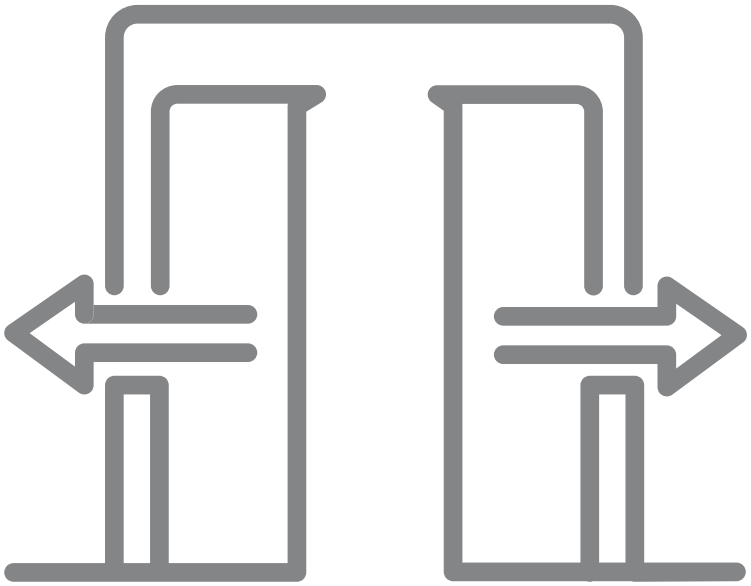
RKU 1400



CONTENTS

1. PRODUCT DESCRIPTION

RKU 1400 is a drive system for upgrading existing sliding doors.

■ INTENDED USE

The FAAC RKU1400 system is designed to automatically operate, manage and control linear horizontal motion of one- or two-leaf sliding doors.

This kit is designed to automate doors that are used exclusively for pedestrian traffic on automatic door profiles of the brands and models indicated in this manual.

They are suitable for indoor installation, for applications that meet the specifications indicated in this manual.

No other use outside the ones set out above is allowed by the manufacturer.

FAAC declines all liability deriving from misuse or any use other than that for which the automation is intended.

■ APPLICATION LIMITS

Do not use the automation under the following conditions: direct exposure to weather, exposure to direct water jets of any type or extent outside the specified technical limitations.

It is specifically prohibited to connect it to energy sources other than those specified.

The automation must be fitted with mechanical stops for the door open and closed positions.

■ UNAUTHORISED USE

It is forbidden to:

- use the automation for uses other than the intended use
- use the automation for implementing smoke and/or fire doors
- use the automation if the mobile and fixed guards have been tampered with or removed
- use the automation in environments in which there is a risk of explosion and/or fire: the presence of flammable gases or fumes is a serious safety hazard (the product is not 94/9/EC ATEX certified)
- integrate other systems and/or commercial equipment not for its intended use; use other systems and/or commercial equipment for uses not authorised by the respective manufacturers; use commercial devices for purposes other than those indicated by the respective manufacturers

■ COMPATIBLE AUTOMATIONS:

- RECORD (STA20 with 108 and 150 mm covers)
- ASSAABLOY (UNISLIDE, SL500)

2. KIT

2.1 STANDARD KIT 105041

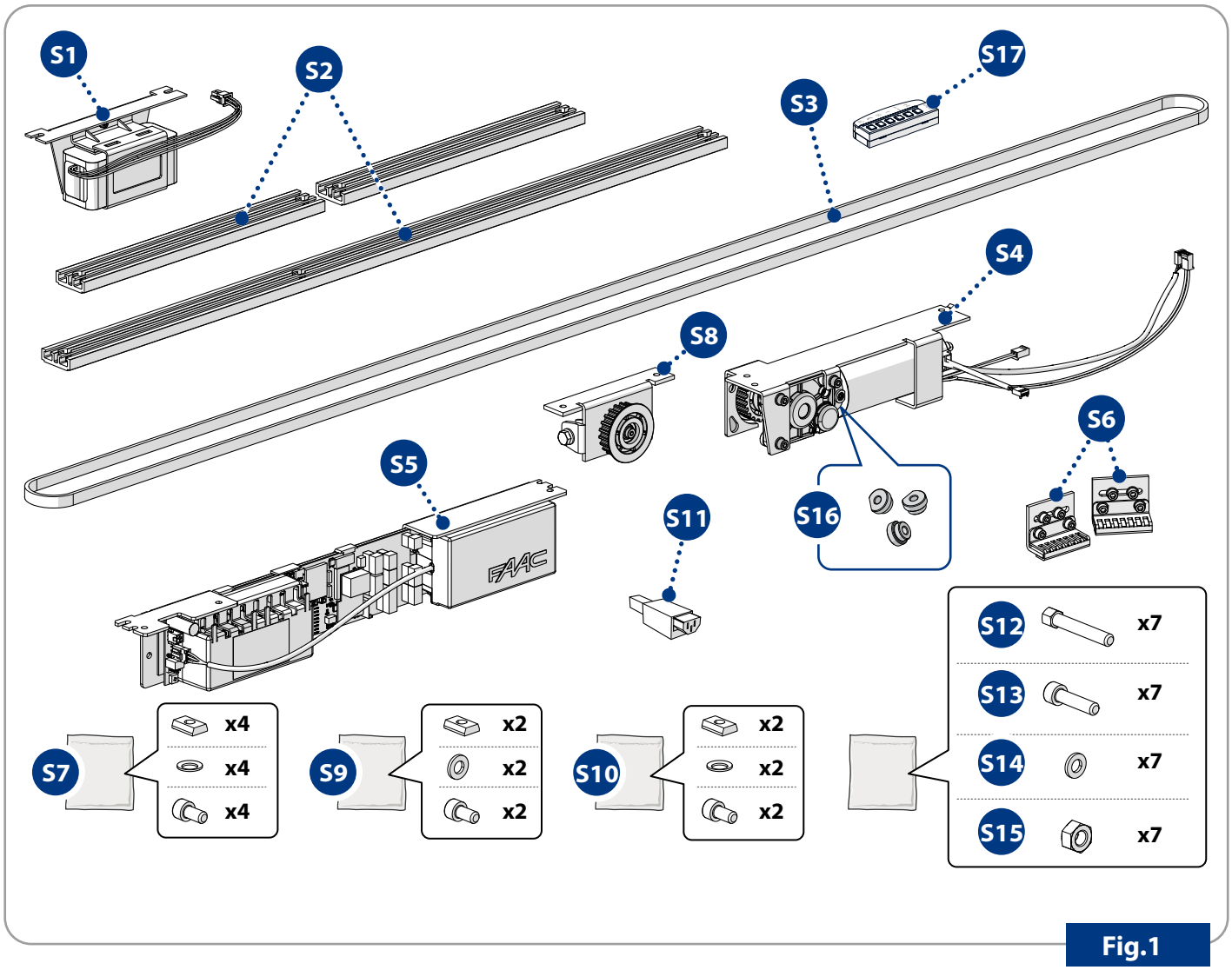


Fig.1

No.	Description	Quantity
S1	Backup battery unit	1
S2	Aluminium bracket	3
S3	Toothed belt	1
S4	Motor gearbox unit	1
S5	Control board unit	1
S6	L bracket Comb Screws M6x10 Washer 6.4X12X1.6	2 2 8 8
S7	Plate Black washer Screws M6x12	4 4 4
S8	Return pulley unit	1

No.	Description	Quantity
S9	Plate Washer 6.4X12X1.6 Screws M6x12	2 2 2
S10	Screws M6x10 Plate Black washer	2 2 2
S11	Wireable Kettle lead plug	1
S12	Screw M 6X 35	7
S13	Screw M 6X 20	7
S14	Washer 6.4X12X1.6	7
S15	Nut 6.4X12X1.6	7
S16	Shims-motor spacers	3
S17	LKEVO	1

2.2 ADAPTER PLATE KIT 105159

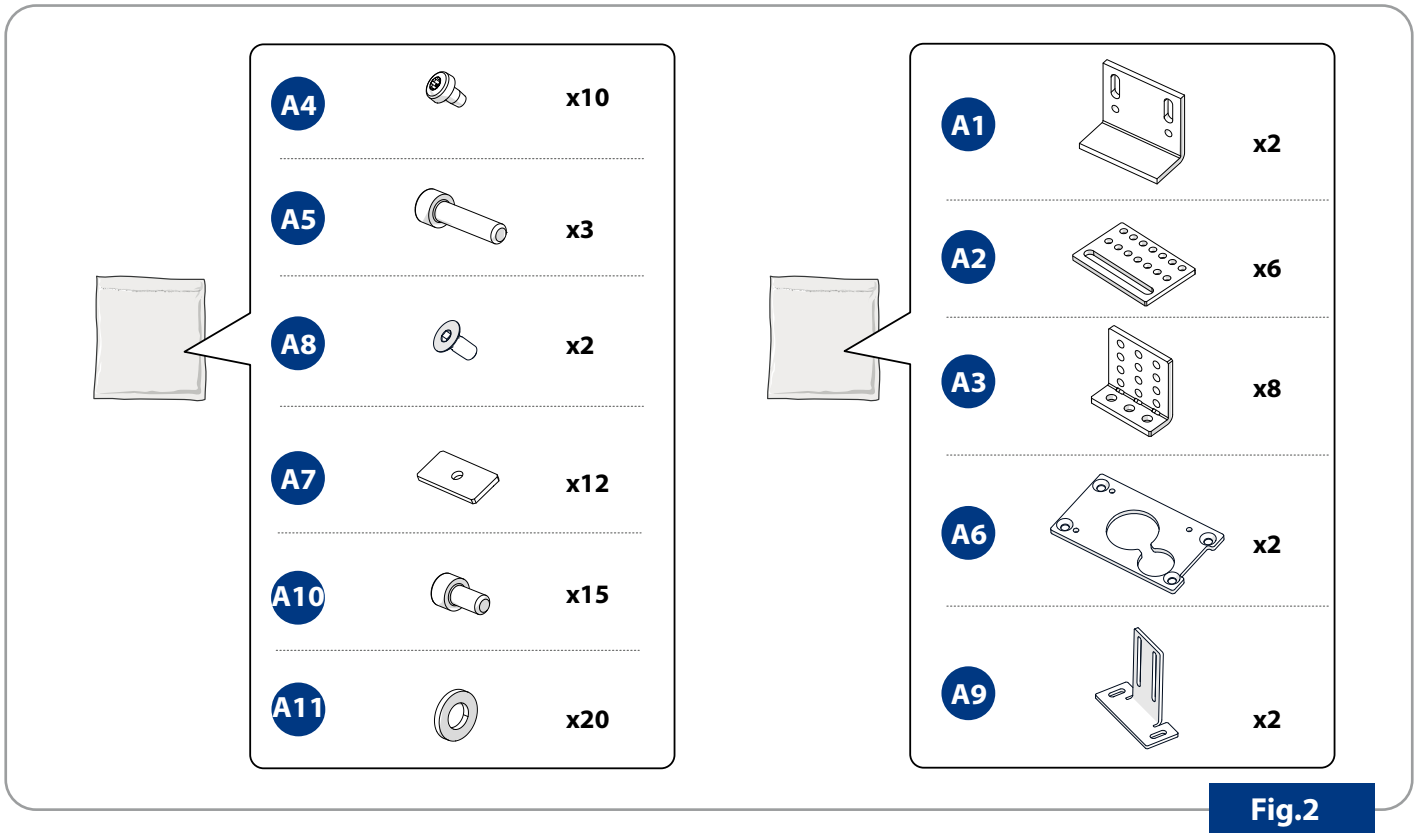


Fig.2

Position	Description	Quantity
A1	Belt connection plate	2
A2	Plate for belt connection unit	6
A3	Angle plate	8
A4	Self-tapping torx screw M6x10	10
A5	Screws M5x20	3
A6	Motor mounting adapting plate	1
A7	M6 square nut	12
A8	Countersunk screw M6x14	2
A9	Leaf attachment belt bracket	2
A10	Screws M6x10	15
A11	Washer	20

■ PLATE KIT COMPATIBLE WITH PRODUCTION FROM DATE: 10/2024

2.3 CABLE KIT

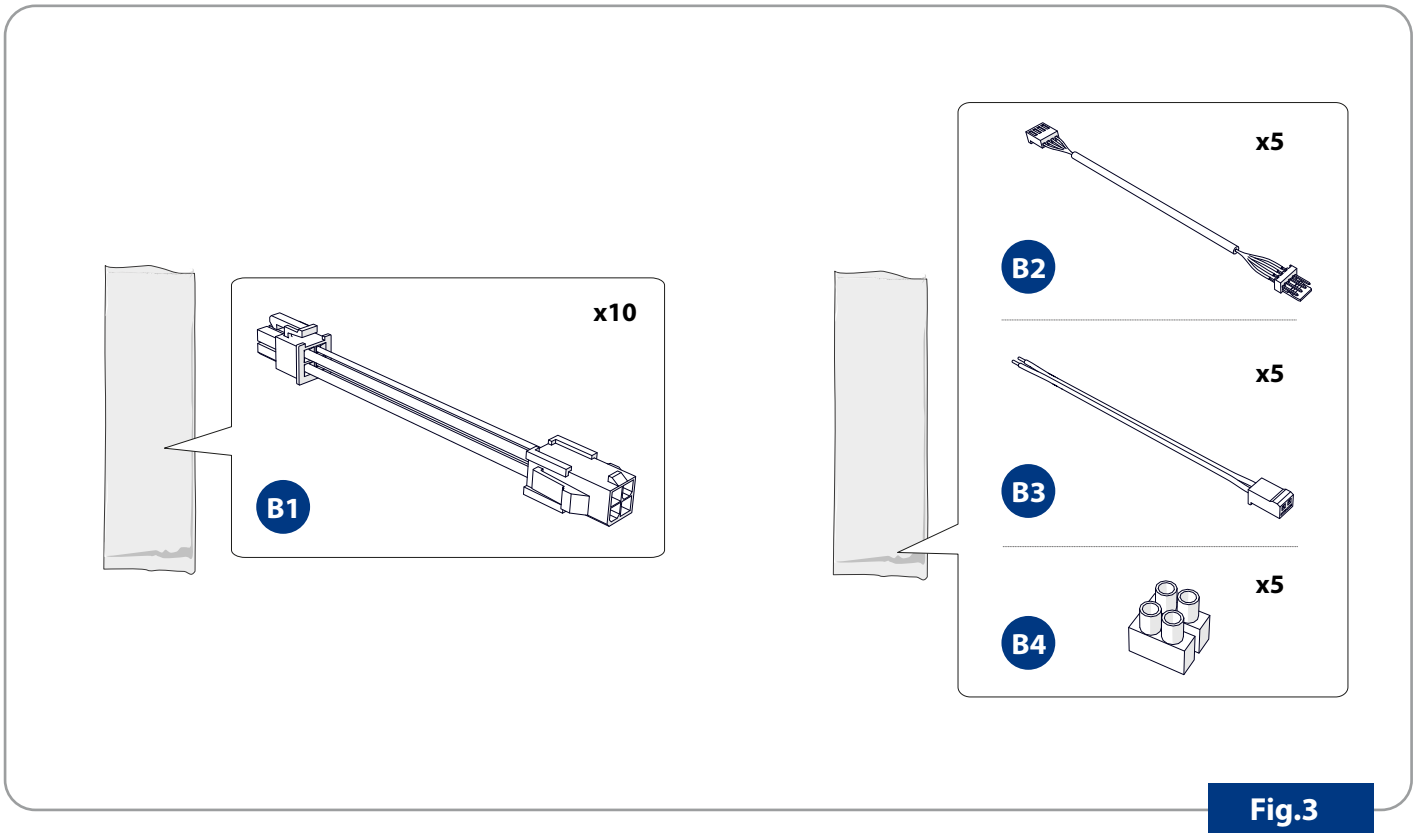


Fig.3

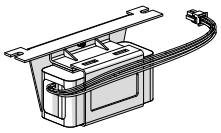
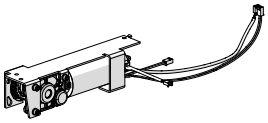
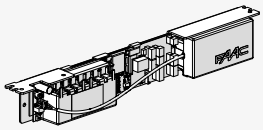
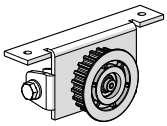
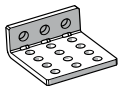
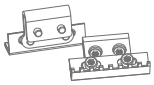
Position	Description	Quantity
B1	Backup battery extension cable kit 1M cod.105441	10
B2	Extension cable kit Motor A1400 3M cod.105442 Extension cable Motor A1400	5
B3	Encoder extension cable Motor A1400	
B4	Terminal board 2p sec.1.5 - step 8 - fixed.hole 2.6	

Application LIMITS:

- The maximum distance of 5 metres (maximum of 5 joined cables) between the board and the battery for the emergency battery cable should not be exceeded.
- Leave the electronic control equipment inside the transom containing the automation.

