial and coding the hand transmitter:

- A 10-digit code switches in the hand transmitter
- B Adjusting pin for setting code switches and programming button P
- C Control unit front cover
- D Connecting plug to electronic aerial
- E Drive unit front panel
- F Control unit
- G Electronic aerial
- H Impulse indicator

Open the front cover (C). Feed the electronic aerial connecting cable with plug (D) through the drive unit front panel (E) and plug into the control unit.

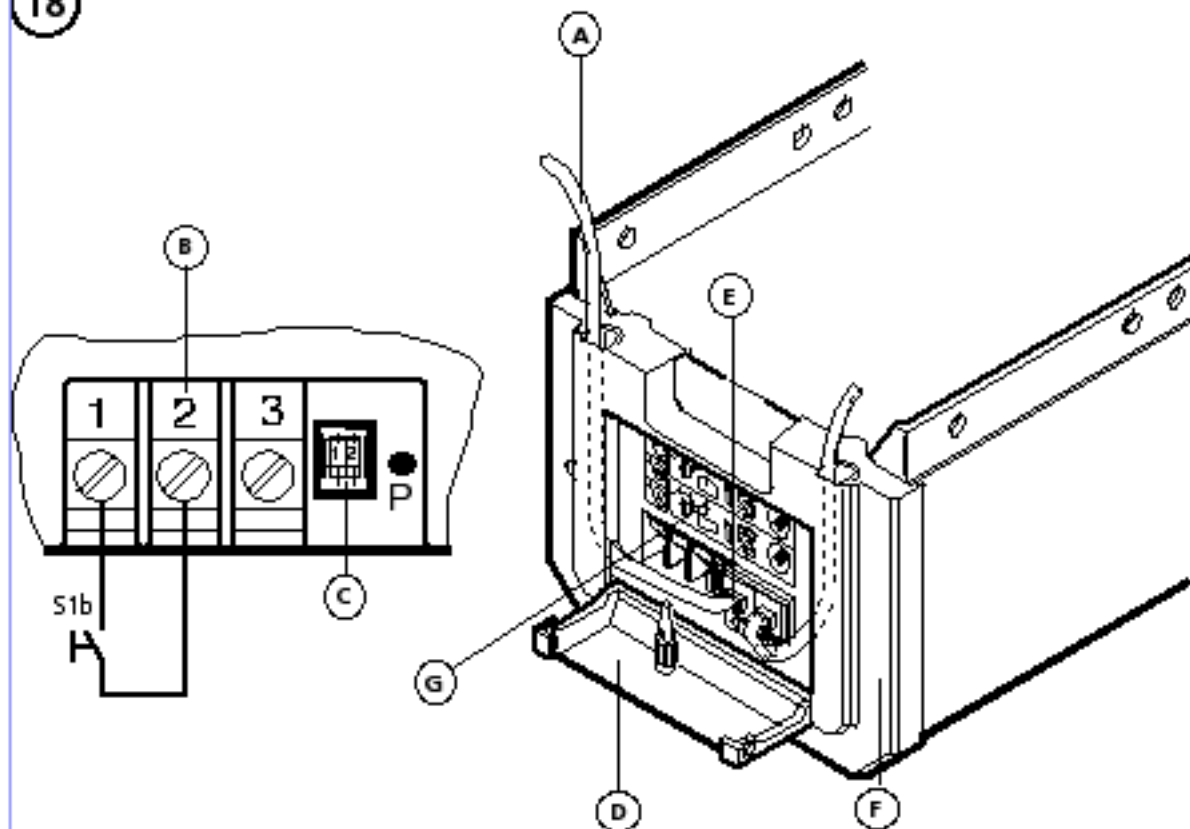
There is an adjusting pin inside the front cover for setting the code switches. Set the positions of the 10-digit code switches (A) nos. 1 - 10 in the hand transmitter (personal code). There are 1024 possible codes.

