



LIFTINGITALIA S.r.l.

Via Caduti del Lavoro, 16 - 43058 Bogene, Sorbolo (PR) - Italy
Phone +39 0521.695311 - Fax +39 0521.695313

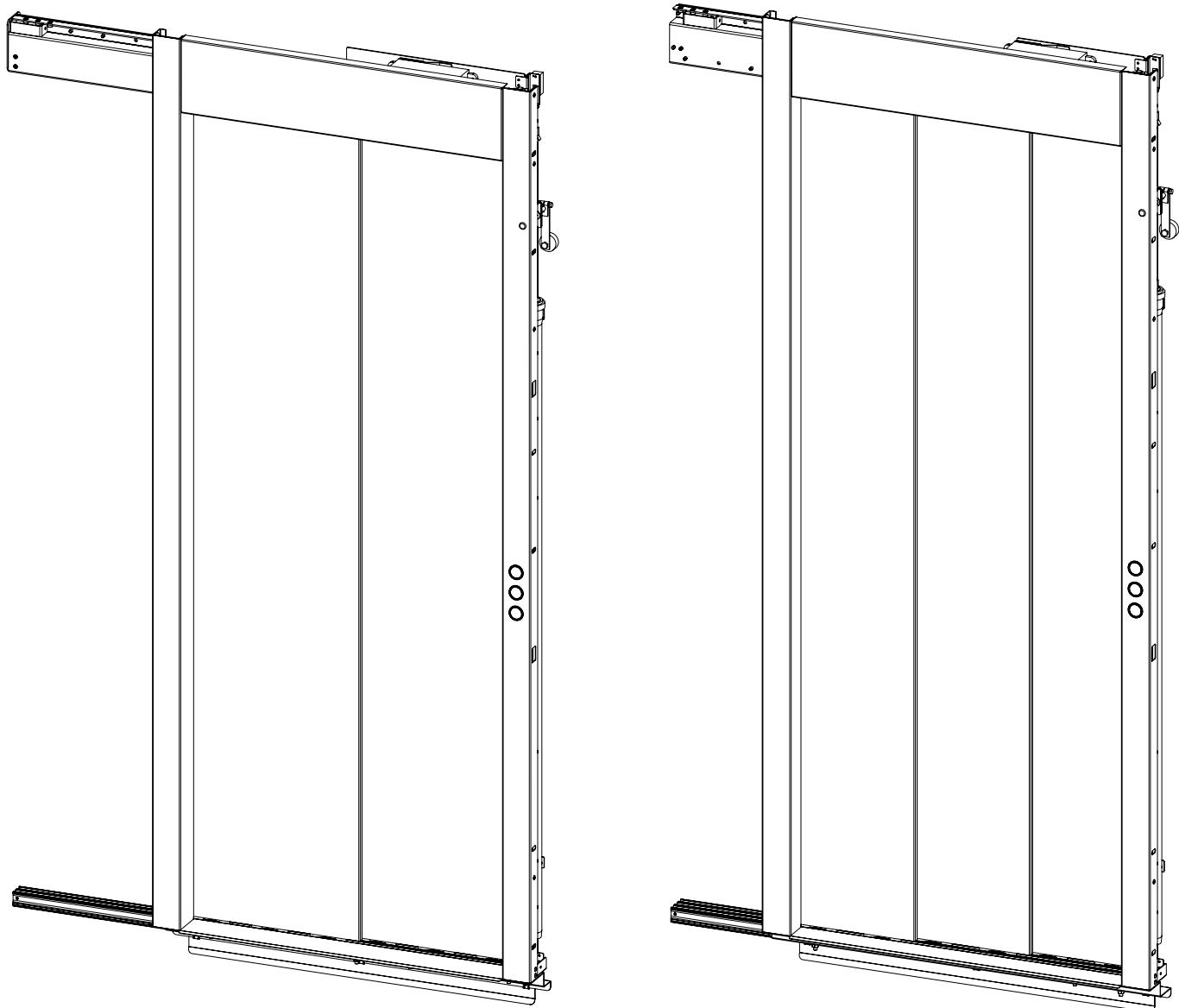


LIFTINGITALIA[®]

COMFORTABLE HOMELIFTS

EASYhome 318

Telescopic Landing and Car Door



INSTALLATION AND COMMISSIONING INSTRUCTIONS

6	New edition	01.04.2019
5.4	KIT update	13.06.2018
5.3	Update pg. 40	01.12.2015
5.2	KIT update	02.02.2015
5.1	Image update	27.02.2014
5	Change name of products	08.08.2012
Rev.	Description	Data

INDEX

1. INSTALLATION SITE MANAGEMENT	6
1.1. GENERAL DESCRIPTION	6
2. PRODUCT DESCRIPTION	7
2.1. GENERAL DESCRIPTION AND TERMINOLOGY	7
3. BOX CONTENT - SCREWS KIT	8
4. EQUIPMENT AND MATERIALS REQUIRED FOR ASSEMBLY	10
5. PRELIMINARY OPERATIONS	11
5.1. POSITIONING OF MATERIAL ON SITE	11
6. HOW TO DISTINGUISH DOOR VERSIONS	12
7. LANDING DOOR POSITIONING	13
8. LANDING DOOR ASSEMBLY AND INSTALLATION	14
9. LANDING DOOR FINAL CHECKS	29
10. CAR DOOR ASSEMBLY AND INSTALLATION	30
11. CAR DOOR FINAL CHECKS	35
12. LOCK WIRING	36
13. AT12 CONTROL UNIT INSTRUCTIONS	37
13.1. AT12 CONTROLS OVERVIEW	37
13.2. CONNECTION SCHEME OF THE AT12 CONTROL UNIT	37
13.3. FUNCTION OF THE SiDOOR AT12 CONTROL PANEL INSTALLATION AND ADJUSTMENT	38
13.4. MECHANICAL INSTALLATION AND ADJUSTMENT	39
13.5. THE TRAVERSING CURVE	39
13.6. TECHNICAL DATA SiDOOR AT12	40
13.7. DIAGNOSIS AND PARAMETERIZATION WITH THE HT18 USER TERMINAL	41
13.8. MENUS LIST	42
13.9. AT12 CONTROLLER: MODIFICATION OF PARAMETERS USING PROGRAMMING KEYBOARD	47



PURPOSE OF THE MANUAL

The purpose of this manual is to provide correct information on the installation of the product, in order to contribute to personal safety and to the proper functioning of the system. Keep the manual for the entire life of the product. In the event of a change of ownership, the manual must be provided to the new user as an integral part of the product.

NOTICE



READ THIS MANUAL CAREFULLY before installing and using the product. This product must be installed and put into operation according to the provisions and regulations in force. Improper installation or improper use of the product can cause damage to people and property, as well as cause the warranty to lapse.

FOLLOW THE SUGGESTIONS AND RECOMMENDATIONS TO OPERATE IN SAFETY. Any unauthorized modification can compromise the safety of the system, as well as the correct operation and the life of the machine. If you have any doubts regarding the correct understanding of the information and contents contained in this manual, contact LIFTING ITALIA S.r.l. immediately.

QUALIFIED PERSONNEL: The product covered by this documentation can only be installed by qualified personnel, in compliance with the attached technical documentation, above all in compliance with the safety warnings and the precautions contained therein.

Keep the technical and safety documentation near the system.



PERSONAL SECURITY AND RISK RECOGNITION

This manual contains safety rules that must be observed to safeguard personal safety and to prevent damage to the property. The indications to be followed to guarantee personal safety are highlighted by a triangle symbol while those to avoid material damage are not preceded by the triangle. The hazard warnings are shown as follows and indicate the different levels of risk in descending order.

RISK SYMBOLOGY AND PHRASES

RISK CLASSIFICATION AND RELATIVE GRAVITY OF DAMAGE		
DANGER	The symbol indicates that the failure to comply with appropriate safety measures causes death or serious physical injury.	RISK LEVEL
WARNING	The symbol indicates that the failure to observe the corresponding safety measures can cause death or serious personal injury.	
CAUTION	The symbol indicates that failure to observe the relevant safety measures can cause minor or moderate personal injury or damage to the device.	
NOTICE	It is not a symbol of security. It indicates that the failure to comply with relevant safety measures can result in property damage.	
INFORMATION	It is not a symbol of security. It indicates important information.	

If there are multiple levels of risk, the danger warning always indicates the highest one. If a warning is drawn with a triangle to warn of the risk of injury to persons, the risk of possible property damage may also be caused at the same time.

NOTE: During installation / maintenance of the platform, the safety functions are temporarily suspended. Therefore all necessary precautions must be taken to avoid personal injury and / or damage to the product.



MANUAL READING GUIDE

WARNING SIGN

	GENERAL DANGER		ELECTRICITY DANGER		DANGER FLAMMABLE MATERIAL
	DANGER OF FALL BY A LEVEL		DANGER SUSPENDED LOADS		DANGER CORROSIVE SUBSTANCES

PROHIBITION SIGN

	GENERIC PROHIBITION		FORBIDDEN TO STEP ON		PROHIBITED TO WALK ON OR STOP IN THIS AREA
--	---------------------	--	----------------------	--	--

MANDATORY SIGN

	OBLIGATORY TO WEAR THE PROTECTION HELMET		OBLIGATORY TO WEAR SAFETY SHOES		OBLIGATORY WEAR THE PROTECTIVE GLOVES
	OBLIGATORY TO WEAR EYE PROTECTION		OBLIGATION TO WEAR THE AUDIO PROTECTION		OBLIGATORY TO WEAR THE MASK
	OBLIGATORY TO WEAR PROTECTIVE CLOTHES		OBLIGATORY TO KEEP CLOSED		OBLIGATORY TO CHECK THE PROTECTIONS

EMERGENCY AND FIRST AID SIGNS

INDICATION SYMBOLS

	FIRST AID		NOTA BENE		KEEP DRY		OBLIGATORY TO CHECK THE PROTECTIONS
--	-----------	--	-----------	--	----------	--	-------------------------------------



LIABILITY AND WARRANTY CONDITIONS:

RESPONSIBILITY OF THE INSTALLER

The elevator / platform is produced and intended to be installed as described in the attached project drawing and in this manual; any divergence from the prescribed procedure may affect the operation and safety of the system and cause the immediate cancellation of the warranty.

Any modification or variation made to the project and the assembly instructions must be documented in detail and referred to LIFTING ITALIA S.r.l., in order to allow the company an adequate assessment. Under no circumstances can a modified system be activated without the express authorization of LIFTING ITALIA S.r.l.

Installers are responsible for ensuring compliance with safety procedures at work and any health and safety regulations in force in the country and on the site where the assembly is carried out.

The elevator / platform must only be used in the way envisaged by the system and illustrated in the relative manuals (transportation of people and / or things, maximum loads, cycles of use, etc.). LIFTING ITALIA S.r.l. assumes no responsibility for damage to persons and property caused by improper use of the system.

NOTE: Pictures and images on this manual are for illustration purposes only.



1. INSTALLATION SITE MANAGEMENT

1.1. GENERAL DISPOSITIONS

IMPORTANT!

 For more information on safety, liability and warranty conditions, receipt and storage of material on site, packaging, waste disposal, cleaning and storage of the product; refer to the "**SAFETY INSTRUCTIONS AND SITE MANAGEMENT**" manual.

NOTICE

PRELIMINARY CHECKS: Once the packaging has been opened, check that the product is intact and has not been damaged during transport. Should any anomalies or damage be found, please dispatch them in writing on the transport document to the transport company, giving written notice to LIFTINGITALIA S.r.l.

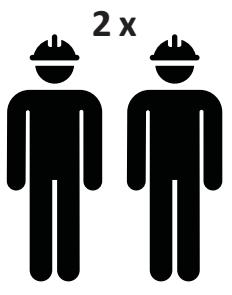
NOTE: In this manual, we will talk about "SHAFT" meaning for it the base slab, the slab of landing and the vertical wall that connects its slabs.

CAUTION

SAFETY AND SITE MANAGEMENT - OVERALL DISPOSITIONS:

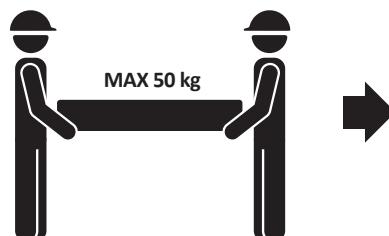
1. Always secure tools and any objects against falling;
2. Pay the utmost attention to all the steps described in this;
3. While assembling the parts making up the system or after installation, be careful of any sharp burrs (machining residues);

- Before proceeding with the installation, it is necessary to remove the rubble and the material deposited during the construction of the shaft.
- Only nuts and bolts included in the supply must be used.
- The bags containing the screws must be opened in correspondence with the respective operating phases indicated in this manual.
- The instructions described in this manual refer to a reinforced shaft, to a fastening with mechanical expansion plugs of the stud type. For the use of plugs in masonry other than the reinforced concrete see the attachment to this manual. For the shafts with metal framework, we proceed by replacing the plugs with normal screws.
- In these instructions and on the wiring diagram, the stops are indicated with 0, 1, 2, 3, meaning "0" the lowest stop: the numbers on the push-button panels may be different according to the user's needs (for example- 1, 0, etc.).



The assembly must be performed by a **MINIMUM 2** people;

If the load is greater than 50kg, use the hoist for handling.





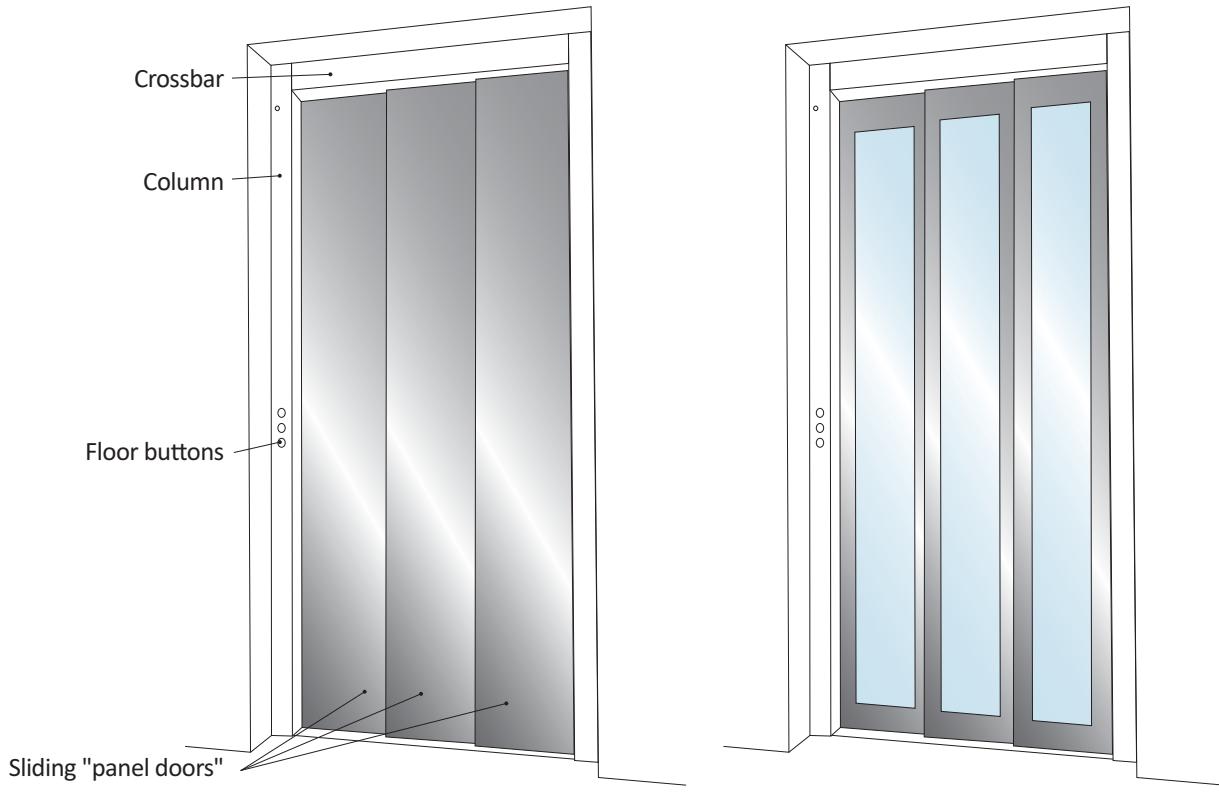
2. PRODUCT DESCRIPTION

2.1. GENERAL DESCRIPTION AND TERMINOLOGY

CAR AND LANDING AUTOMATIC SLIDING DOOR (3 DOOR PANELS)

General characteristics

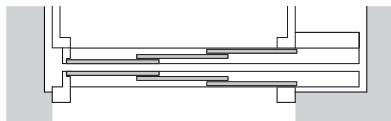
- Also for outdoor use
- DC motor and electronic regulator powered at 220 Volts.
- Provided with fixed slide for lock release
- Full height electronic barrier
- Jambs cut flush with the floor
- Emergency key on the jamb



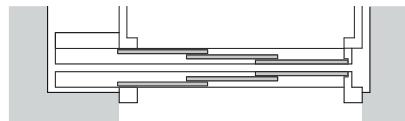
type 318 - 3 doors
BL execution (blind)

type 318 - 3 doors
GL execution (glazed)

RIGHT opening direction "R" (right)



LEFT opening direction "L" (left)



The sense of openness is defined by looking at the door from the floor.

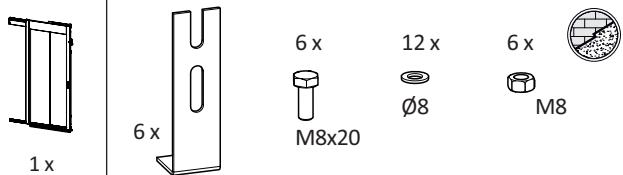
LIFTING ITALIA S.r.l. goal is to promote the continuous improvement of its products and consequently their technical specifications may be subject to change without notice or commitment.

INFORMATION**3. BOX CONTENT - SCREWS KIT**

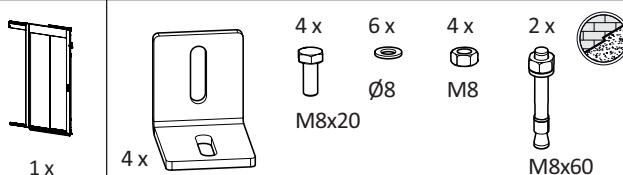
NOTE: Each "KIT" box with its identification code represents the packaging unit, i.e. how many pieces per type are contained in each package.

KIT D203.23.0006

DOOR FRAME SIDE BRACKETS KIT

**KIT D203.23.0007**

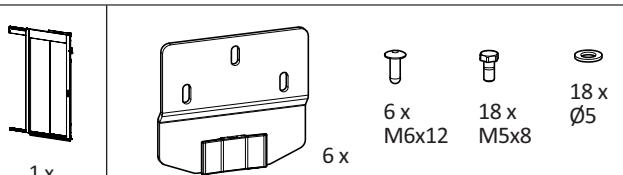
DOOR FRAME BOTTOM BRACKETS KIT (FOR SHALLOW PITS)

**KIT D203.23.0001**

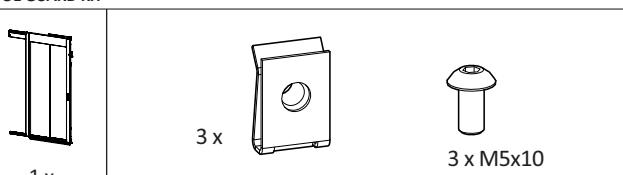
DOOR FRAME KIT

**KIT D203.23.0003**

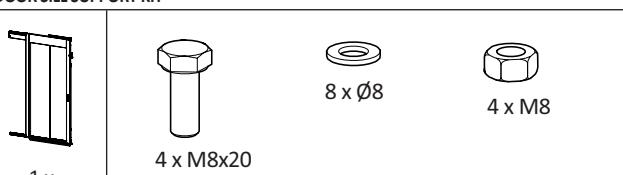
DOOR LEAVES KIT

**KIT D203.23.0009**

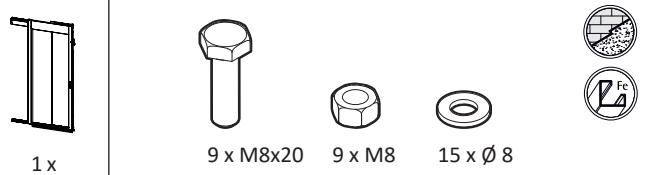
TOE GUARD KIT

**KIT C002.23.0006**

DOOR SILL SUPPORT KIT

**KIT D203.23.0006**

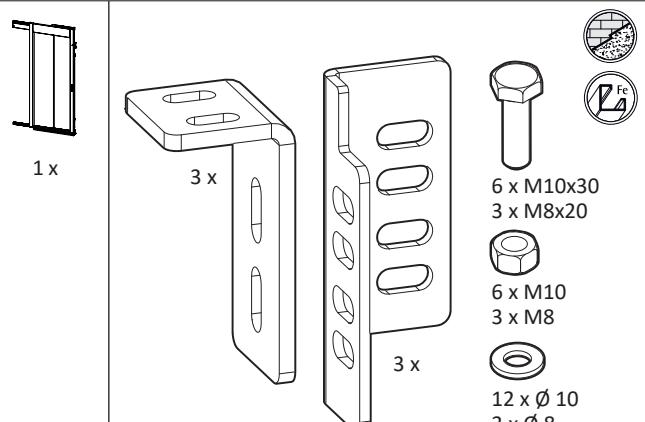
DOOR FRAME SIDE BRACKETS KIT



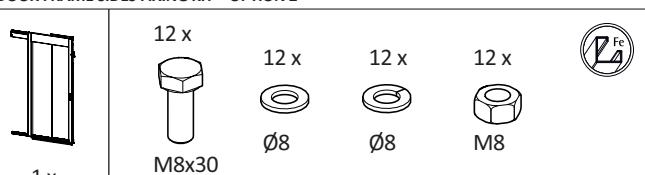
DOOR FRAME SIDES FIXING KIT – OPTION 2

KIT D203.23.0012

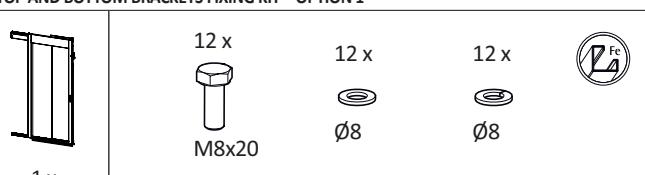
DOOR FRAME BOTTOM BRACKETS KIT – OPTION 2

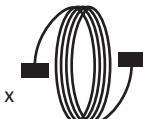
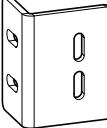
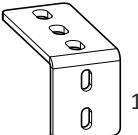
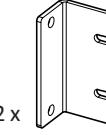
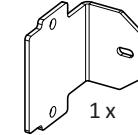
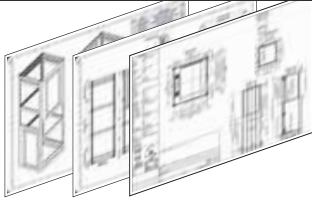
**KIT D111.23.0004**