3. INSTALLATION ON RECORD STA20 (COVER HEIGHT 108 AND 150 MM)

3.1 STA20 COMPONENTS REQUIRED

KIT ID	IMAGE	DESCRIPTION	QTY
S1		Backup battery unit	1
S3		Toothed belt	1
S4		Motor gearbox unit	1
S5		Control board unit	1
S8		Return pulley unit	1
A3		Angle plate	6 of 8
A4		Self-tapping torx screw M6x10	6 of 10
1*		Plate nut and screw M6x12	8+8
2*		Belt connection unit	2

*Component not included in the assembly kit, recovered from the existing automation.

3.2 STA20 RETROFIT

1. Mount the brackets (**A3**) on the profile using 6 screws and relative nuts (**1**).

Position the brackets (A3) approximately as shown in the figure, making sure that they are installed the right way round (details A and B).
DO NOT fully tighten the screws (1) so that the brackets (A3) can be positioned correctly in the following steps.

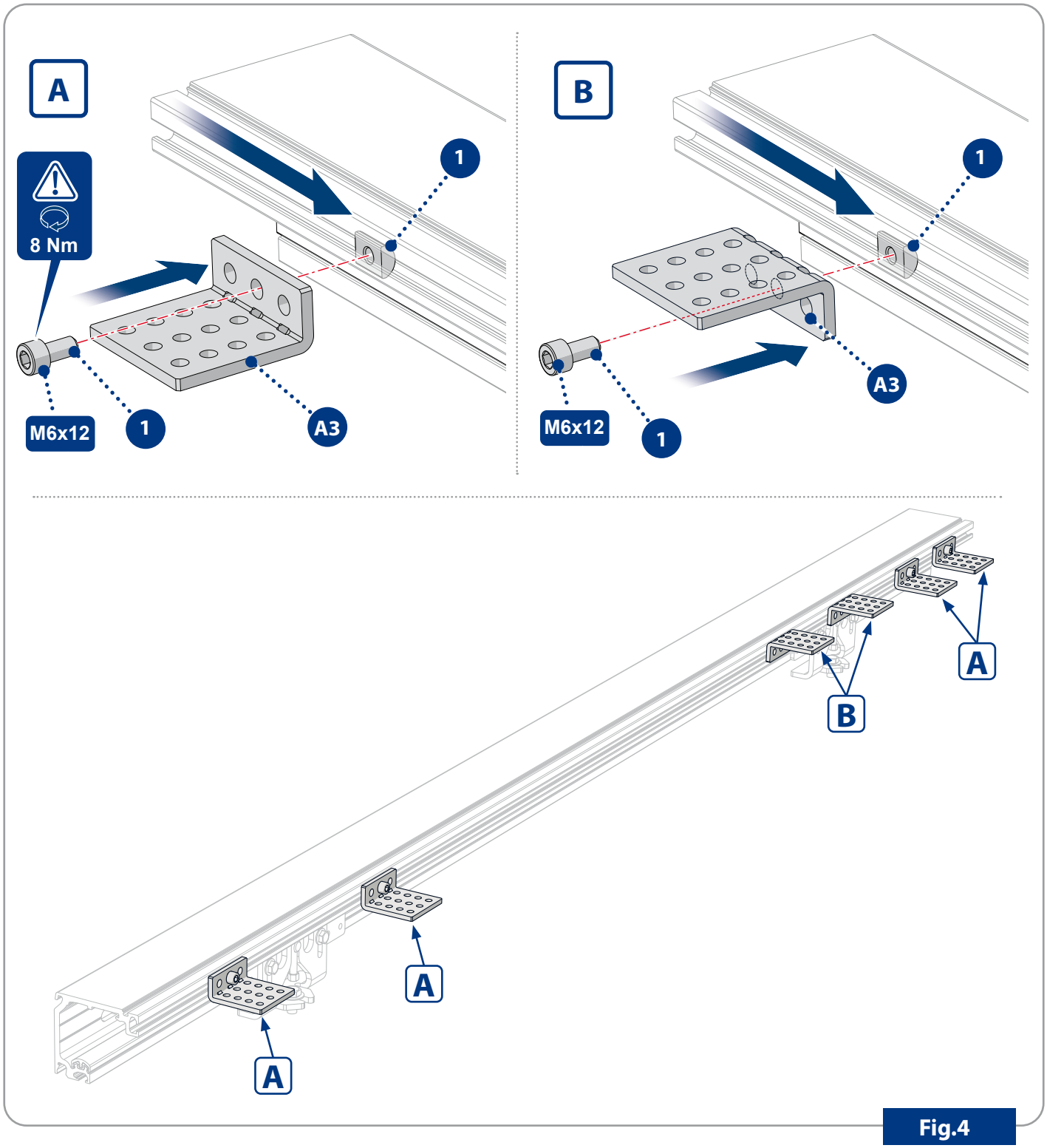


Fig.4

2. Mount the motor gearbox unit (**S4**) and the return pulley unit (**S8**) on the brackets (**A3**) using the torx screws (**A4**).

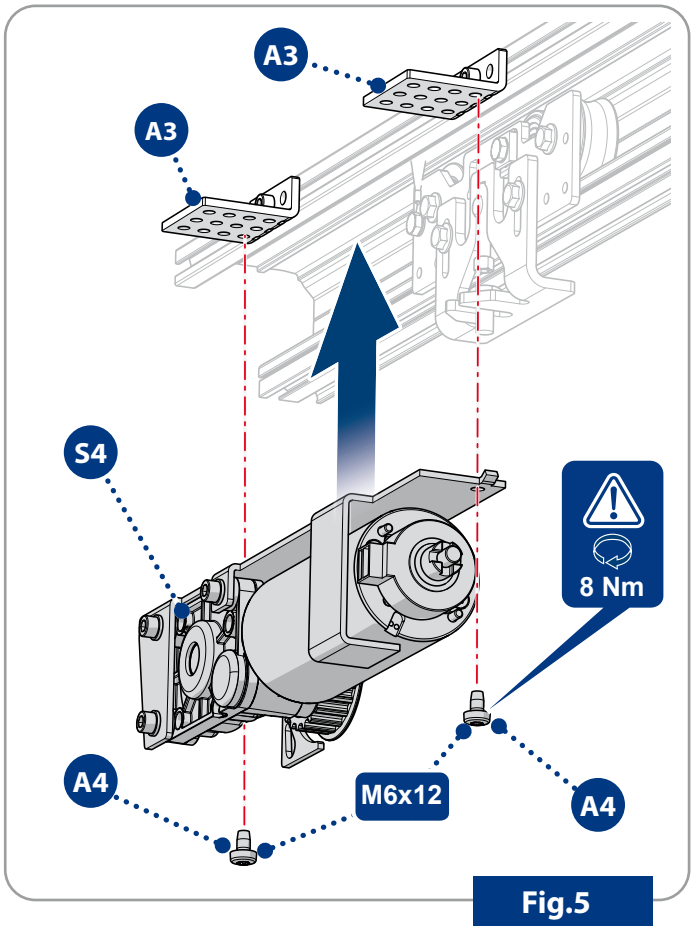


Fig.5

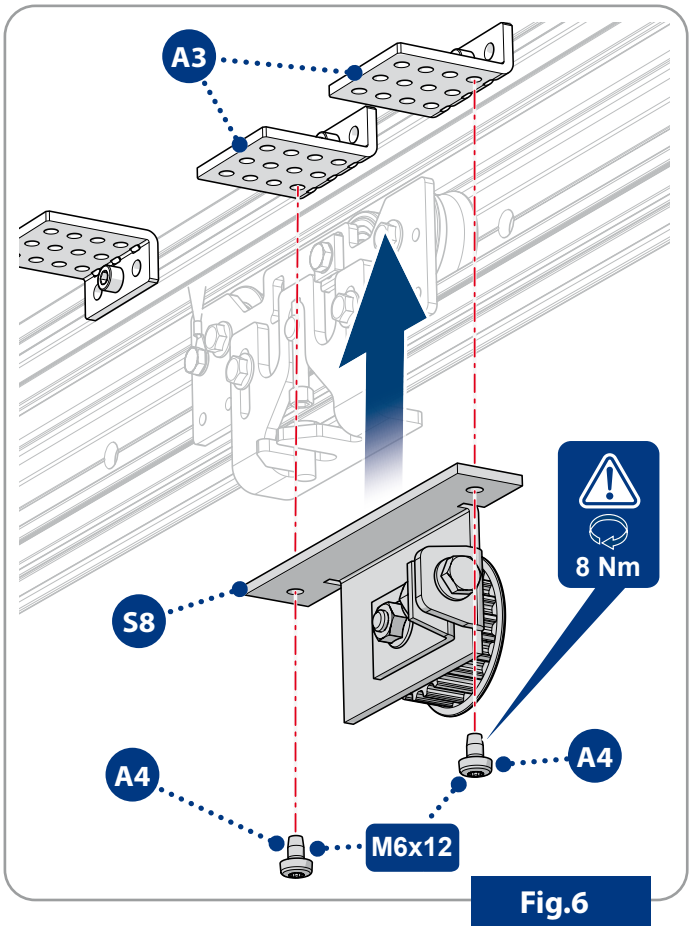


Fig.6

3. Move (detail **C**) the return pulley unit (**S8**) closer to make it easier to install the toothed belt (**S3**).

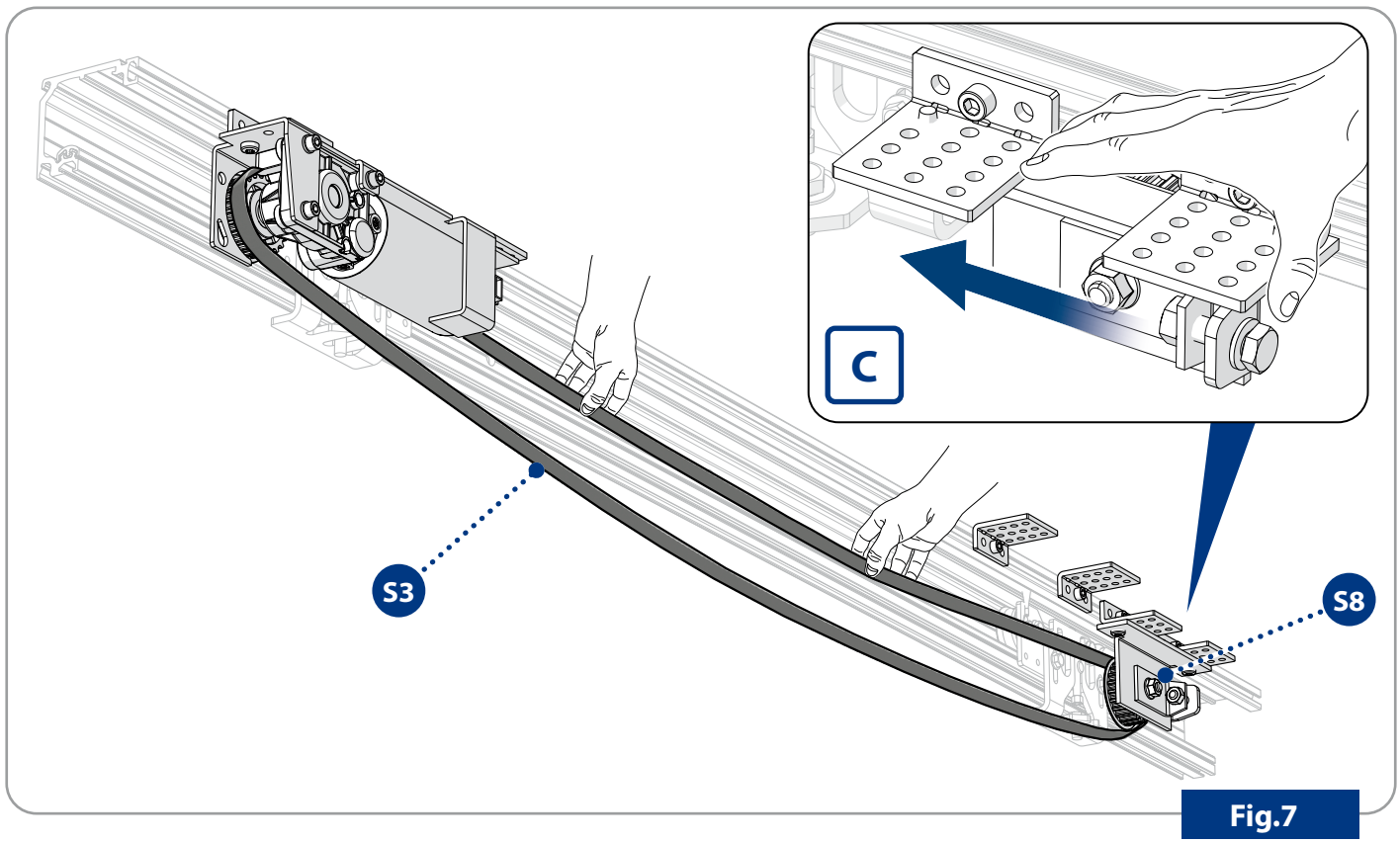


Fig.7

4. Join the two ends of the belt by inserting 3 teeth of each end into the belt connection unit (**2**).
5. Move the (**D**) return pulley unit (**S8**) back into position in order to tension the toothed belt (**S3**), see specific section.
6. Mount the belt stops (**2**) as shown in the figure.

