

Mounting Instructions

July 2014

NMkit5000_GB-A

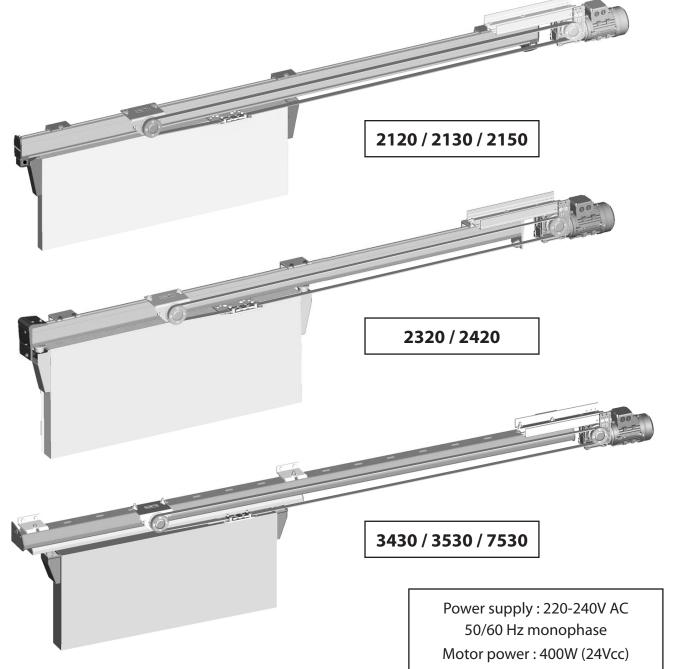


KIT 5000



For manual Fermatic systems:

2120 / 2130 / 2150 - 2320 / 2420 3430 / 3530 / 7530



This instructions manual includes the mounting, utilization and the maintenance instructions. We recommend to read this carefully and to place it at the user's disposal. The english version of our general conditions of sales and mounting instructions are not binding, and are only given for information purposes.

Only the french version can be used in case of legal action.

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1 - GENERAL INFORMATIONS

1.1 REGULATIONS & OBLIGATIONS

The product you have acquired is integrated into an industrial door. Its being put on the European Union market implies EC marking by a certified agency, under the liabilities of the manufacturer and/or installer of the door. The design, manufacture and installation of an industrial door must respect the essential requirements of health and safety determined by the following European directives:

European Directives	Manual door	Motorised door
Construction Products Directive 89/106/EEC	X	X
Low Voltage Directive 2006/95/CE		X
Electro-magnetic Compatibility Directive 2004/108/CE		X
Machines and Working Equipment Directive 2006/42/EC		X

The proof of conformity to the regulation texts, mentioned above, is obtained by the respect of the standard reference detailed by the standard of product **NF EN 13241-1**: Industrial, Commercial and Garage Doors (Part 1: products without fire and smoke proofing characteristics).

Terminology standard	Safety standard	Environmental	Electrical and DCEM
		standard	standard
EN 12433-1	EN 12604	EN 12424	EN 60204-1
Types of doors	Mechanical aspects	Resistance to wind	Machine electrical safety
EN 12433-2	EN 12605	EN 12444	EN 61000-6-2 (DCEM)
Components of doors	Test methods	Tests and calculations	Immunity to industrial
-			environment
	EN 12453	EN12425	EN 61000-6-3 (DCEM)
	Safety of use	Water penetration	Harmonic measure emission
	EN 12445	EN 12489	EN 61000-6-4
	Test methods	Test methods	Industrial environment
			emission
	EN 12978	EN 12426	
	Safety devices	Permeability to air	
	EN 12635	EN 12427	
	Installation and use	Test methods	
		EN 12428	
		Thermal transmission	

FERMOD has taken the standards that apply to the supplied products into consideration.

1.2 LIABILITIES

- **1** The manufacturer of the door, the installer and the user must observe the safety rules (collective protection, individual protection) applicable during transport, assembly, use, and discarding of the door or its components.
- **2** The liability of the user may be engaged in circumstances that are not marginal. Thus, the user must scrupulously comply with the recommendations for storage, assembly, use, maintenance, health and safety, use-by date, etc... supplied by the manufacturer.

Likewise, where the producer be held liable for the non-conformity of the product, the user may also share the liability, insofar as he has not, from his side, checked this conformity, even if the product in question is administratively in conformity. The user is also held liable if he himself increases the fault in the product.

The liability of the manufacturer can be reduced or eliminated, taking all the circumstances into consideration, when the damage is caused jointly by the product, and by the fault of the victim or a person for whom the victim is responsible (D. general safety of products 92/59/EEC et D. liability from the fact of faulty products 85/374/EEC).

- **3** Safety devices fitted to the doors are not intended to prevent any wilful act of the operator or persons nearby **(EN12604 §4.1.2).**
- 4 The choice of options follows the type of door installed. It is the manufacturer's responsibility to ensure the compatibility of accessories according to the characteristics of the door and the conditions of use (EN12604 § 4.2.1).

- **5** The manufacturer and / or installer must give each customer a file showing that the products used do not emit any dangerous substance beyond the maximum authorized levels, specified in the appropriate European standards or in other national specifications, in the event of fire **(EN 13241-1 §4.2.9).**
- **6** The installer is required to ensure the traceability of assembly and inspection operations effectively carried out **(EN 13241-1 §6.4).**
- 7 The staff of the company installing the equipment, and / or staff of the user company in charge of specific functions, such as maintenance, must be qualified, trained and certified in the case of particularly risky work, such as work under power (D. Safety at work 89/655/EEC modified 95/63/EEC art.7 / CT art. R 233-2).
- **8** The final user must carry out the periodical yearly or twice-yearly checks, or have them carried out, with keeping of a maintenance register (**D. Safety at work 89/655/EEC modified 95/63/EEC art. 4b / CT R 233-1-2 and R 233-11-1).**
- **9** The installation of a motorised system involves the implementation of safety dispositions in compliance with the essential requirements of health and safety, decreed by the European directives and / or regulations in force in the countries of installation (EN12453 §5.1.1.6).
- **10** The installation of a motorised door in a blind place involves:
- either a second door (for persons to walk through)
- or a sound alarm in case of a person being trapped (EN12453 §5.4.2).
- 11 The installation of a motorised door involves:

The installation of adequate lighting of the area where the door is installed to prevent any movement in darkness. Marking out and signalling of the danger area, at floor level (CT R232-1-13/EN12453 §5.1.3).

2-TRANSPORT

This equipment must be protected from bad weather during transport.

The original packing is designed for all types of transportation means.

The packed kit withstands stacking of 4 others automatic kits.

The liability of FERMOD ceases:

- as soon as the customer or installer opens the package or a part of the packaging,
- as soon as the package has suffered a considerable impact in such a way that it's damaged.

3 - STORAGE

This equipment must be protected from bad weather during storage.

The packed kit withstands stacking of 4 others automatic kits.

4 - MOUNTING PRECAUTIONS

Please respect the regulations that apply in the country of installation.

The volume of door or gate opening must have sufficient lighting. A lighting level of 50 lux measured at floor level must be ensured, and the opening area must be marked out on the floor. Any movement of the door or gate must be signalled by a flashing orange light visible from both sides. In France, this marking and signalling must comply with the decree of **Article R 232-1-13** of the code of labour (**decree of 21/12/1993**).

In Europe, the manufacturer and / or the installer of the door must attach the plate of overall characteristics to the door, in conformity with the instructions of standard **NF EN 13241-1- §4.6**.