DOOR FRAME SIDES FIXING KIT – OPTION 2

**KIT D203.23.0013**

TOP AND BOTTOM BRACKETS FIXING KIT – OPTION 1



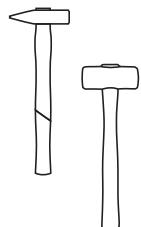
KIT D203.23.0010 EASYhome LIGHT CURTAIN KIT			KIT D401.23.0007 SIEMENS AT12 KIT		
 1 x	 2 x M5x12	 2 x M6x16	 4 x M4x10	 1 x	 1 x
	 10 x M4x10	 8 x Ø4	 2 x Ø5	 14 x M4	 6 x M6
	 1 x	 1 x	 1 x	 1 x	 8 x M6x16
LAYOUTS					
					



4. TOOLS AND MATERIALS REQUIRED FOR INSTALLATION

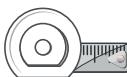


Hammer

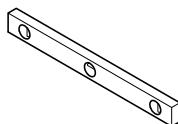


Rubber hammer

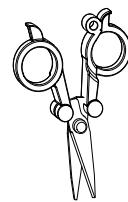
Deflectometer



Level



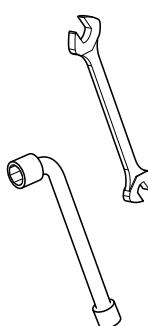
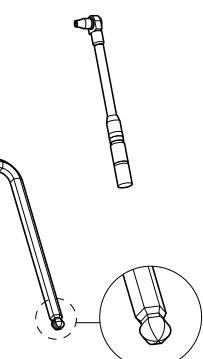
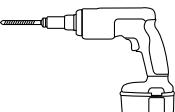
Scissors for electricians



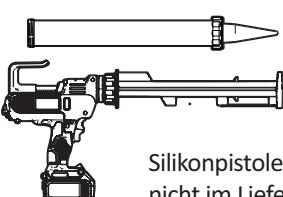
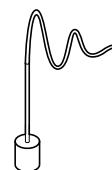
Screwdriver



Phillips screwdriver

Monkey wrench
CH 8 ÷ 17 mm
2 pz x CHPipe wrench
CH 8 ÷ 17 mmRing spanner
S 13 ÷ 17 mmAllen wrench
with spherical head
CH 3 ÷ 6 mmDrill
CH 6 ÷ 10 mmfor
Brickwork
MetalHoist
150 kg

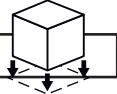
Perpendicular

Silikonpistole (Silikon
nicht im Lieferumfang
enthalten)



5. PRELIMINARY OPERATIONS

5.1. POSITIONING OF MATERIAL ON SITE



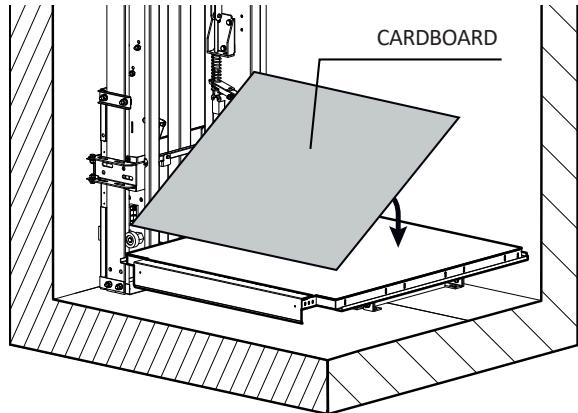
NOTICE

MATERIAL POSITIONING:

It is important to position the material correctly on the installation site as once the scaffold has been assembled it may become difficult to handle certain components, with the risk of injury and damage to the materials.

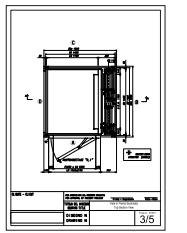
INFORMATION

 Protect the car floor during installation.

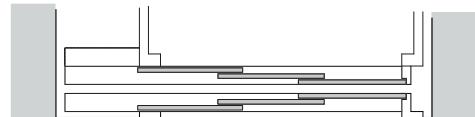


INFORMATION

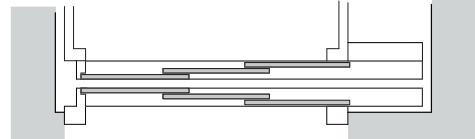
Refer to the installation Layout Drawings for the correct positioning of doors in relation to the shaft dimensions, and to determine the correct handing of doors.



LEFT handed



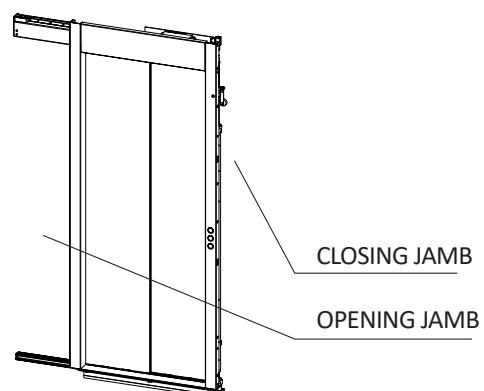
RIGHT handed



INFORMATION

By "CLOSING JAMB" we mean the upright towards which the door moves when closing.

The opposite upright is the "OPENING JAMB".

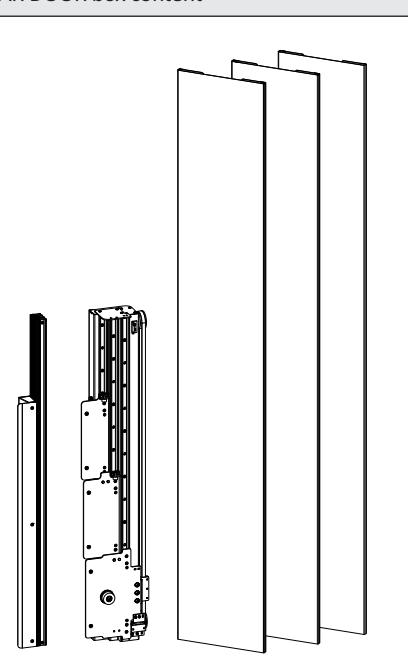
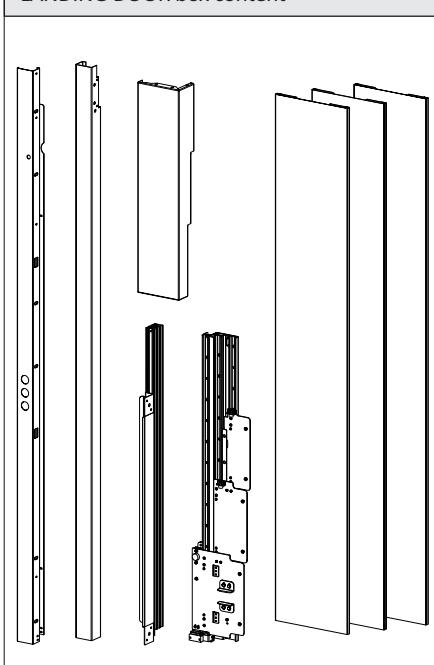
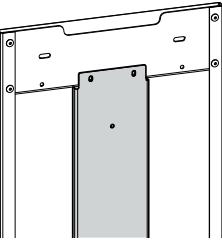
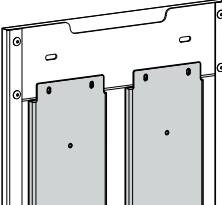




6. HOW TO DISTINGUISH DOOR VERSIONS



EASYhome318 - 3 LEAF version

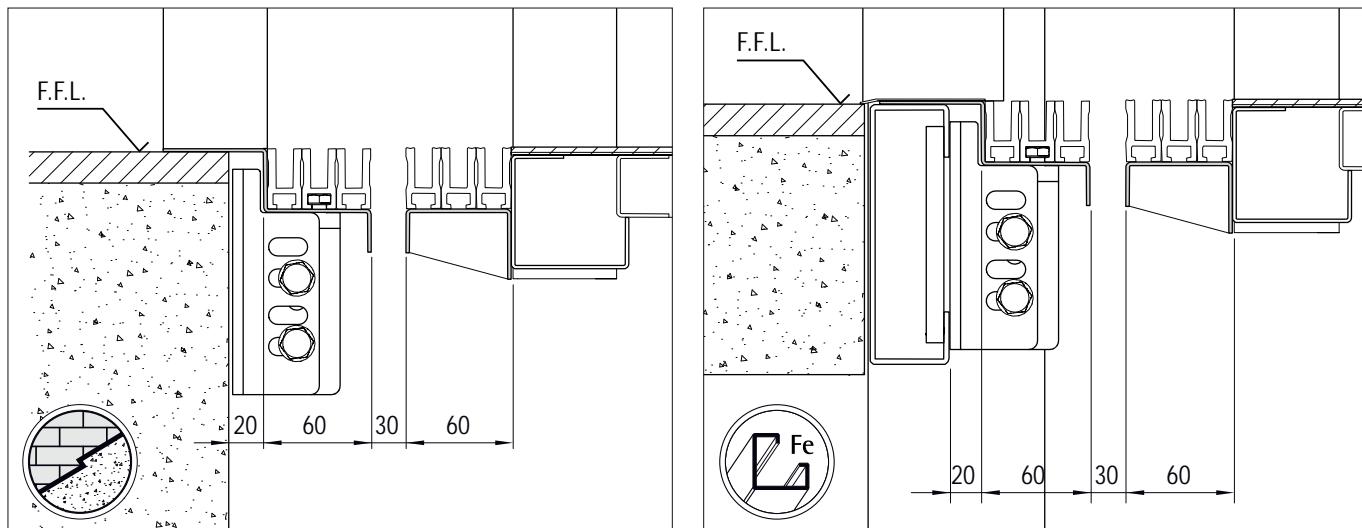
CAR DOOR box content	LANDING DOOR box content	DISTINGUISHING LEAF TYPES
		<p>CAR DOOR = 1 stiffener</p>  <p>LANDING DOOR = 2 stiffeners</p> 



7. LANDING DOOR POSITIONING



EASYhome318 - 3 LEAF version

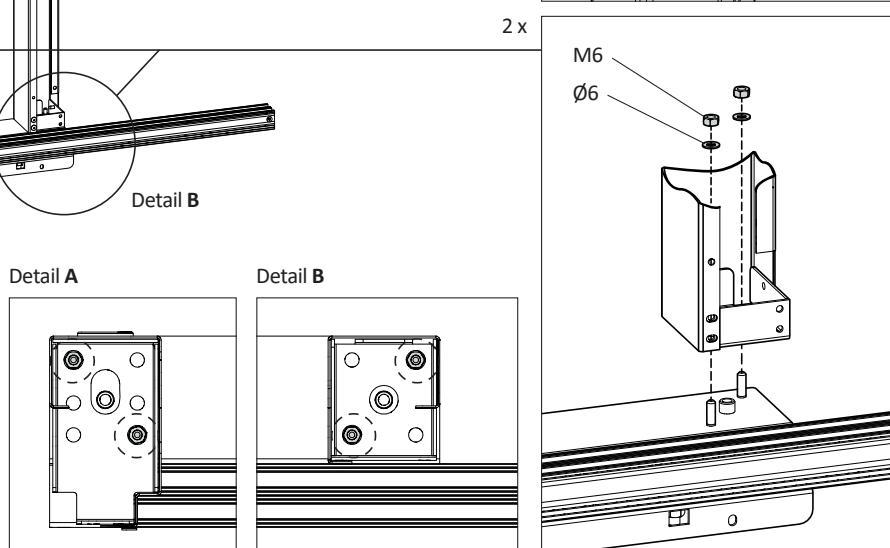
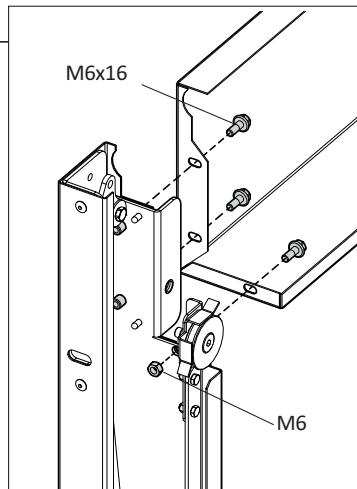
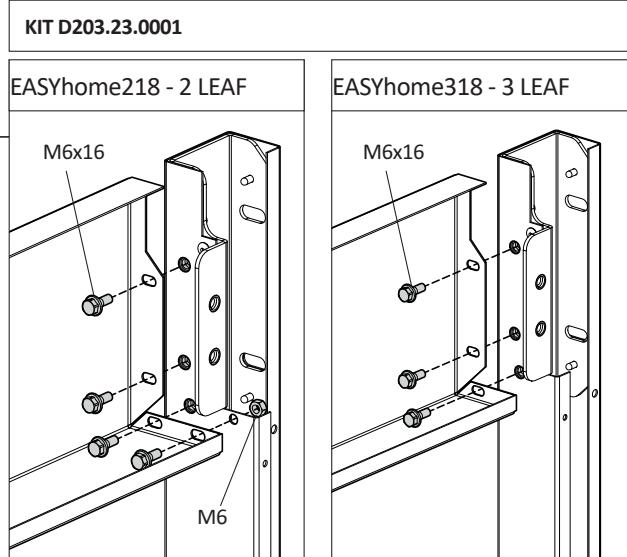
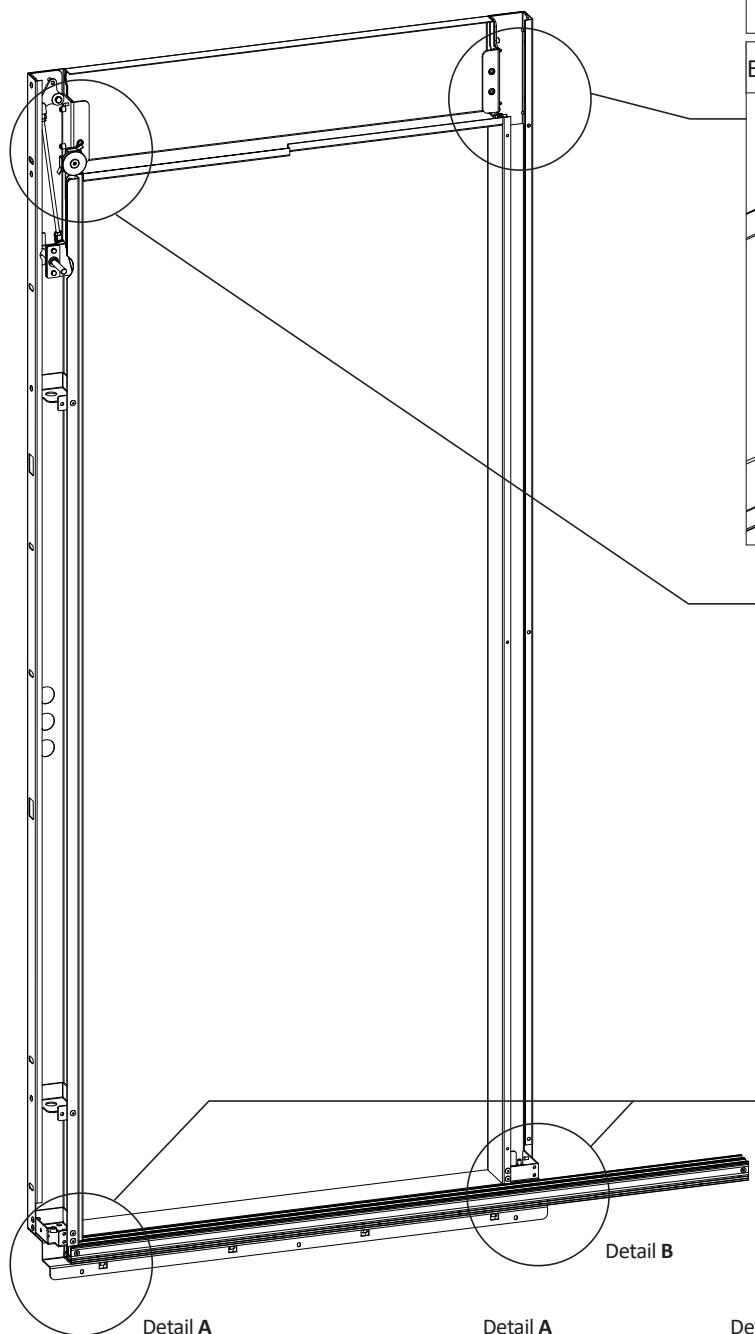


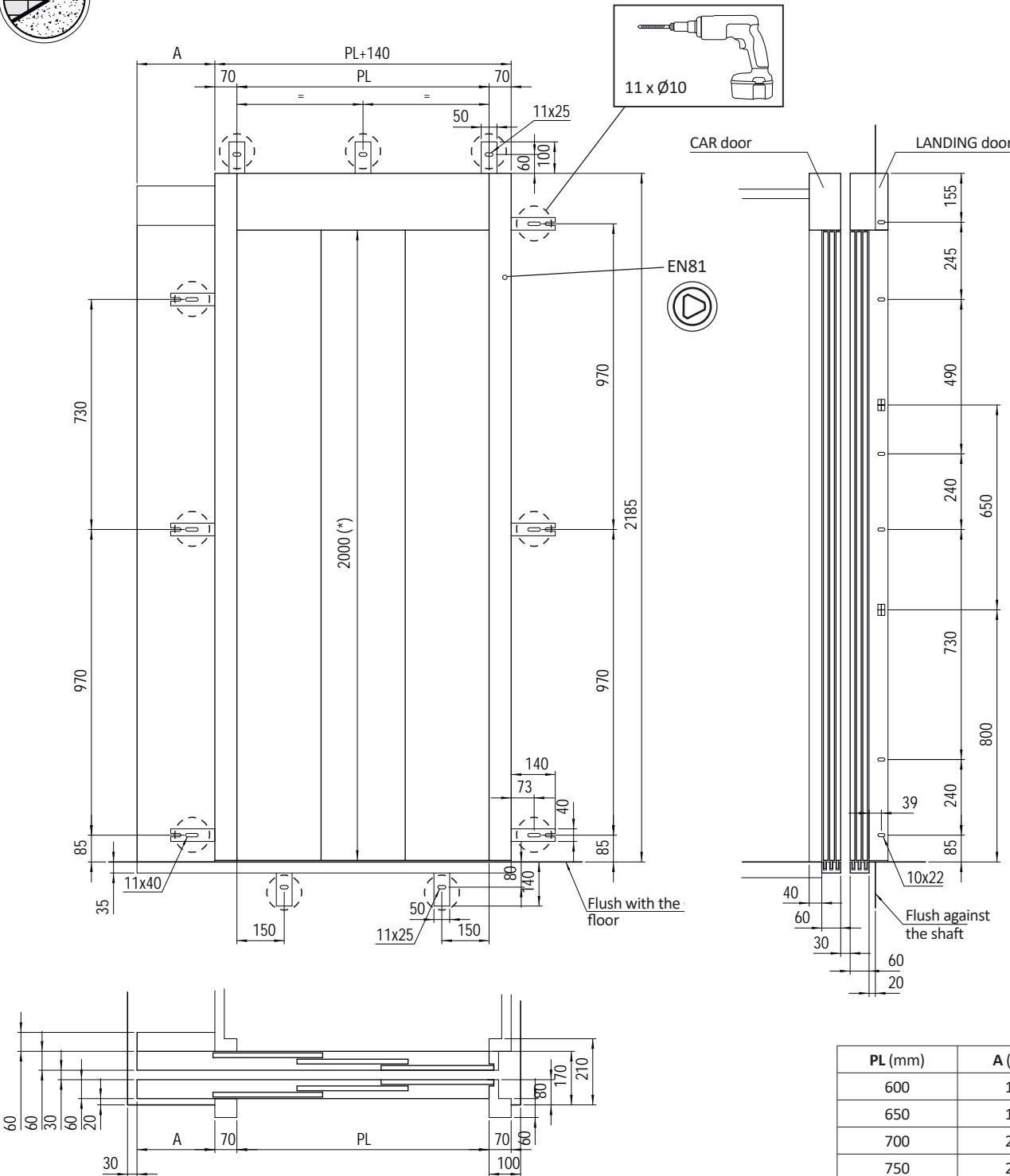


8. LANDING DOOR ASSEMBLY AND INSTALLATION



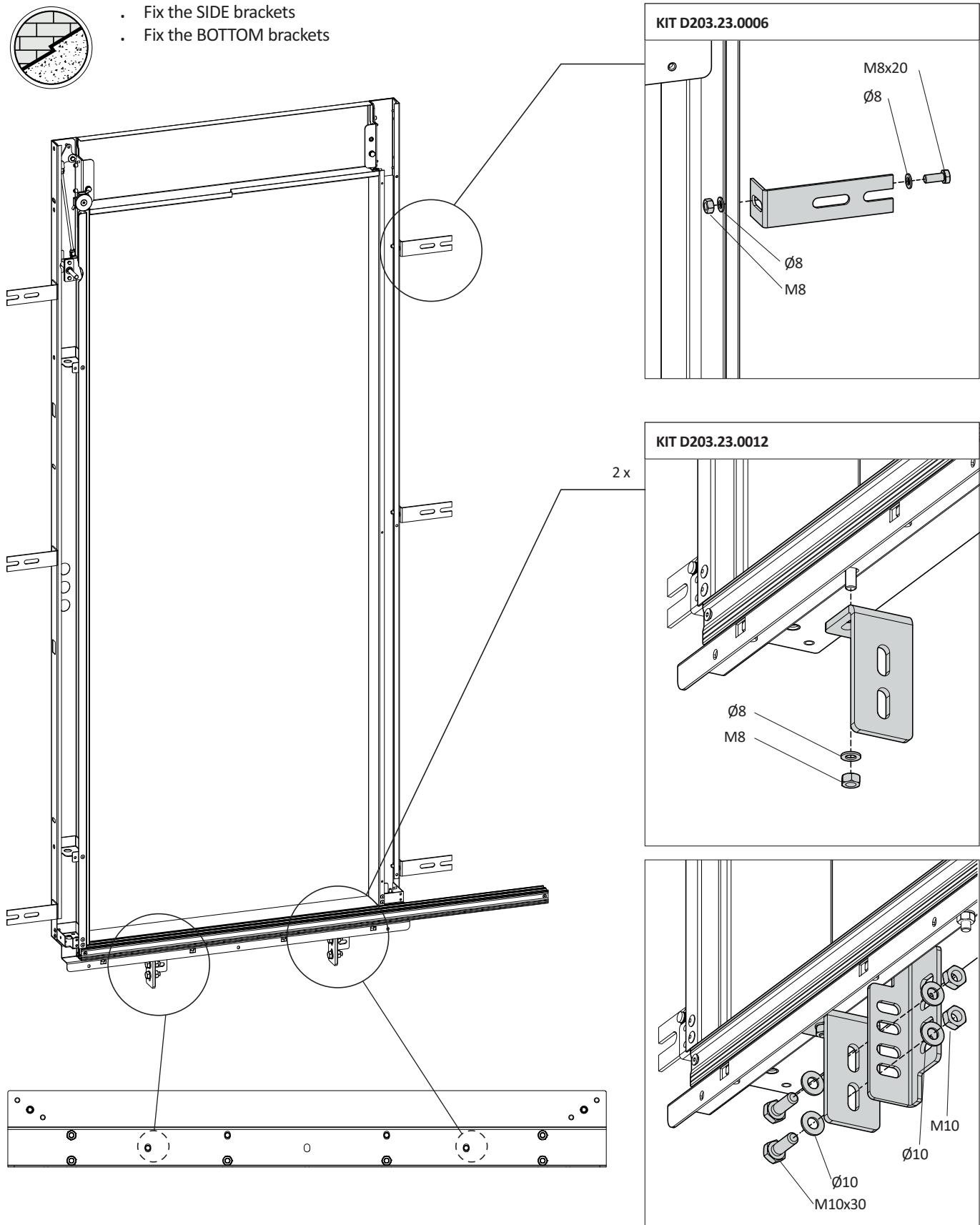
- Assemble the door frame




DRILL FIXING HOLES for 3 leaf EASYhome318 (LEFT handed version shown as example)