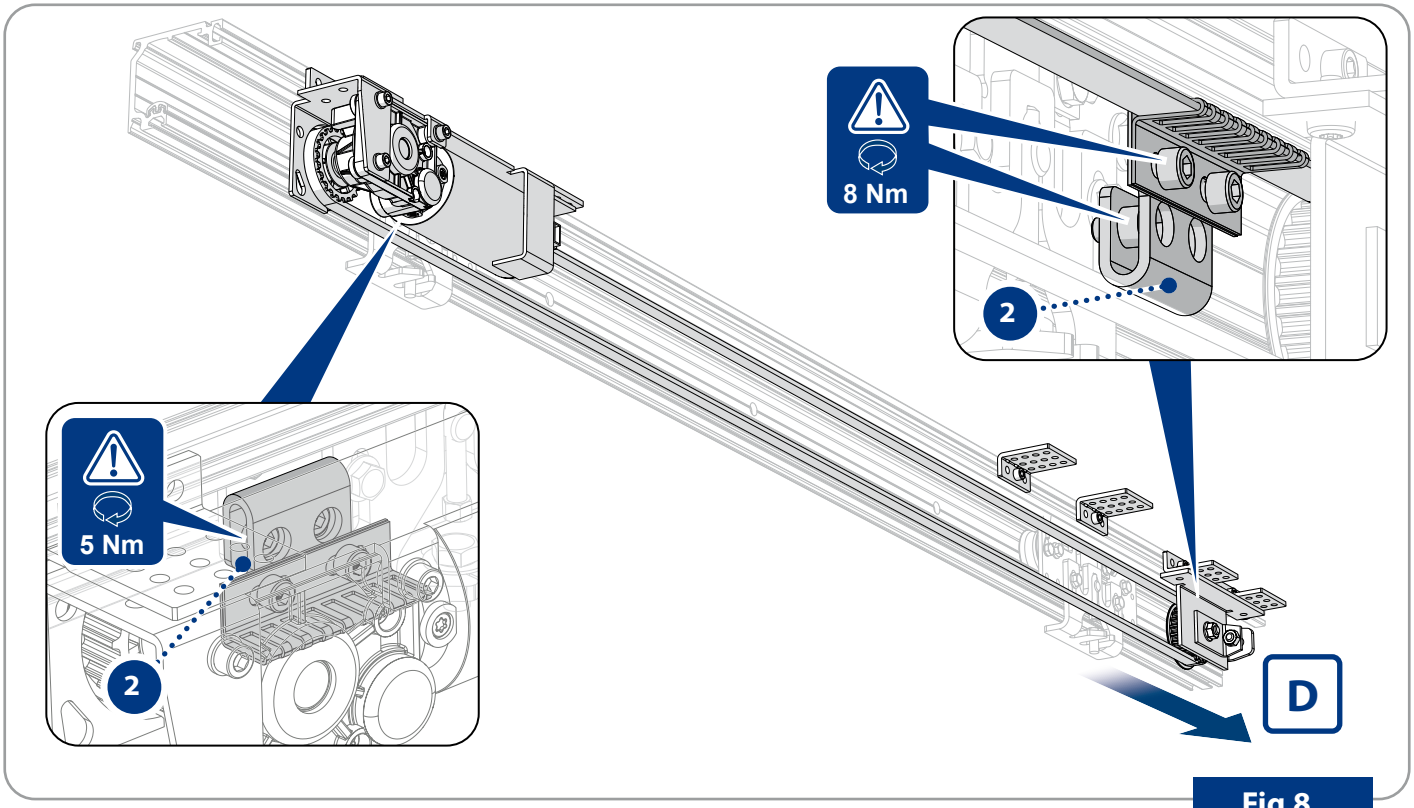


Fig.8

7. Mount the battery unit (**S1**) on the brackets (**A3**) using the torx screws (**A4**).

Align with additional washers.

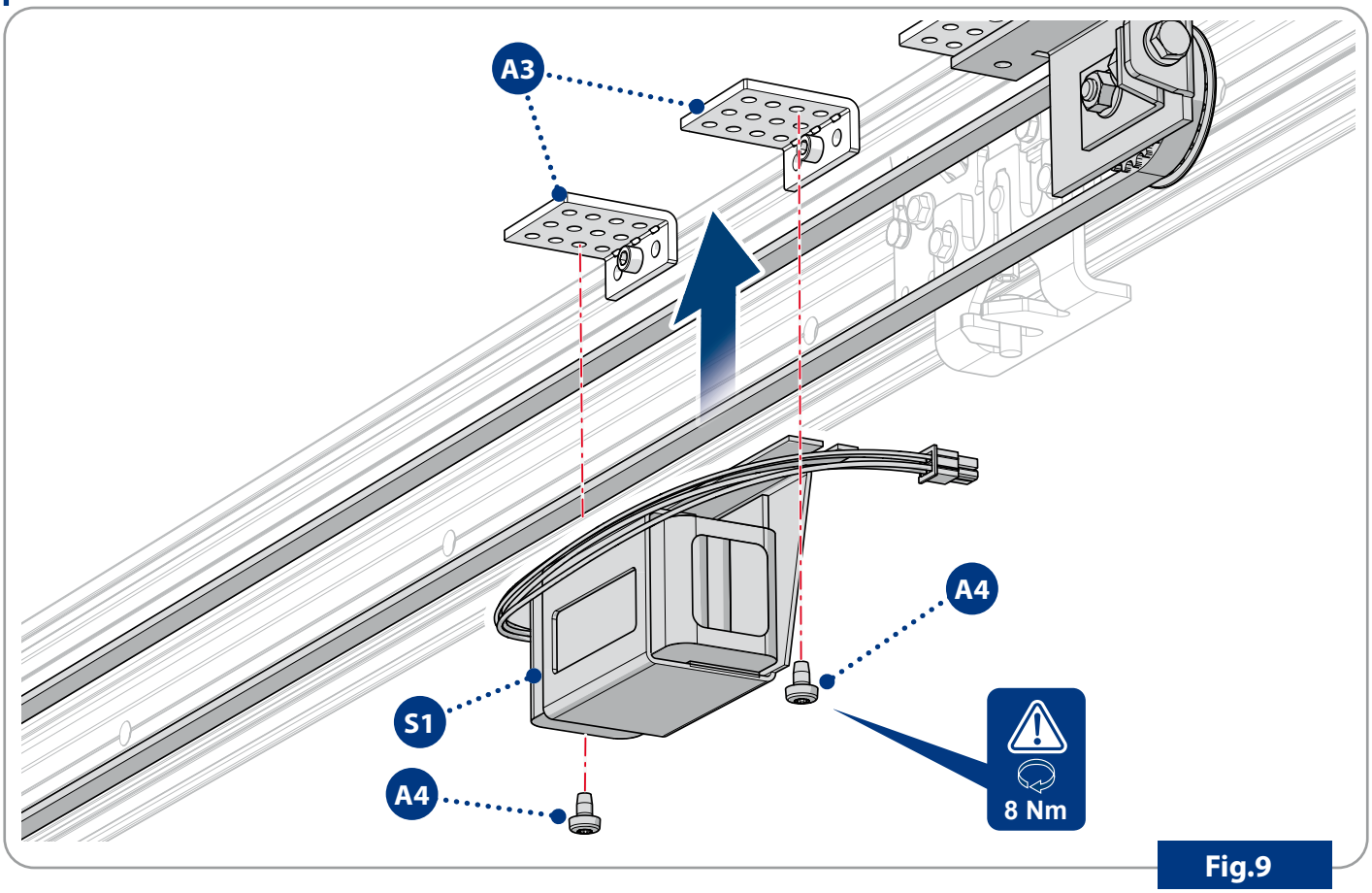


Fig.9

8. Mount the control board unit (**S5**) using the screws and relative nuts (**1**).

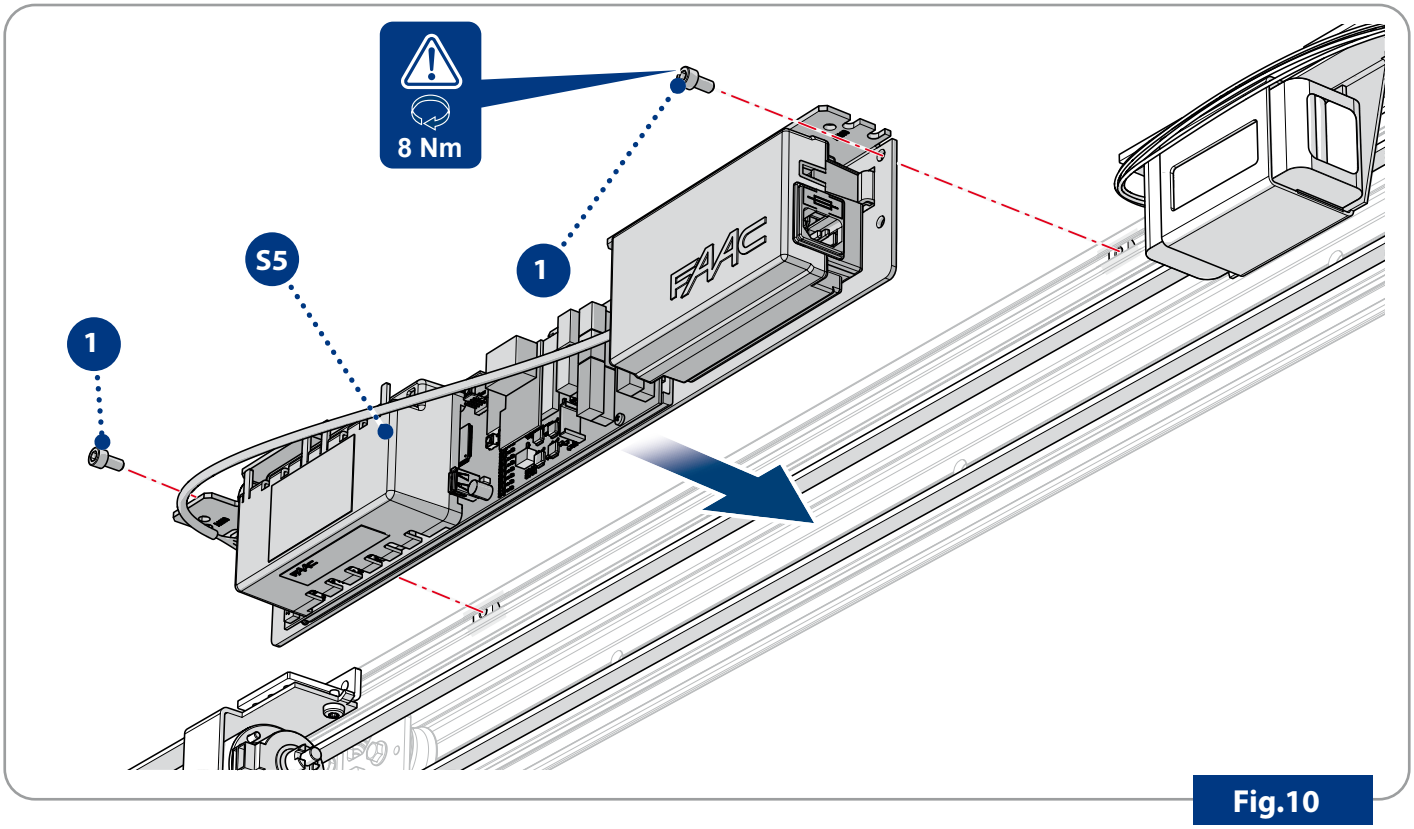


Fig.10

9. When finished, make sure that all the screws have been tightened properly and that the mechanical safety limit door stops have been installed and tightened correctly.

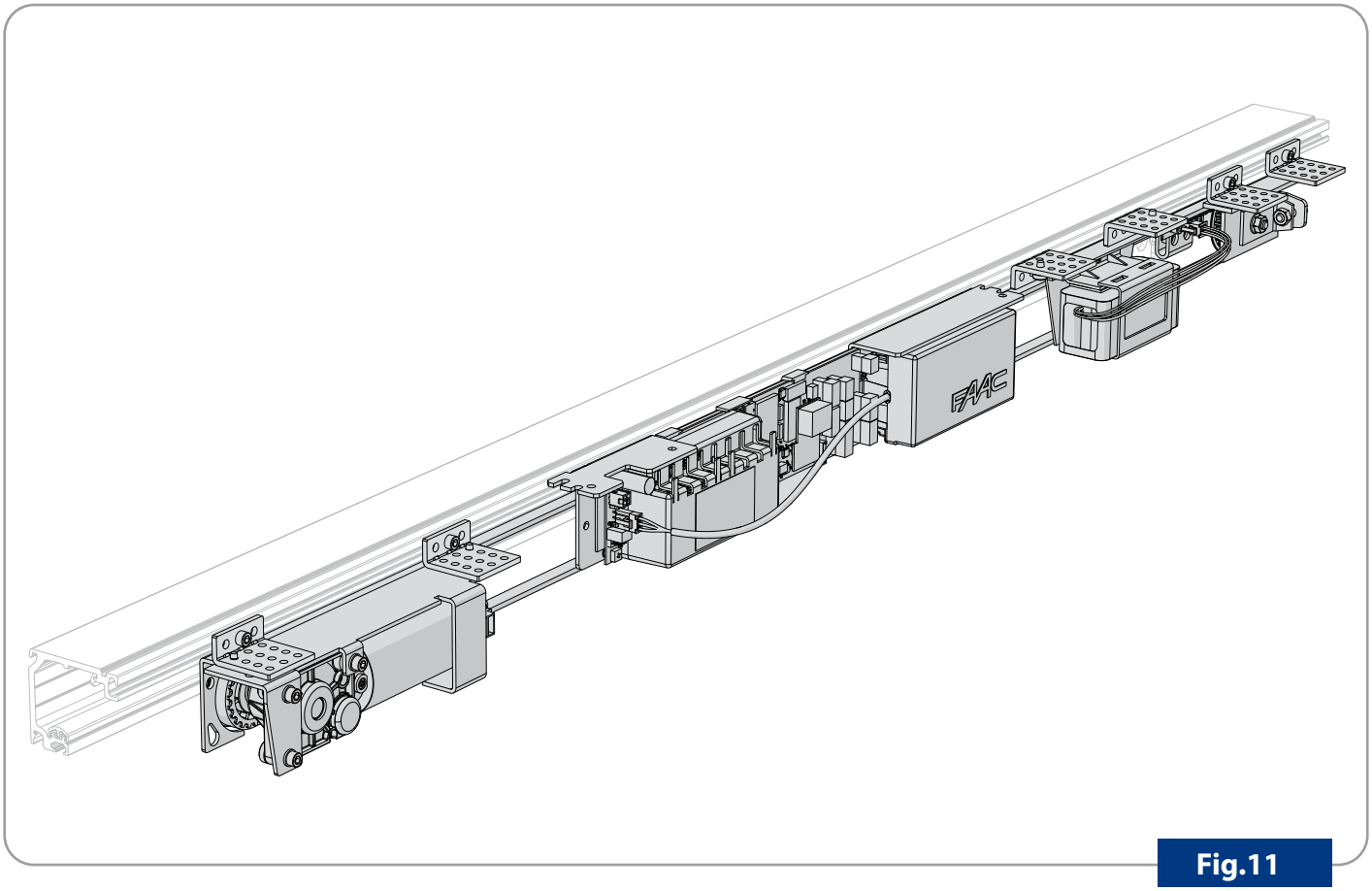
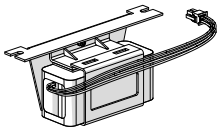
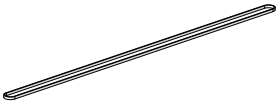
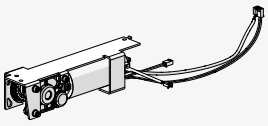
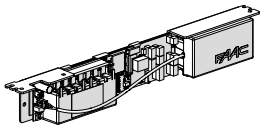
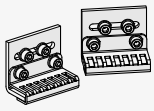
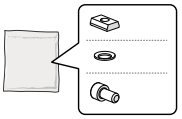
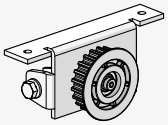
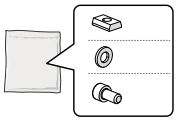
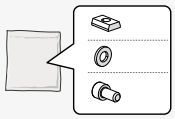
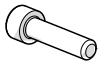
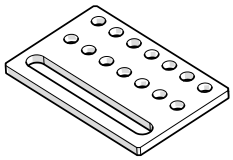
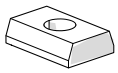
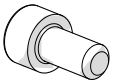


