DITEC™

ENTREMATIC

CE KIT 86KVB1NR

IP2054EN - rev. 2010-12-10

EN

Assembly handbook for escape routes sliding doors.

(Original instructions)

ISO 9001
Cert. n° 0957

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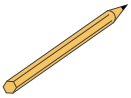
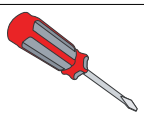
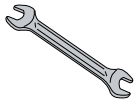
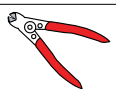
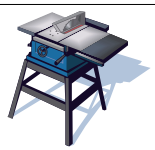
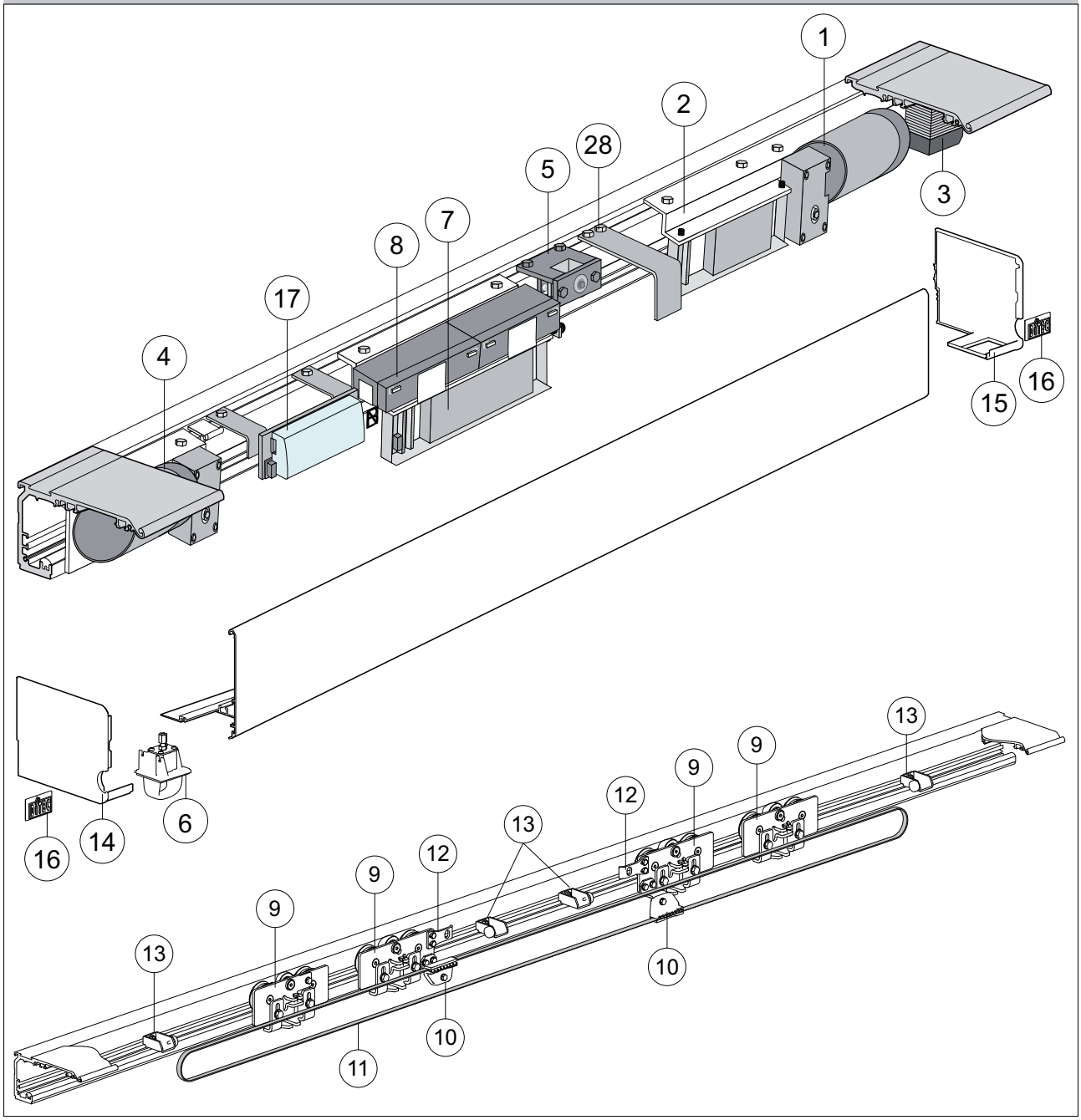
INDEX

TOOLS LIST

Tape measure	
Pencil	
Phillips screwdriver	
Slot screwdriver	
10 mm spanner 13 mm spanner	
5 mm Allen wrench	
10 mm socket wrench 13 mm socket wrench	
Electric drill	
Scissors	
Pliers	
Cutting pliers	
Saw	

ASSEMBLY DIAGRAM - COMPONENTS LIST



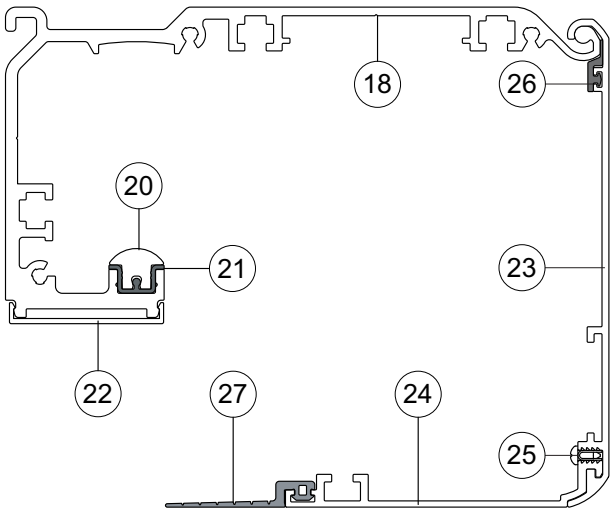
REF.	CODE	DESCRIPTION
1		Drive unit
2	EL16	Control panel
3		Transformer
4		Left gearmotor
5	VALLOKR *	Redundant block
6	VALSB	Release handle
7	EL16R	Supervisor
8		Release handle
9		Carriage
10		Belt bracket
11	RCG8M1050	Belt
12		Lock hook-up bracket
13		Stop