INFORMATION

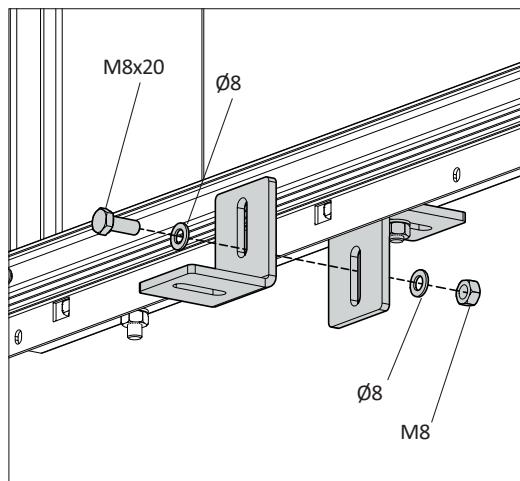
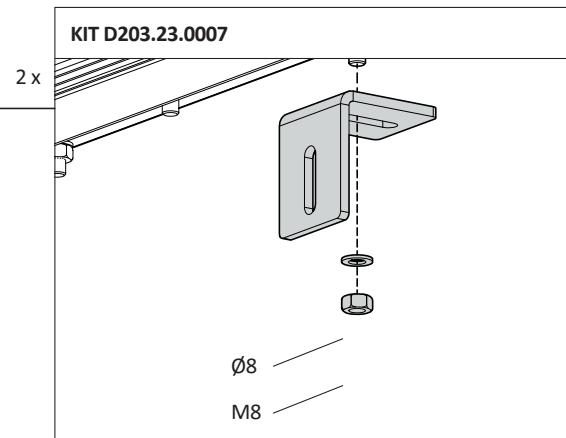
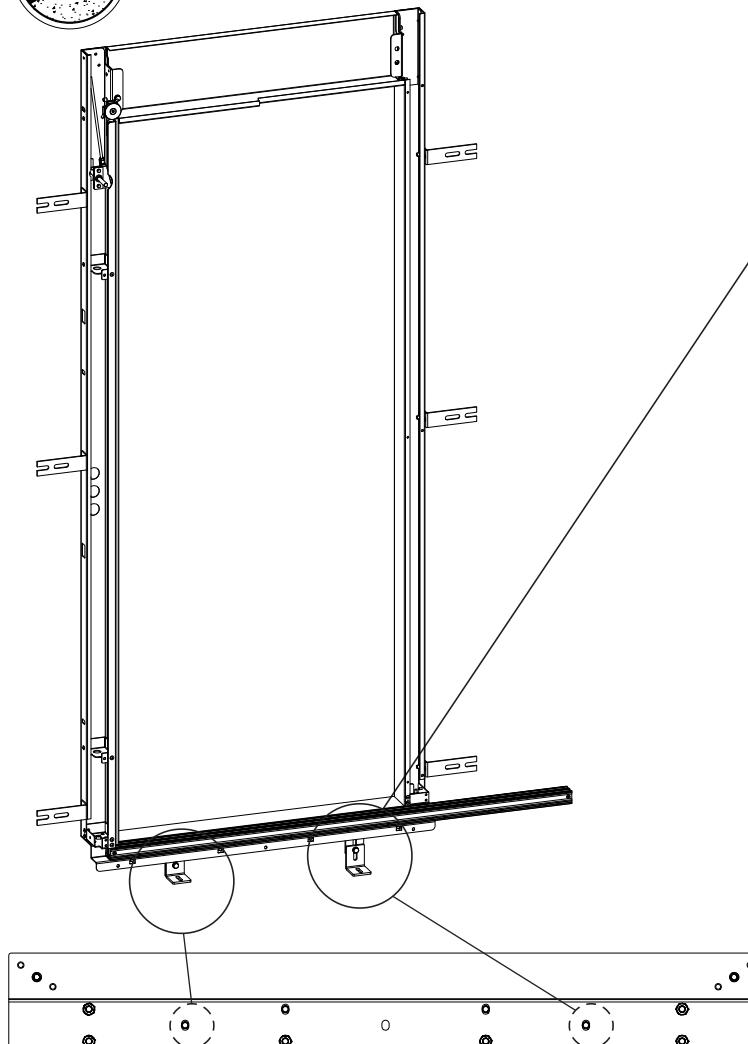

For RIGHT handed doors mirror dimensions accordingly.

(*) LH<>2000 conditional to feasibility study

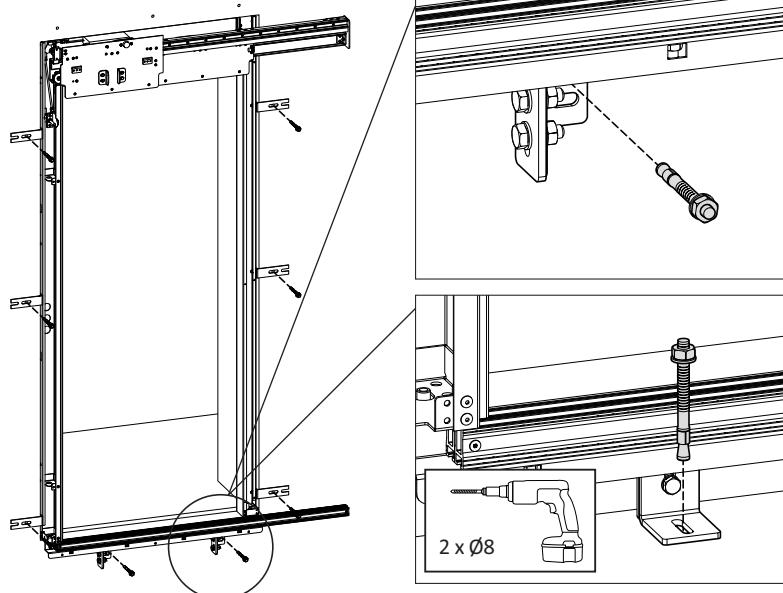




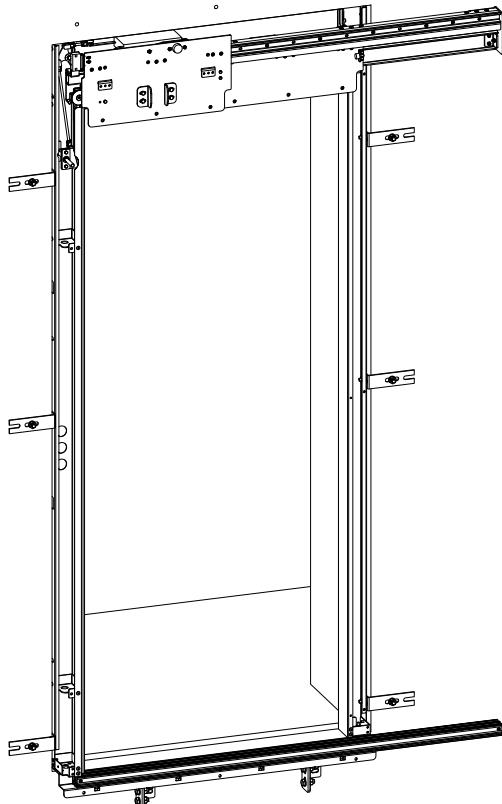
With PITS < 140 mm deep use KIT D203.23.0007 and follow the steps below:



- Fix the door frame to the wall using the anchors supplied with the lift mechanical components

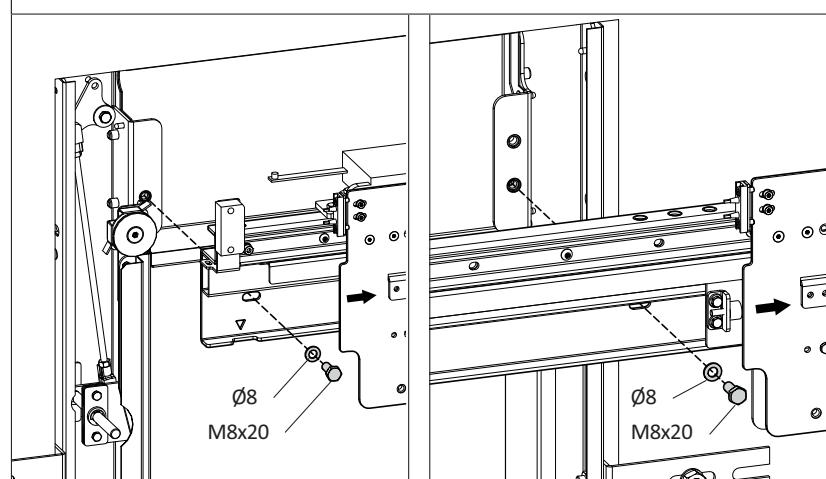


- Fit the door mechanism



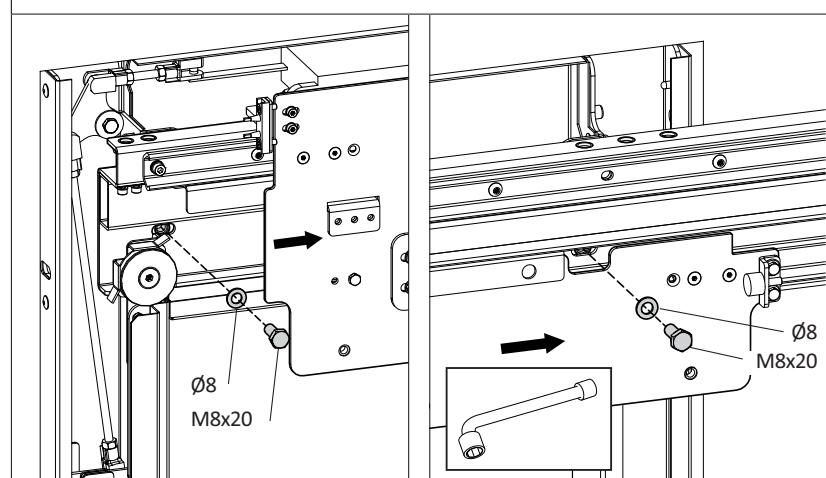
KIT D203.23.0001

EASYhome218 - 2 LEAF version

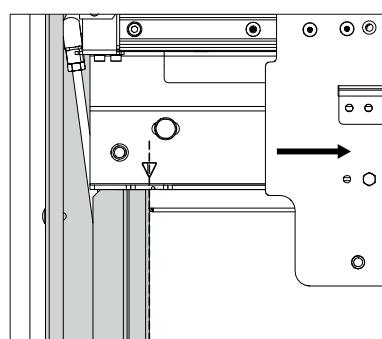
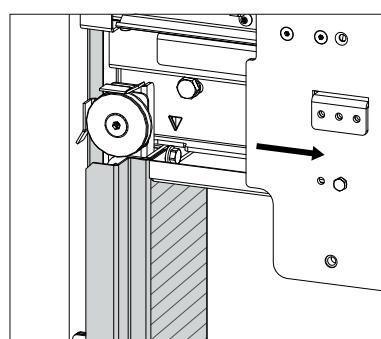


- slide the two carriages together in order to fix the mechanism to the frame

EASYhome318 - 3 LEAF version



- to fix the mechanism to the opening jamb, slide the third carriage enough to reach the fixing hole behind with an angled socket wrench

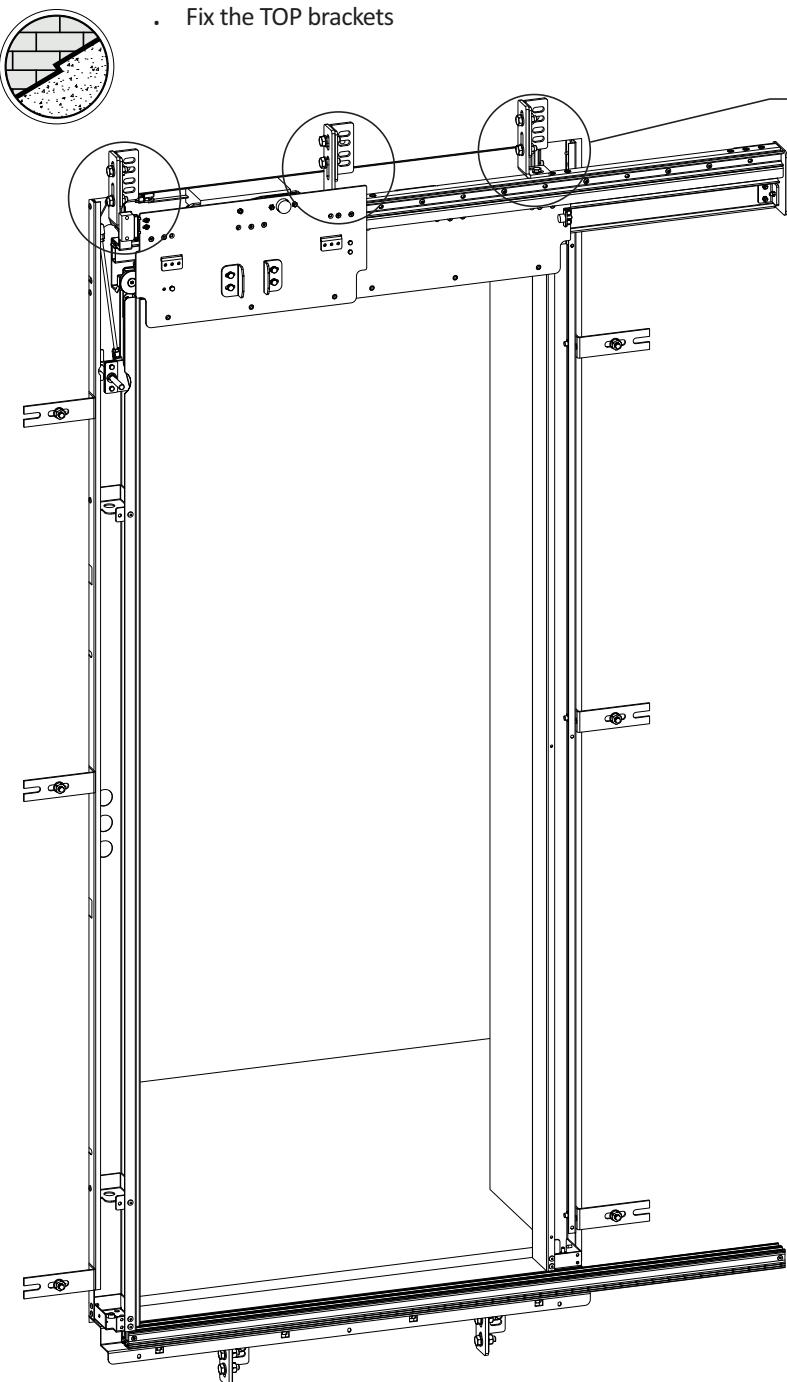


INFORMATION

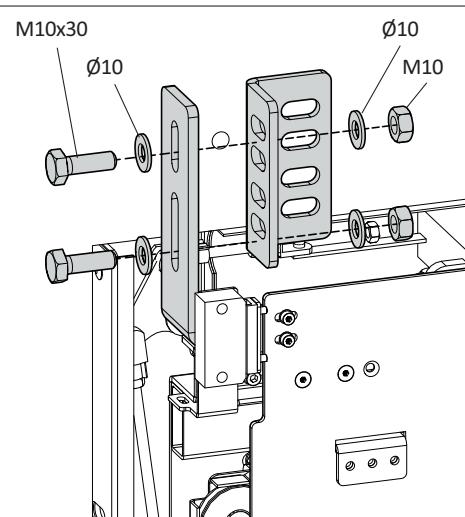
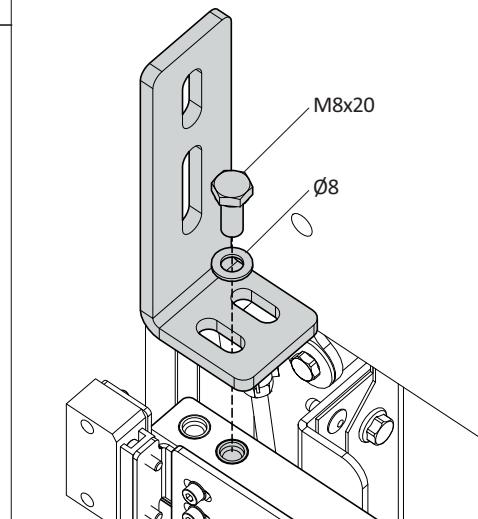


Make sure of the correct positioning of the mechanism: slide the carriage away from the closing jamb and verify that the triangular hole on the mechanism is lined up with the internal face of the closing jamb itself.

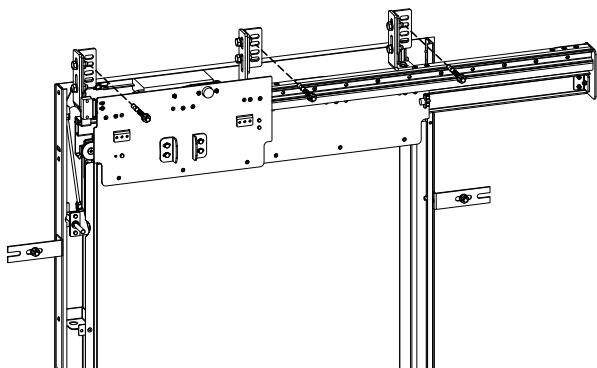
- Fix the TOP brackets



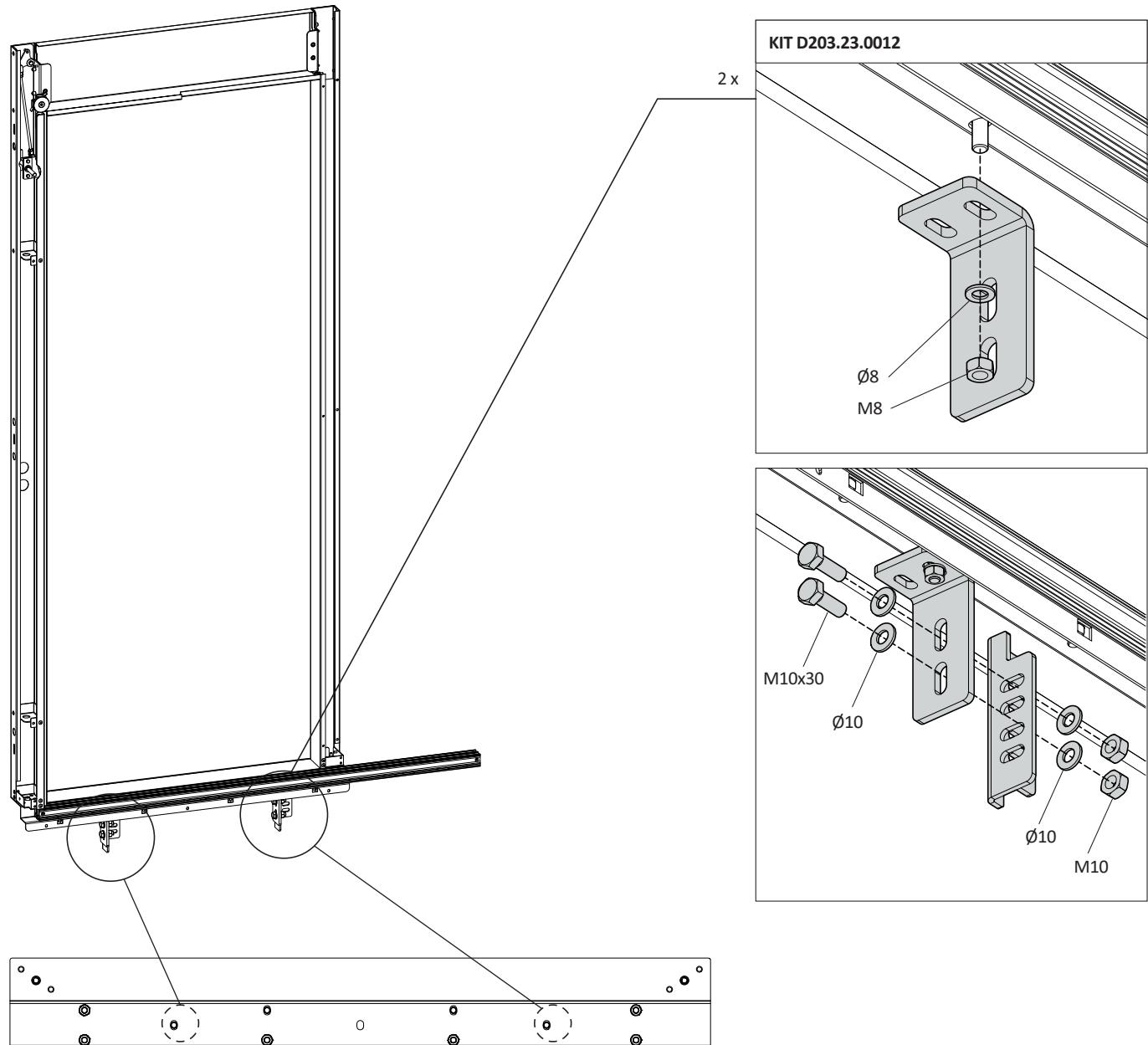
KIT D203.23.0011



- To secure the door frame to the wall fix the TOP brackets using the anchors supplied with the lift mechanical components