Fig.11

4. INSTALLATION ON ASSA ABLOY UNISLIDE

4.1 ASSA ABLOY UNISLIDE COMPONENTS REQUIRED

KIT ID	IMAGE	DESCRIPTION	QTY
S1		Backup battery unit	1
S2		Aluminium bracket	3
S3		Toothed belt	1
S4		Motor gearbox unit	1
S5		Control board unit	1
S6		L bracket Comb Screws M6x10 Washer 6.4X12X1.6	2 2 8 8
S7		Screws M6x12 Black washer Plate	4 4 4
S8		Return pulley unit	1

KIT ID	IMAGE	DESCRIPTION	QTY
S9		Screws M6x12 Washer 6.4X12X1.6 Plate	2 2 2
S10		Screws M6x10 Washer Plate	2 2 2
S13		Screws M6x20	4
S15		Nut	4
A2		Plate for belt connection unit	6 of 6
A4		Self-tapping torx screw M6x10	6 of 10
A7		M6 square nut	12
A9		Leaf attachment belt bracket	2
A10		Screws M6x10	12
A11		Washers	20

4.2 UNISLIDE RETROFIT

1. Mount the plates (**A7**) on the profile, position the plates (**A2**) using the screws (**A10**), mount the profile (**S2**) using 6 screws (**A4**) approximately as shown in the figure (**A**).

The automation can be pre-assembled on the profiles 6.

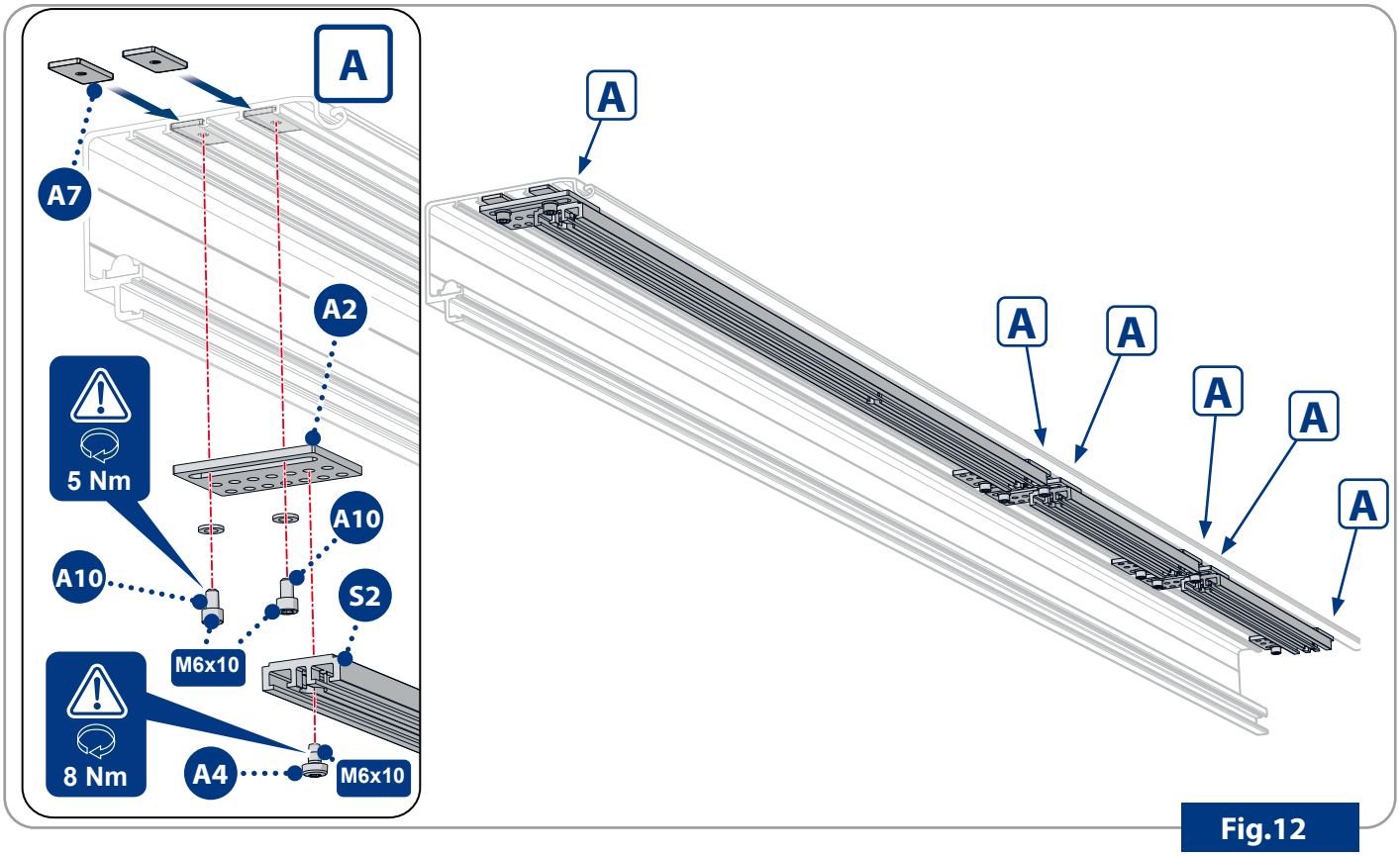


Fig.12

2. Mount the gearmotor (**S4**) using the screws and plates (**S7**) and the return pulley unit (**S8**) on the brackets (**S2**) using the screws and plates (**S10**)

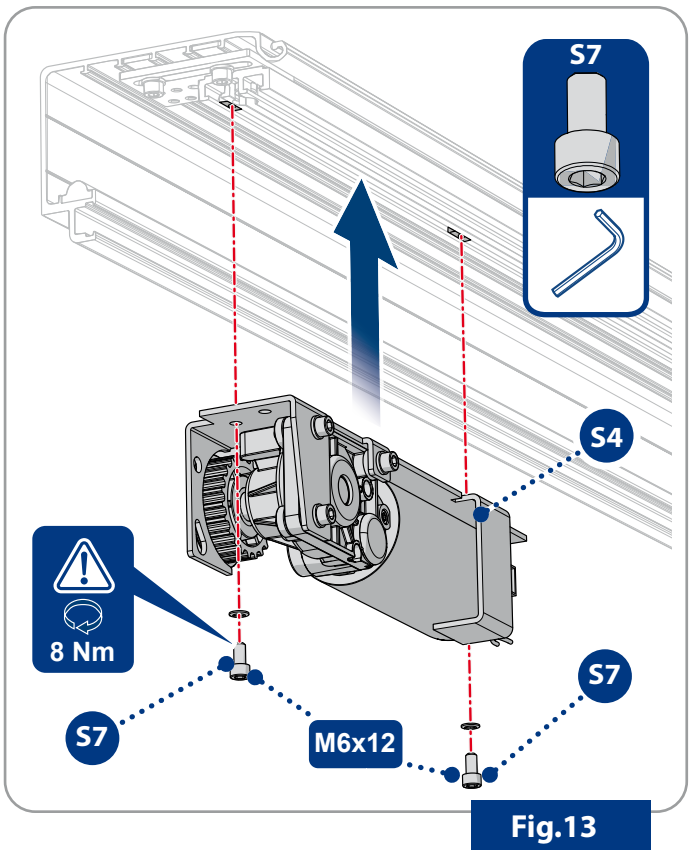


Fig.13

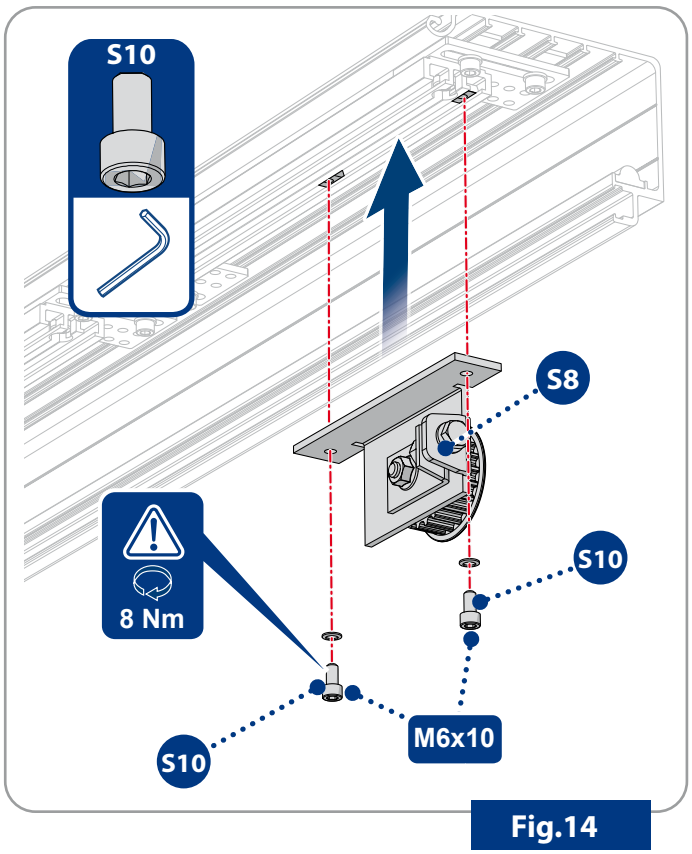


Fig.14

3. Move (detail **B**) the return pulley unit (**S8**) closer to make it easier to install the toothed belt (**S3**).

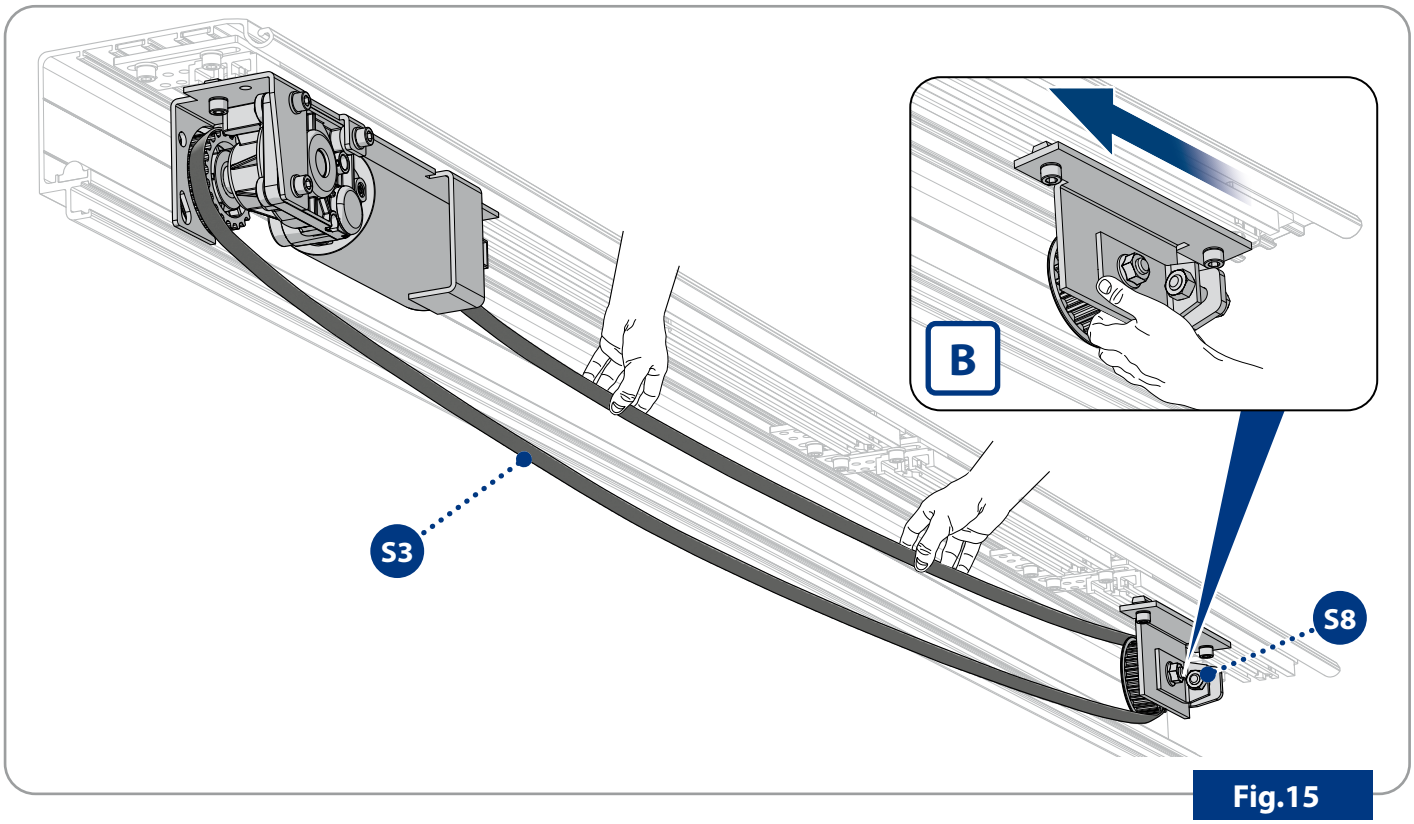


Fig.15

4. Join the two ends of the belt by inserting 3 teeth of each end into the belt connection unit (**S6**).
5. Move the (**C**) return pulley unit (**S8**) back into position in order to tension the toothed belt (**7**), see specific section.
6. Mount the belt stops (**S6**) as shown in the figure, using the washers to prevent interference.