REF.	CODE	DESCRIPTION
14		Left housing head
15		Right housing head
16		Ditec identification plate
17	DIR *	Command branch card
28	VALSI	Intermediate casing support
29	KVALCLS	Supplementary carriage
30	PASAM24T**	Internal sensor
31	COMER** COMKR**	Functions selector switch

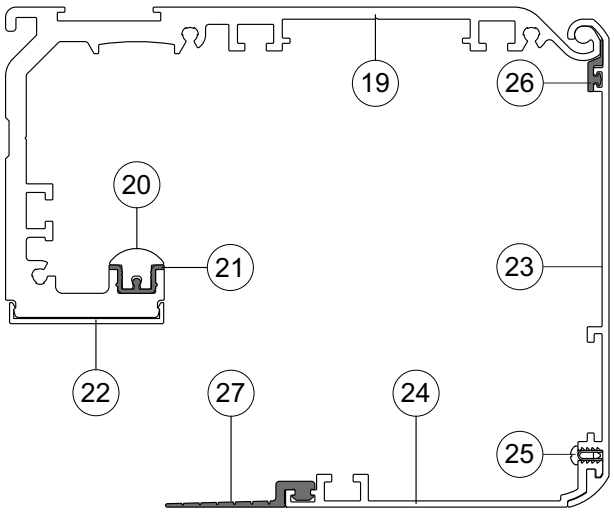
(*) Optional component (**) Code necessary for the operation as escape route, to be ordered separately.

PROFILES AND SEALS LIST

VALOR L



VALOR B



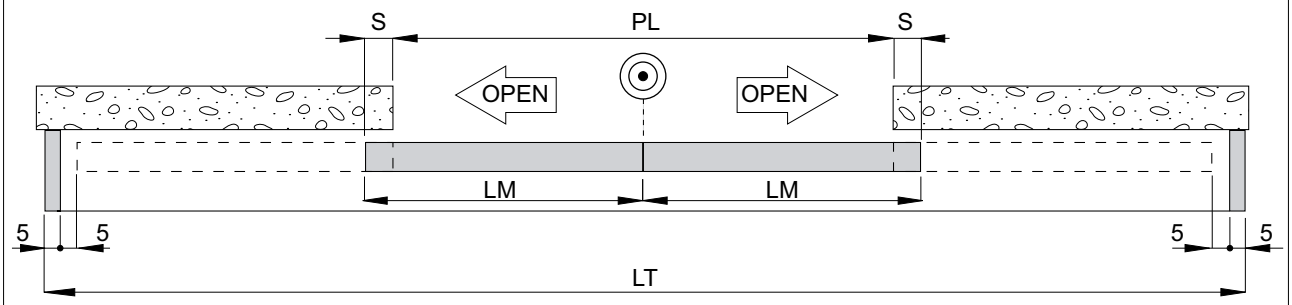
LT = Total length of automation

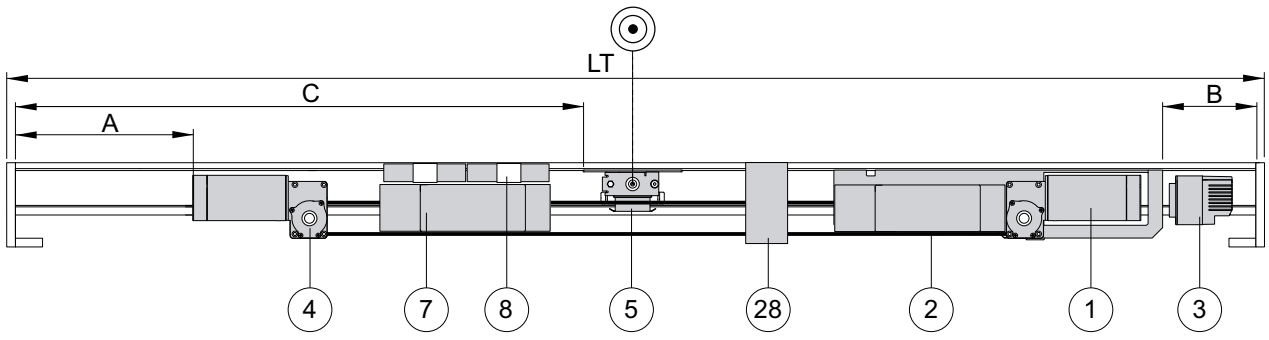
REF.	CODE	DESCRIPTION	CUTTING MEASUREMENTS	WEIGHT
18	V3580G40 V3580G66 V3580N40 V3580N66	VALOR L rough box profile L = 4050 mm VALOR L rough box profile L = 6650 mm VALOR L EURAS C0 box profile L = 4050 mm VALOR L EURAS C0 box profile L = 6650 mm	LT - 10	3,9 kg/m
19	V3484G40 V3484G66 V3484N40 V3484N66	VALOR B rough box profile L = 4050 mm VALOR B rough box profile L = 6650 mm VALOR B EURAS C0 box profile L = 4050 mm VALOR B EURAS C0 box profile L = 6650 mm	LT - 10	5,1 kg/m
20	V3464N40 V3464N66	VALOR EURAS C0 floor guide profile L = 4050 mm VALOR EURAS C0 floor guide profile L = 6650 mm	LT - 10	0,28 kg/m
21	RGR3465	Damping seal	LT - 10	
22	V3561G50 V3561N50	Box rough cover profile L = 5050 mm EURAS C0 box cover profile L = 5050 mm	LT - 11	0,21 kg/m
23	V4104G40 V4104G66 V4104N40 V4104N66	Rough vertical casing profile L = 4050 mm Rough vertical casing profile L = 6650 mm EURAS C0 vertical casing profile L = 4050 mm EURAS C0 vertical casing profile L = 6650 mm	LT - 11	0,9 kg/m
24	V3582G40 V3582G66 V3582N40 V3582N66	Rough horizontal casing profile L = 4050 mm Rough horizontal casing profile L = 6650 mm EURAS C0 horizontal casing profile L = 4050 mm EURAS C0 horizontal casing profile L = 6650 mm	LT - 121	0,7 kg/m
25		Casing seal expanders		
26	RGR4100	Casing-box seal	LT - 11	
27	RGR3511	Tear seal	LT - 121	