- Fix the BOTTOM bracket

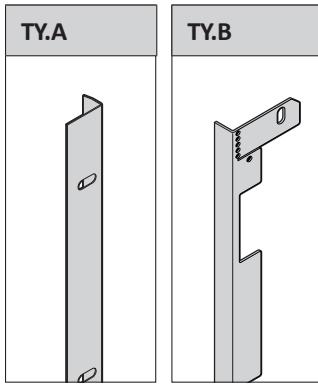
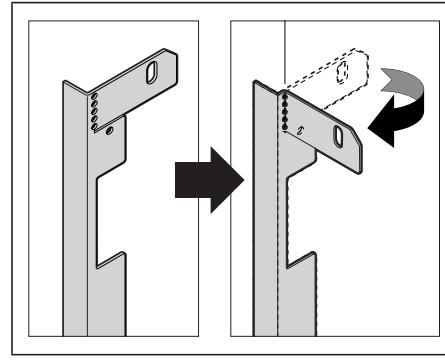


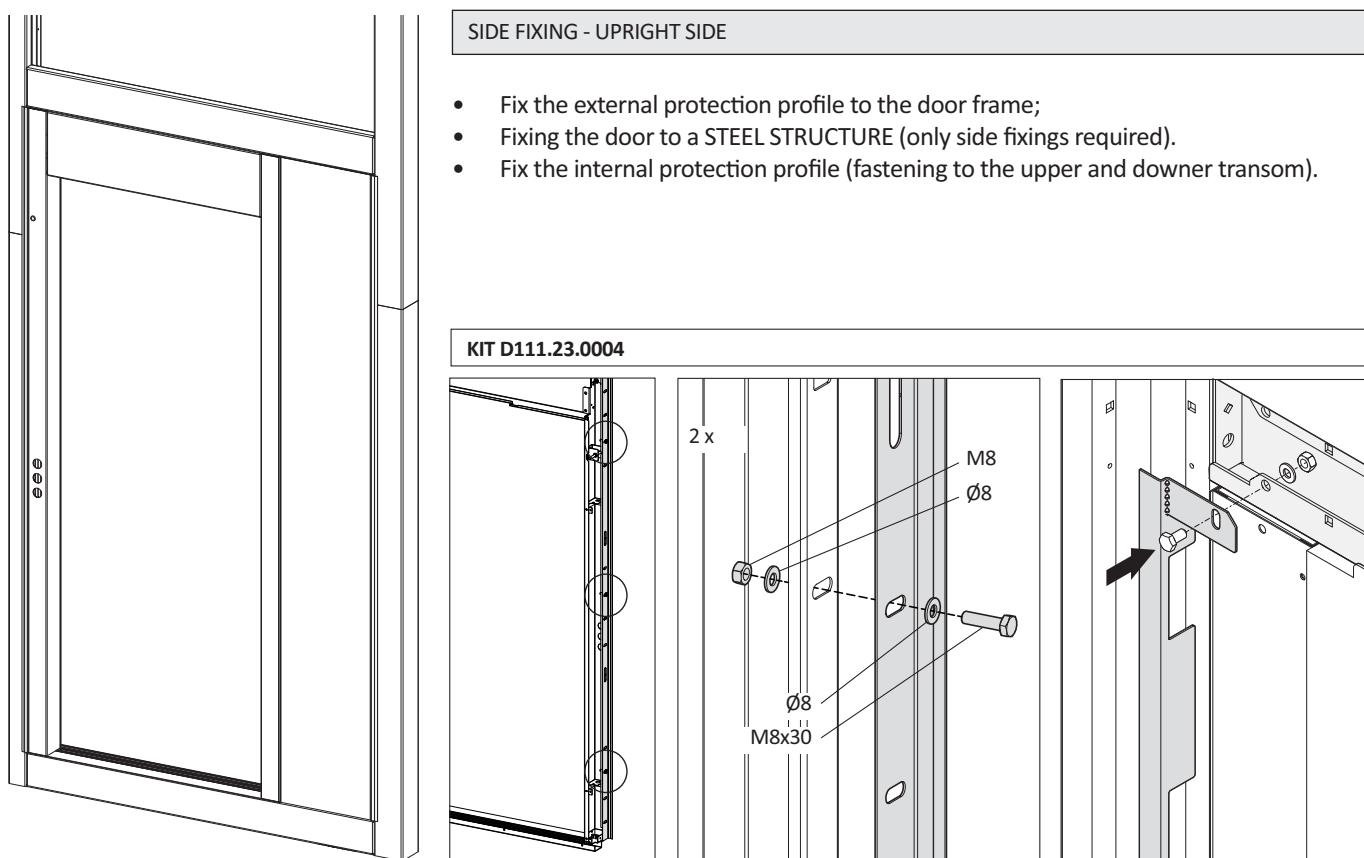
PROTECTION PROFILE FIXING (ON STEEL STRUCTURE)

INFORMATION



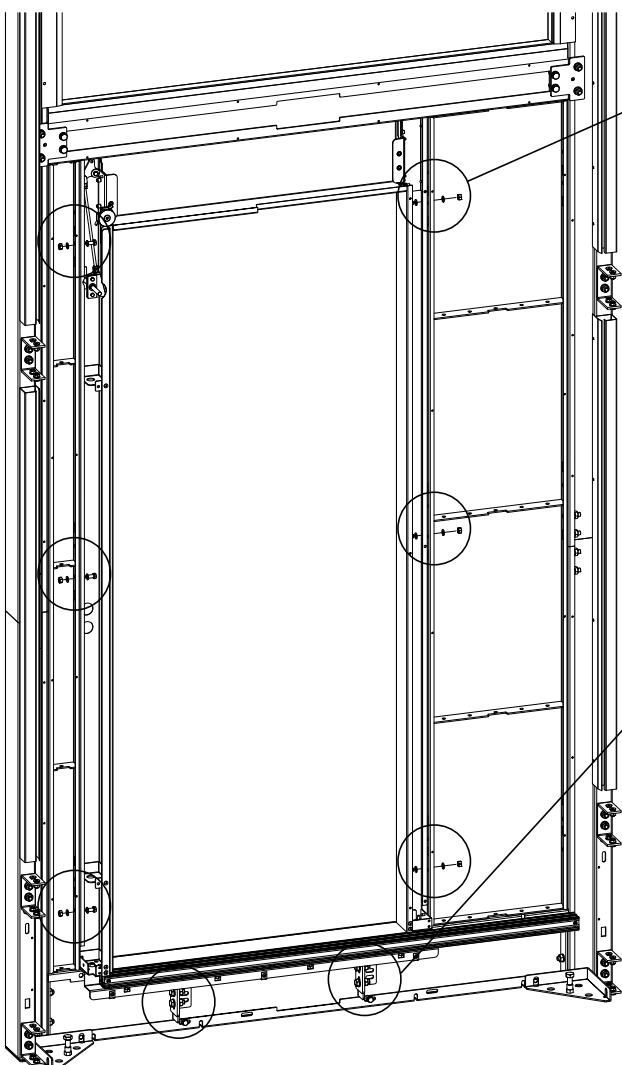
- Door installation can proceed only once the steel cladding to the sides of the door frame has been installed.
- At this stage the door frame should be fully assembled; if otherwise go back to the relevant section of this manual.

PROTECTION PROFILE RECOGNITION	INTERNAL PROTECTION PROFILE PREPARATION	
<p>Two profiles are supplied to fix the door to the structure. Recognise and distinguish them for a proper door positioning.</p> 		<p>Fold the indicated part at 90° along the predrilled line.</p>

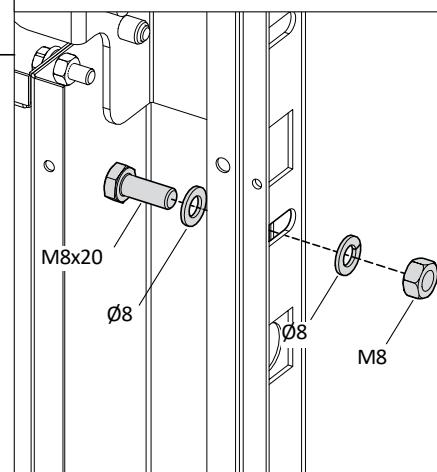




- Fix the door frame SIDES to the steel structure
- Fix the BOTTOM brackets to the steel structure using the fixing plates supplied with the structure itself

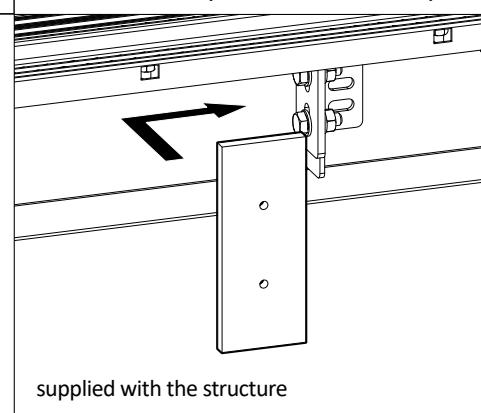


KIT D111.23.0004

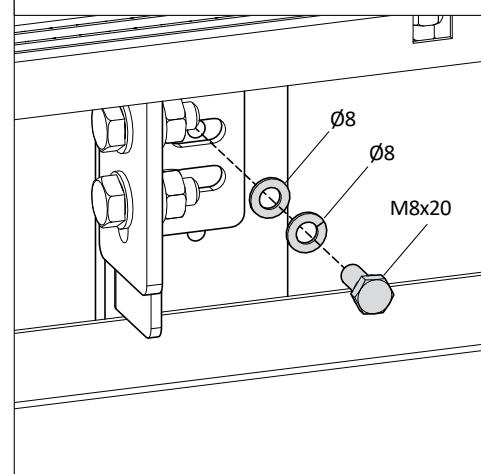


2 x

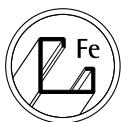
ITEM S001.05.5002 (REINFORCEMENT PLATE)



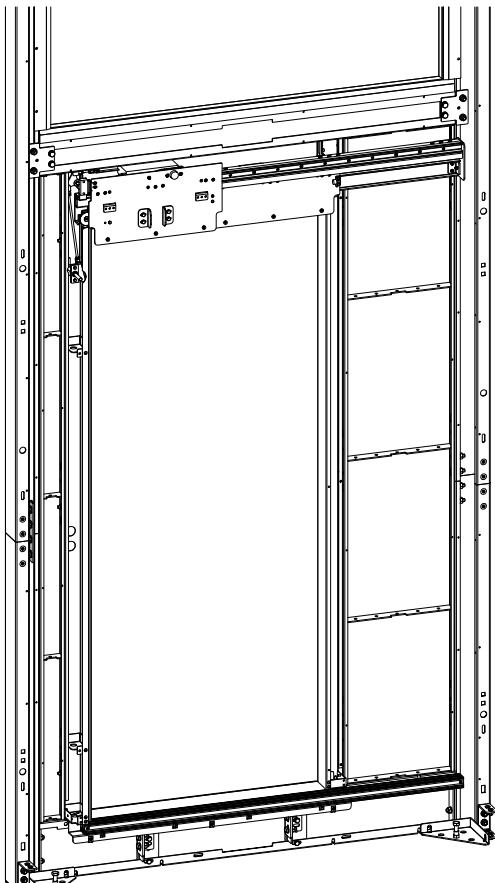
KIT D203.23.0013



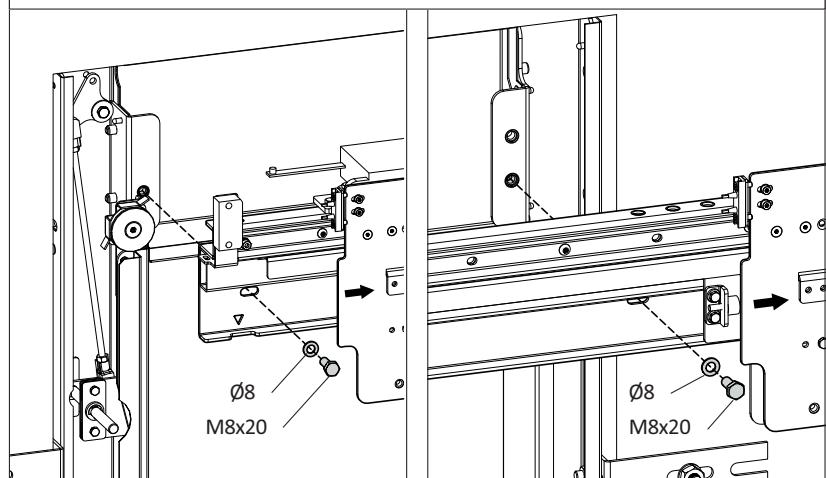
- Fit the door mechanism



KIT D203.23.0001

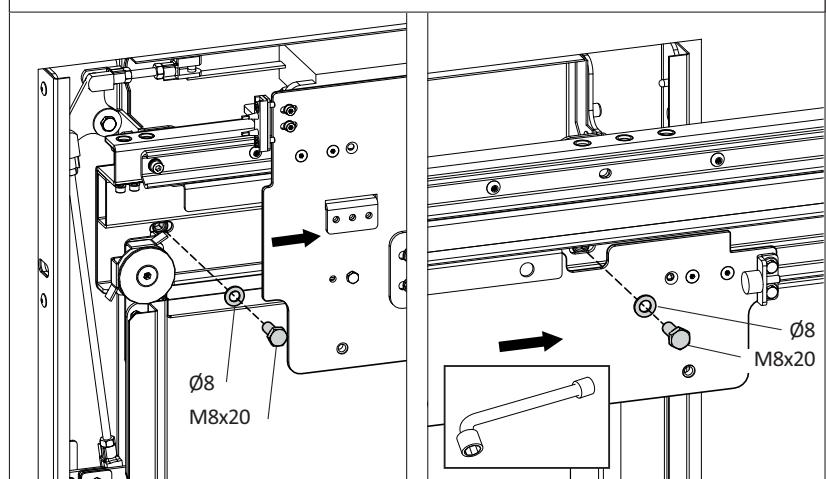


EASYhome218 - 2 LEAF version

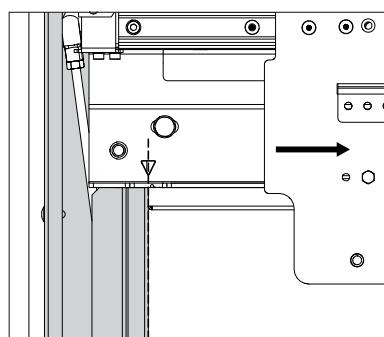
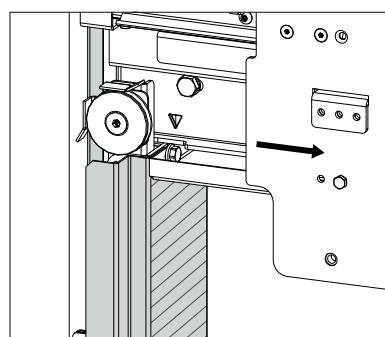


- slide the two carriages together in order to fix the mechanism to the frame

EASYhome318 - 3 LEAF version



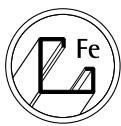
- to fix the mechanism to the opening jamb, slide the third carriage enough to reach the fixing hole behind with an angled socket wrench



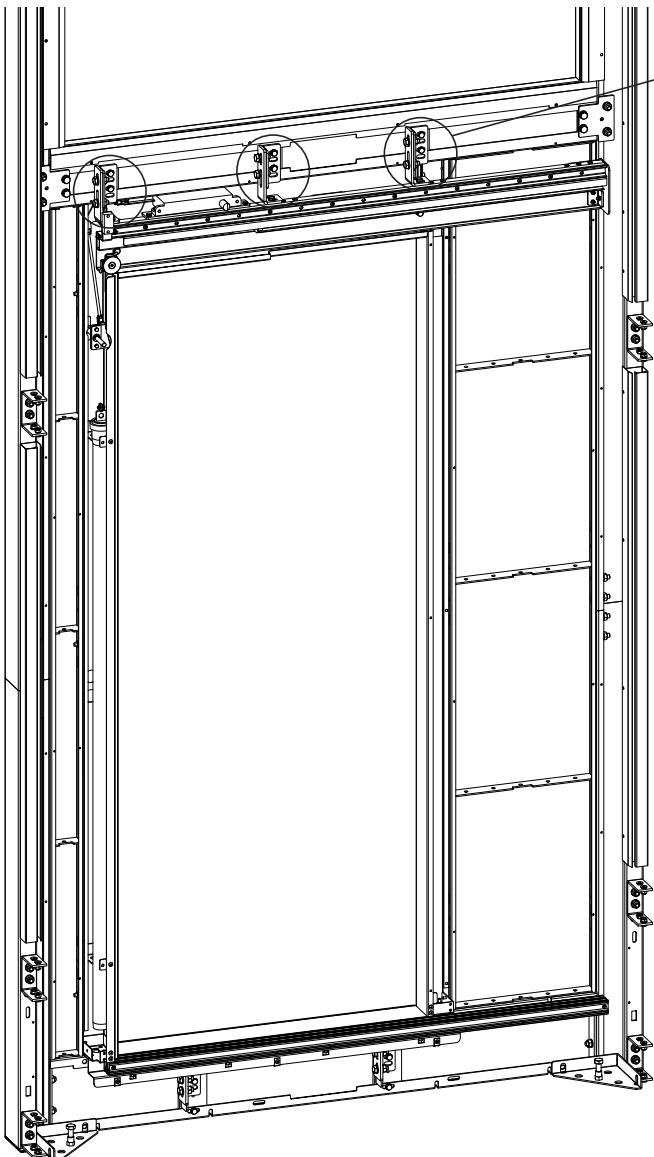
INFORMATION



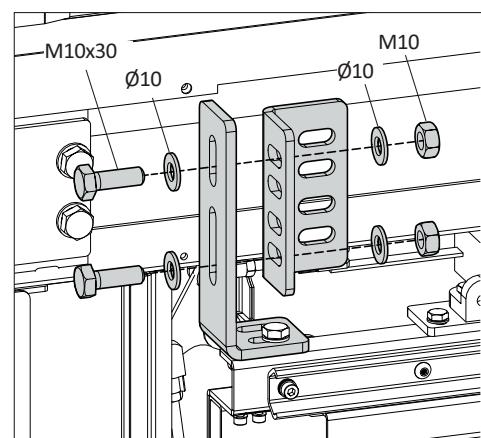
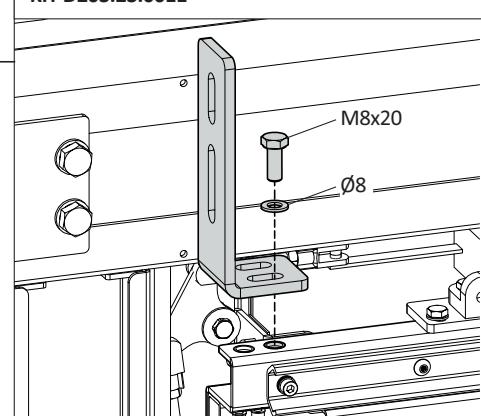
Make sure of the correct positioning of the mechanism: slide the carriage away from the closing jamb and verify that the triangular hole on the mechanism is lined up with the internal face of the closing jamb itself.



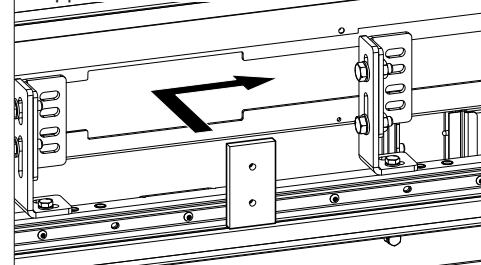
- Fix the TOP brackets to the door mechanism
- Fix to the steel structure the brackets just assembled using the fixing plates supplied with the structure itself