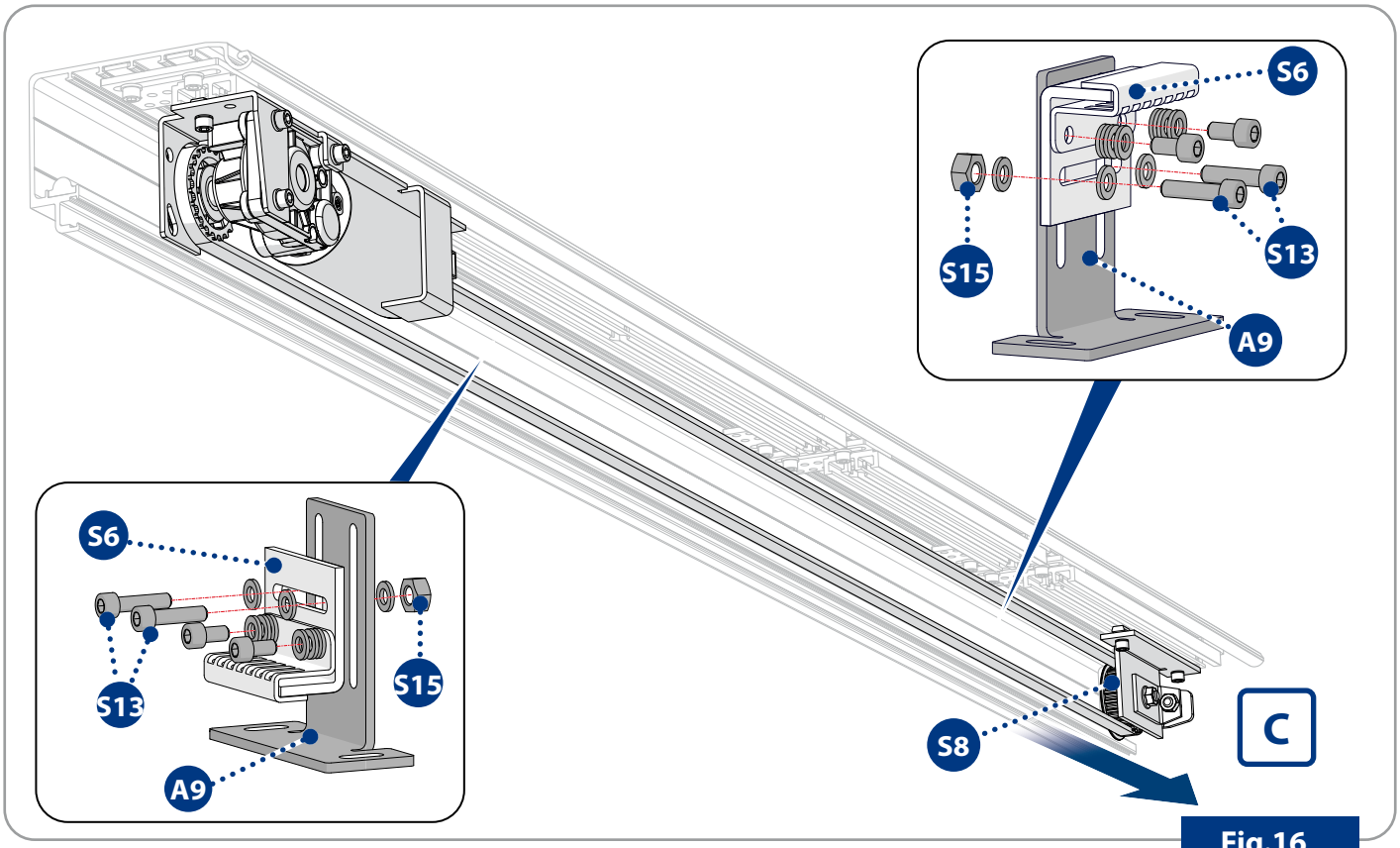


Fig.16

7. Mount the battery unit (**S1**) using the screws and relative plates (**S9**).

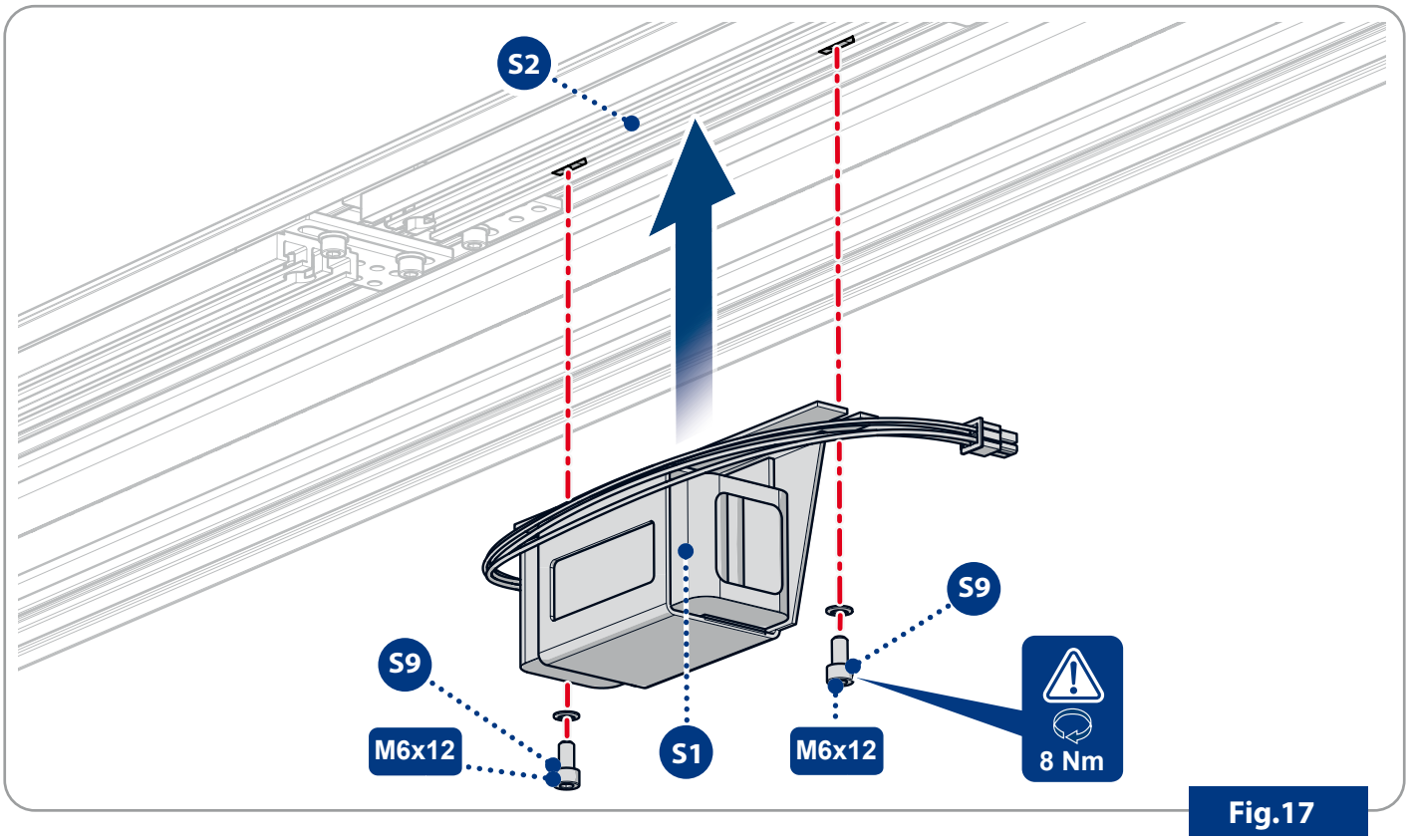


Fig.17

8. Mount the control board unit (**S5**) using the screws and relative plates (**S7**).

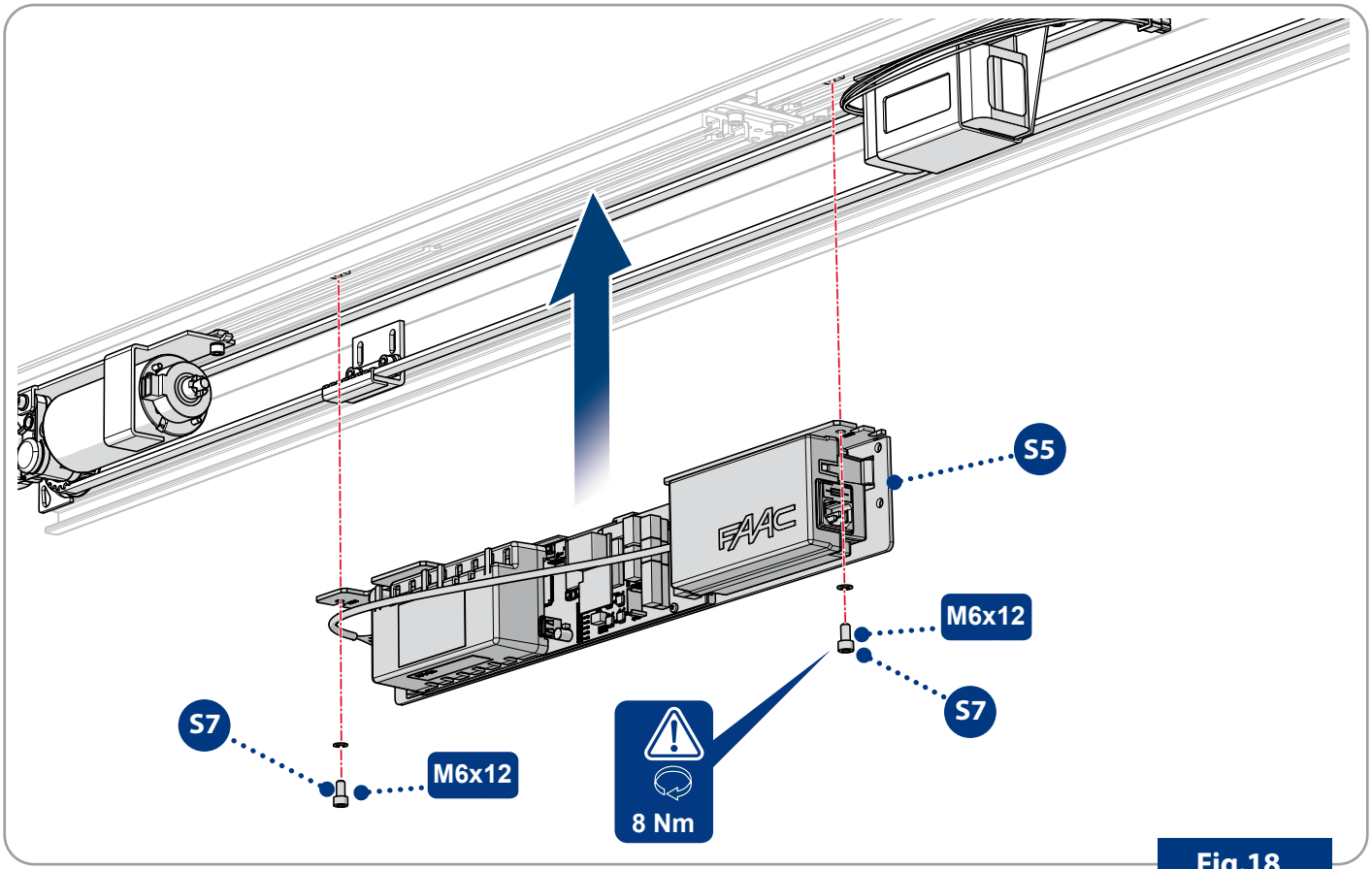


Fig.18

9. When finished, make sure that all the screws have been tightened properly and that the mechanical safety limit door stops have been installed and tightened correctly.

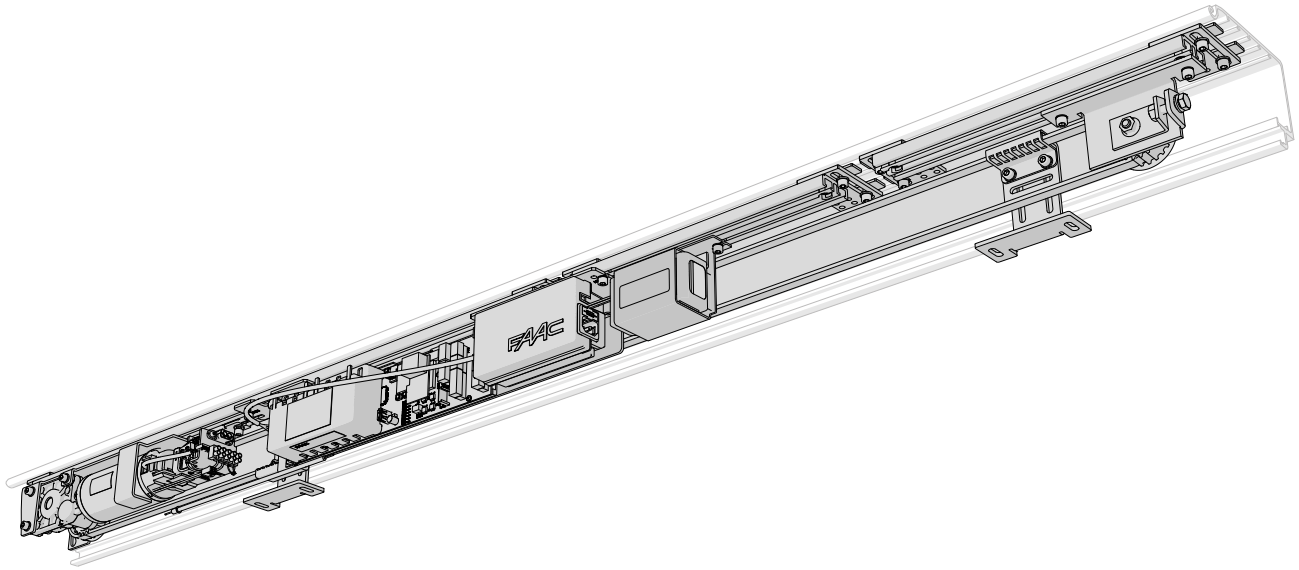
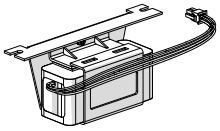
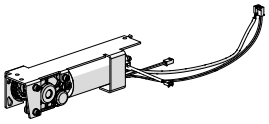
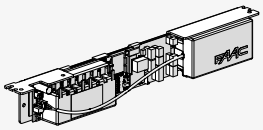
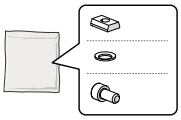
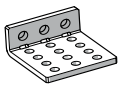
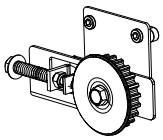
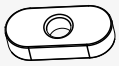
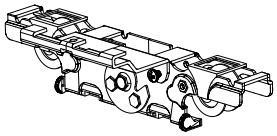
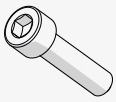
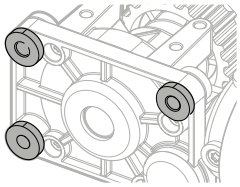


Fig.19

5. INSTALLATION ON ASSA ABLOY SL500

5.1 SL500 COMPONENTS REQUIRED

KIT ID	IMAGE	DESCRIPTION	QTY
S1		Backup battery unit	1
S3		Toothed belt	1
S4		Motor gearbox unit	1
S5		Control board unit	1
S7		Screws M6x12 Black washer Plate	everything except plates
A3		Angle plate	6 of 6
A4		Self-tapping torx screw M6x10	4 of 10
A6		Motor mounting adapting plate	1
A8		Countersunk screw M6x14 for adapter plate	2

KIT ID	IMAGE	DESCRIPTION	QTY
A11		Washer	4
1*		Third party return pulley unit	1
2*		Plate	6
3*		Third party carriage	1
4		Motor screw	3
5		Motor spacers	3

*Component not included in the assembly kit, recovered from the existing automation.