Using the adjusting pin (B) activate the programming button P for approx. 2 seconds until the indicator (H) starts to flash. Code the hand transmitter until indicator (H) starts to flash quickly. The coding is now stored and remains stored even in the event of a power failure. Operating the hand transmitter again allows the door to be opened or closed.

If after approx. 30 seconds no valid signal has been received from the hand transmitter, the coding procedure is automatically terminated. In the case of the multi-channel hand transmitter, operate the corresponding button.

On completing the coding, close the front cover.

18







### Connection of external control elements and function of the 2-digit code switch

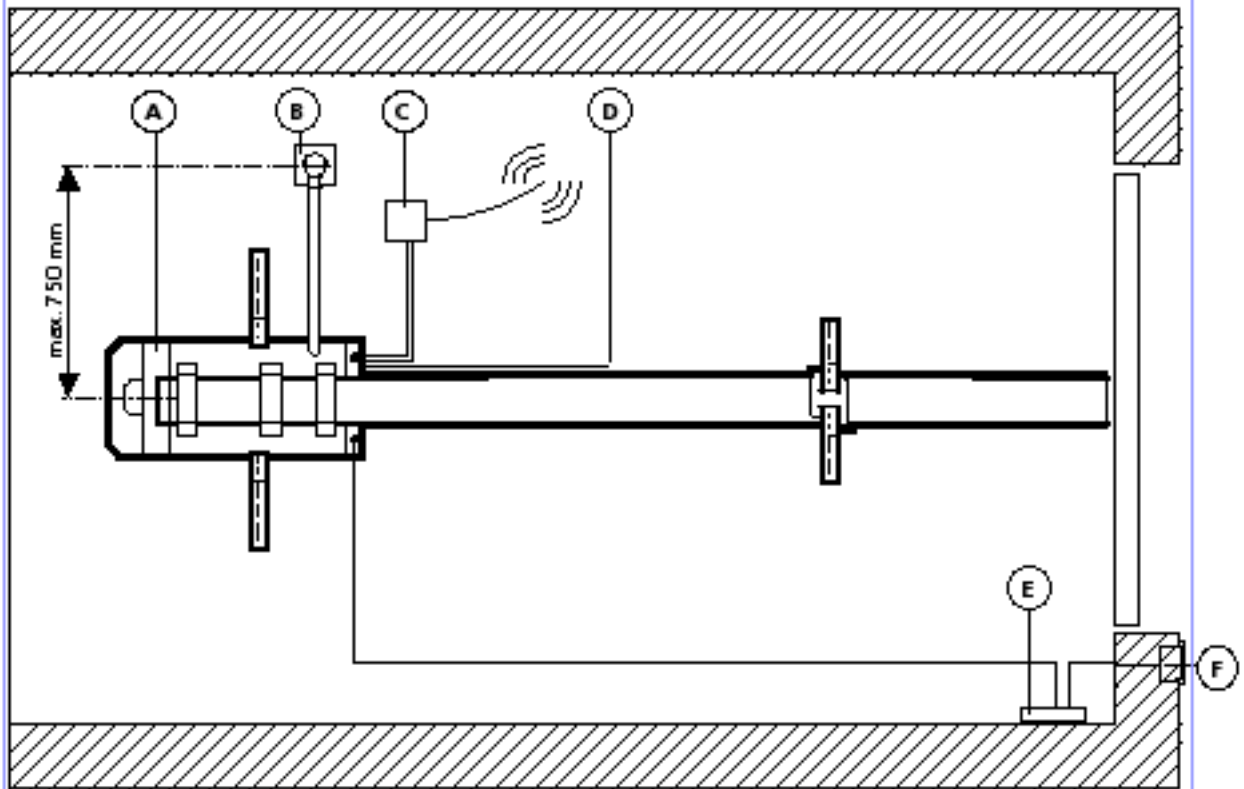
- A Connecting cable for Marantec control elements (button inside or key switch outside; not part of Comfort 240 supply package).
- B Connection of site control elements - may only be made to metal terminal connections (available as accessories - not part of Comfort 240 supply package)
- C 2-digit code switch
  - 1 - programming switch for connecting external stop button (e.g. Marantec Command 113, 114 or 211)
  - 2 - programming switch for connecting external photocell (e.g. Marantec Special 601)
 If any of above installed, switch corresponding programming switch (C) to „OFF“ position.
- D Control unit front cover
- E System plug for control elements (e.g. Marantec Command Series)
- F Drive unit front panel
- G Control unit