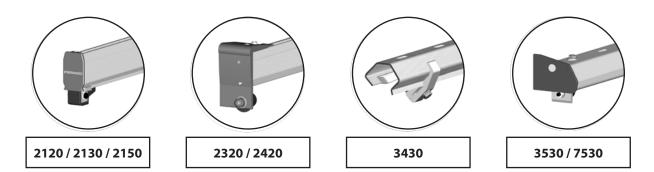
Please refer to our mounting instructions.

- Check the temperature of the environment. For temperatures lower than -10° C, a low temperature command box is required.
- Check the compatibility between the Automatic Kit to be installed with the Fermatic Manual System.
- The door drive sub-assembly fixations must be well made and made of suitable material, having an appropriate resistance and be exempt from any obvious fault for their intended working life (in conformity with **EN 12604:2000,4-2-1**).
- Electrical network: 220-240V AC 50/60 Hz.
 - Connection cable section: 3G2,5 mm².
 - Connect each Kit to a dedicated power line protected by a circuit breaker D curve.

5 - CHARACTERISTICS

AUTOMATIC ELECTRONIC KIT 5000

The automatic electronic kit 5000 is designed to motorize the Fermatic manual systems:



These manual systems are used for horizontal sliding doors with defined characteristics (iso-thermal, acoustical, clean room, dust-tight...).

■ Function modes

The automatic electronic kit 5000 has 5 function modes (see p 39):

- Timer 1 mode
- Standard mode
- Timer 2 mode
- «Press and hold to close the door» mode
- «Press and hold to open/close the door» mode

It has an integrated lock, a passive edgemount safety device and an horizontal safety device (according to the regulations that apply in the country of installation).

	2120	2130 2320	2150 2420	3430	3530 7530
Maxi door weight	60 Kg	80 Kg	120 Kg	150 Kg	200 Kg
Power supply	220-240V AC 400W Mono 50/60 Hz				
Protection of the motor	IP 55				
Using temperature	-30°C to +50°C (For negative temperature see «option for minus temperature» - Separate mounting instructions)				

Options

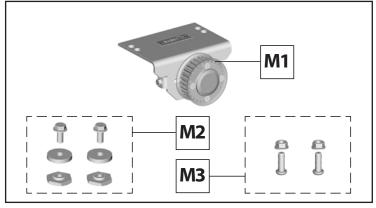
- Horizontal safety device (according to the regulations that apply in the country of installation)
- Flashing light

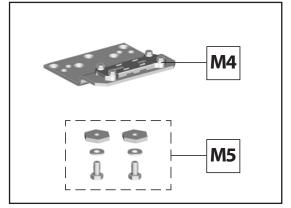
Please contact us for other options (resistive edgemount, pull cord...).

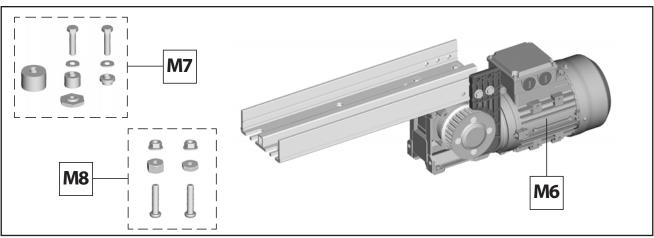
Handles:

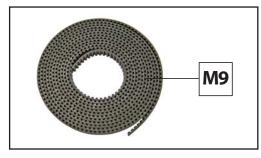
Every handle for Fermatic manual systems fit on systems equiped with kit 5000.

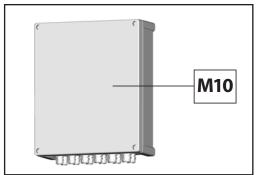
■ Parts list / Tools



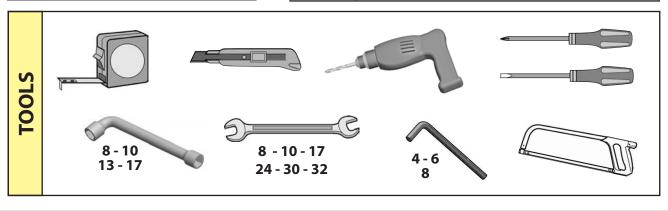


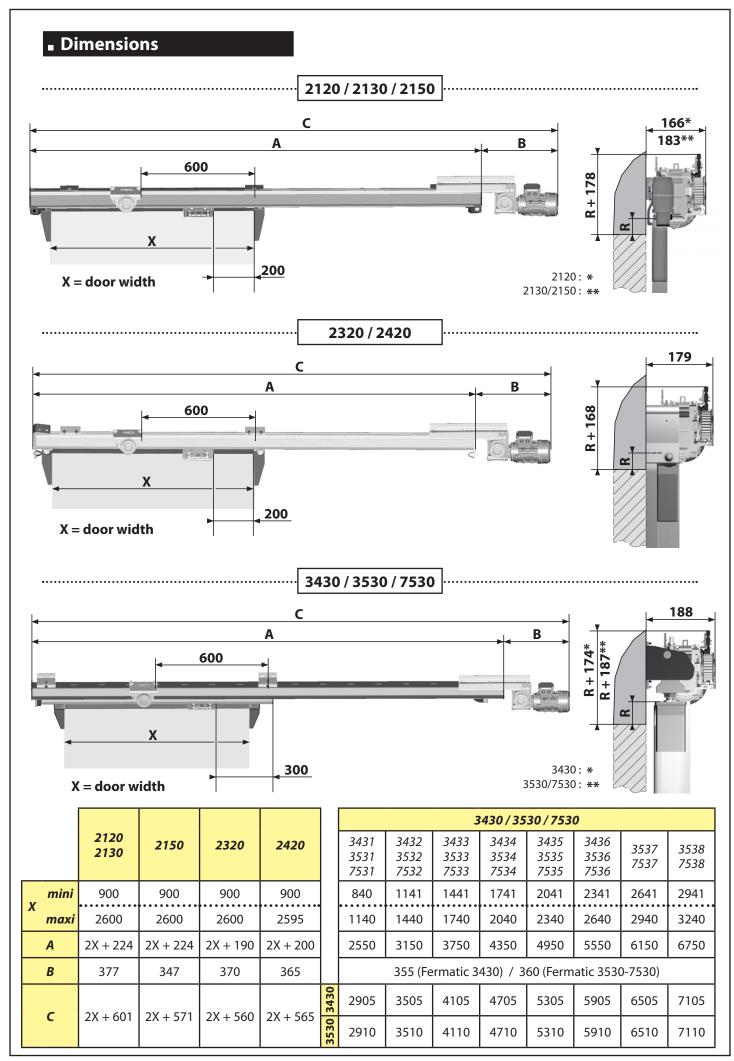






Rep	Designation
M1	Belt adjuster
M2	Adjuster screws 2120/30/50 - 2320 - 2420
М3	Adjuster screws 3430 - 3530 - 7530
M4	Door driving assembly
M5	Driving assembly screws 3430 - 3530 - 7530
M6	Motor unit
M7	Motor screws 2120/30/50 - 2320 - 2420
M8	Motor screws 3430 - 3530 - 7530
M9	Belt
M10	Command box





6 - MOUNTING ONTO FERMATIC 2120 / 2130 / 2150 - 2320 / 2420 SYSTEMS

MOUNTING ONTO 3430 / 3530 / 7530 SYSTEMS See page 15



CAUTION

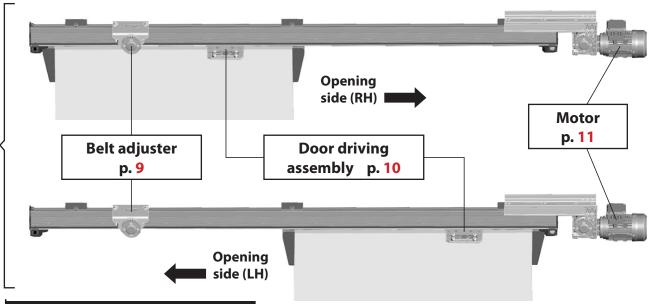
- Installation of the Kit 5000 is the same regardless of the opening side of the door. It's recommended to install the motor right side of the rail.
- Motor can be mounted in standard or 90° direction.