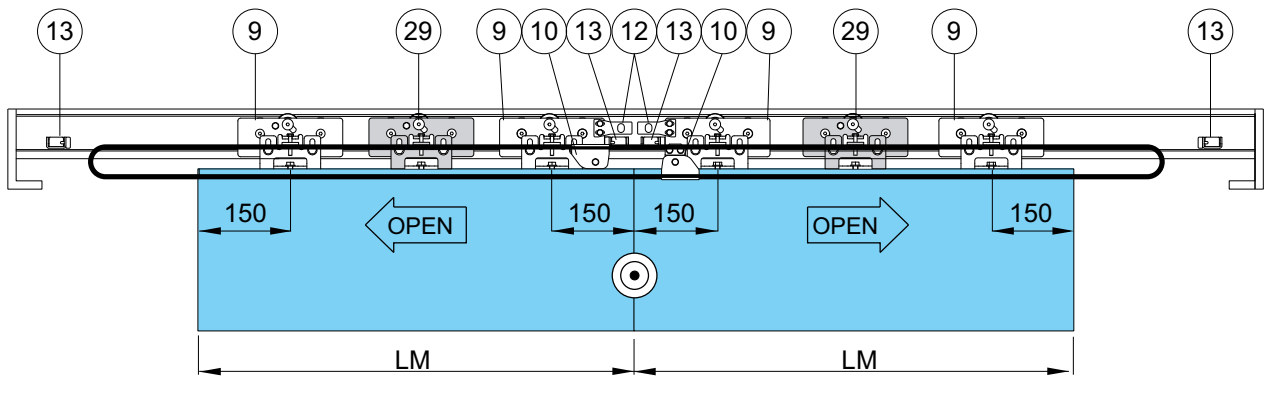
VALOR 2

CODE		LT	PL	LM	A	B	C	[3]	[28]	[29]
VAL2L20	VAL2B20	2000	940	520	165	125	925	OUTSIDE	NO	NO
VAL2L22	VAL2B22	2200	1040	570	215	175	1025	INSIDE	NO	NO
VAL2L26	VAL2B26	2600	1240	670	315	275	1225	INSIDE	NO	NO
VAL2L30	VAL2B30	3000	1440	770	415	375	1425	INSIDE	NO	NO
VAL2L33	VAL2B33	3300	1590	845	490	450	1575	INSIDE	YES	NO
VAL2L36	VAL2B36	3600	1740	920	565	525	1725	INSIDE	YES	NO
VAL2L40	VAL2B40	4000	1940	1020	665	625	1925	INSIDE	YES	NO
VAL2L44	VAL2B44	4400	2140	1120	765	725	2125	INSIDE	YES	NO
VAL2L66	VAL2B66	6600	3240	1670	1315	1275	3225	INSIDE	YES	YES
FORMULAS		**LT = 2PL + 2S +20**	**PL = LT/2 - S - 10**	**LM = PL/2 + S**	**A = LM - 355**	**B = LM - 395**	**C = LT/2 - 75**	**INSIDE = B ≥ 150**	**YES = LT ≥ 3200**	**YES = LM ≥ 1600**

NOTE.: The indicated values are calculated considering an overlap S = 50.