Open the front cover (D). Push the connecting cable (A) for external control elements with plug (E) through the front panel (F) and plug into the control unit as illustrated or connect site control elements to terminal (B). After plugging in the connecting plug or connecting the control elements, close the front cover.

Functions of the 2-digit code switch (C):

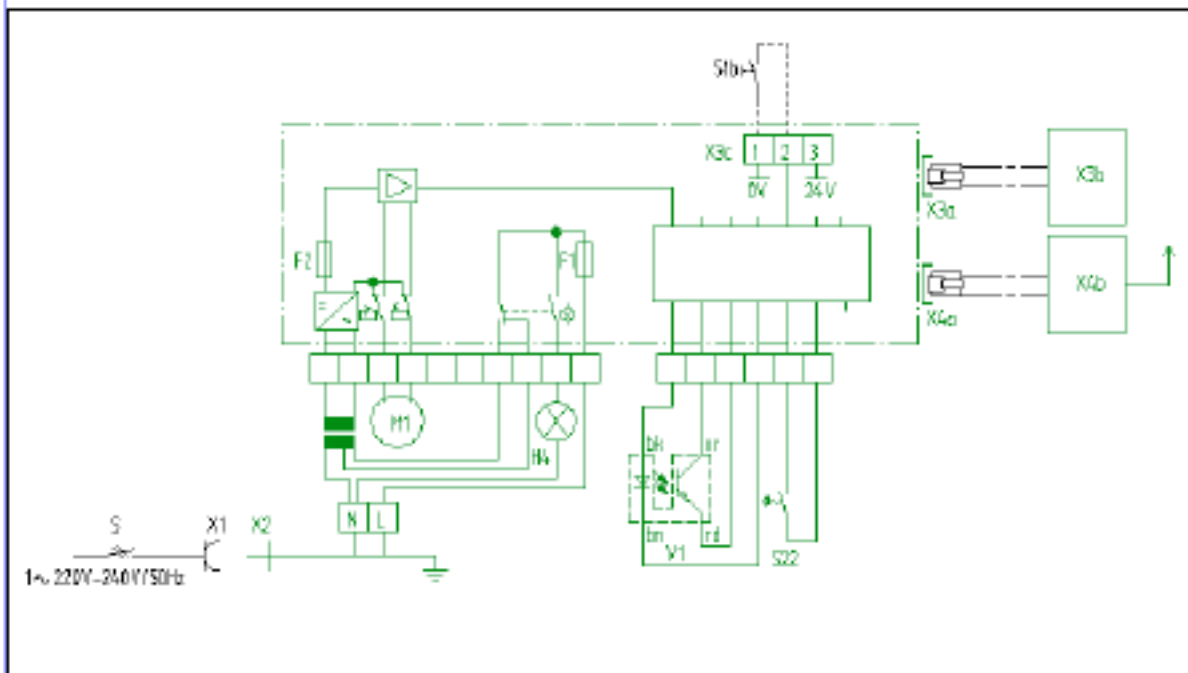
Switch	Signification
	1 - no external stop button connected 2 - no external photocell connected
	1 - external stop button connected 2 - no external photocell connected
	1 - no external stop button connected 2 - external photocell connected
	1 - external stop button connected 2 - external photocell connected

19



### Cable connecting plan

- A Comfort 240 drive unit
- B Socket with earth contact (Schuko) 220V - 240V, 50 Hz
- C Electronic aerial
- D Comfort 240 control unit
- E Marantec Command Series interior button with connecting cable
- F Marantec Command Series key switch