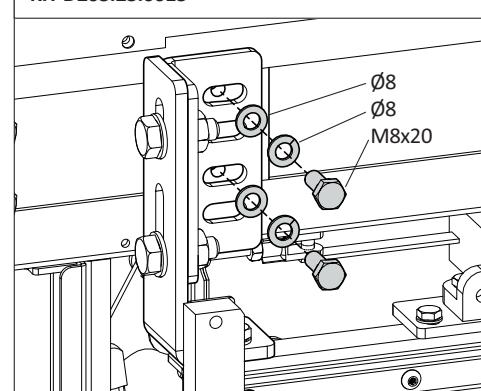
KIT D203.23.0011

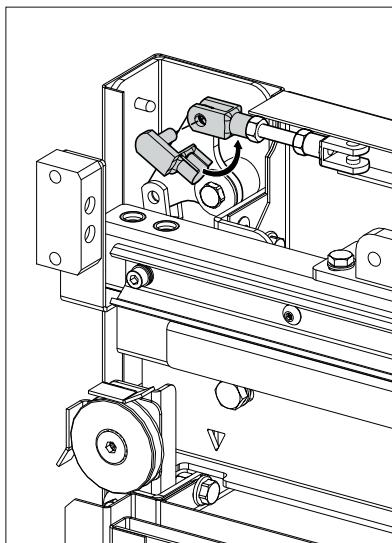
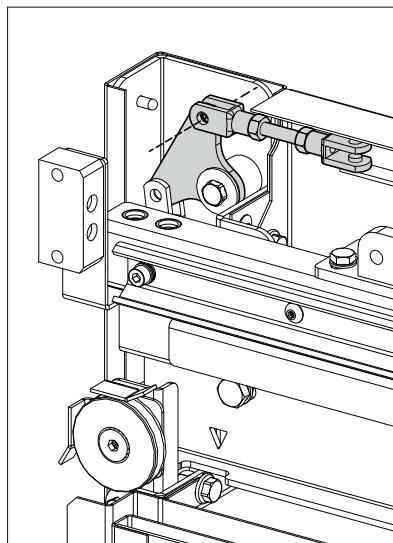
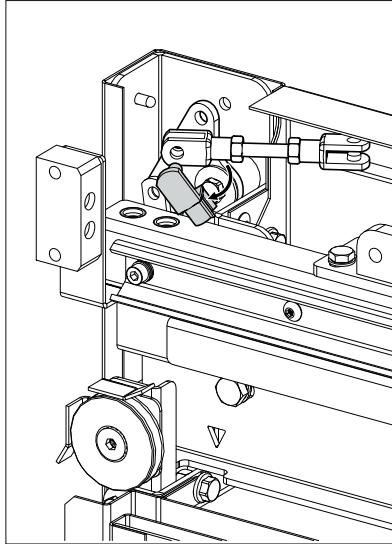
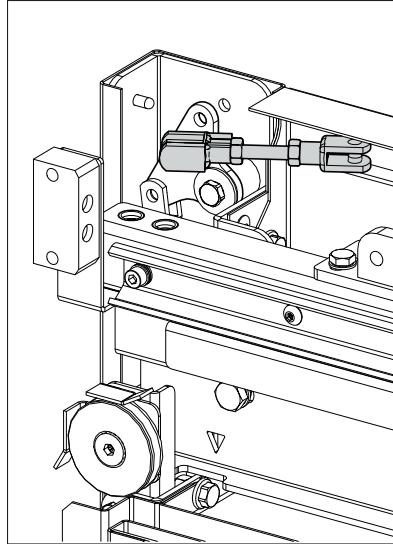
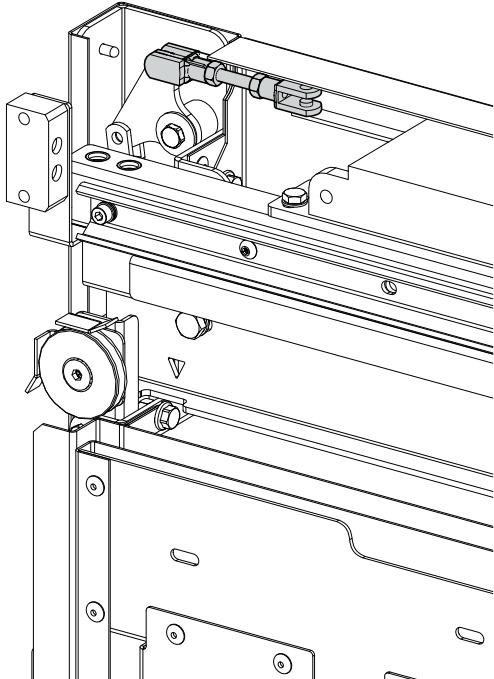


supplied with the structure



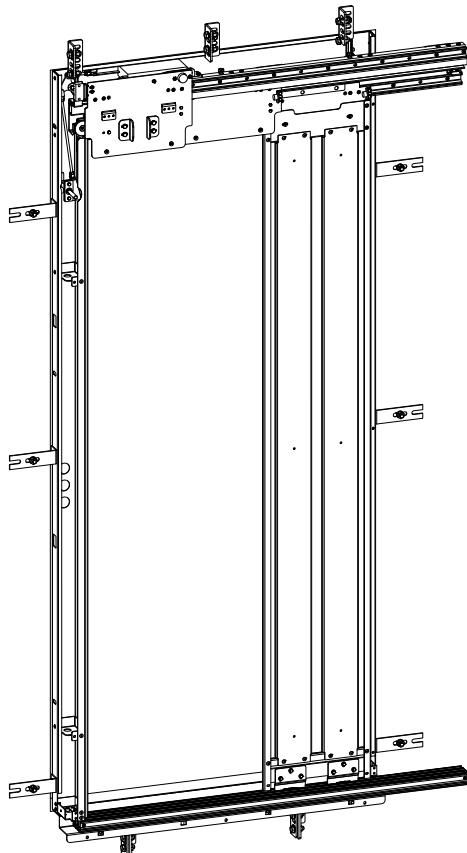
KIT D203.23.0013



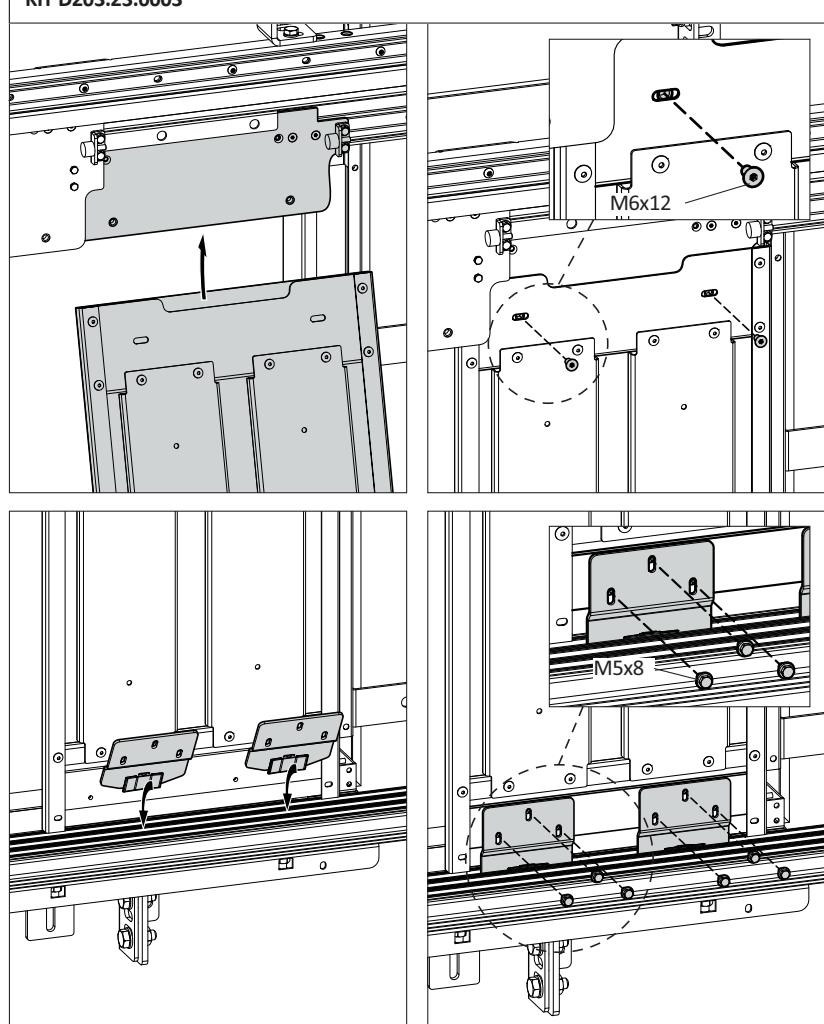


- Assemble the door LEAVES

EASYhome318 - 3 LEAF version



KIT D203.23.0003

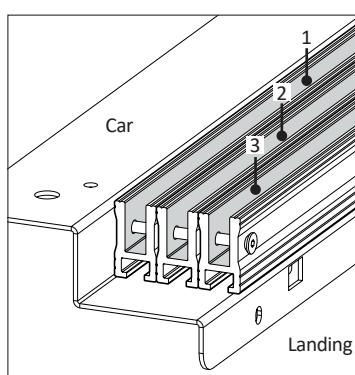
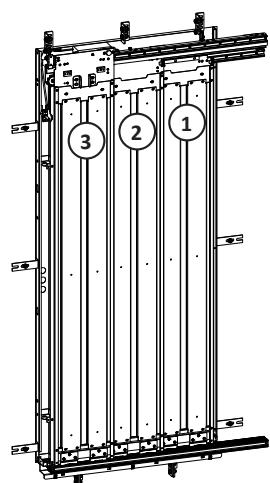


INFORMATION

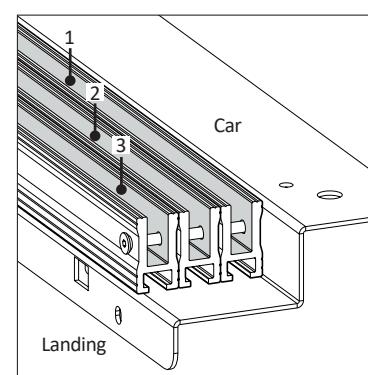
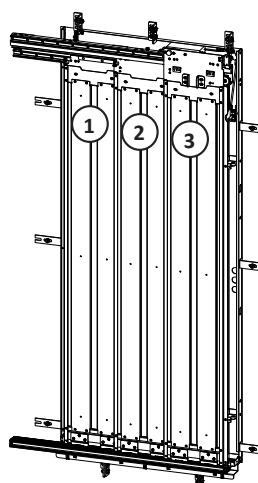


The 3 leaf LANDING doors' leaves can be recognized by the 2 stiffeners on the back of each panel.

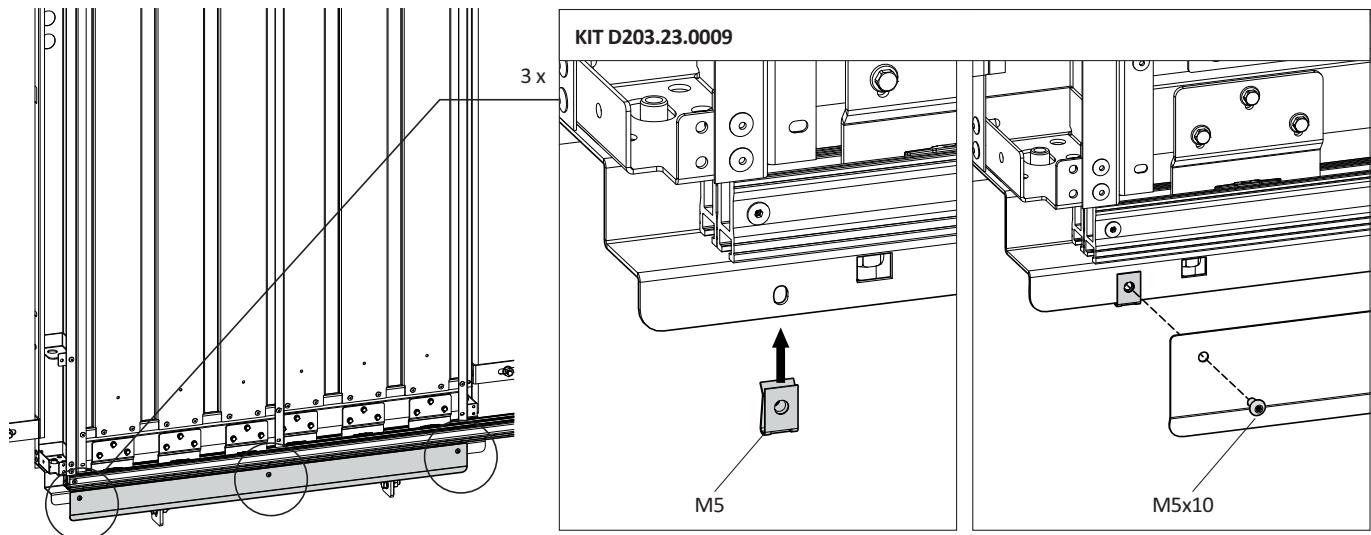
LEFT version



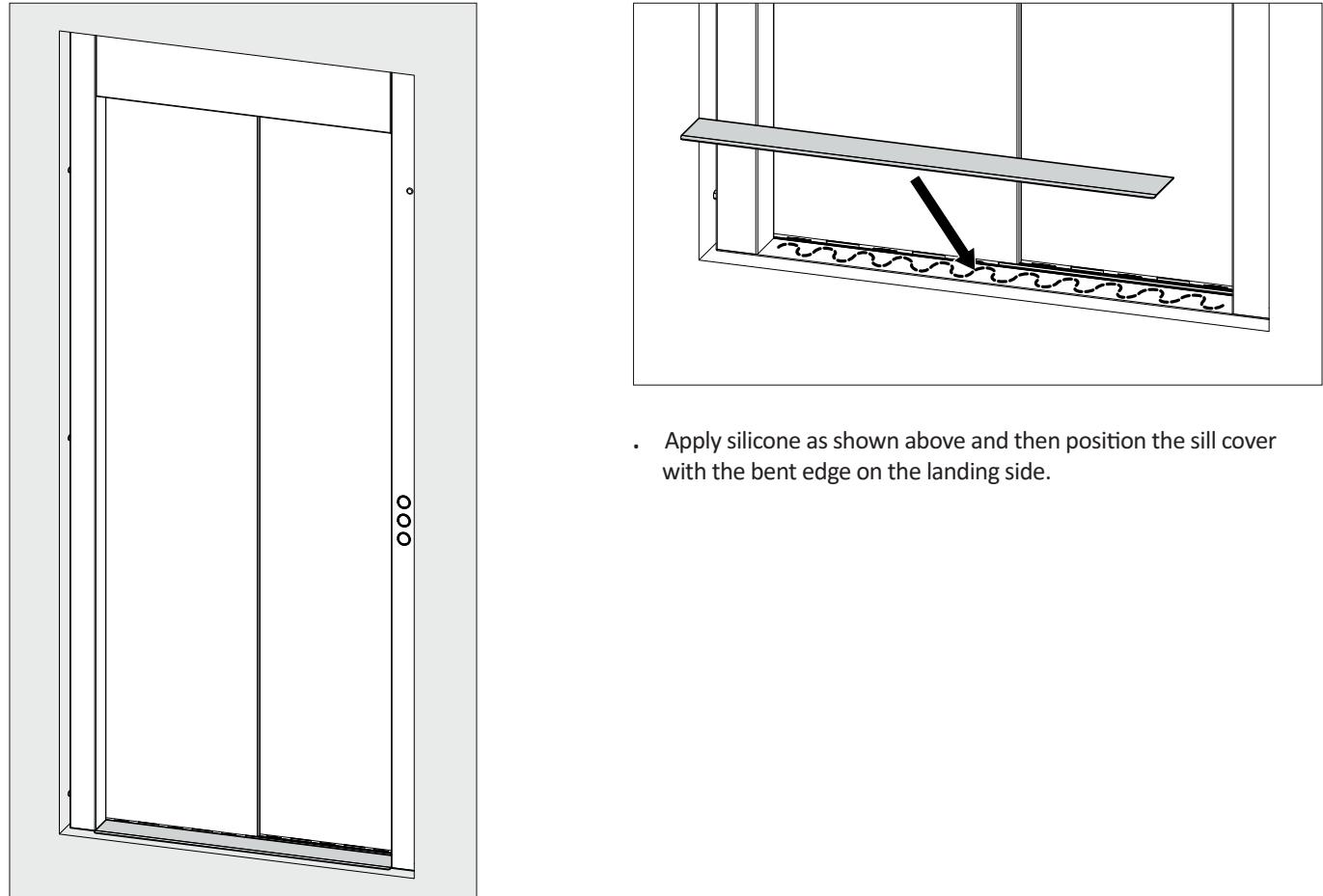
RIGHT version



- Fix the toe guard



- Fix the sill cover

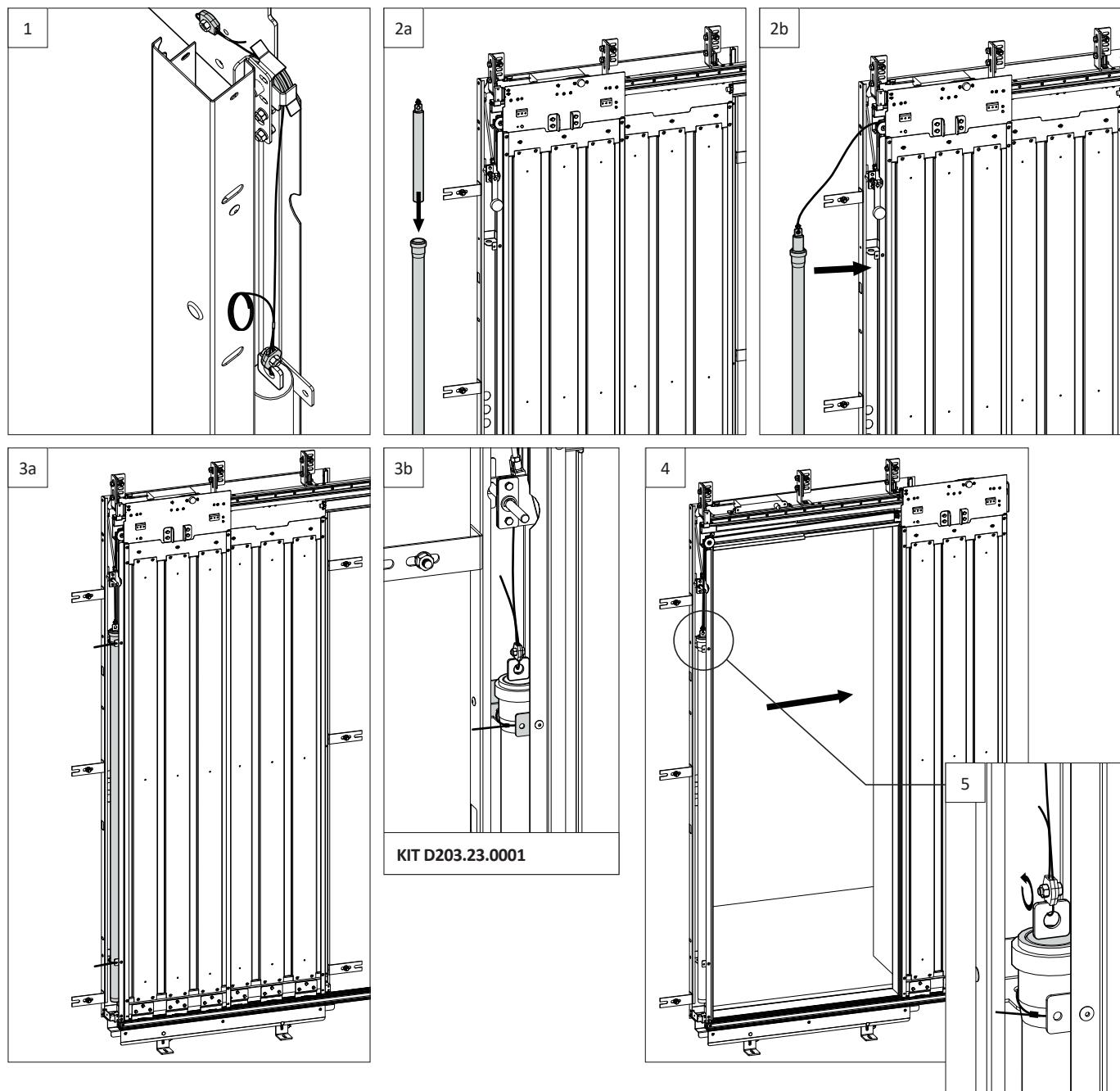


- Fix the counterweight

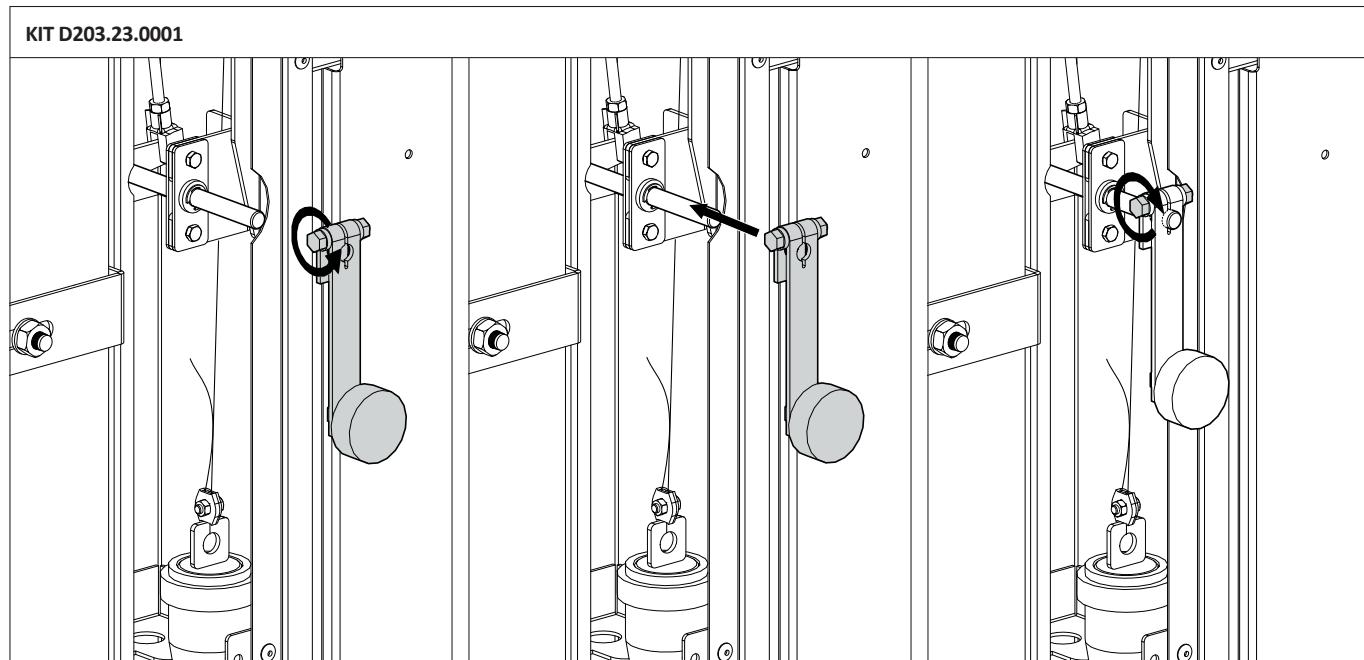
- TEMPORARILY attach the counterweight to the wire rope by threading the cable through as shown in the figure; the wire rope can be found behind the door leaf carriage nearest to the closing jamb;
- Insert the counterweight inside the plastic tube;
- Place the tube in the space provided for and fasten it with the cable ties supplied (KIT D203.23.0001);
- Adjust the wire rope length so that when the door is completely open the top face of the counterweight is flush with the top edge of the plastic tube;
- Tighten the Simplex wire rope clip to PERMANENTLY set the cable to its definitive length;

INFORMATION

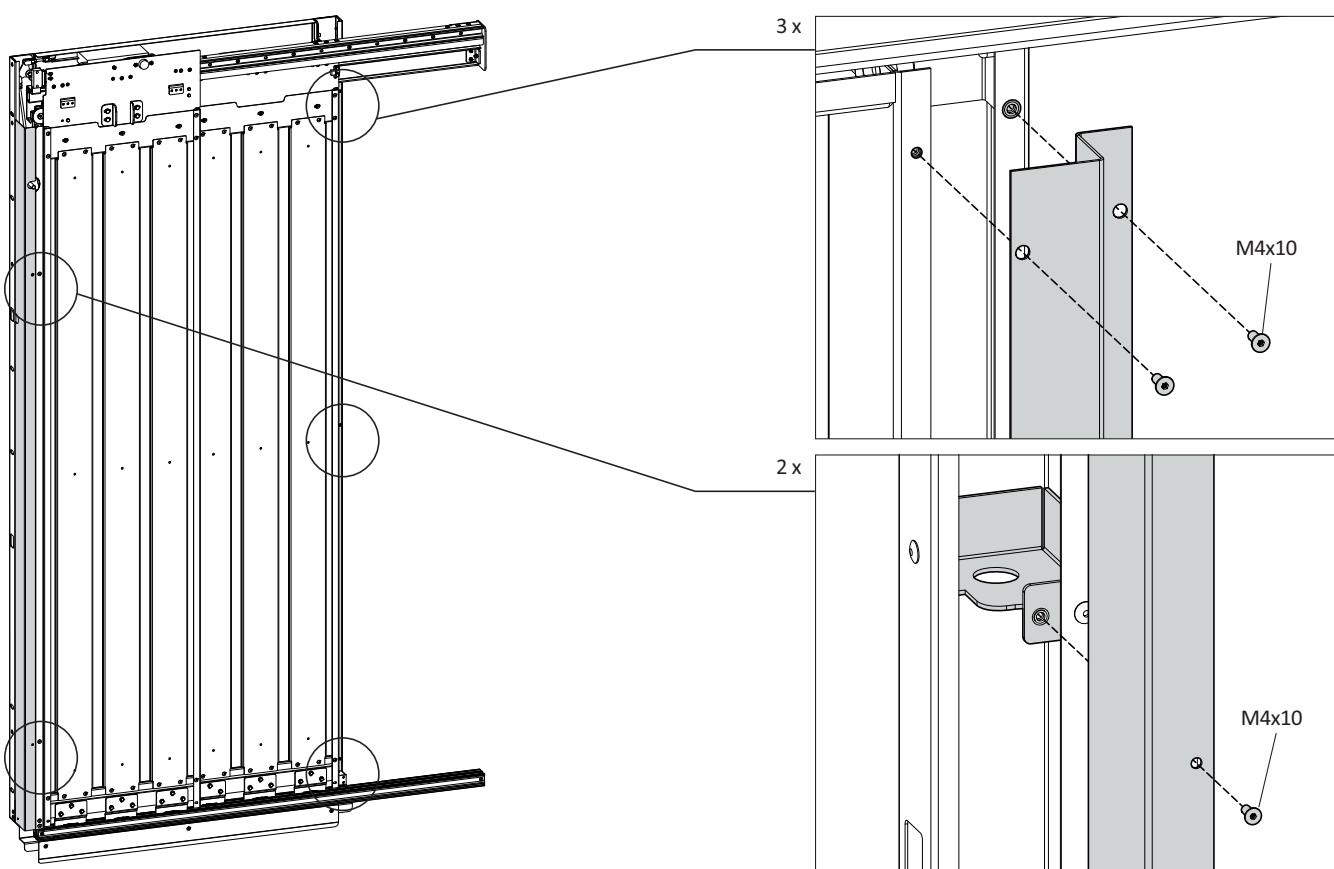
Make sure that the wire rope is correctly threaded through as indicated.