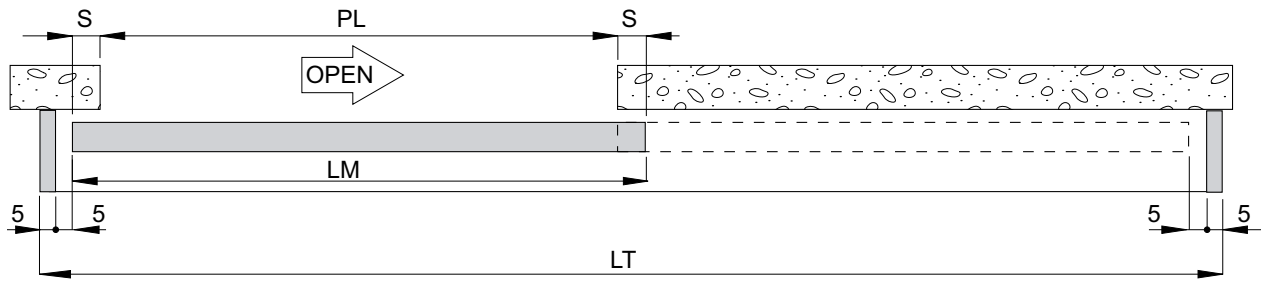


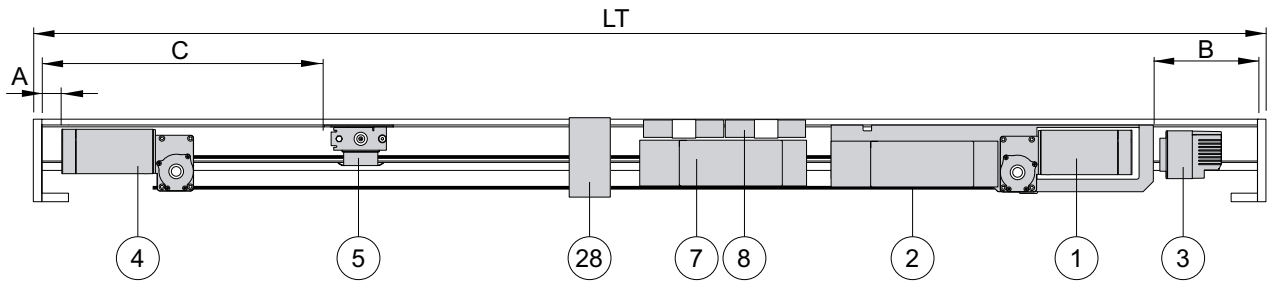


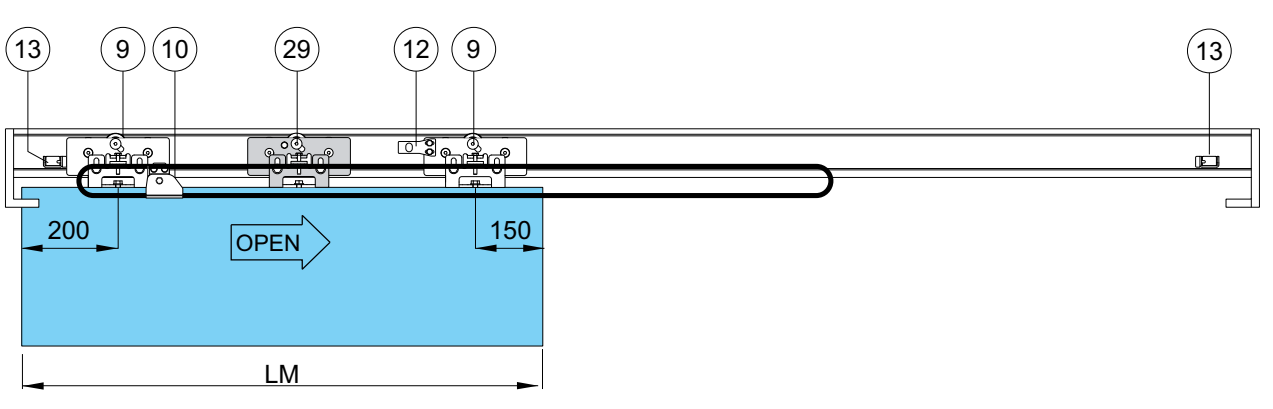
VALOR 1 DX

CODE	LT	PL	LM	A	B	C	[3]	[28]	[29]
VAL1L20 VAL1B20	2000	915	1015	15	420	655	INSIDE	NO	NO
VAL1L22 VAL1B22	2200	1015	1115	15	520	755	INSIDE	NO	NO
VAL1L26 VAL1B26	2600	1215	1315	15	720	955	INSIDE	NO	NO
VAL1L30 VAL1B30	3000	1415	1515	15	920	1155	INSIDE	NO	NO
VAL1L33 VAL1B33	3300	1565	1665	15	1070	1305	INSIDE	YES	YES
VAL1L36 VAL1B36	3600	1715	1815	15	1220	1455	INSIDE	YES	YES
VAL1L40 VAL1B40	4000	1915	2015	15	1420	1655	INSIDE	YES	YES
VAL1L44 VAL1B44	4400	2115	2215	15	1620	1855	INSIDE	YES	YES
VAL1L66 VAL1B66	6600	3215	3315	15	2720	2955	INSIDE	YES	YES
FORMULAS	**LT = 2 PL + 3S + 20**	**PL = (LT - 3S - 20) / 2**	**LM = PL + 2S**	**A = 15**	**B = LM - 595**	**C = LM - 360**	**INSIDE = B ≥ 150**	**YES = LT ≥ 3200**	**YES = LM ≥ 1600**

NOTE: The indicated values are calculated considering an overlap S = 50.