**Circuit diagram B-MC 240**

F1	Mains fuse 2.5 A max.
F2	Motor fuse 10 A max.
H4	Operator lighting
M1	Motor
S	Main switch or button „emergency-off“ (on site)
S1 b	„Impulse“ button (on site)
S22	Reference point switch
X1	Socket with earth contact
X2	Safety plug
X3a	Plug socket for Marantec Command Series control elements
X3 b	Control elements Marantec Command Series
X3c	Connecting terminals for „impulse“ button (on site)
X4a	Plug socket for electronic aerial
X4b	Electronic aerial
bk	black
bn	brown
or	orange
rd	red

**IMPORTANT:** Low voltage!

External voltage at the plug sockets X3a, X4a or screw terminals X3c will completely destroy the electronics.

**IMPORTANT:** Observe local safety regulations!

Always lay mains cable and control cable separately.

21

## Test Instructions (only for the specialist)

### Trouble shooting:

Fault	Cause	Remedy
No green light.	No voltage.	Check mains supply. Check socket. Check operator mains fuse (see pt. 13/R or Q).
	Thermal protection in the mains transformer is activated.	Allow mains transformer to cool down.
	Defective control unit.	Cut off mains supply to operator. Unscrew control unit. Pull control unit slightly forward and withdraw the connecting plug. Remove control unit with electronic circuit board. Have the control unit checked.
Red light glowing.	Automatic cut-out set too sensitively. Door operation too sluggish. Door blocks.	Re-set adjusting screws (pt. 13/I "open" direction, pt. 13/H "close" direction) by turning clockwise to make automatic cut-out less sensitive. Ensure door moves easily.
Red light flashing slowly.	External photocell defective or interrupted.	Remove obstacle or have photocell checked.
No reaction on impulse.	Connecting terminals for "impulse" button bridged, e.g. due to short-circuit or wrong terminal connection.	Temporarily isolate cabled keyswitches or interior push buttons from control unit. Remove plug (pt. 13/Q) and look for cable fault.
	Programming switch for stop button (see pt. 18/1) switched on but stop button not connected.	Switch over programming switch (pt. 18/1) or connect stop button (open).
Drive only operates in "open" but not in "close" direction.	Programming switch for photocell (see pt. 18/2) switched on but photocell not connected.	Switch over programming switch (pt. 18/2) or connect photocell.
Yellow light not flashing quickly on impulse from hand transmitter.	Electronic aerial disconnected.	Connect aerial to control unit (pt. 17).
	Hand transmitter coding is not consistent with receiver coding.	Check coding (pt. 17).
	Flat battery.	Insert new 9V battery IEC 6F22 (pt. 15). Flashing LED in transmitter indicates battery condition.
	Hand transmitter, control unit or electronic aerial defective.	Have all 3 components checked.
Insufficient range of hand transmitter (less than 5 m).	Flat battery.	Insert new 9V battery IEC 6F22 (pt. 16). Flashing LED in transmitter indicates battery condition.
	Wrongly positioned electronic aerial.	Re-position the aerial box. Ensure the cable connecting to the control unit is pulled out at full length. Position well away from the door. Mount the aerial to the side or back opposite the boom. Also align the aerial cable and, if possible, let it hang freely.
Both red and yellow lights flashing.	RPM sensor defective.	Have drive unit checked.
Red and yellow lights flashing alternately.	Fault in the control unit.	Have control unit checked.

22

## Commissioning

Power operated windows, doors and gates for industrial use must be checked by a specialist after initial installation and then regularly at intervals of 1 year minimum.

## Maintenance

The Marente Comfort240 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 door must be easy to operate manually. The separate door counterbalance mechanism must be checked regularly.



EN 55011  
EN 50081  
EN 50082  
ETS 300220

Changes reserved!

Status: 08/96

1. C. 36030 - M. 015 - 0104