- Fix the door release lever



- Reassemble the steel cladding to the closing jamb side of the door.





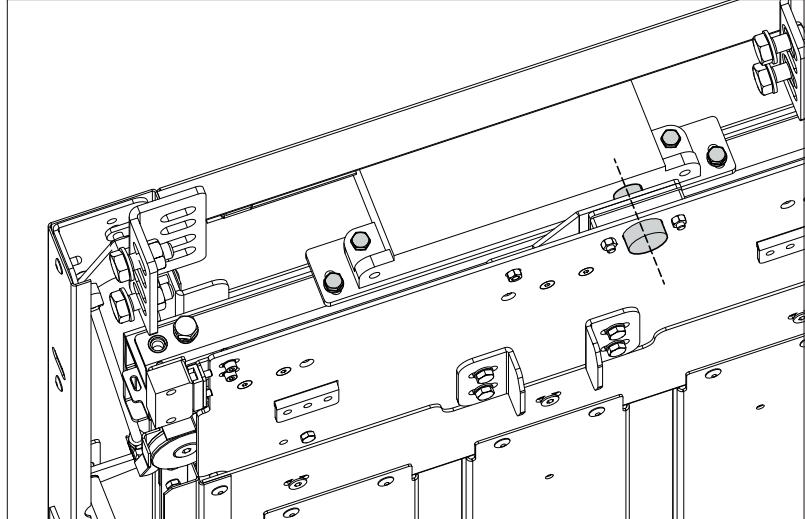
9. LANDING DOOR FINAL CHECKS



- Verify the correct alignment between door leaf carriage and the lock mechanism.

INFORMATION

If not correctly aligned, act on the 4 screws at the top to adjust the lock's position.





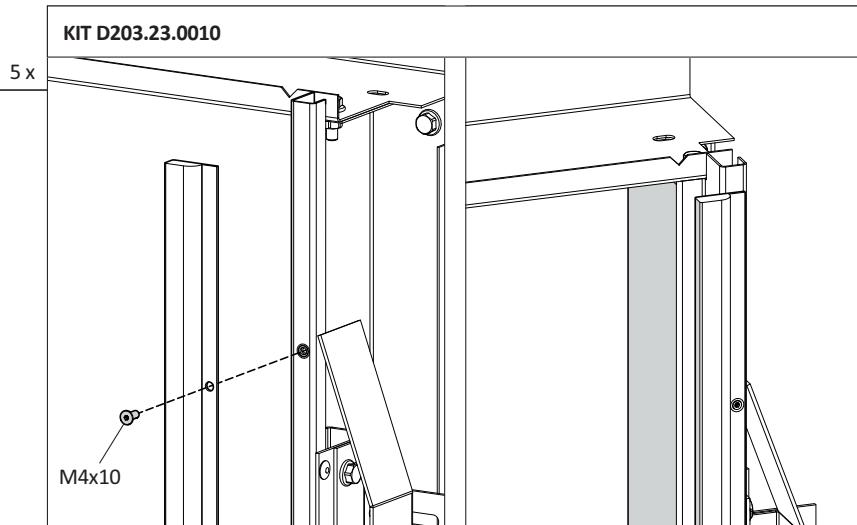
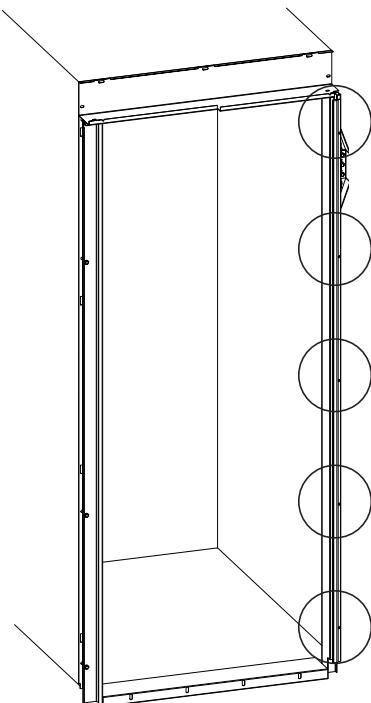
10. CAR DOOR ASSEMBLY AND INSTALLATION



INFORMATION

 Car door installation can proceed only once the car has been completely assembled, including the door frame.

- Fix the optoelectronic light curtain to the closing jamb side

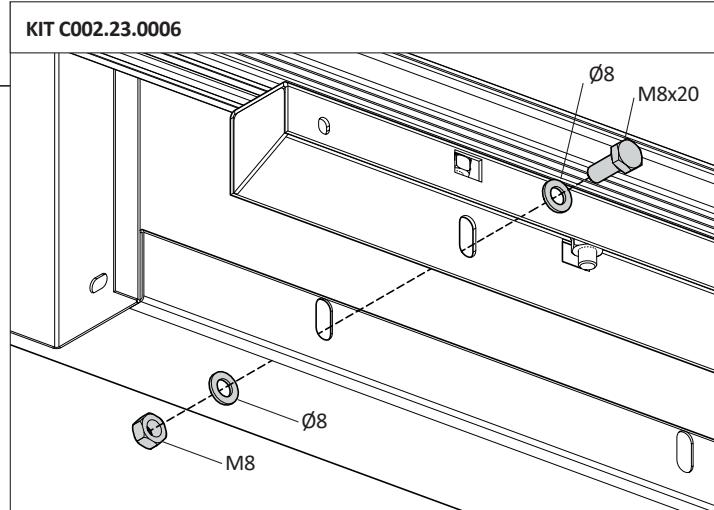
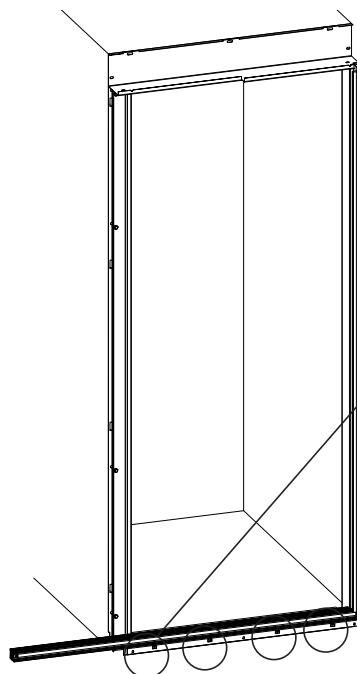


INFORMATION

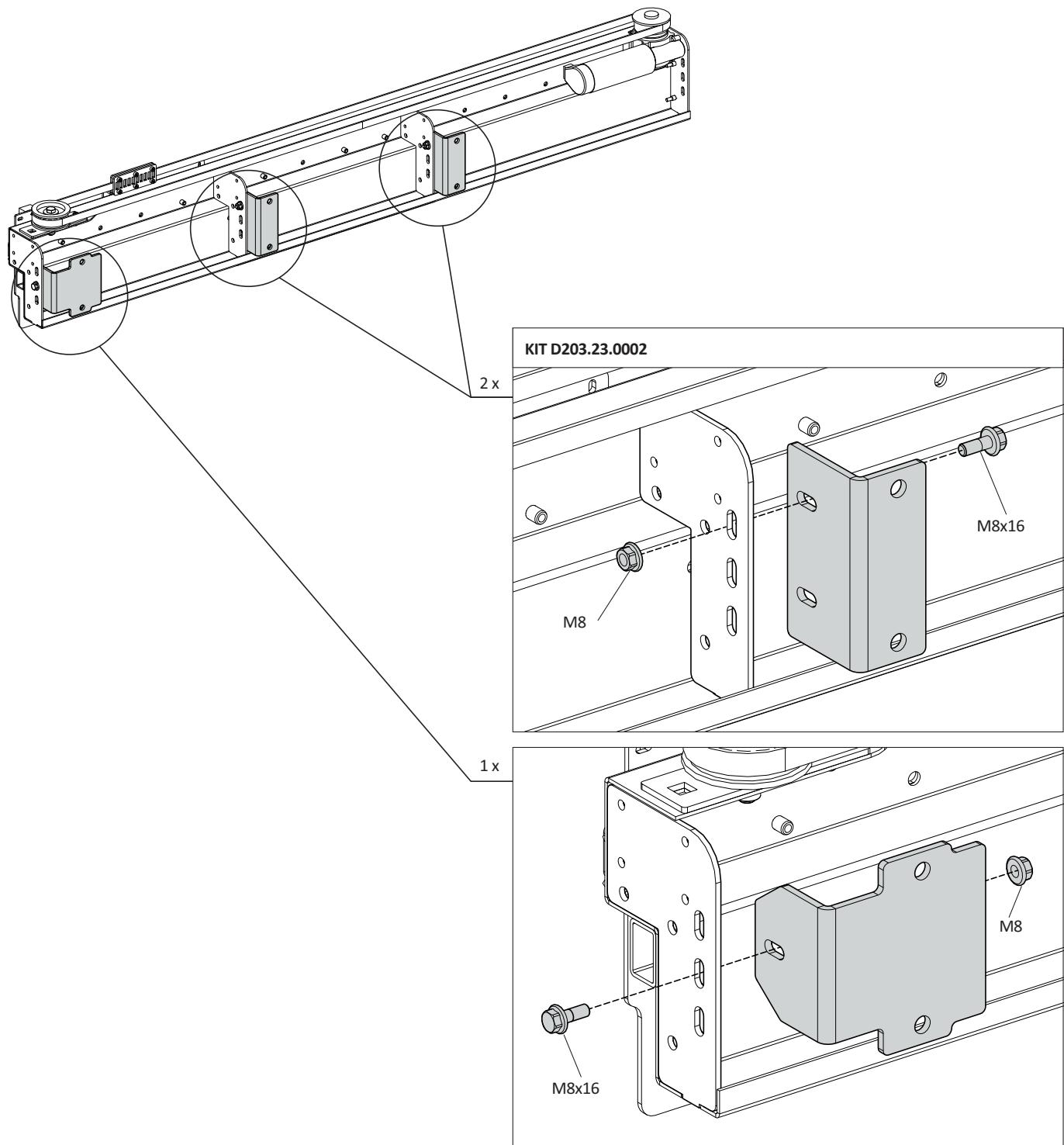
Verify the correct alignment between the door frame and the optoelectric light curtain, which should be on the same plane.

In the absence of threaded inserts fitted to the door frame use the M4 nuts found in the fixing kit.

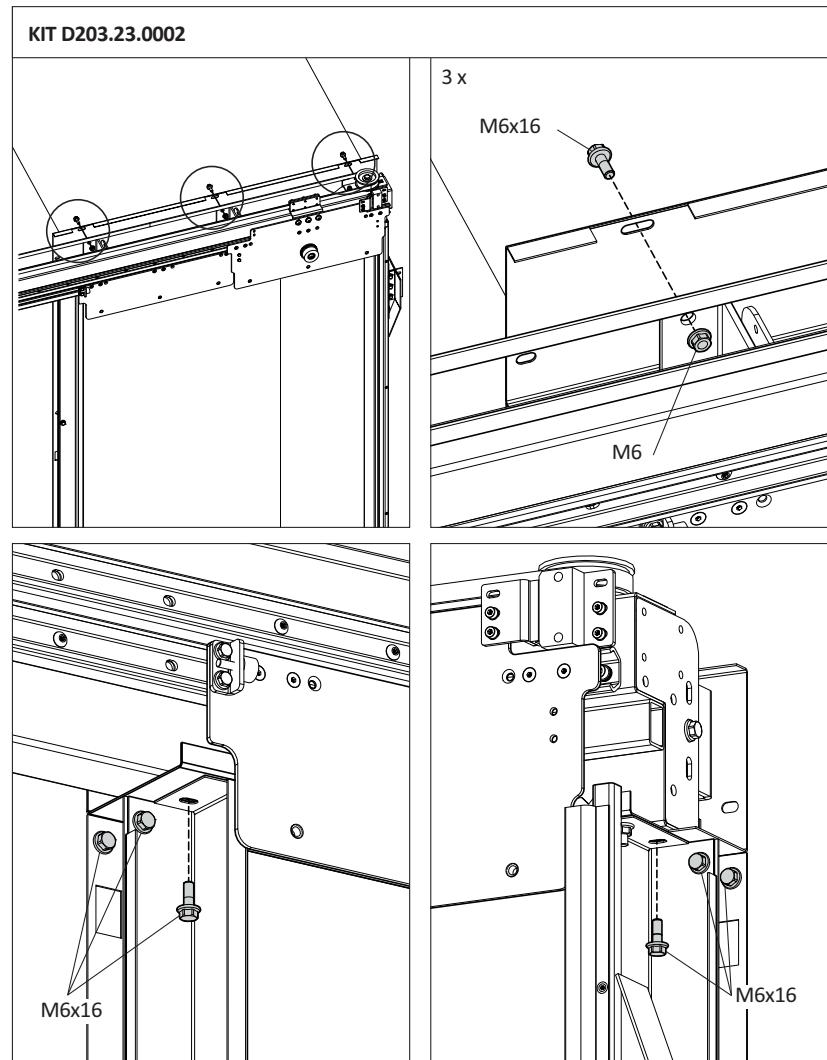
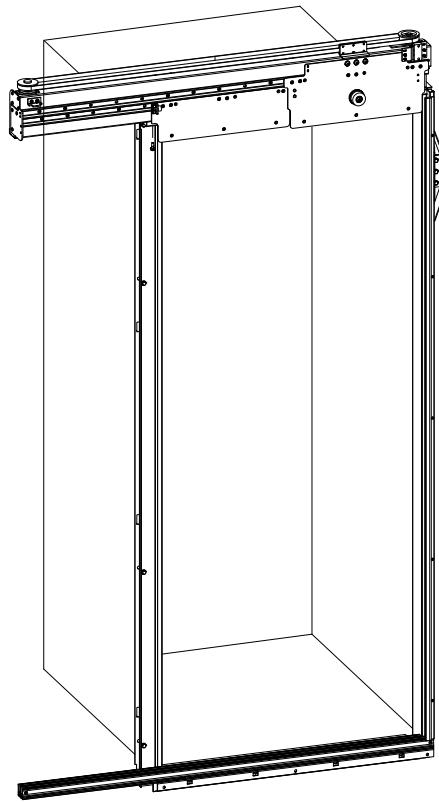
- Fix the door sill assembly to the car basement



- Fix the brackets to the door operator

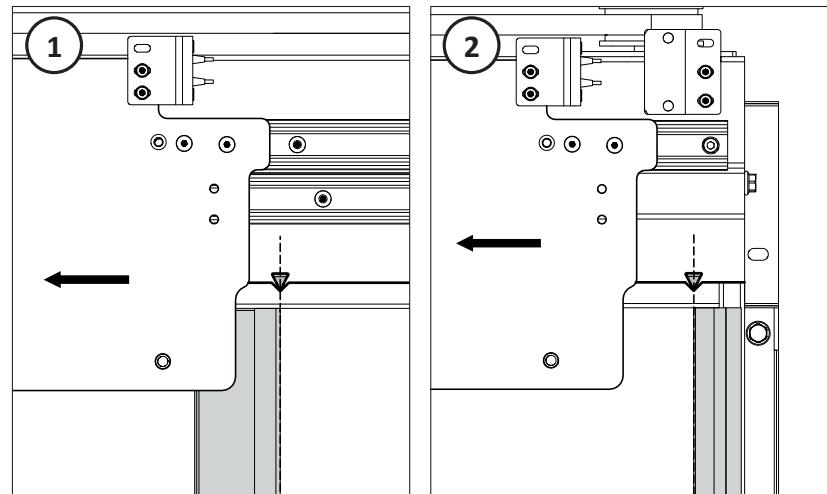
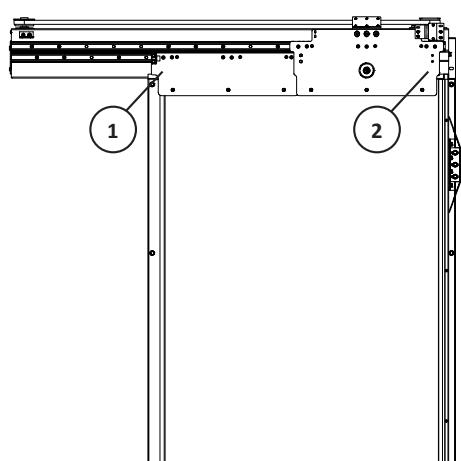


- Fix the door operator to the door lintel

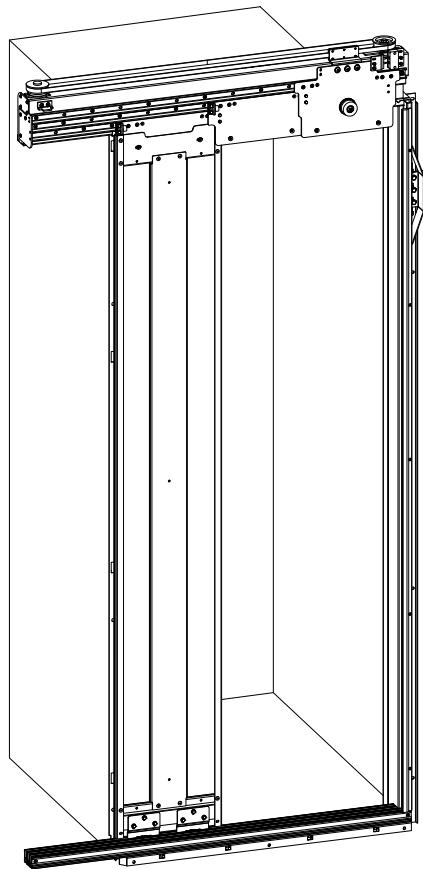


- Make sure of the correct positioning of the operator:

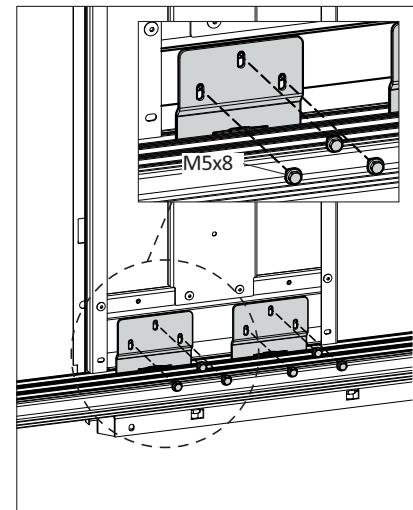
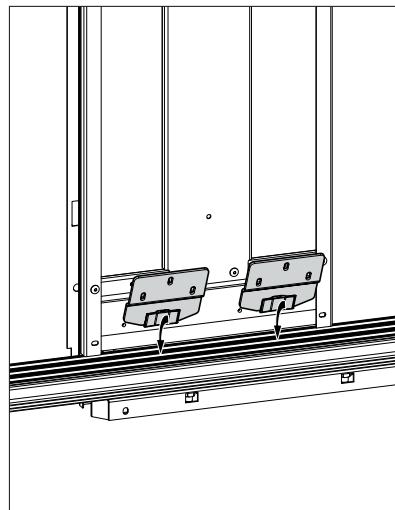
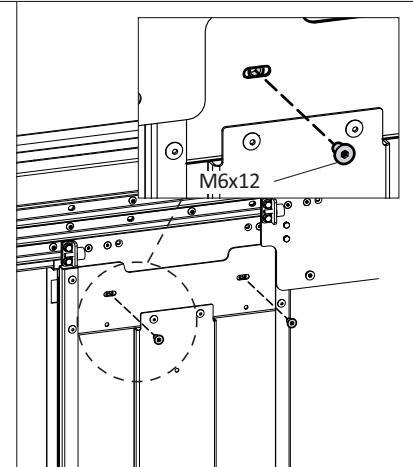
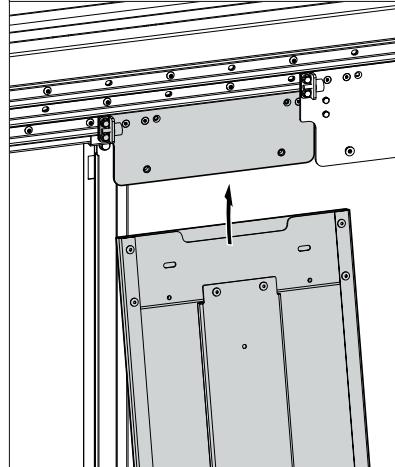
Slide the carriages away and verify that the triangular hole on the operator is lined up with the internal face of the closing jamb.