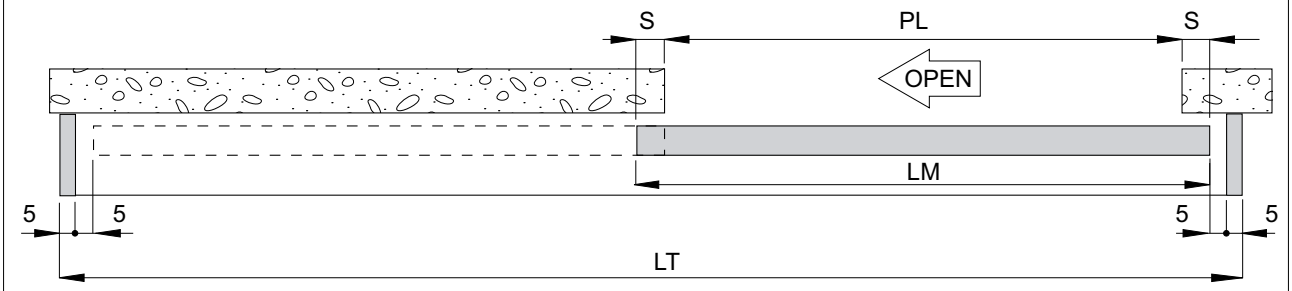


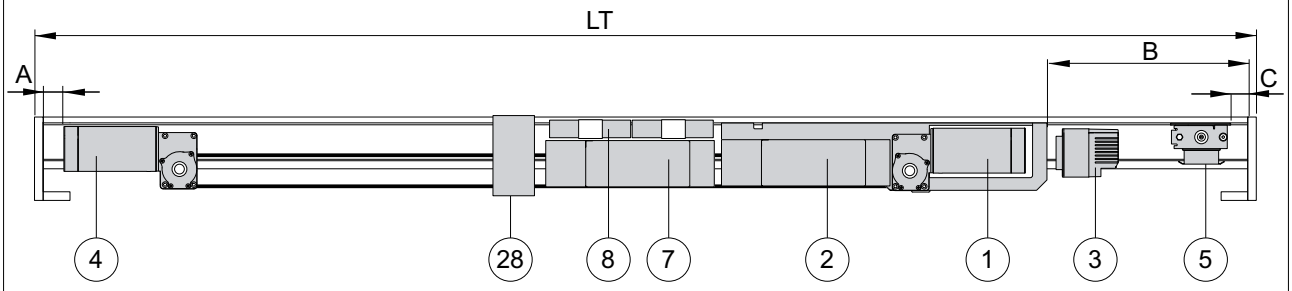


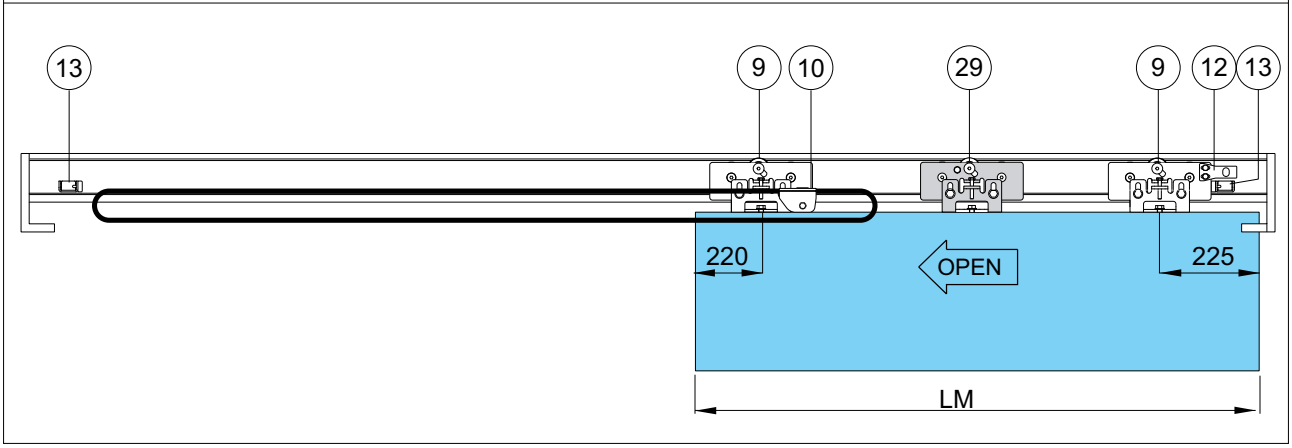
VALOR 1 SX

CODE		LT	PL	LM	A	B	C	[3]	[28]	[29]
VAL1L20	VAL1B20	2000	915	1015	15	420	15	INSIDE	NO	NO
VAL1L22	VAL1B22	2200	1015	1115	15	520	15	INSIDE	NO	NO
VAL1L26	VAL1B26	2600	1215	1315	15	720	15	INSIDE	NO	NO
VAL1L30	VAL1B30	3000	1415	1515	15	920	15	INSIDE	NO	NO
VAL1L33	VAL1B33	3300	1565	1665	15	1070	15	INSIDE	YES	YES
VAL1L36	VAL1B36	3600	1715	1815	15	1220	15	INSIDE	YES	YES
VAL1L40	VAL1B40	4000	1915	2015	15	1420	15	INSIDE	YES	YES
VAL1L44	VAL1B44	4400	2115	2215	15	1620	15	INSIDE	YES	YES
VAL1L66	VAL1B66	6600	3215	3315	15	2720	15	INSIDE	YES	YES
FORMULAS		**LT = 2 PL + 3S + 20**	**PL = (LT - 3S - 20) / 2**	**LM = PL + 2S**	**A = 15**	**B = LM - 595**	**C = 15**	**INSIDE = B ≥ 305**	**YES = LT ≥ 3200**	**YES = LM ≥ 1600**

NOTE: The indicated values are calculated considering an overlap S = 50.





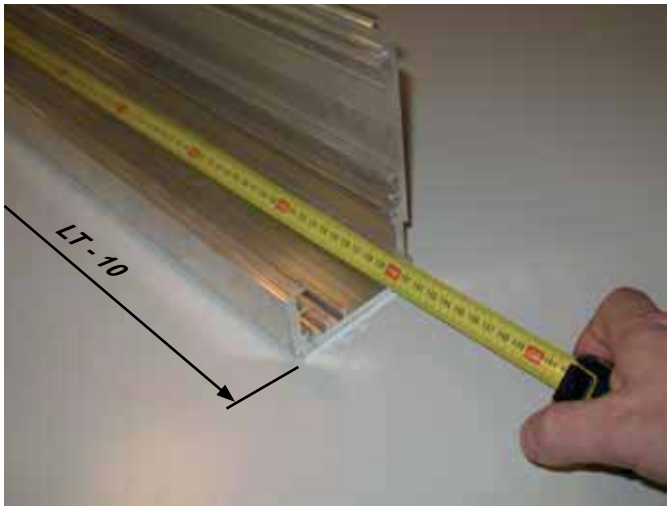


1. ASSEMBLY PROCEDURE

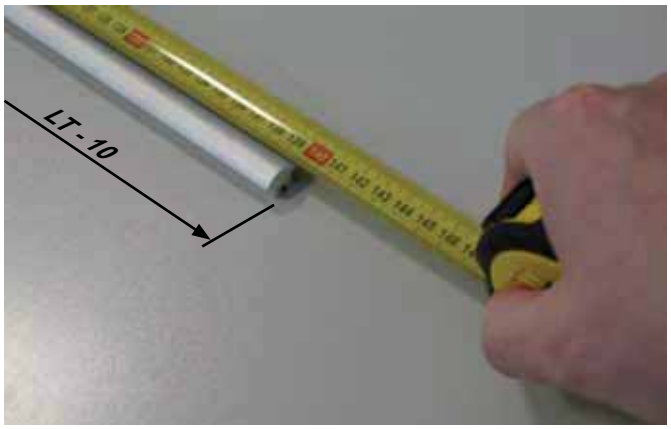
This assembling manual is intended for professionally competent personnel only.
The assembling, the electrical connections and the settings must be completed in conformity with good workmanship and with the laws in force. Read the instructions carefully before beginning assembling the product. Incorrect assembling may be a source of danger.
Packaging materials (plastics, polystyrene, etc) must not be allowed to litter the environment and must be kept out of the reach of children for whom they may be a source of danger.
Before beginning the assembling check that the product is in perfect condition.

1.1 CUTTING AND PREPARATION OF BOX

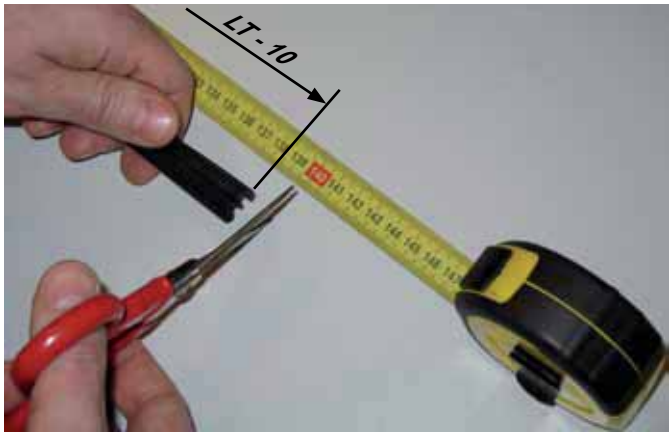
Cut the VALOR L box profile [18] or VALOR B box profile [19] to the measurement indicated on page 4.
To ease the wall fixing of the box, Ø 8 mm holes should be made every 800 mm.