90° MOTOR MOUNTING See page 26

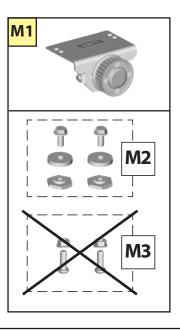
Depending on the system installation, the space available in the right end rail can be short for mounting the motor in its standard configuration. In that event it's possible to mount the motor left side of the rail.

LEFT SIDE MOTOR MOUNTINGSee page 28

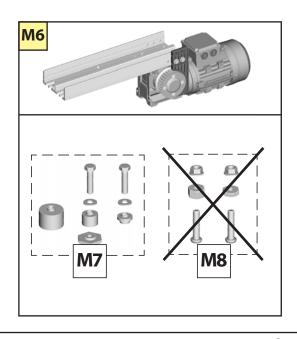
STANDARD MOUNTING



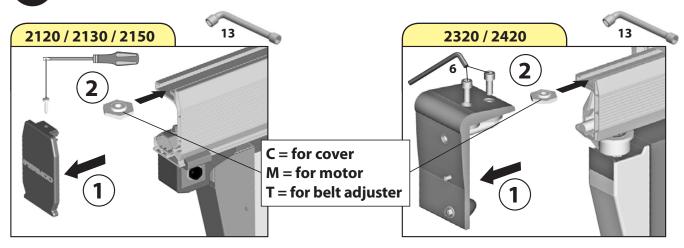
Screws



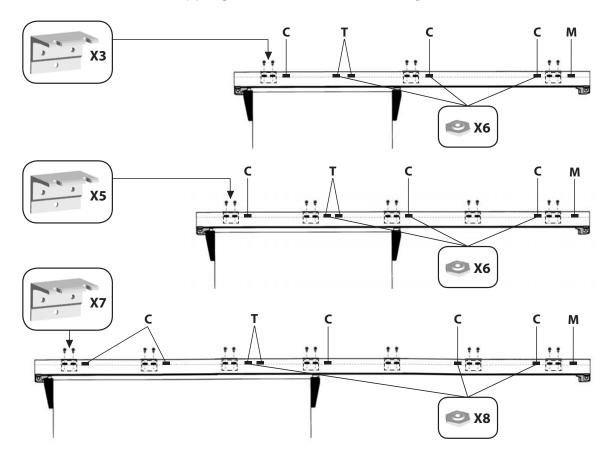




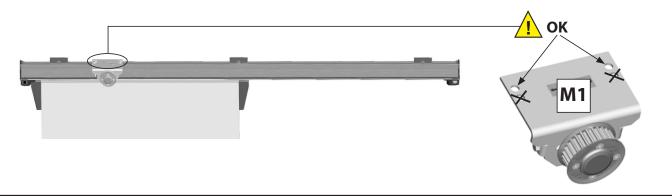
6.1 RAIL PREPARING

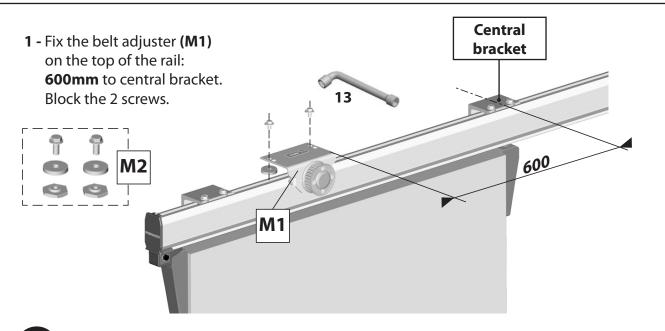


- 1 Remove the 2 end covers.
- 2 Insert the screws into the upper groove of the rail (see drawings below).

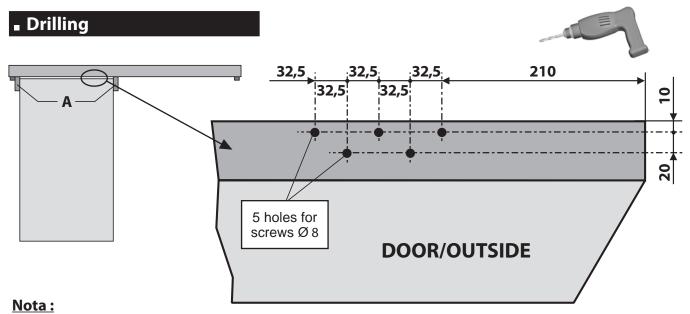


6.2 BELT ADJUSTER





6.3 DOOR DRIVING ASSEMBLY



When mounting a Kit 5000 onto a manual Fermatic system already installed: wedge the door, unscrew the 2 door brackets (A) and push them aside to access the upper edge of the door.

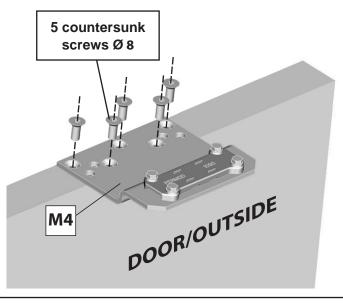
■ Fixing

- 1 Fix door driving assembly (M4) on the top of the door with
 5 countersunk screws Ø8 (screws not supplied).
- **2** Block the screws.

Nota:

When mounting a Kit 5000 onto a manual Fermatic system already installed: mount the 2 door brackets (A) and block them.

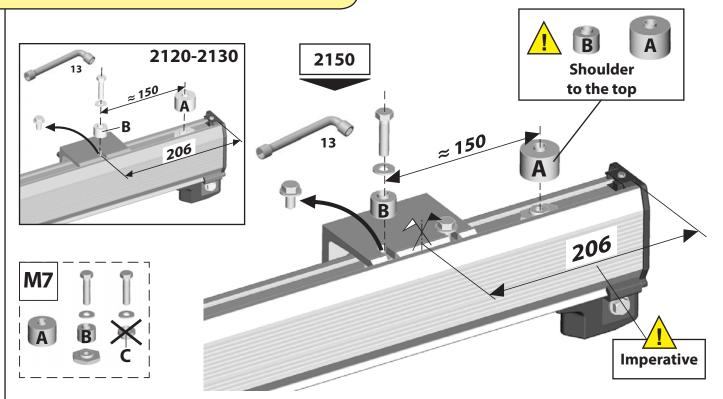
Remove the blocks.



90° MOTOR MOUNTING See page **26**

LEFT SIDE MOTOR MOUNTINGSee page 28

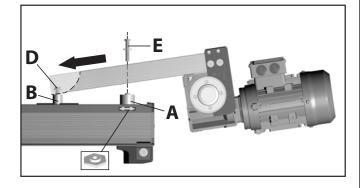
2120 / 2130 / 2150 SYSTEMS



1 - Right side of the rail, remove the screw of the end bracket (2120/2130 systems). 2150 system: remove the left screw of the end bracket.

2 - Replace it with spacer **(B)** from small bag **(M7)**. Fix spacer with a screw, do not drive the screw.