5.2 SL500 RETROFIT

It can be mounted on either the left or right.

1. Unscrew the screws (**4**) and remove the gear motor support bracket (**S4**).

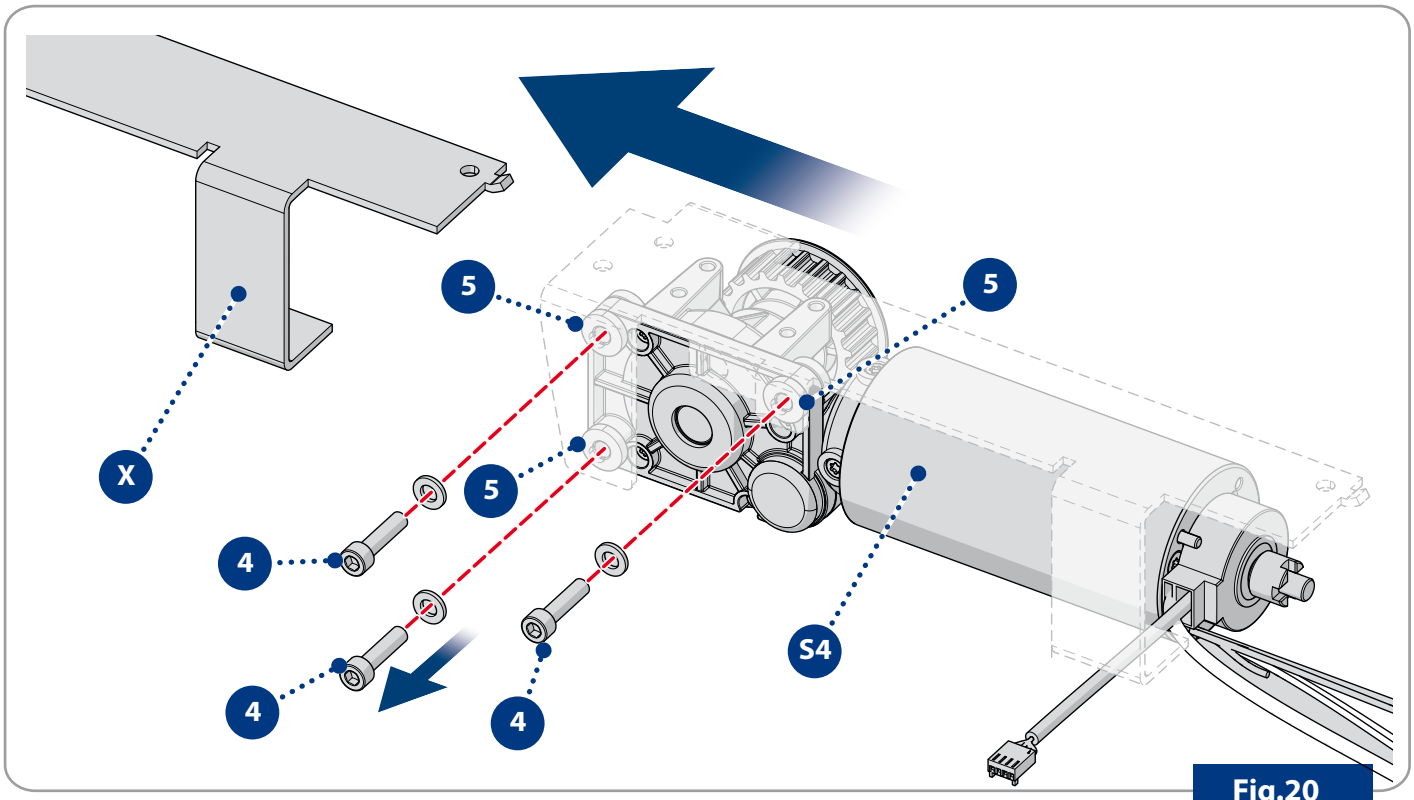


Fig.20

2. Place the screws (**4**) and the motor spacers (**5**) to one side, which will be used in the following step.
3. Secure the plate (**A6**) using the screws (**A8**), then install the motor (**1**) using the screws (**12**) and shims (**13**).
4. Push the plate up as far as it will go.

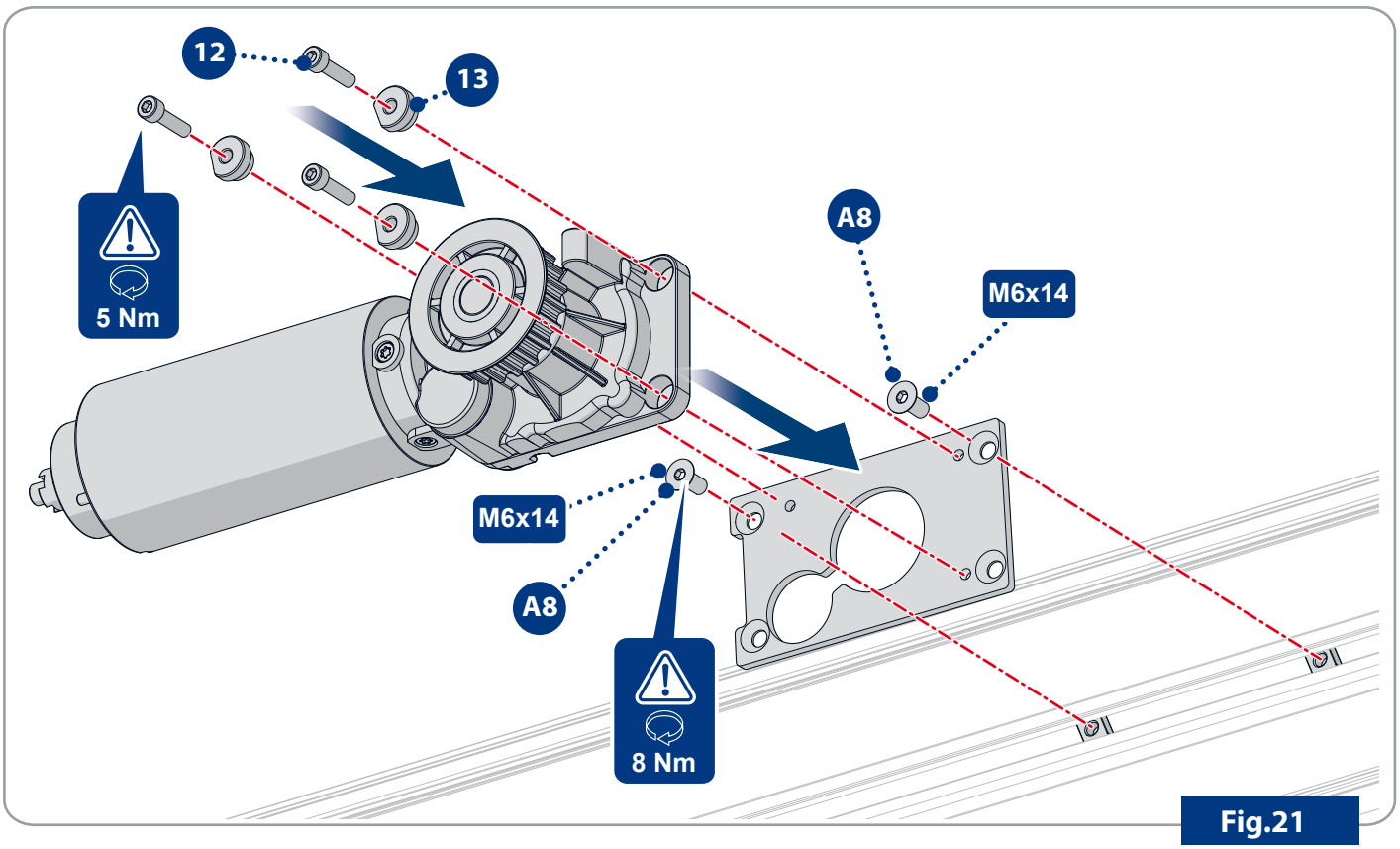


Fig.21

5. Insert the (**A**) plate nuts (**2**) into the profile, then mount the two support plates (**3**) for the control board unit and secure using the screws (**S7**) with the relative washers.

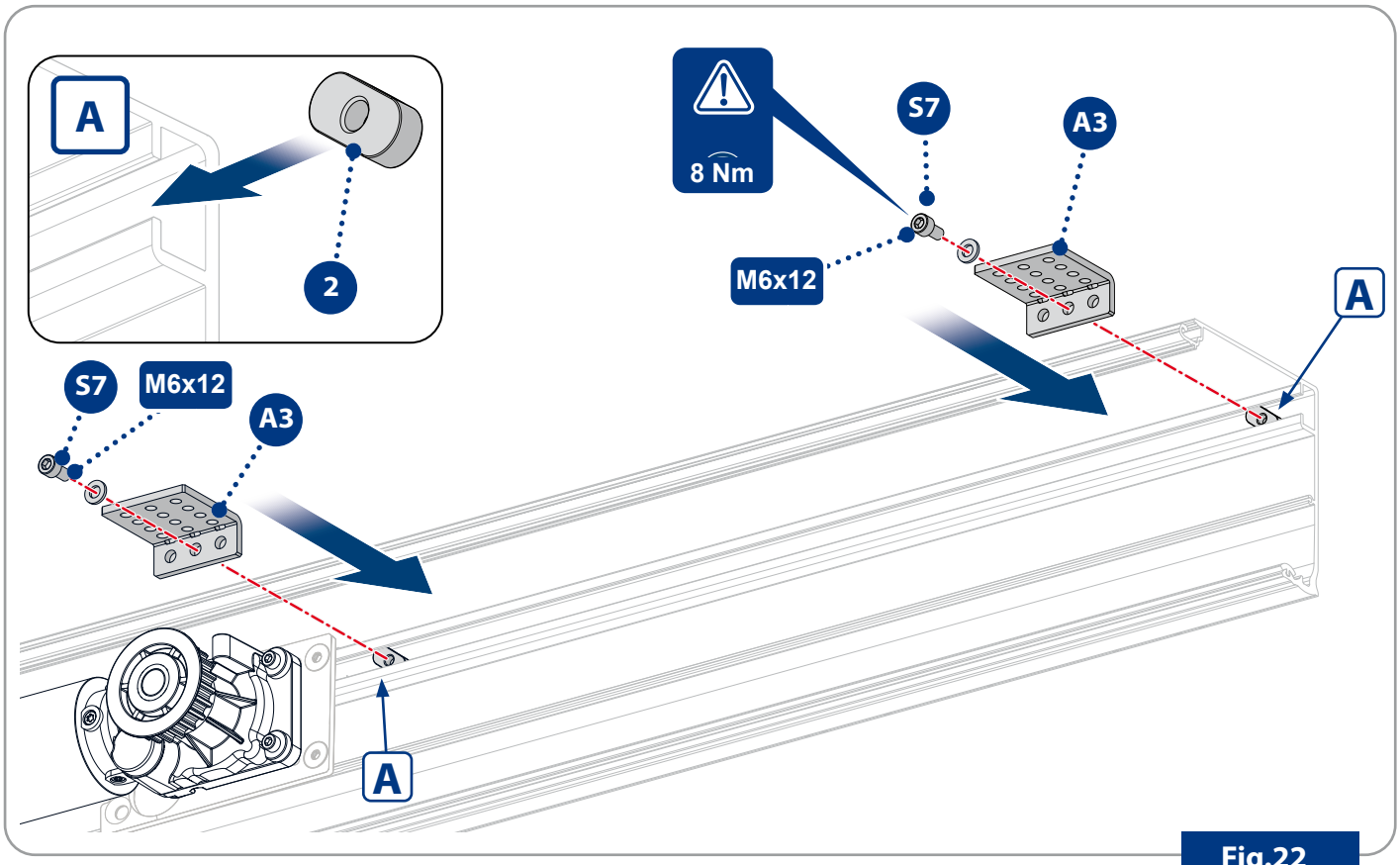


Fig.22

6. Mount the control board unit (**S5**) using the torx screws (**A4**) and the relative washers.

It may or may not be mounted on the plates depending on the application.