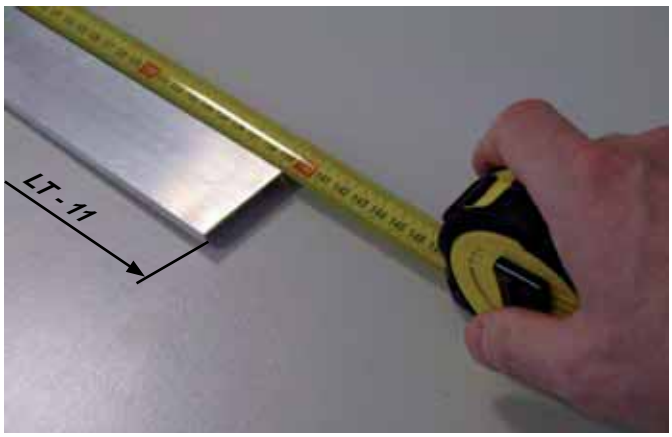
Cut the guide profile [20] to the measurement indicated on page 4.



Cut the damping seal [21] to the measurement indicated on page 4.

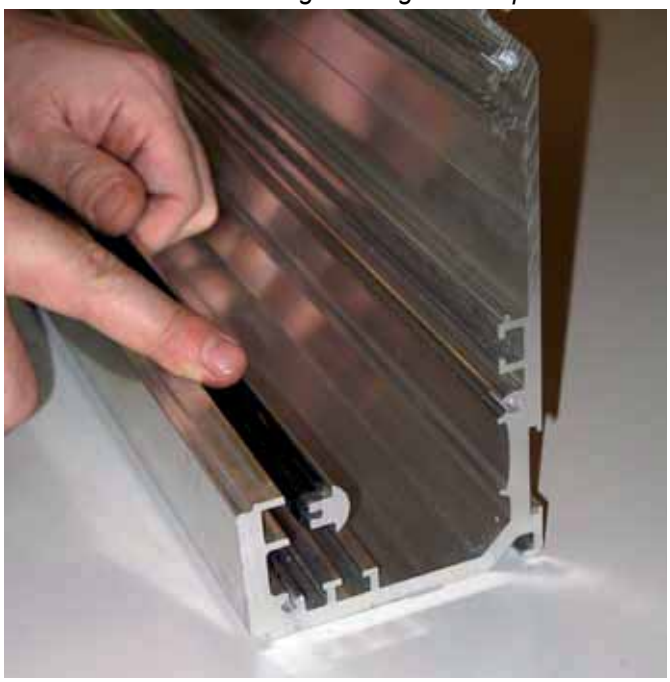


If used, cut the box cover profile [22] to the measurement indicated on page 4.



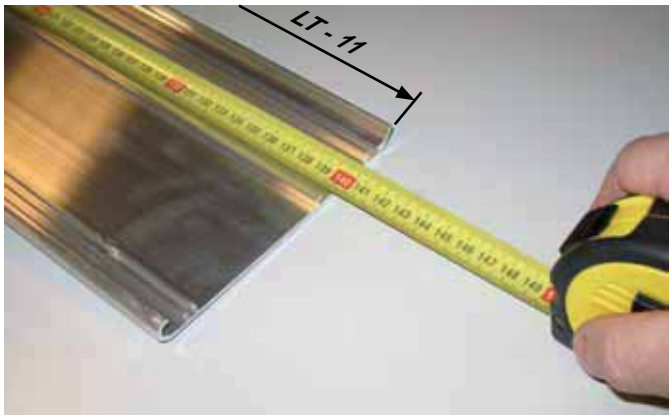
Fit the damping seal [21] to the guide profile [20] and the box profile as indicated in the diagram.

NOTE: remove any cut residues from the aluminium, and clean the carriage slide guides in particular.

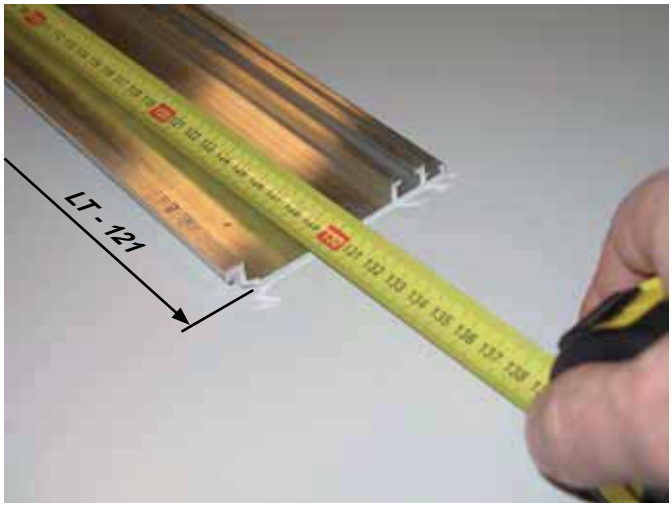


1.2 CUTTING AND PREPARATION OF CASING

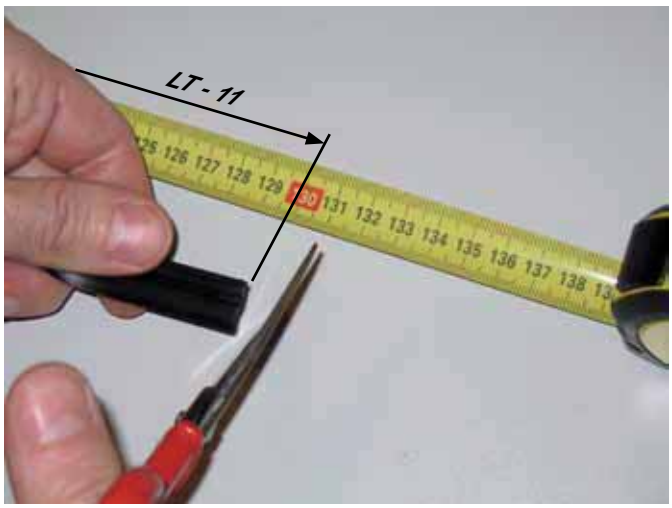
Cut the vertical casing profile [23] to the measurement indicated on page 4.