EASYhome318 - 3 LEAF version



KIT D203.23.0003

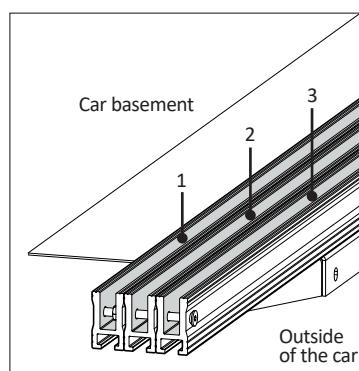
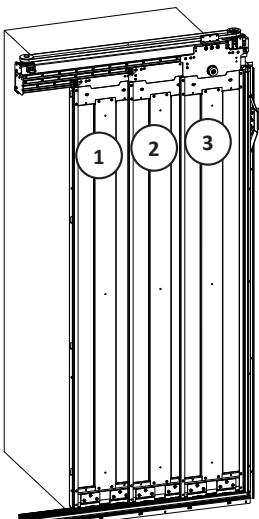


INFORMATION

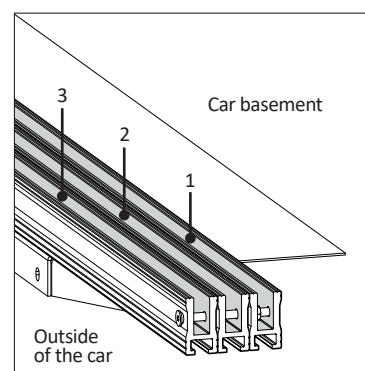
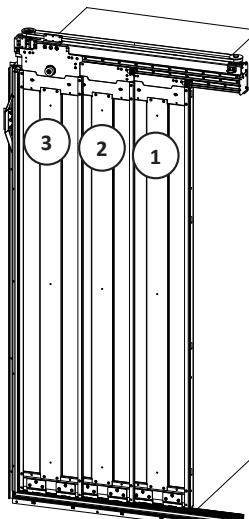


The 3 leaf CAR doors' leaves can be recognized by the single stiffener on the back of each panel.

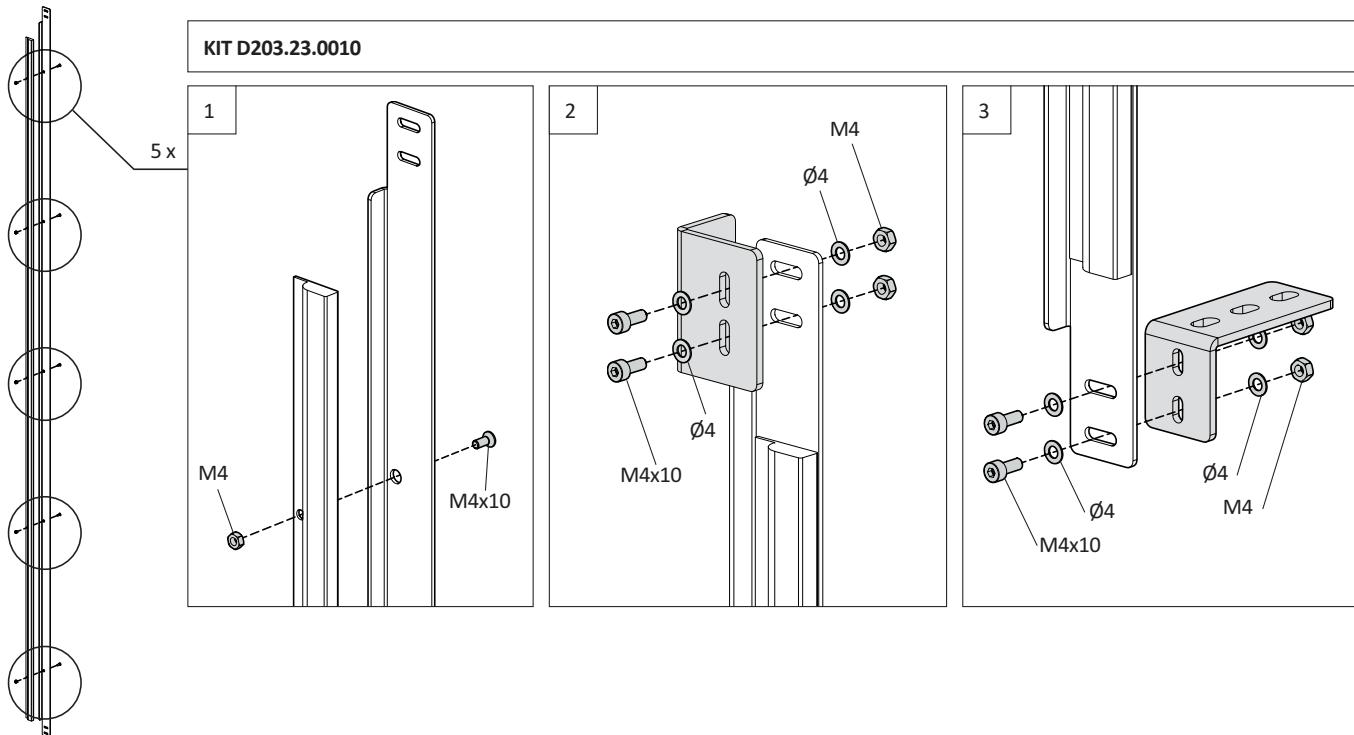
LEFT version



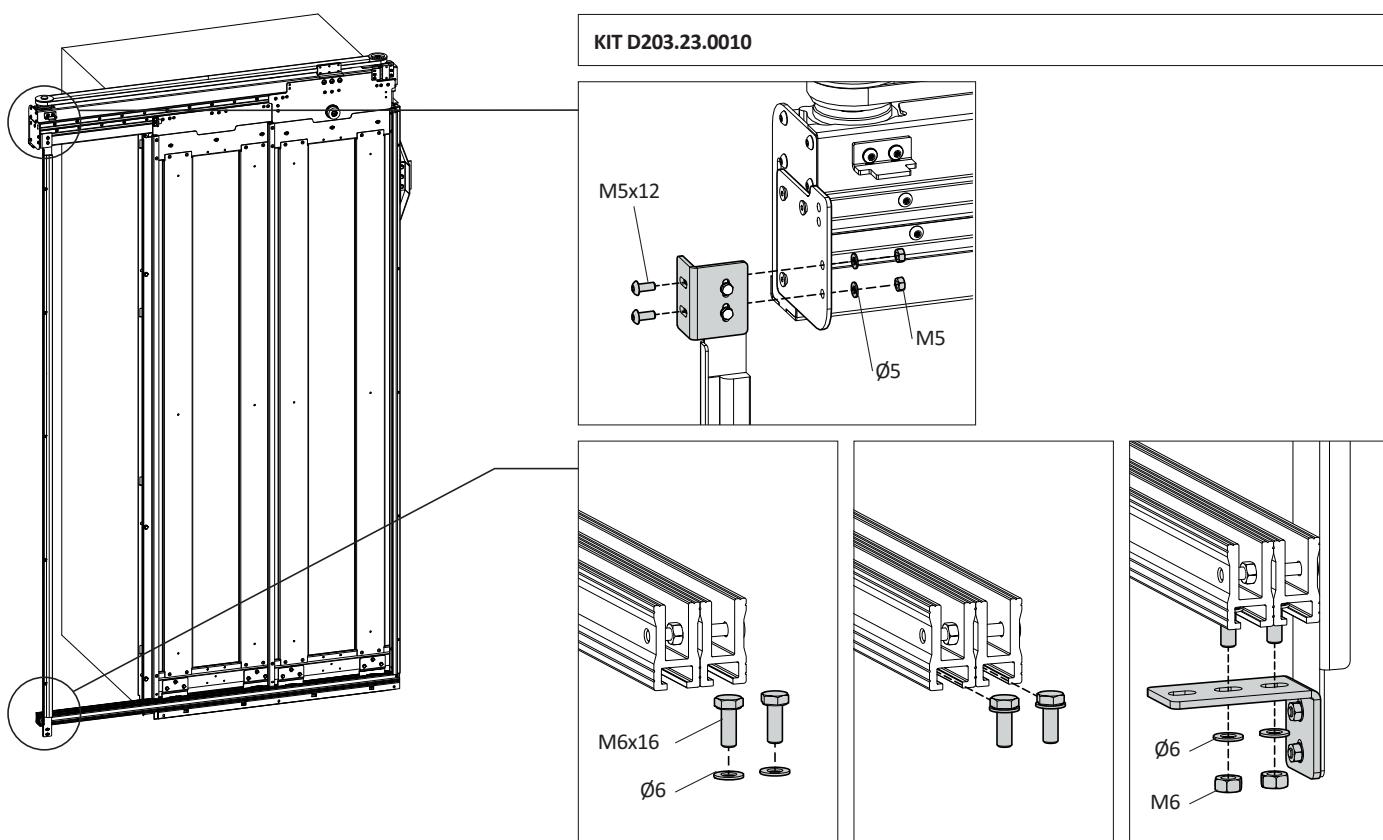
RIGHT version



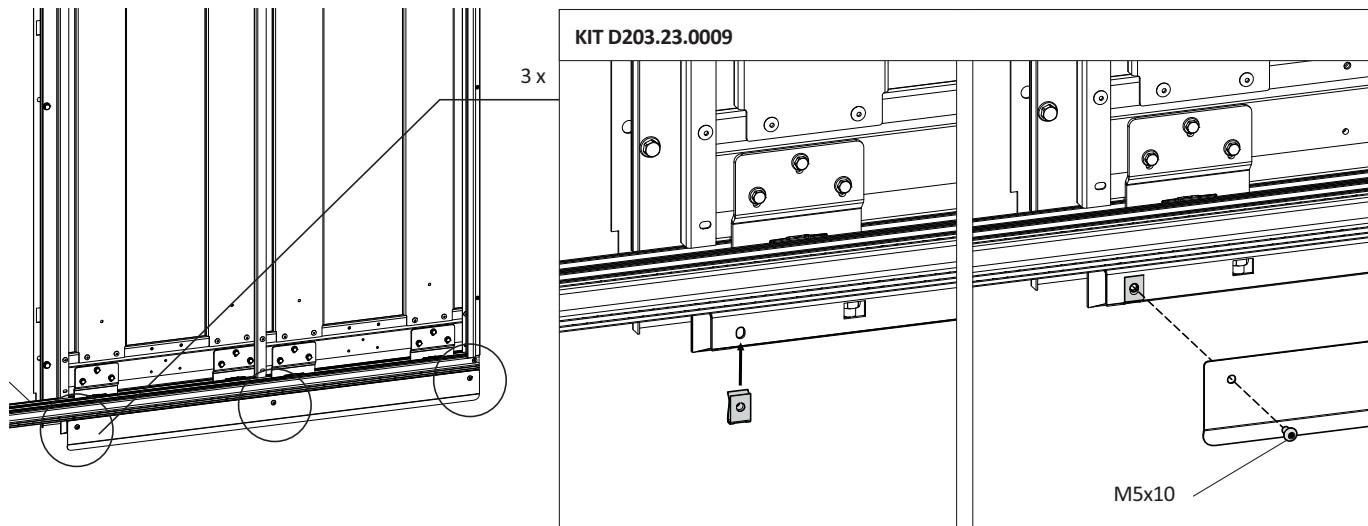
- Assemble the optoelectronic light curtain: light curtain and support (1), bottom bracket (2) and top bracket (3)



- Fix the optoelectronic light curtain on the opening jamb side



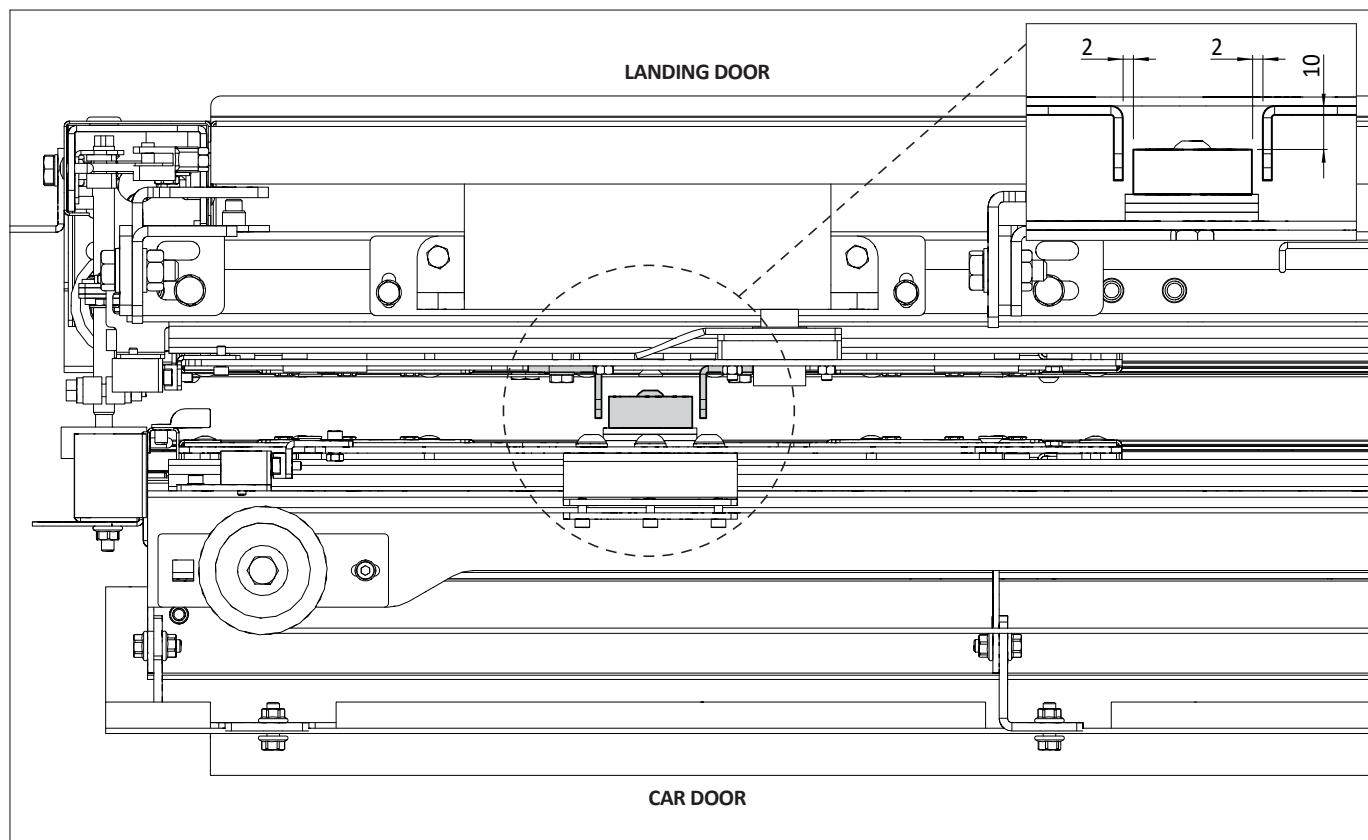
- Fix the toe guard



11. CAR DOOR FINAL CHECKS

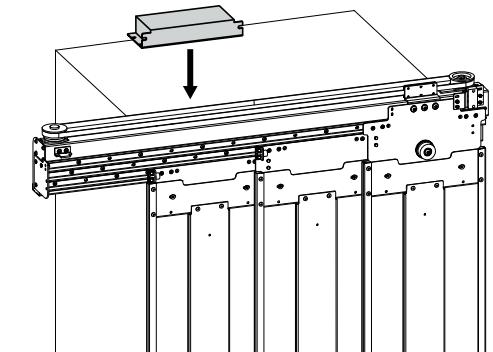


- Verify the alignment between Landing and Car door

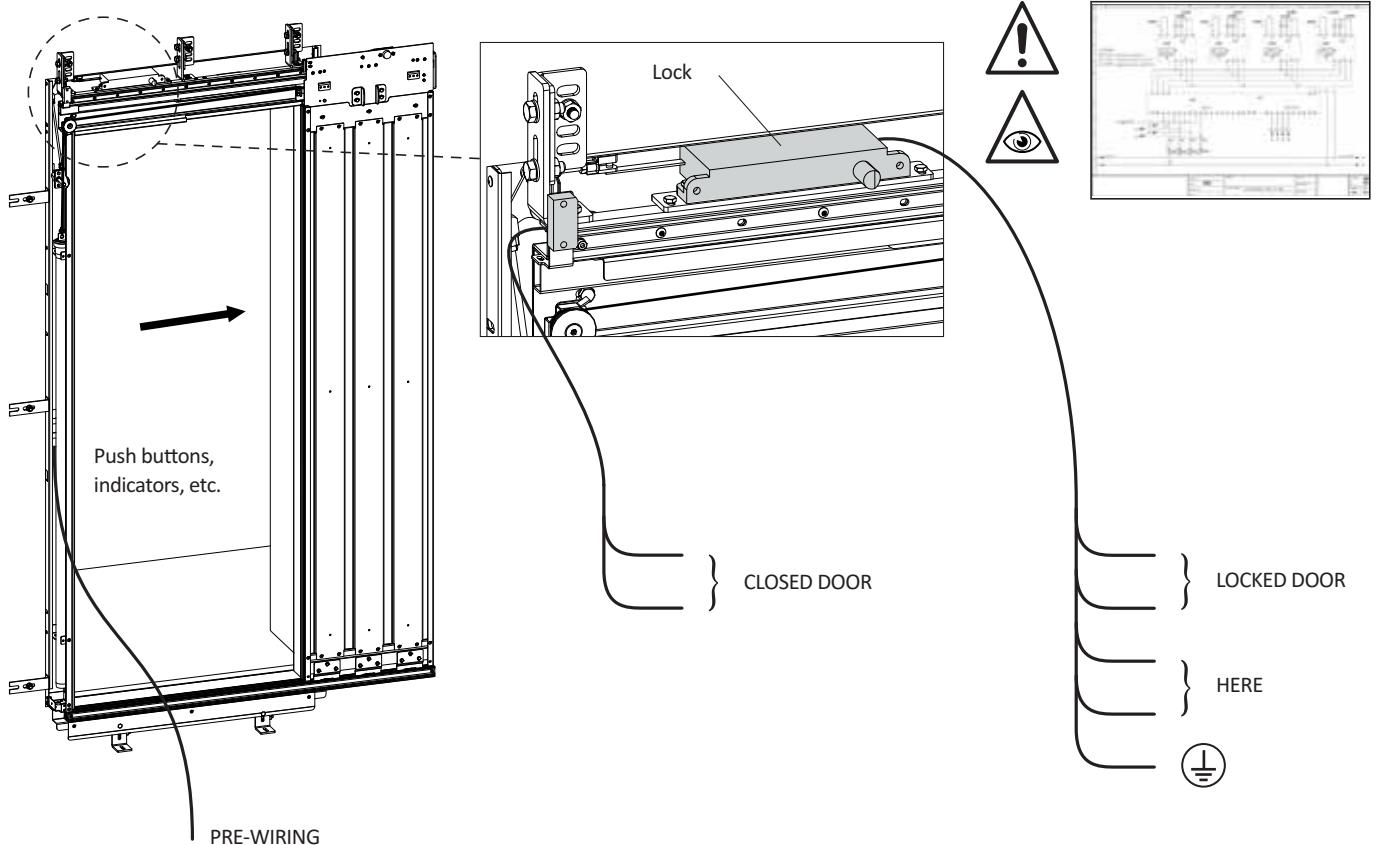


- Place the AT12 controller on top of the car ceiling.

KIT D401.23.0007



12. LOCK WIRING

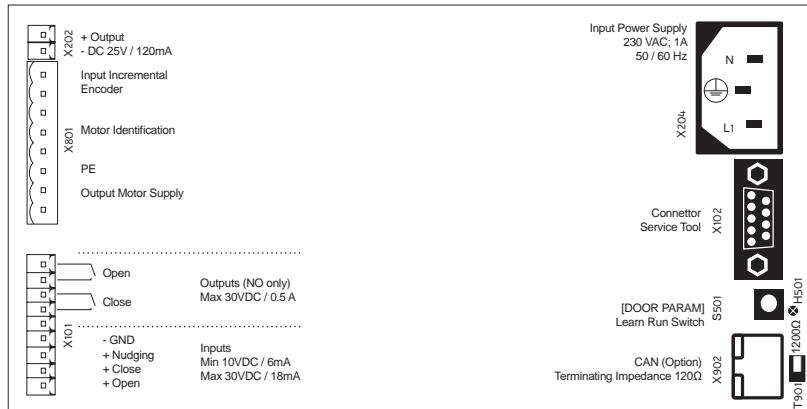




13. AT12 CONTROL UNIT INSTRUCTIONS



13.1. AT12 CONTROLS OVERVIEW



Sidoor AT12:

X204: mains connection 230 Vac (1A 50/60 Hz)

X102: connector for hand-held terminal and USB adapter (Frontend PC)

S501: door param. pushbutton (Learn Run pushbutton)

X902: CAN connector (CAN OPEN RJ45)

T901: switchable CAN terminating resistor (120 Ohm)

X202: voltage output 24 V DC / 120 mA

X801: motor connector

X101:

Connection for OUTPUT signals

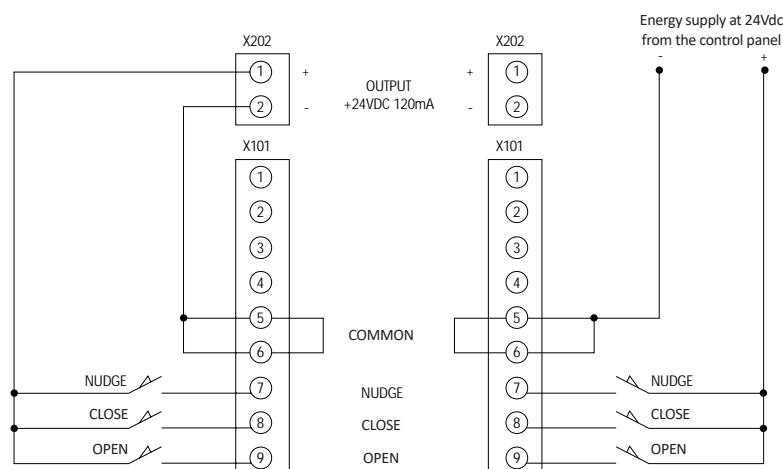
- Open
- Closed

X101:

Connection for INPUT signals

- Nudge
- Close
- Open

13.2. CONNECTION SCHEME OF THE AT12 CONTROL UNIT



Connection using the internal power supply

Connection using the external power supply

13.3. FUNCTION OF THE SiDOOR AT12 CONTROL PANEL INSTALLATION AND ADJUSTMENT
AT12 Controller: first startup

1. Pull out the X204 power supply plug;
2. Close the door manually and make sure that the leaves are fully closed;
3. Insert the X204 power supply plug and make sure the controller is switched on (LED H501 is on);
4. Push the "Door Param" key (S501) and hold it for more than 5 seconds, then release it;
5. The H501 LED will become blinking green and the door will open and close 3 times partially: in the meantime the door direction and opening width will be defined automatically;
6. Upon the completion of the parameter saving, which may last up to 1 minute, the door will return automatically to the closing position;
7. In this position, the parameters will be saved in the memory of the unit. This process takes some 3 seconds, then the blinking green LED H501 becomes steady. Afterwards, the controller is ready to receive ordinary function commands.

 The H501 LED must never become red during the first startup. Should it be so, a mechanical jam of the door has occurred. In this case, the correct door installation must be checked.

Door Param pushbutton

The Door Param pushbutton (S501) combines the automatic learn and test run functions and the option of opening and closing the door by using the control unit.