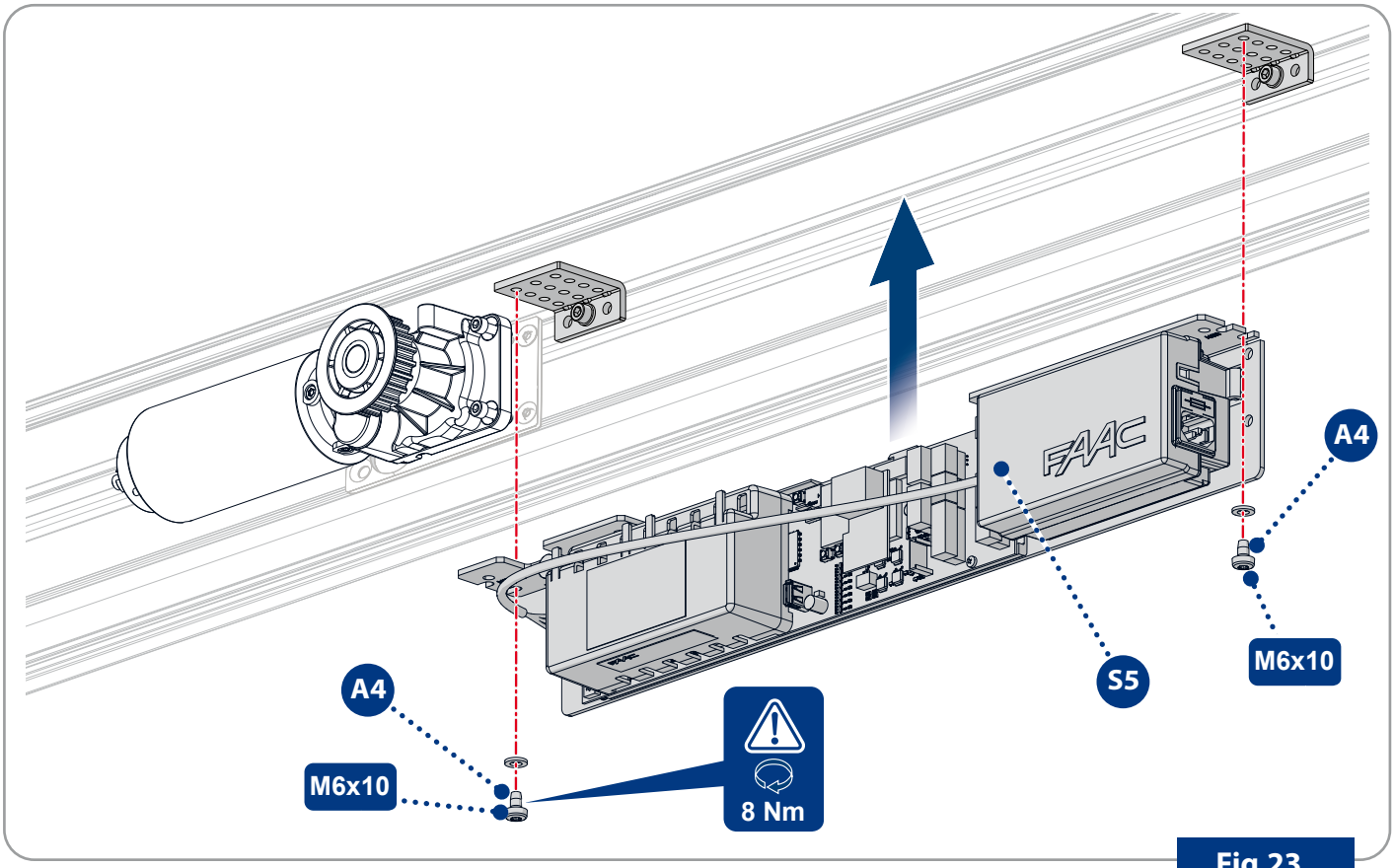


Fig.23

7. Insert (detail **A**) the plate nuts (**2**) into the profile, then mount the two battery support plates (**A3**) and secure using the screws taken from (**S7**) and the relative washers.

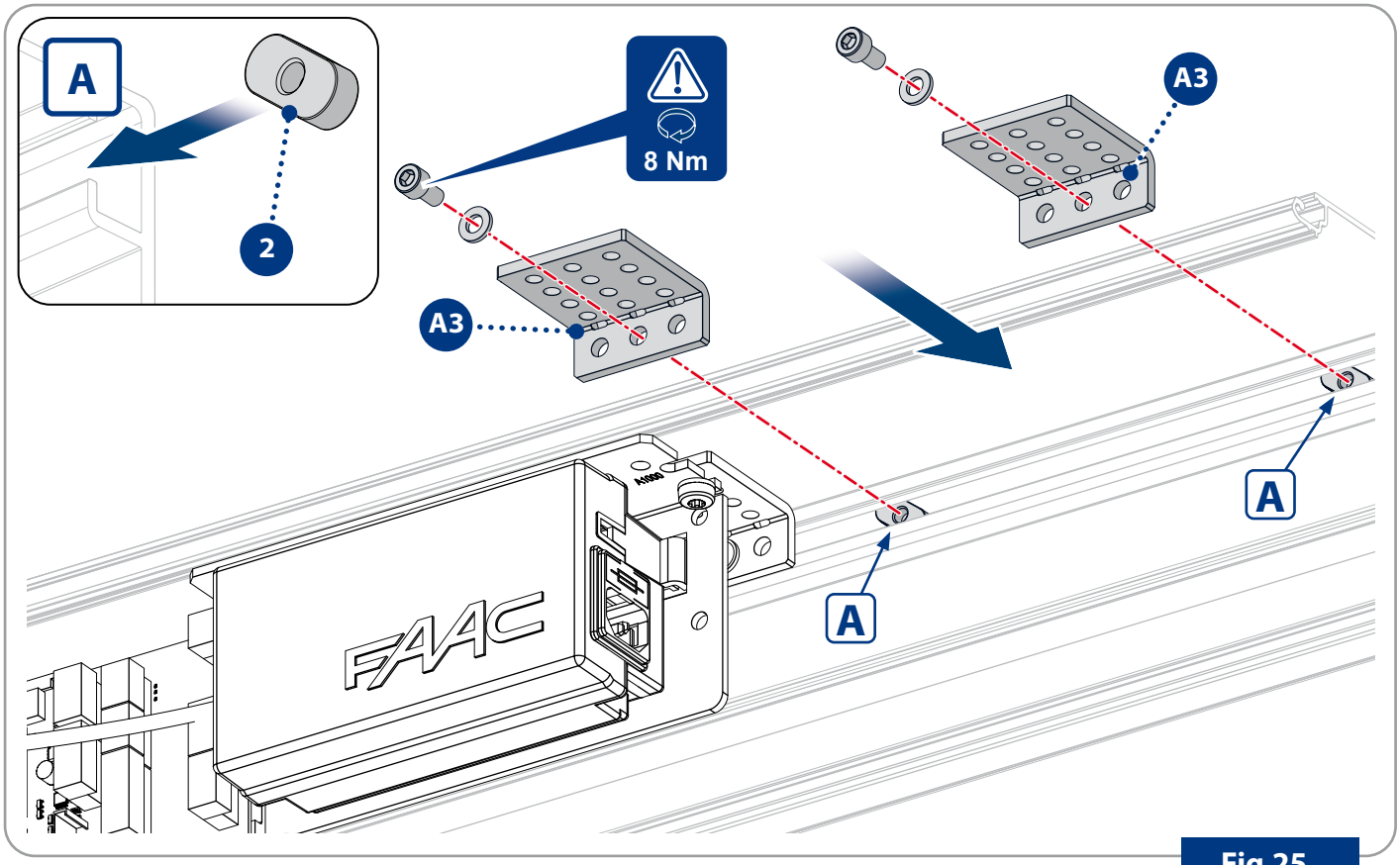


Fig.25

8. Mount the battery (**S1**) using the torx screws (**A4**) and a suitable washer.

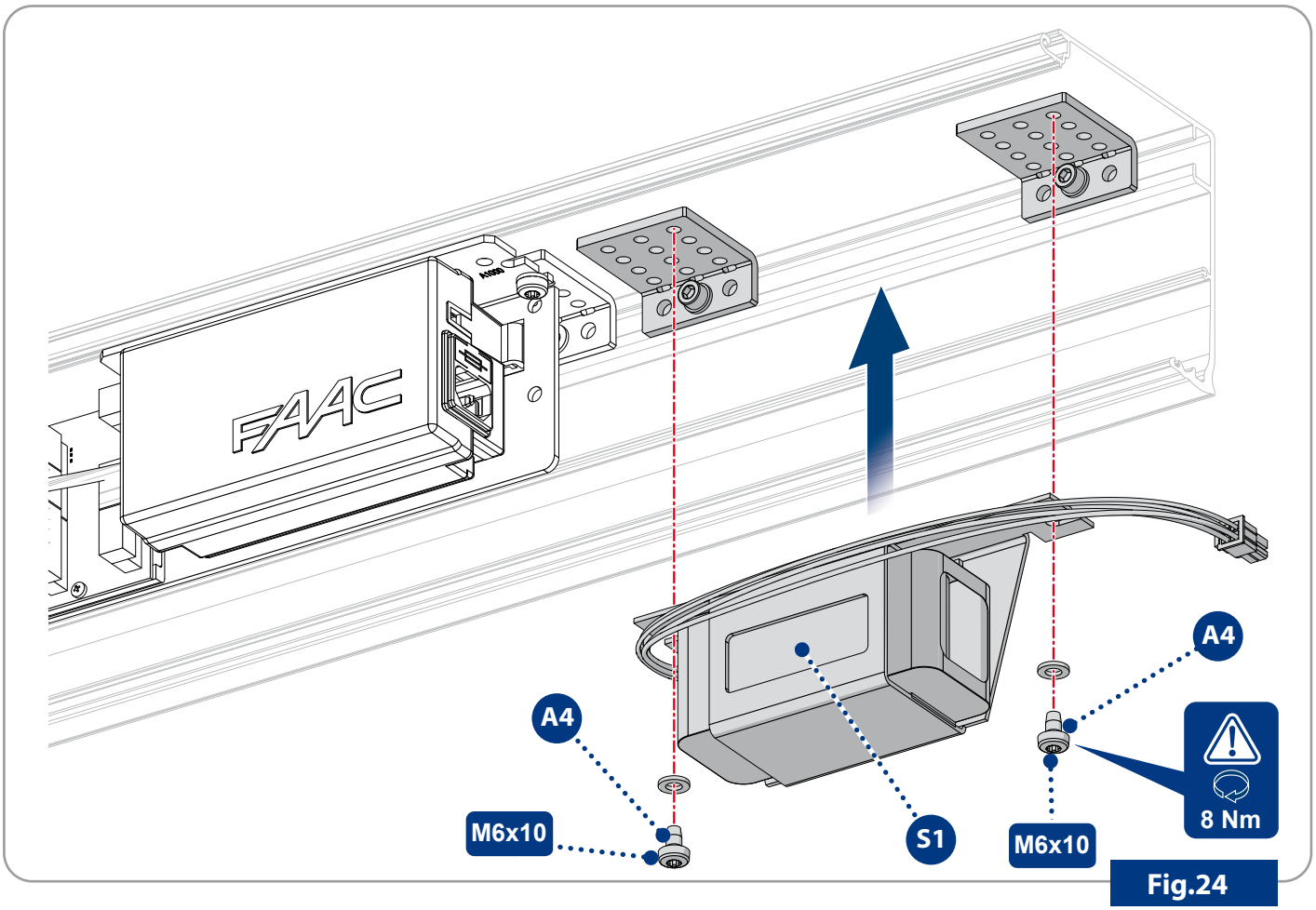


Fig.24

9. Move (detail **B**) the return pulley unit (**3**) closer to make it easier to install the toothed belt (**S3**).

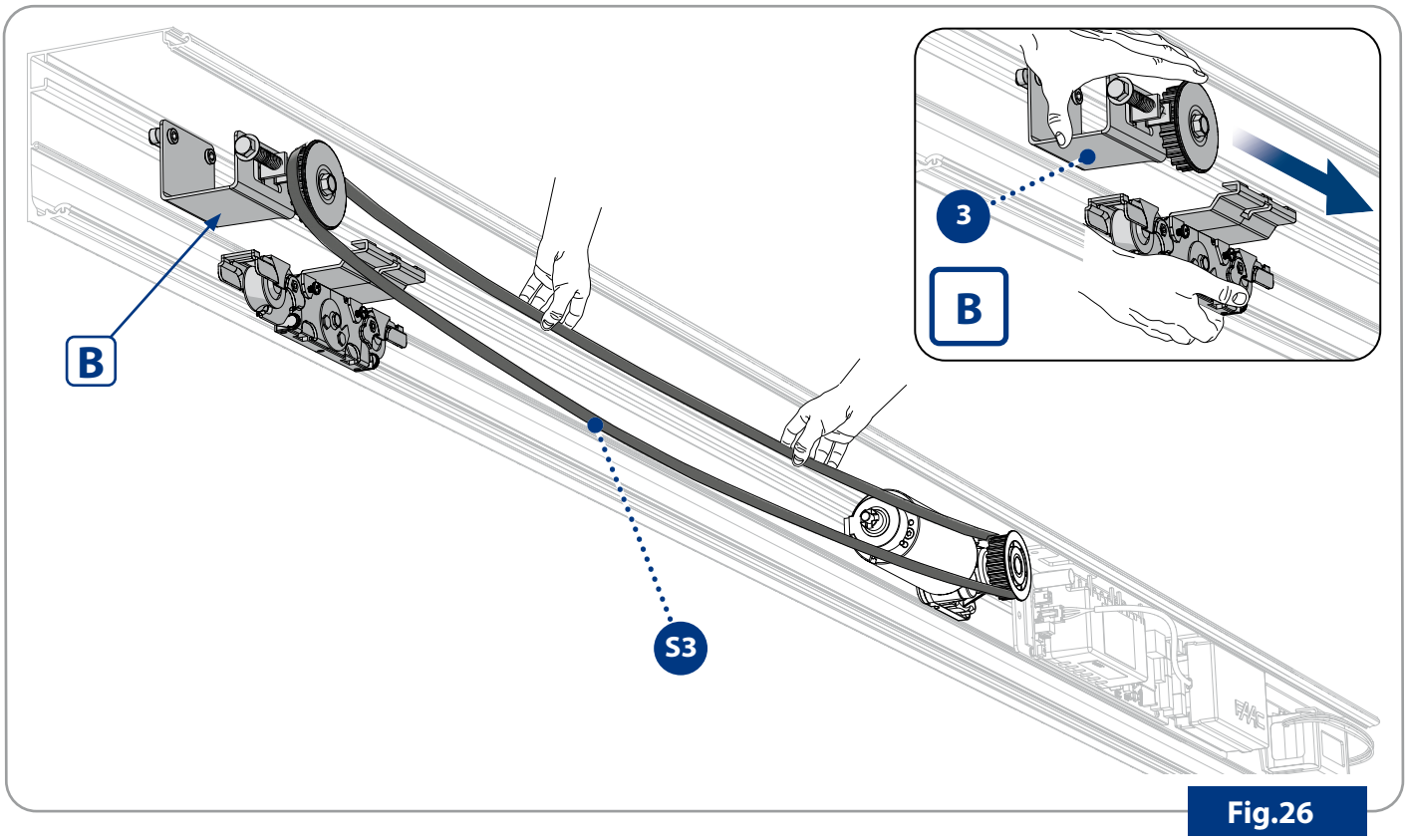


Fig.26

10. Join the two ends of the belt by inserting an equal length of both ends into the belt connection unit (**3**).
11. Move the (**C**) return pulley unit (**1**) back into position in order to tension the toothed belt (**S3**), see specific section.
12. Mount the belt connection unit (**3**) as indicated in the figure.