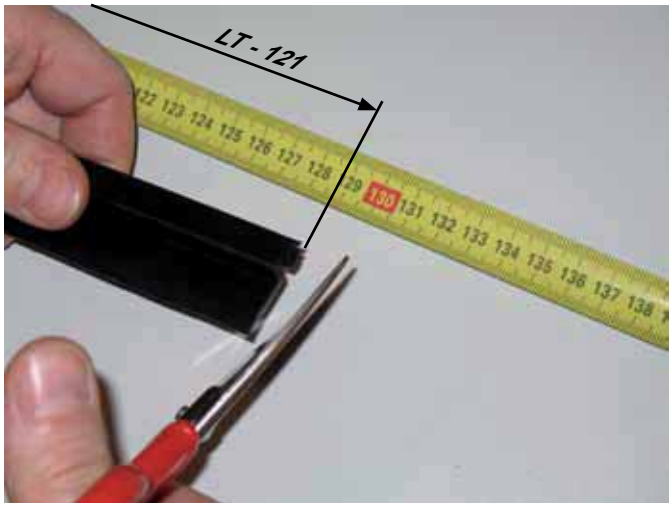
Cut the horizontal casing profile [24] to the measurement indicated on page 4.



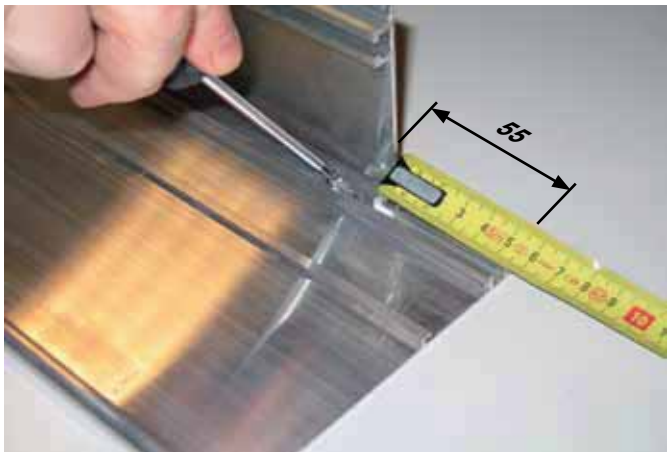
Cut the casing-box seal [26] to the measurement indicated on page 4.



Cut the tear seal [27] to the measurement indicated on page 4.
Cut another two pieces of tear seal [27] at 55 mm to be inserted into the heads.



Assemble the vertical casing profile [23] and horizontal casing profile [24] by means of the supplied casing expansion joints [25].
Align the horizontal casing profile, leaving 55 mm laterally as indicated in the diagram.



Fit the casing-box seal [26] in the vertical casing profile [23] and fit the tear seal [27] in the horizontal casing profile as illustrated in the diagram.

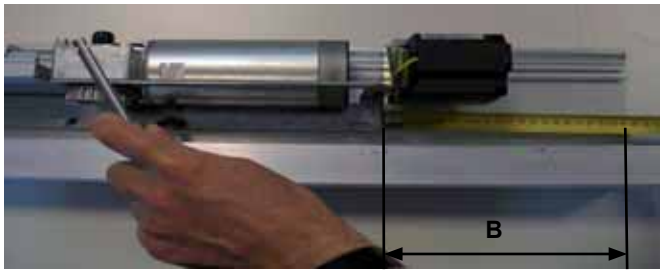
Fit the Ditec plates on both sides of the vertical casing profiles [23] as indicated in the diagram.

1.3 LEFT GEARMOTOR ASSEMBLY

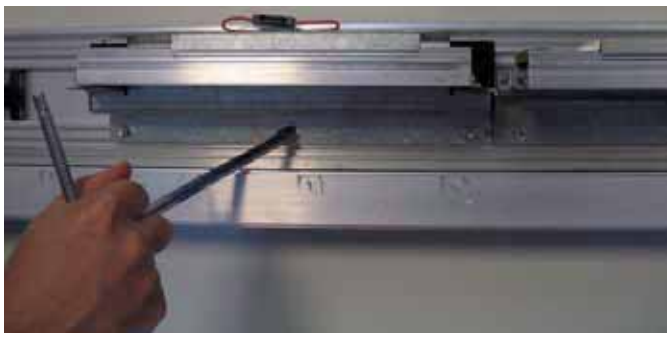
Using the screws supplied, fix the left gearmotor [4] to the box profile while respecting measurement A.
The measurement A is taken from the formula on page 5 (VALOR2), page 6 (VALOR1 RH) and page 7 (VALOR1 LH).

1.4 DRIVE UNIT ASSEMBLY

With the supplied screws, fix the drive unit [1] to the box profile in accordance with measurements B.
The measurement B is taken from the formula on page 5 (VALOR2), page 6 (VALOR1 RH) and page 7 (VALOR1 LH).
Warning: for very small automations, the transformer [3] is placed outside the box profile.



Using the screws supplied, fix the supervisor [7] and the emergency batteries [8] next to the drive unit [1].

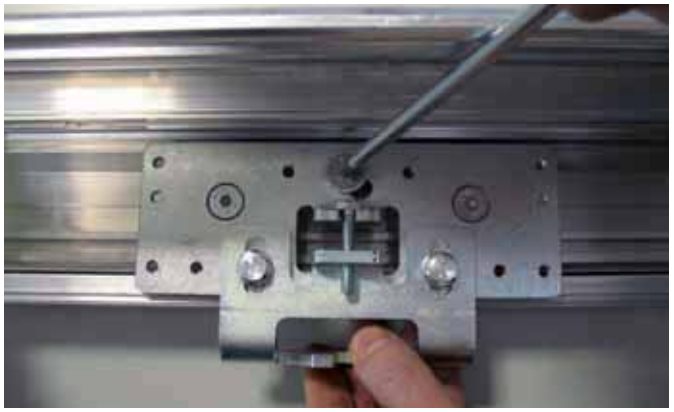


1.5 CARRIAGE ASSEMBLY

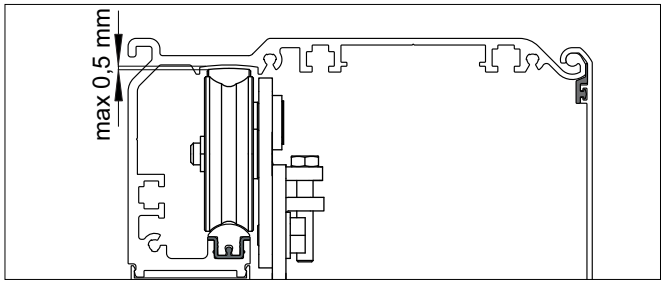
With the supplied screws, fix the belt bracket [10] to the carriage [9] as indicated on page 5 (VALOR2), page 6 (VALOR1 RH) and page 7 (VALOR1 LH).