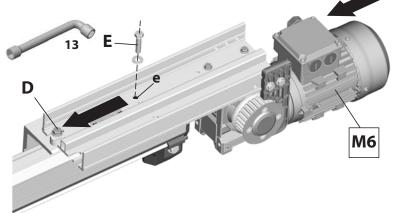
3 - Position spacer **(A)** on the rail aligning with nut which is into the upper groove of the rail.

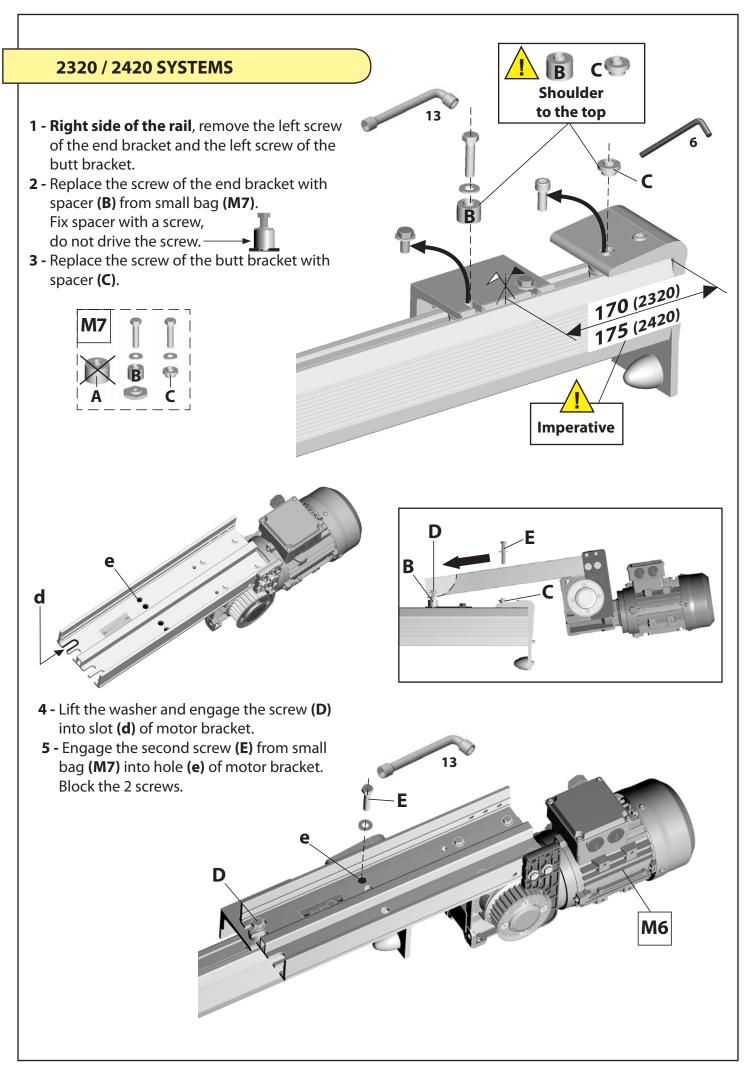


4 - Lift the washer and engage the screw **(D)** into slot **(d)** of motor bracket.

5 - Align spacer (**A**) and its nut with hole (**e**) of motor bracket.

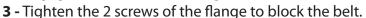
6 - Engage the second screw **(E)** from small bag **(M7)** into hole **(e)** of motor bracket. Block the 2 screws.

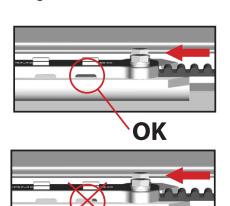


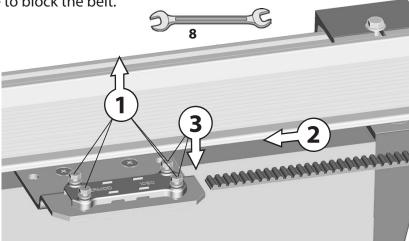


■ Link belt/door

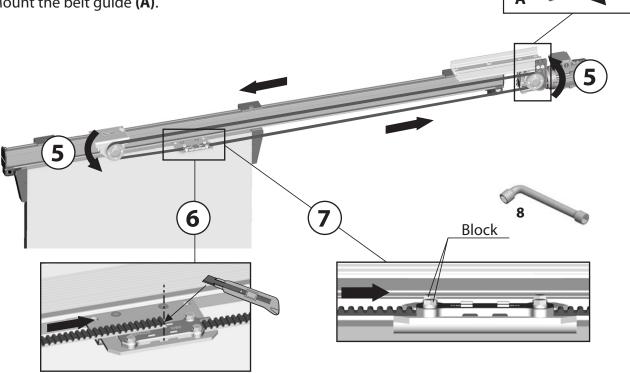
- **1 -** Unscrew the 4 screws of the driving assembly flange.
- **2** Engage the belt into the flange to its middle.





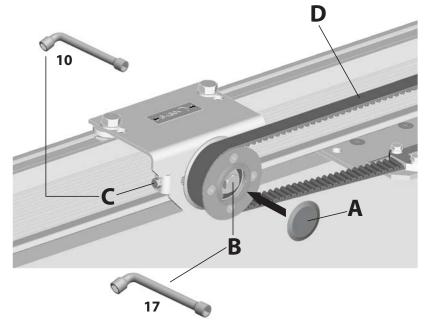


- **4** Remove the belt guide **(A)**.
- **5** Engage the belt around the motor pulley, then around the belt adjuster pulley.
- **6** Tighten the belt. Cut the belt at the middle of the driving assembly flange.
- **7 -** Engage the belt into the flange as seen above (1). Tighten the 2 screws of the flange to block the belt.
- 8 Mount the belt guide (A).



10

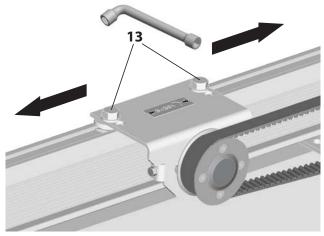
■ Tighten the belt



- **1** Remove cover **(A)** with a screwdriver
- 2 Loosen screw (B) of about 1/4turn
- **3** Tighten the screw **(C)** of the belt adjuster to tighten the belt: the upper strand **(D)** must be horizontal.
- **4** When the belt is tensioned, block the screw **(B)** .
- **5** Mount cover (A).

Nota:

The belt adjuster may be moved laterally as necessary.



PASSIVE EDGEMOUNT SECURITY.......Voir page 31

COMMAND BOX/WIRING/PARAMETERS.....Voir page 32

7 - MOUNTING ONTO FERMATIC 3430 / 3530 / 7530 SYSTEMS

MOUNTING ONTO 2120 / 2130 / 2150 - 2320 / 2420 SYSTEMS See page 8

CAUTION



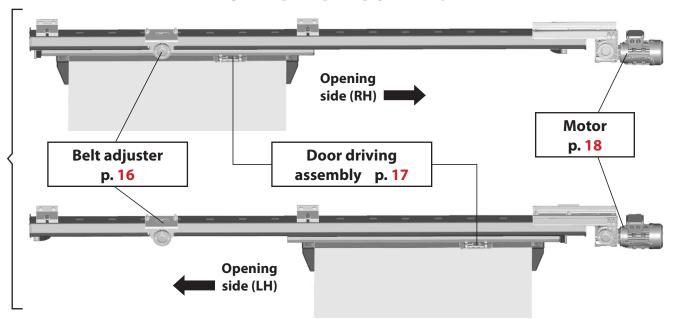
- Installation of the Kit 5000 is the same regardless of the opening side of the door. It's recommended to install the motor right side of the rail.
- Motor can be mounted in standard or 90° direction.