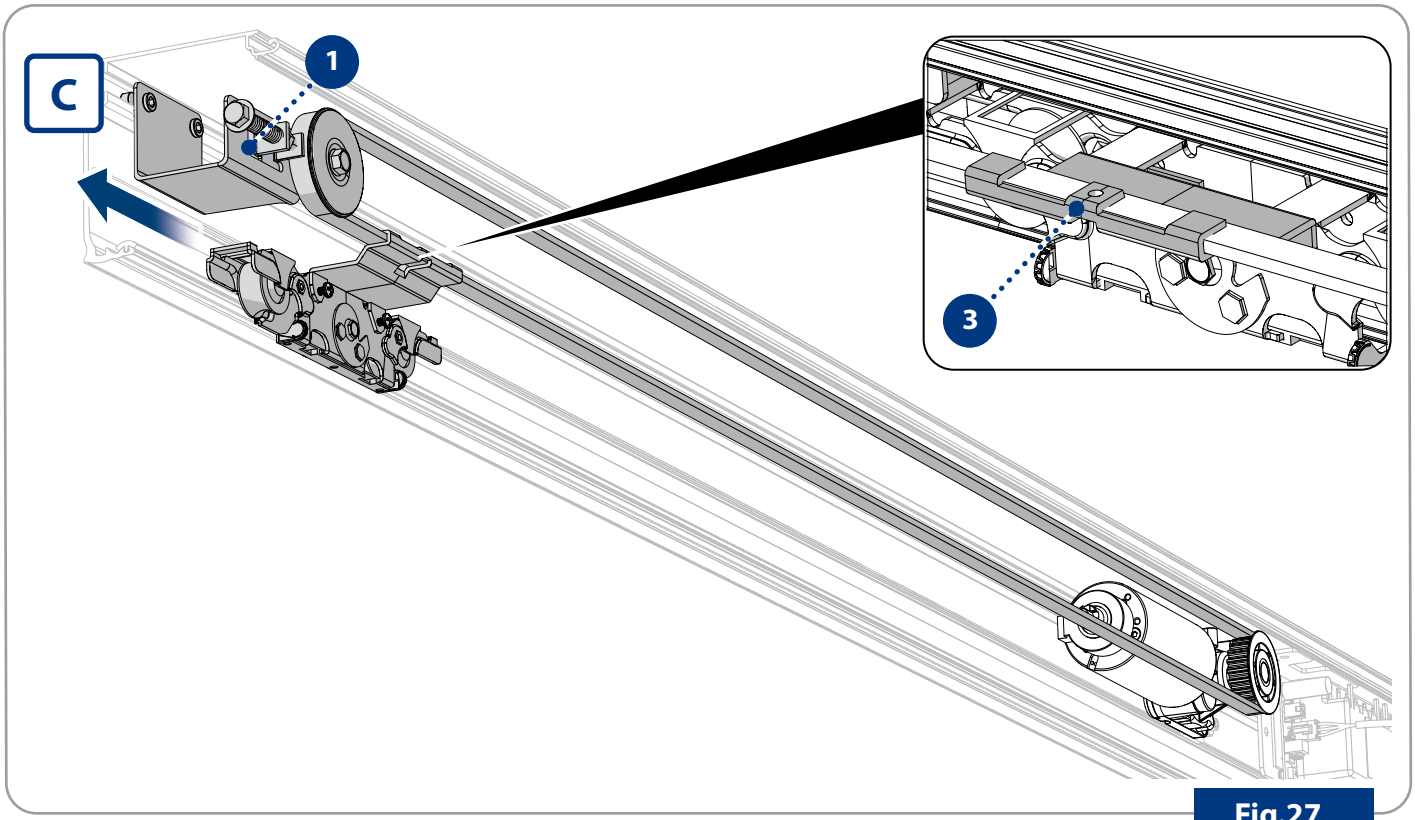


Fig.27

13. When finished, make sure that all the screws have been tightened properly and that the mechanical safety limit door stops have been installed and tightened correctly.

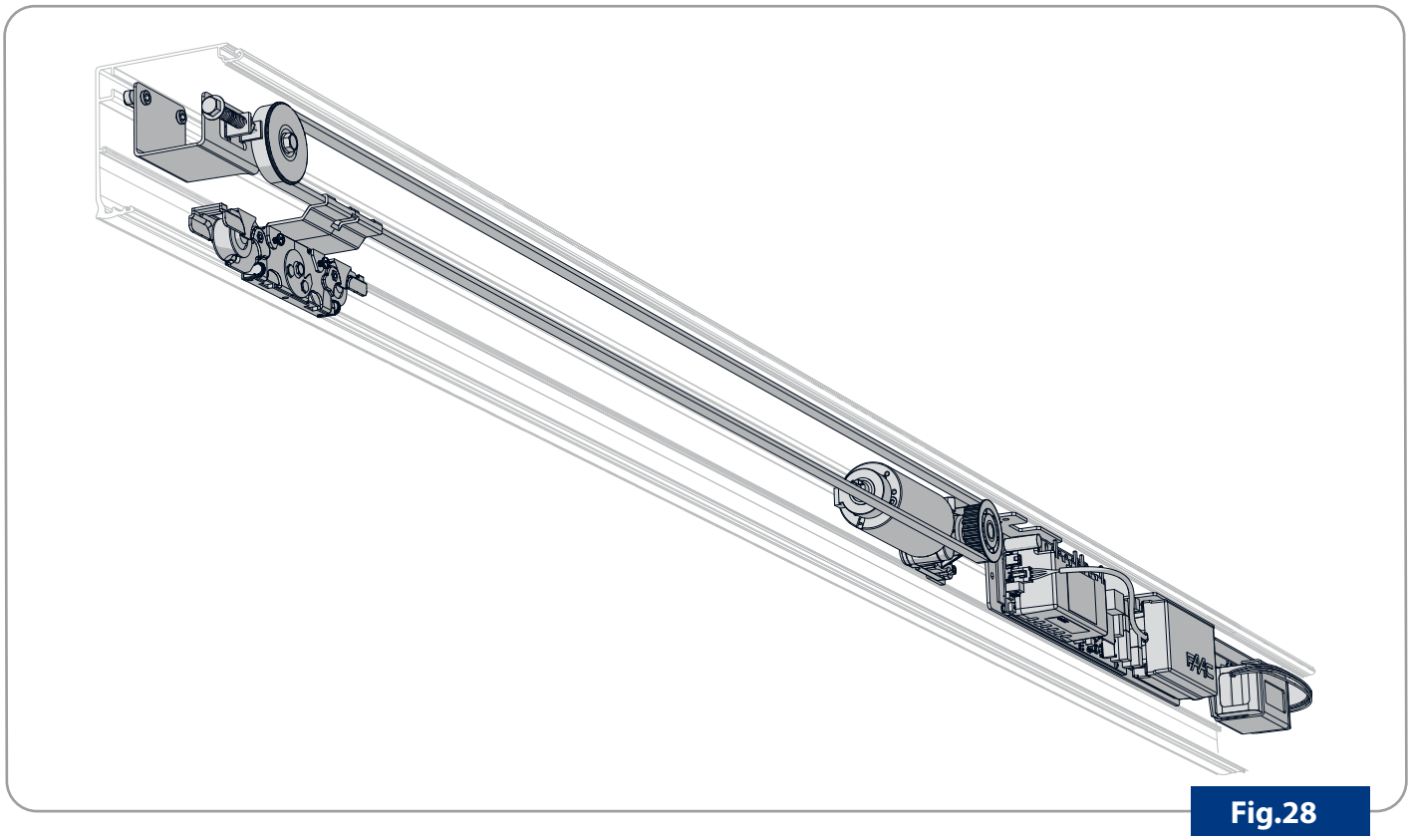


Fig.28

Installation with the motor on the left.

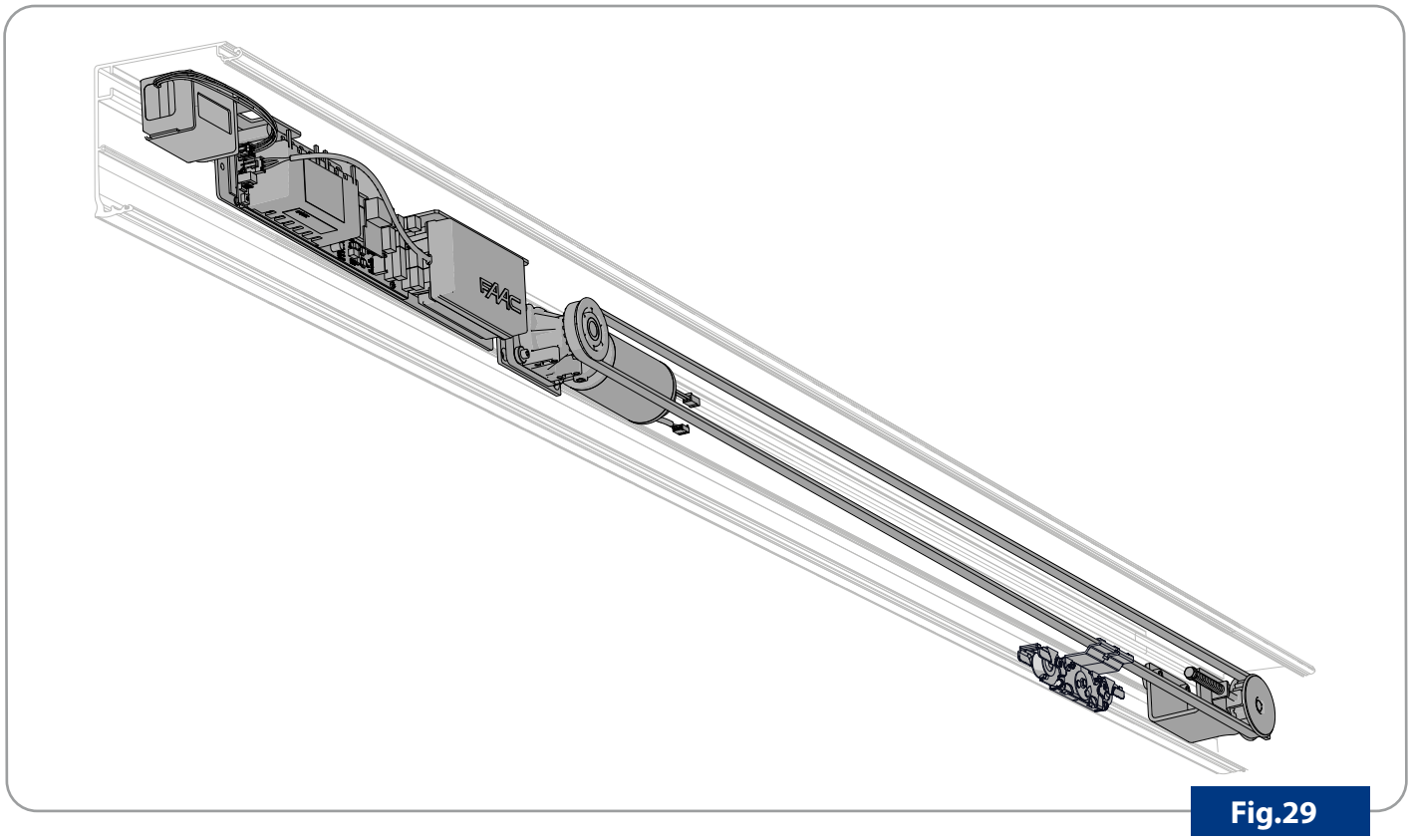


Fig.29

6. ADJUSTING THE BELT

■ SINGLE LEAF WITH OPENING TOWARDS THE LEFT AND DOUBLE LEAF

Connect the belt fitting to the carriage.

Attach a 1 kg weight in the centre of the upper section of the belt.

Adjust the tension of the belt until the measurement of arrow f corresponds to those shown in the table.

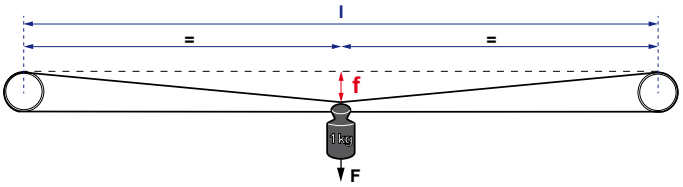
In the case of a double leaf: after adjustment, mount the second upper belt fitting and connect it to the carriage.

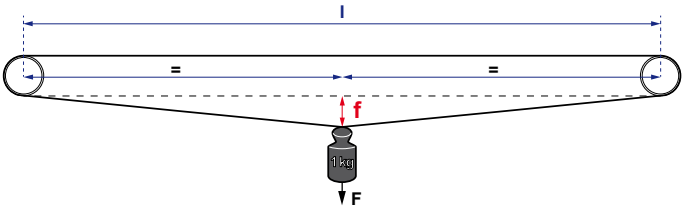
■ SINGLE LEAF WITH OPENING TOWARDS THE RIGHT

Connect the belt fitting to the carriage.

Apply a 1 kg weight in the centre of the belts lower section.

Adjust the tension of the belt until the measurement of arrow **f** corresponds to those shown in the table.





Single leaf RIGHT Pulley centre distance (l)	Belt length	f
1150	2470	18
1200	2570	19
1250	2670	20
1300	2770	20
1350	2870	21
1400	2970	22
1450	3070	23
1500	3170	23
1550	3270	24
1600	3370	25
1650	3470	26
1700	3570	27
1750	3670	27
1800	3770	28
1850	3870	29
1900	3970	30
1950	4070	30
2000	4170	31
2050	4270	32
2100	4370	33
2150	4470	34
2200	4570	34
2250	4670	35
2300	4770	36

Single leaf LEFT Pulley centre distance (l)	Belt length	f
1170	2510	18
1265	2700	20
1360	2890	21
1455	3080	23
1550	3270	24
1645	3460	26
1740	3650	27
1835	3840	29
1930	4030	30
2025	4220	32
2120	4410	33
2215	4600	35
2310	4790	36
2405	4980	38
2500	5170	39
2595	5360	40
2690	5550	42
2785	5740	43
2880	5930	45
2975	6120	46
3070	6310	48
3165	6500	49
3260	6690	51
3355	6880	52

DOUBLE leaf Pulley centre distance (l)	Belt length	f
1200	2570	19
1310	2790	20
1420	3010	22
1530	3230	24
1640	3450	26
1750	3670	27
1860	3890	29
1970	4110	31
2080	4330	32
2190	4550	34
2300	4750	36
2410	4970	38
2520	5190	39
2630	5410	41
2740	5630	43
2850	5850	44
2960	6070	46
3070	6290	48
3180	6510	50
3290	6730	51
3400	6950	53
3510	7170	55
3620	7390	56

7. MAINTENANCE

In order to keep the system operating safety and efficiently and to reduce the number of malfunctions and breakdowns, routine maintenance and the periodic replacement of parts must be carried out as indicated.

Routine maintenance must be performed every 6 months.

Frequency of replacements is indicated based on number of operation cycles for components subject to wear; in years for components subject to deterioration.

ROUTINE MAINTENANCE

OPERATION	
Check the fastening of the Motor and return Pulley	check screws securing the motors on the support profile
Belt tensioning check	check belt tensioning
Functional system check	perform required checks and procedures to ensure integrity of the load bearing structure and leaf frames perform functional checks

PERIODIC REPLACEMENTS

PART/COMPONENT	**FREQUENCY** **Operation cycles**	**Time (years)**	**Replacements** **Recommended / Mandatory**
Motor	1 000 000	--	Recommended
Return pulley	1 000 000	--	Recommended
Belt	1 000 000	5	Mandatory
Backup battery	--	1	Recommended

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