The learn and test run is activated by pressing and holding down the Door Param pushbutton for >5 sec.

Pressing the Door Param pushbutton briefly for 0.1 to 2 sec causes the door to move.

It is not permissible to activate the "Open" and "Close" inputs:

- The first time the button is held down in normal or initial mode for 0.1 to 2 sec, the door opens until it reaches the final "OPEN" position and then remains where it is with the average value of the PWM signal.
- If the pushbutton is held down again for 0.1 to 2 sec before the door has fully opened, the door stops and remains where it is.
- If the pushbutton is held down again in normal or initial mode for 0.1 to 2 sec the door closes until it reaches the final "CLOSED" position and remains where it is with the average value of the PWM signal.
- If the pushbutton is held down again for 0.1 to 2 sec before the door has fully closed, the door stops and then remains where it is.
- The next time the pushbutton is pressed, the door opens again.
- If no further instructions are given via the pushbutton for a period of 10 s between the individual times when the pushbutton is pressed, the door will always open the next time the pushbutton is held down for 0.1 to 2 s.

Re-start after power outage

After a power outage, the final positions of the door have to be determined by the door control unit again. For this purpose the door travels at reduced speed (initial speed) until the two end positions, i.e. "Open" and "Closed", have been detected by the control unit. The door then travels at normal speed.

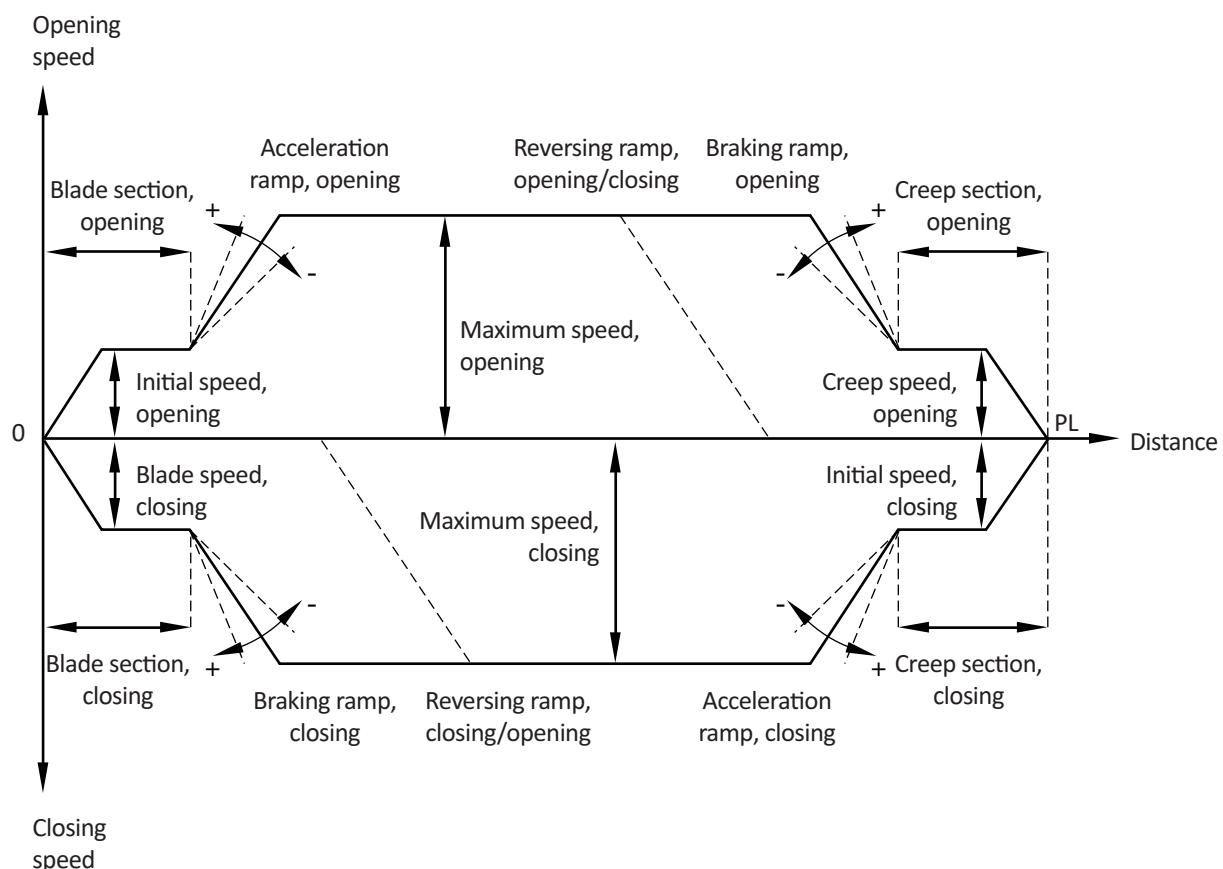
Overload protection

If the drive motor is subjected to substantial stress due to frequent OPEN DOOR and CLOSE DOOR controls in quick succession, the remain-open time is automatically extended. The next closing movement is delayed in spite of a possibly active CLOSE DOOR control and the LED flashes red four times.

This function prevents the motor from thermal overload.

13.4. MECHANICAL INSTALLATION AND ADJUSTMENT
INFORMATION

In order to have the door functioning correctly and safely, it has to be installed and adjusted by qualified staff, with due attention being paid to the warnings in these Instructions booklet. The control unit must be isolated from the power supply before any assembly, operation or adjustment is done on the door. Only in these conditions it is certain that the door will not move.

13.5. THE TRAVERSING CURVE


13.6. TECHNICAL DATA SiDOOR AT12

Direct current geared motor

Power supply	24 Vdc
Max. velocity	0,5 m/s
Degree of protection	IP 21
Transmission ratio	15:1
Incremental encoder	100 pulses per rotation
Rated current	1,8 A


Control unit AT12

Power supply	230 Vac, from 50 to 60 Hz
Tolerance	+/- 15%
Fusing, at the customer's side	from 6 A to 10 A ($I^2t > 30 A^2s$)
Max. power consumption	1,6 A
Degree of protection	IP 20
Control inputs	from +10 V to +28 Vdc, from 6 mA to 18 mA for input (floating, switching to P potential)
Door width	from 550 to 1000 mm
Max. counterweight (in case of combination with MyDOMO)	4 kg
Switching capacity of output relay	30 Vdc to 0,5 A (at least 10 mA)
Max. permissible storage temperature	from -20°C to +85°C
Max. permissible operating temperature	from 0°C to +50°C
Humidity requirement	No condensation
24 V output	Max. output current 120 mA, resistant to short circuit and overload

NOTICE

Do not feed in any external voltage!

Regulations and standards

EMC tests	in conformity with EN 12015 and EN 12016
TÜV (German technical inspectorate)	Prototype tested
CE	Certified
Electrical safety standards according to EN60950	Conforms to the standard
Elevator standard EN81	Conforms to the standard

13.7. DIAGNOSIS AND PARAMETERIZATION WITH THE HT18 USER TERMINAL


The HT18 user terminal can be used for the input of movement commands, for changing the movement parameters and for the visualizing of the parameters calculated by the learn run, of the door conditions and of the service data.

For the diagnostic and parameterization purposes, both the HT18 user terminal and the AT Frontend PC program. These instruments are available as optional extras (see appendix).

The HT18 user terminal and the USB adapter for AT frontend PC program can be connected to the X102 plug connector of the control unit by means of the supplied cable. The control panel cover of the does not have to be opened. The control panel movement commands are blocked if the user terminal is in "MAIN MENU / QUICK ADJUSTMENT" of " MAIN MENU / OVERALL ADJUSTMENT".

 The HT18 user terminal can only be used by qualified staff. The staff must be thoroughly familiar with all warnings and notices in these instructions before proceeding with the utilization by the end user.

The user terminal keys have following markings and meanings.



Confirmation button / jump to the next lower menu level



Escape button, / return to the above menu



Menu selection button / increases the parameter value



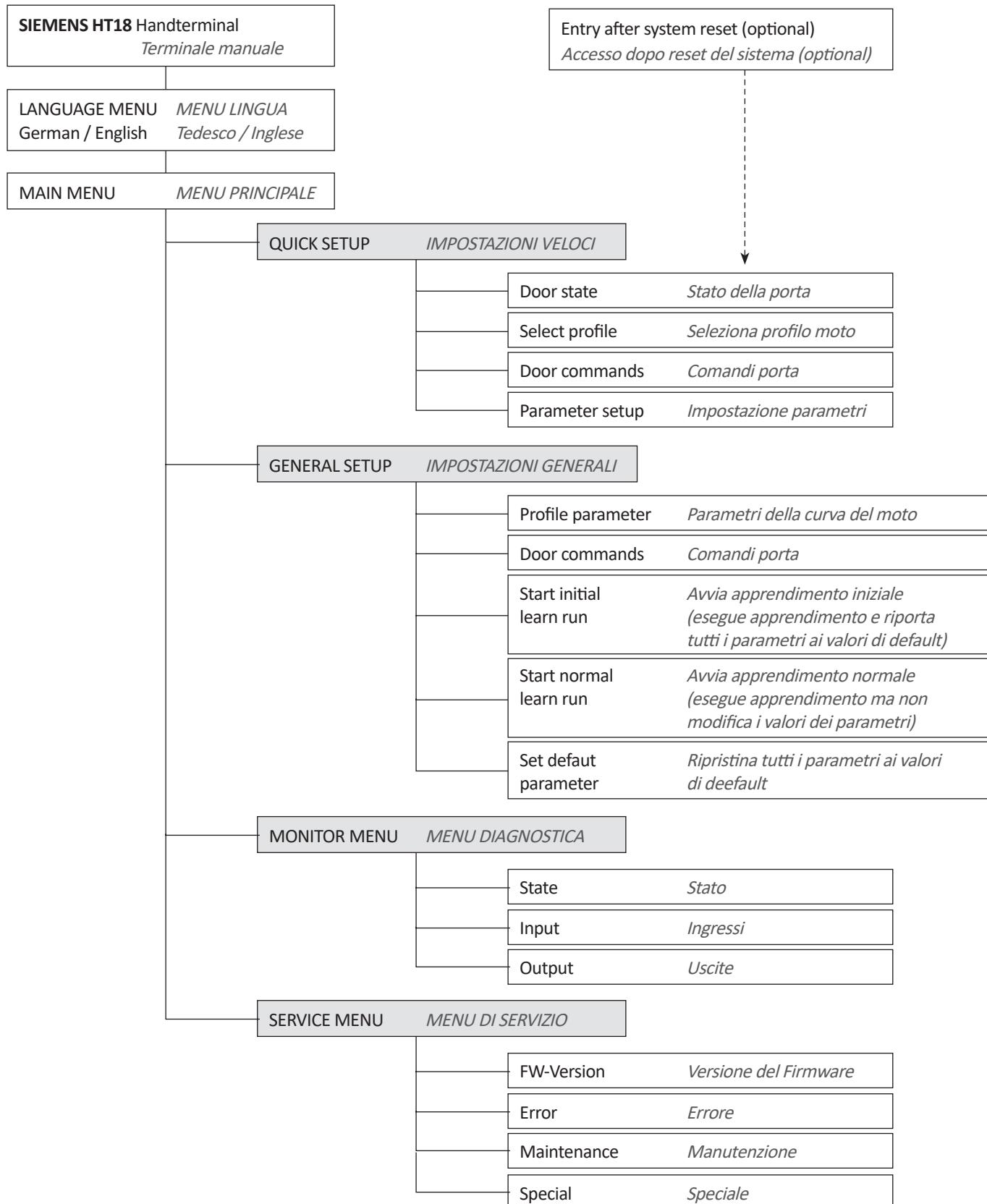
Menu selection button / decreases the parameter value

Parameters changes can be made in the menus "MAIN MENU / QUICK ADJUSTMENT → Parameter Sett." and in "MAIN MENU / OVERALL ADJUSTMENT → Profile Parameters".

The desired parameter is selected with the "↑" or "↓" key and activated with the confirmation key (parameter value flashes). With the help of the appropriate key (see above) the parameter value can be increased or decreased. The setting of the value takes place by repeat pressing the confirmation key.

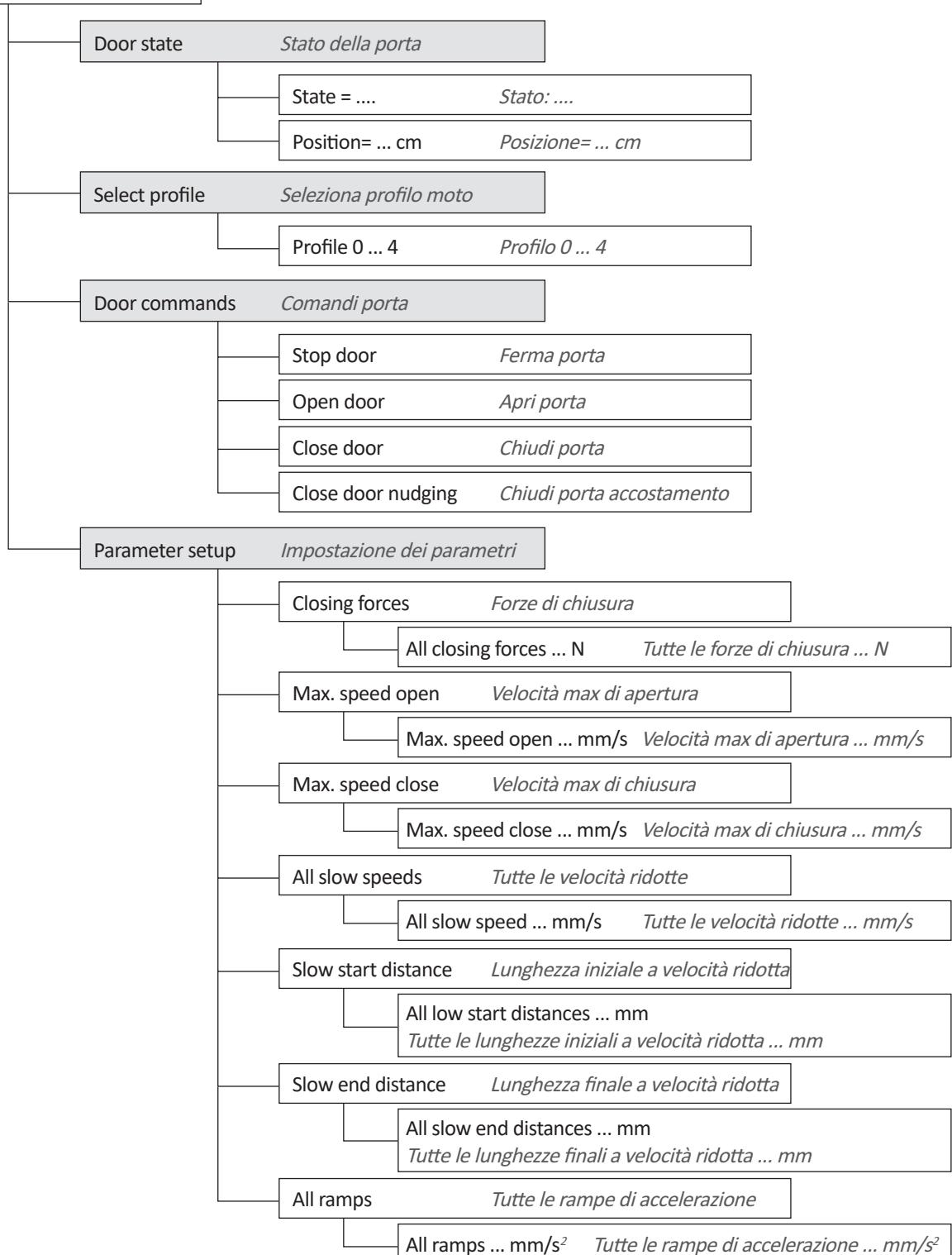


Parameter changes are only accepted with the door closed. If the lift door is not closed, the notice text "value activation with door closed" appears on the display. The original value is displayed and the new value is stored until the door reaches the CLOSED position. Several parameters can be changed while the door is open, they will be activated together when reaching the CLOSED position.

13.8. MENUS LIST


QUICK SETUP MENU

QUICK SETUP /IMPOSTAZIONI VELOCI



GENERAL SETUP MENU

GENERAL SETUP

IMPOSTAZIONI GENERALI

Profile parameter

Parametri della curva del moto

Slow end speed open ... mm/s	Velocità finale apertura ... mm/s
Slow start speed close ... mm/s	Velocità iniziale chiusura ... mm/s
Maximum speed close ... mm/s	Velocità massima chiusura ... mm/s
Slow speed open initial ... mm/s	Velocità avviamento apertura ... mm/s
Slow start speed open ... mm/s	Velocità iniziale apertura ... mm/s
Slow end open distance ... mm	Zona finale apertura ... mm
Slow start open distance ... mm	Zona iniziale apertura ... mm
Slow start close distance ... mm	Zona iniziale chiusura ... mm
Slow end close distance ... mm	Zona finale chiusura ... mm
Maximum speed open ... mm/s	Velocità massima apertura ... mm/s
Slow end speed close ... mm/s	Velocità finale chiusura ... mm/s
Slow speed close initial ... mm/s	Velocità avviamento chiusura ... mm/s
Nudging speed ... mm/s	Velocità accostamento (chiusura) ... mm/s
Acceleration ramp open ... mm/s ²	Accelerazione apertura ... mm/s ²
Deceleration ramp open ... mm/s ²	Decelerazione apertura ... mm/s ²
Reversal ramp open/close ... mm/s ²	Rampa di inversione apertura/chiusura ... mm/s ²
Acceleration ramp close ... mm/s ²	Accelerazione chiusura ... mm/s ²
Deceleration ramp close ... mm/s ²	Decelerazione chiusura ... mm/s ²
Reversal ramp close/open ... mm/s ²	Rampa di inversione chiusura/apertura ... mm/s ²
Idle torque open ... A	Coppia statica finecorsa apertura ... A
Idle torque close ... A	Coppia statica finecorsa chiusura ... A
Peak torque close ... A	Coppia massima in chiusura ... A
Limit force open ... N	Forza massima di apertura ... N
Limit force close nudging ... N	Forza chiusura di accostamento ... N
Limit force and close ... N	Forza finale chiusura ... N
Limit force close ... N	Forza massima di chiusura ... N

Door commands

Comandi porta

Stop door	Ferma porta
Open door	Apri porta
Close door	Chiudi porta
Close with nudging	Chiudi con accostamento

Start initial learn run

Avvia apprendimento iniziale

(esegue apprendimento e riporta tutti i parametri ai valori di default)

Start normal learn run

Avvia apprendimento normale

(esegue apprendimento ma non modifica i valori dei parametri)

Set default parameter

Ripristina i parametri di default

(riporta tutti i parametri ai valori di default)

MONITOR MENU

MONITOR MENU

MENU DIAGNOSTICA

State	Stato	
	State =	Stato:
Position= ... cm		Posizione= ... cm
Input	Ingressi	
	Input open active/not active	Input APRI attivo/non attivo
	Input close active/not active	Input CHIUDI attivo/non attivo
	Input nudge active/not active	Input NUDGE attivo/non attivo
	Input lightbarrier active/not active	Input barriera elettronica attivo/non attivo
	Input battery active/not active	Input batteria attivo/non attivo
Output	Uscite	
	Output opened active/not active	Output finecorsa apertura attivo/non attivo
	Output closed active/not active	Output finecorsa chiusura attivo/non attivo
	Output reversing active/not active	Output inversione del moto attivo/non attivo

SERVICE MENU**SERVICE-MENU****MENU DI SERVIZIO****FW-Version****Versione Firmware**AT18 Firmware version ... *Versione Firmware ...***Error****Errore**Current error *Errore attuale*Preceding error *Errore precedente*Second last error *Penultimo errore*Third last error *Terzultimo errore***Maintenance menu****Menu manutenzione****Read values****Leggi valori**Openings counter *Contatore aperture*Blockings counter *Contatore blocchi*Learn runs counter *Contatore apprendimenti*Start ups counter *Contatore avviamenti*Operating hours counter *Contatore ore di servizio***Clear values****Cancella valori**Openings counter *Contatore aperture*Blockings counter *Contatore blocchi*Learn runs counter *Contatore apprendimenti*Start ups counter *Contatore avviamenti***Special****Speciale**Motor circuit voltage ... V *Tensione circuito motore ... V*Motor current not adjusted ... A *Tensione circuito motore ... V*Motor current adjusted ... A *Corrente regolata motore ... A*PWM ... % *PWM ... %*Dynamic mass ... kg *Massa dinamica ... kg*

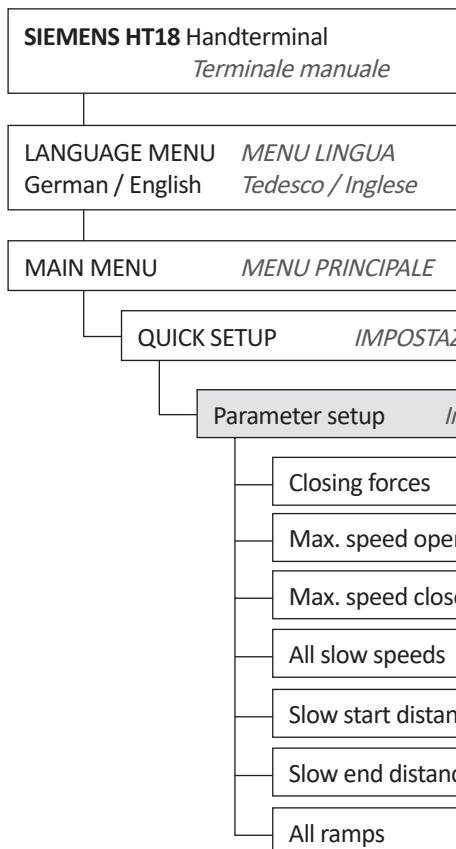
13.9. AT12 CONTROLLER: MODIFICATION OF PARAMETERS USING PROGRAMMING KEYBOARD

1. Close the door completely using the S501 key (the button must be pressed shortly);
2. Connect the keyboard to the X102 port of the controller, using the pre-arranged wire;
3. Using the below indicated scheme, reach the desired menu pages and assign the new parameters;
4. Upon the programming completed, push the ESC key until you return to the Starting page.

INFORMATION

 The parameters will be registered only when the door is in the closing end-of-stroke position. Otherwise, the wording "Value activation with door closed" will be displayed. Therefore, it will not be possible to save the new parameters until the door has reached the closing end-of-stroke position (the closing must be effected automatically and not manually with the power off). As soon as the closing end-of-stroke position has been reached, the system will replace the old parameters with the new ones.

Use the "Assigned value" column to record the parameter values set during setup.



U.M.	Suggested values	Assigned value
N	[70]	
mm/s	[100]	
mm/s	[100]	
mm/s	[60]	
mm	[10]	
mm	[40]	
mm/s ²	[300]	