90° MOTOR MOUNTING See page 26

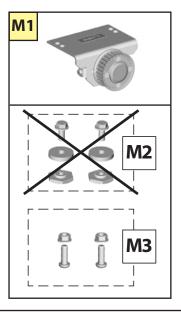
Depending on the system installation, the space available in the right end rail
can be short for mounting the motor in its standard configuration.
 In that event it's possible to mount the motor left side of the rail.

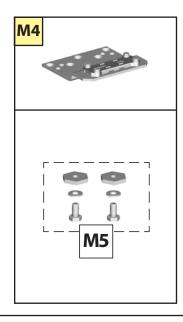
LEFT SIDE MOTOR MOUNTINGSee page 28

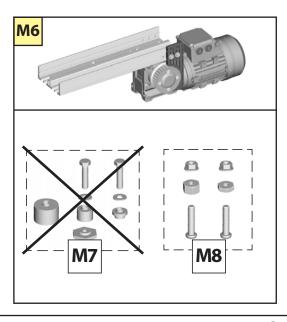
STANDARD MOUNTING



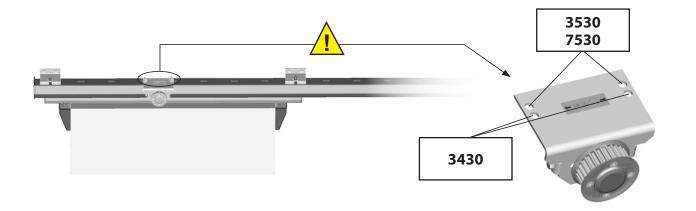
Screws



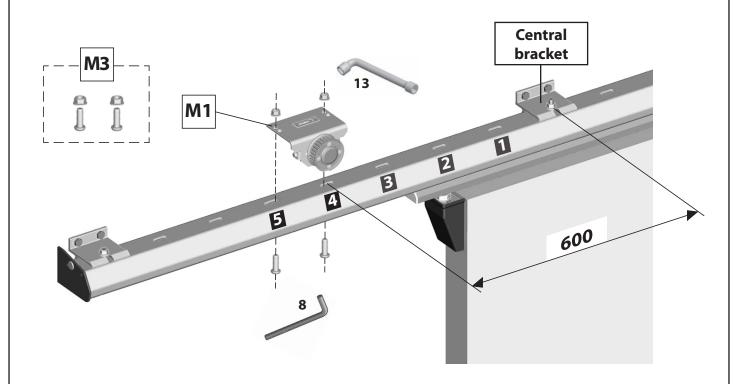




7.1 BELT ADJUSTER



- 1 Insert the 2 screws from small bag (M3) into 2 slots of the rail: 600mm (4th and 5th slot) to central bracket (see drawing below).
- **2** Fix the belt adjuster **(M1)** on the top of the rail. Block the 2 screws.

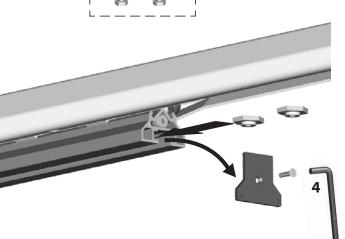


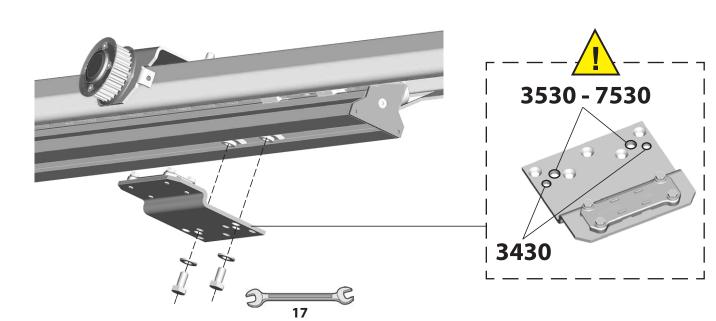
7.2 DOOR DRIVING ASSEMBLY



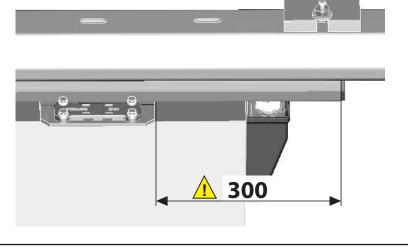
When mounting a Kit 5000 onto a manual Fermatic system already installed:

- 1 Wedge the door.
- 2 Remove the right end cover of the mobile part.
- **3** Unscrew the door bracket/right side **(A)** to remove it .
- **4** Insert the 2 nuts from small bag (**M5**) into the groove of the mobile part.





- **5** Fix the door driving assembly **(M4)** under the mobile part with the 2 screws and washers from **(M5)**.
- Dimension **300 mm** imperative.
- **6** Mount the door bracket.
- **7** Mount the end cover. Remove the blocks.

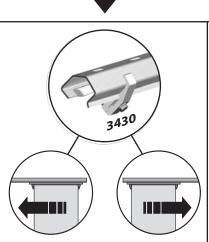


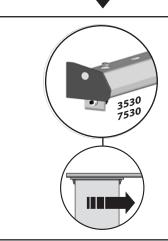
7.3 MOTOR

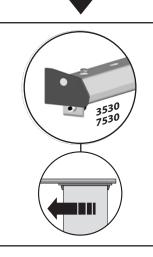
90° MOTOR MOUNTING See page **26**LEFT SIDE MOTOR MOUNTING See page **28**

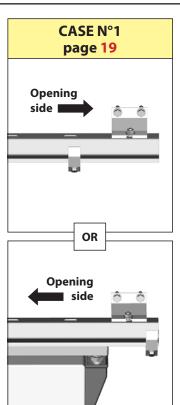
The motor mounting depends on Manual Fermatic system (3430 or 3530/7530) and butt model mounted onto the rail.

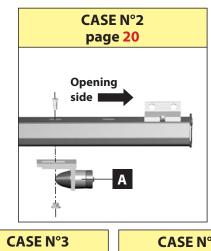
There are 5 different ways to mount the motor:

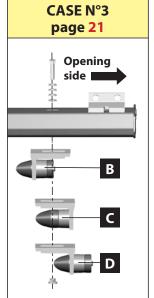


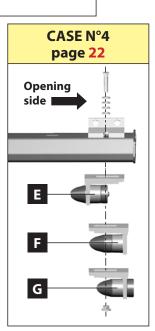


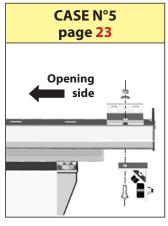


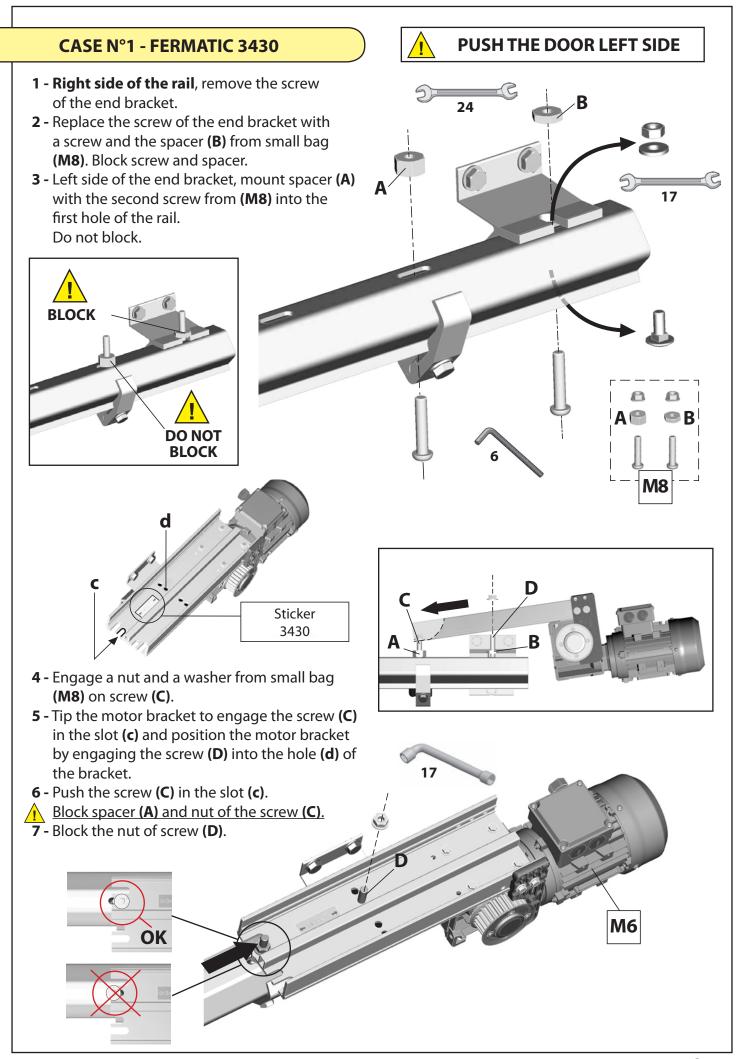








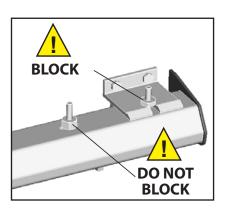


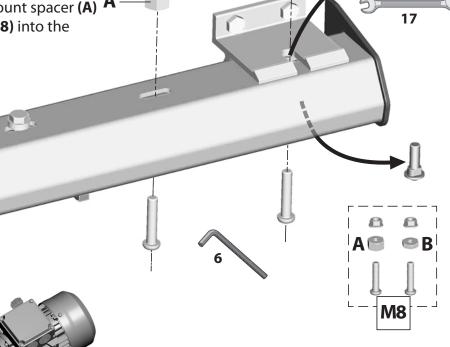




DOOR CLOSED

- 1 Right side of the rail, remove the screw of the end bracket.
- 2 Replace the screw of the end bracket with a screw and the spacer (B) from small bag (M8). Block screw and spacer.
- 3 Left side of the end bracket, mount spacer (A) A with the second screw from (M8) into the first hole of the rail. Do not block.

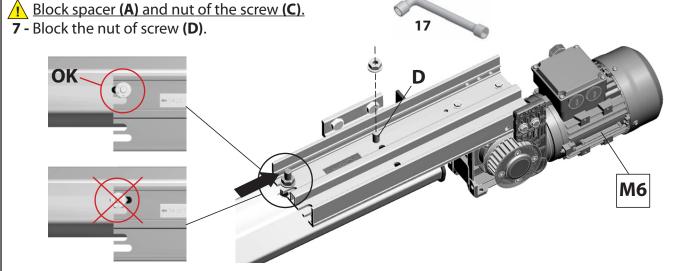


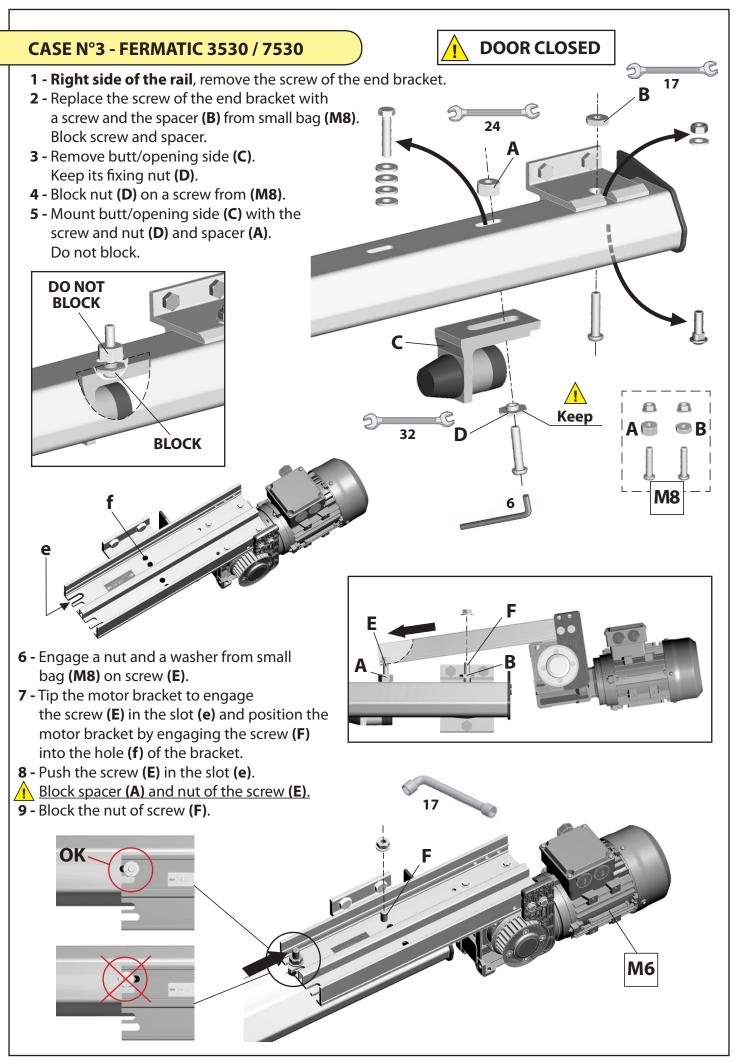


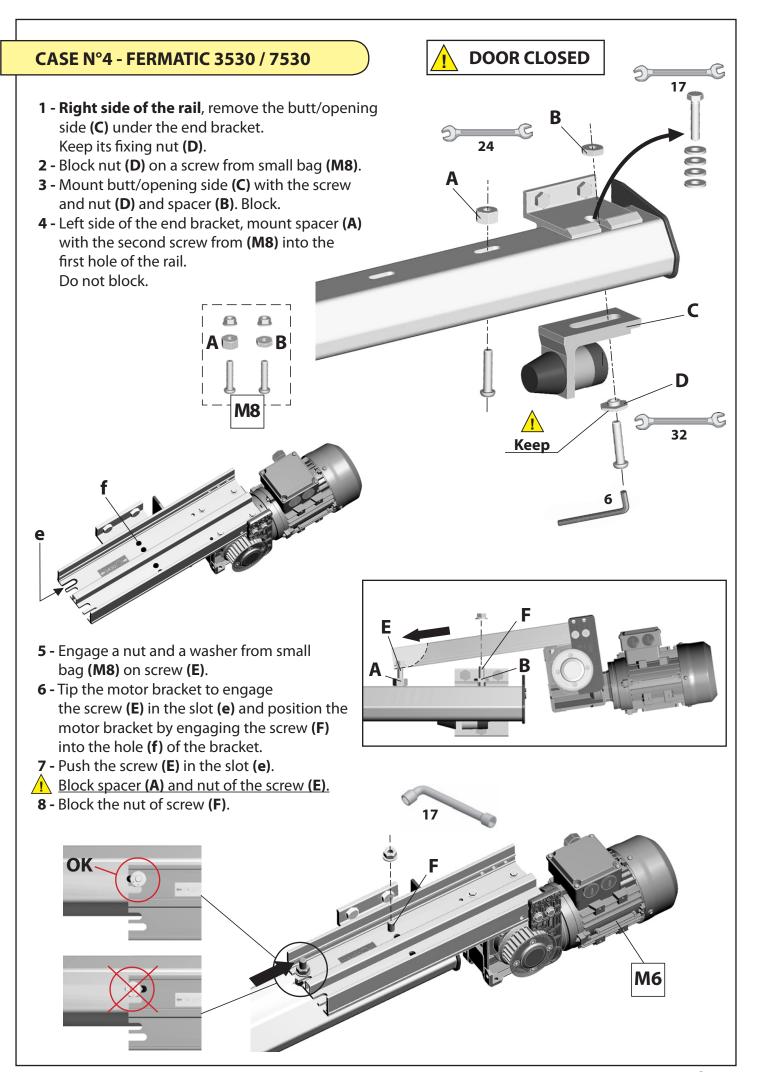
D



- small bag (M8) on screw (C).
- **5** Tip the motor bracket to engage the screw (C) in the slot (c) and position the motor bracket by engaging the screw **(D)** into the hole **(d)** of the bracket.
- **6** Push the screw **(C)** in the slot **(c)**.







CASE N°5 - FERMATIC 3530 / 7530



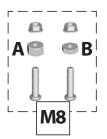
DOOR OPEN

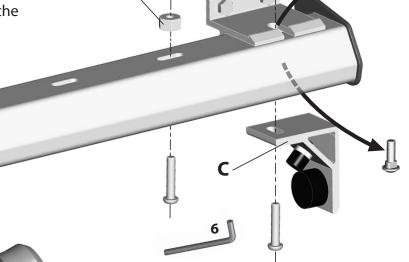
1 - Right side of the rail, remove the butt/opening side (C) under the end bracket.

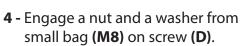
2 - Mount butt/opening side **(C)** with a screw and spacer **(B)** from small bag **(M8)**. Block.

3 - Left side of the end bracket, mount spacer (A) with the second screw from (M8) into the first hole of the rail.

Do not block.

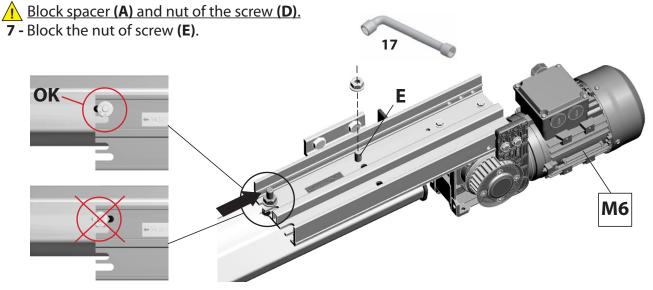






5 - Tip the motor bracket to engage the screw **(D)** in the slot **(d)** and position the motor bracket by engaging the screw **(E)** into the hole **(e)** of the bracket.

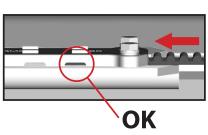
6 - Push the screw **(D)** in the slot **(d)**.



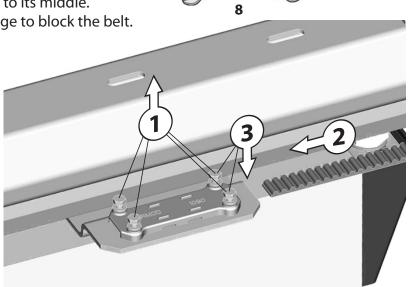
7.4 BELT

■ Link belt/door

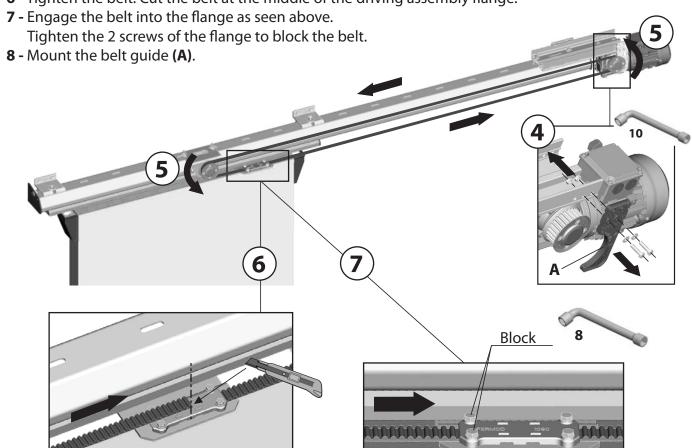
- **1** Unscrew the 4 screws of the driving assembly flange.
- **2** Engage the belt into the flange to its middle.
- **3** Tighten the 2 screws of the flange to block the belt.



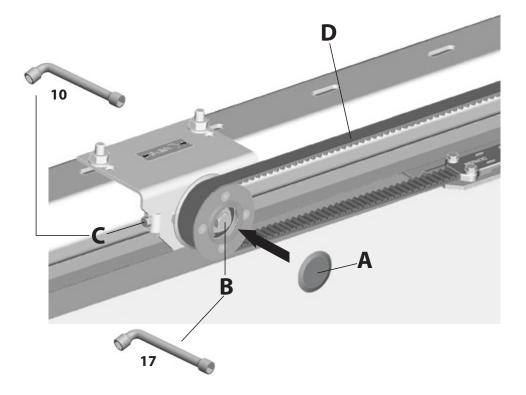




- **4** Remove the belt guide **(A)**.
- 5 Engage the belt around the motor pulley, then around the belt adjuster pulley.
- **6** Tighten the belt. Cut the belt at the middle of the driving assembly flange.



■ Tighten the belt



- 1 Remove cover (A) with a screwdriver
- 2 Loosen screw (B) of about 1/4turn
- **3** Tighten the screw **(C)** of the belt adjuster to tighten the belt: the upper strand **(D)** must be horizontal.
- 4 When the belt is tensioned, block the screw (B) .
- 5 Mount cover (A).

PASSIVE EDGEMOUNT SECURITY	Voir page 31
COMMAND BOX/WIRING/PARAMETERS	Voir page 32

8 - 90° MOTOR MOUNTING

Depending on the system installation, the space available in the right end rail can be short for mounting the motor in its standard configuration .

In that event it's possible to mount the motor in 90° direction.

1

- . Rail preparing
- . Belt adjuster
- Driving assembly

Fermatic 2120-2130-2150 2320-2420

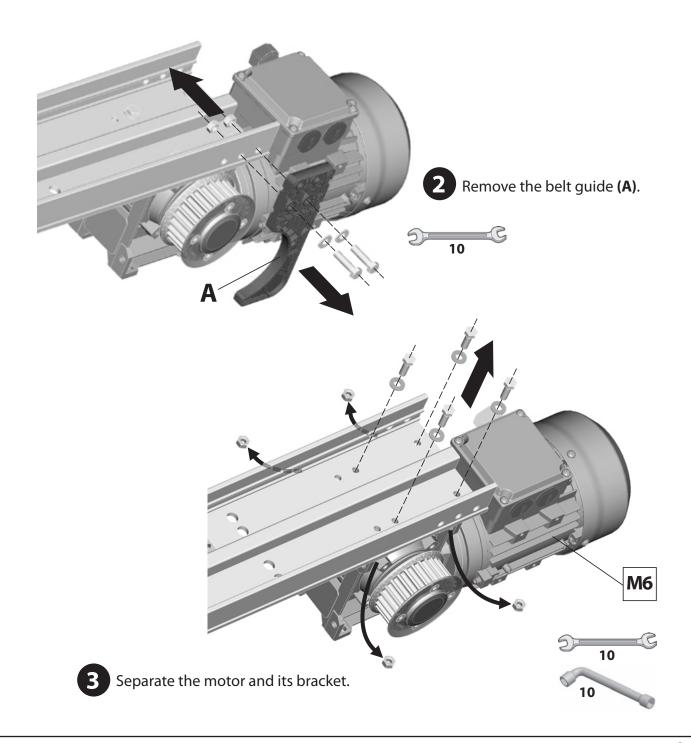
Follow the steps 6 to 6.3

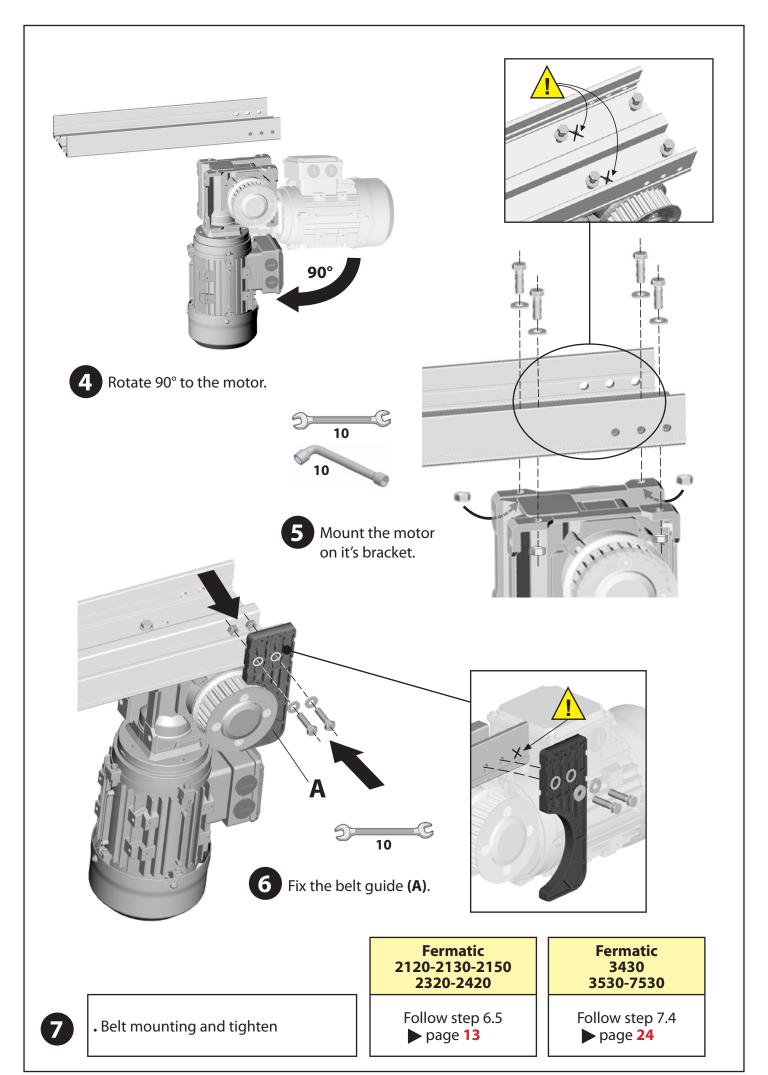
pages 8 to 10

Fermatic 3430 3530-7530

Follow the steps 7 to 7.2

pages **15** to **17**





Kit5000_GB-A

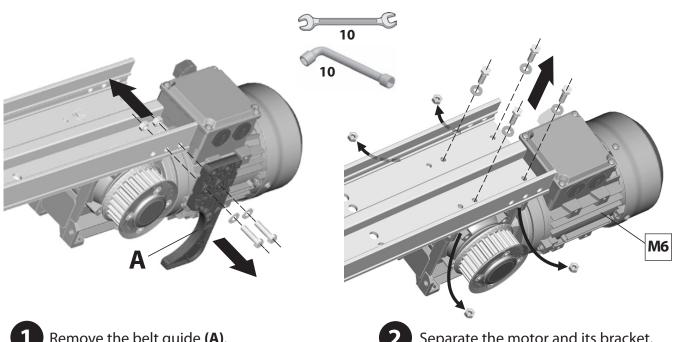
9 - LEFT SIDE MOTOR MOUNTING

Depending on the system installation, the space available in the right end rail can be short for mounting the motor in its standard configuration .

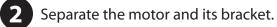
In that event it's possible to mount the motor left side of the rail.

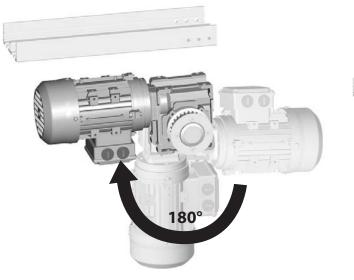
Nota: The left side motor mounting is the same regardless of the opening side of the door.



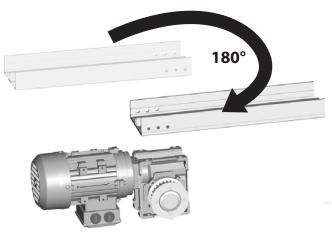


Remove the belt guide (A).





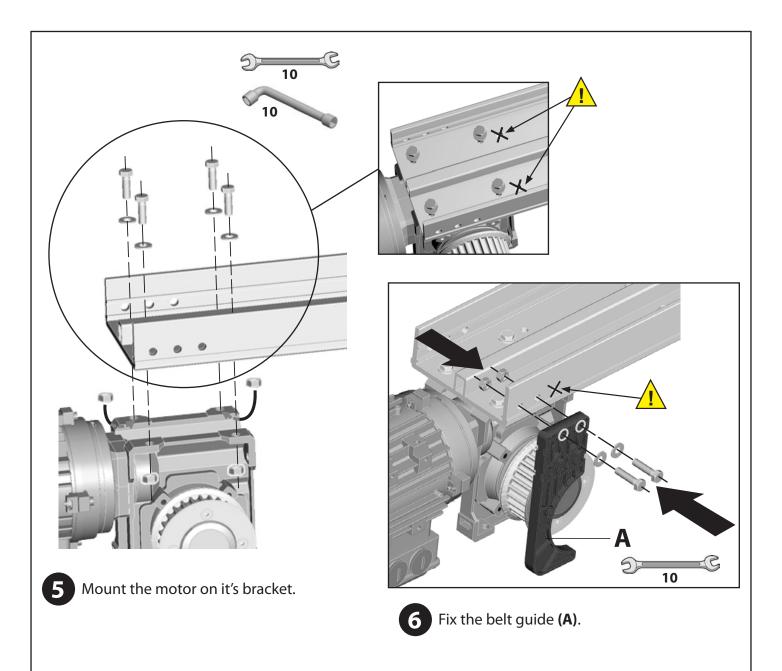
Rotate 180° to the motor.



Rotate 180° to the motor bracket.



DO NOT DISMOUNT THE PULLEY NOR THE ENCODER



■ Left side motor mounting



For a left side motor mounting, it's necessary to reverse the belt adjuster (M1) position and the driving assembly (M4) position compared with standard mounting.

To mount the different parts of the Kit, see the drawings next page.

Remember to reverse the drawings of the standard mounting.

Reverse **the adjustment screw (A)** of the belt adjuster.

See drawings next page ▶