If used, fix the blocking device bracket [12] to the carriage [9] with the supplied screws as indicated on page 5 (VALOR2), page 6 (VALOR1 RH) and page 7 (VALOR1 LH).

Introduce the carriages [9] into the box profile as illustrated in the diagram. Adjust the central wheel keeping the two side wheels in contact with the lower guide.



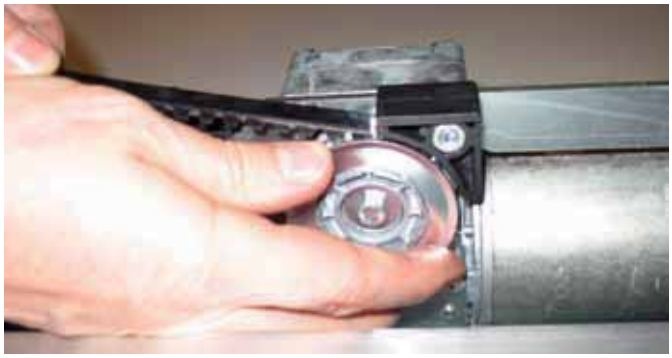
The central wheel must not be pushing against the upper aluminium guide but must be at a maximum distance of approx. 0.5 mm so that the carriage can run freely.



WARNING: incorrect adjustment impairs the correct functioning of the automation.
Check, by sliding the carriage inside the guide, that the wheels have no dents (if they are dented, replace them).
Fit 2 carriages per door wing. If the door wing is over 1600 mm add an additional carriage [29].

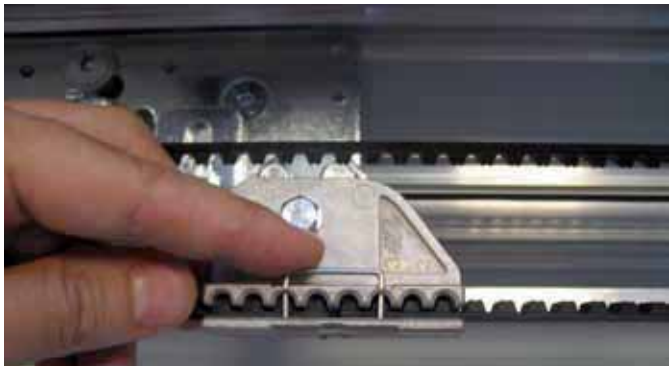
1.6 BELT ASSEMBLY AND ADJUSTMENT

Fit the belt [11] to the motor pulley as illustrated in the diagram. Turn the pulley to make fitting easier.
Insert the belt [11] into the left gearmotor pulley [4].

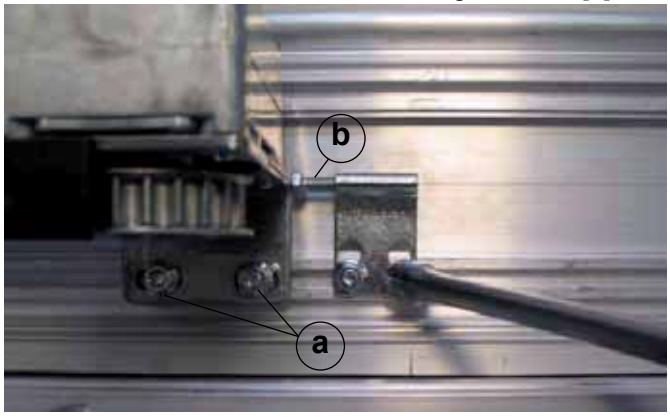


Tighten the belt manually and cut it as illustrated in the diagram.

Insert the belt into the belt bracket [10] as illustrated in the diagram, and block it by means of the supplied hook.



Fix the the belt tensioner near the left geramotor [4].



Loosen the securing screws [a] of the left gearmotor [4] and unscrew the screw [b] of the belt tensioner until obtaining the correct belt tension (if the belt is too loose the door wing vibrations increase, if the belt is too tight, gearmotor wear increases).
Warning: incorrect adjustment impairs the correct functioning of the automation.

Block the adjustment by tightening screws [a].

1.7 SAMPLE DOOR WING PREPARATION

Prepare a template that simulates the door wing (not supplied). The length LM and fixing of the template to the carriages is made in accordance with the distances indicated on page 5 (VALOR2), page 6 (VALOR1 RH) and page 7 (VALOR1 LH).

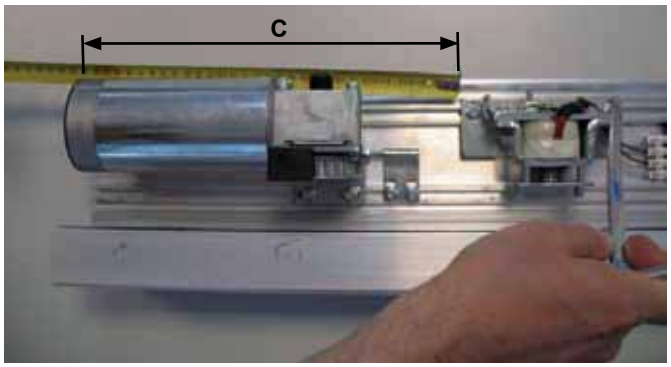
Insert and fix the stops [13] to the box profile.
Adjust the stroke of the carriages as indicated on page 5 (VALOR2), page 6 (VALOR1 RH) and page 7 (VALOR1 LH).
If the length of the automaton LT ≥ 3200 mm, fix the intermediate casing support [29] in the centre of the box profile.

1.8 LOCKING DEVICE ASSEMBLY

With the supplied screws, fix the locking device [5] to the box profile in accordance with measurements C.

The measurement C is taken from the formula on page 5 (VALOR2), page 6 (VALOR1 RH) and page 7 (VALOR1 LH).

Close the door wing and adjust the locking device position so that is correctly connects to the locking device bracket [12].



Shorten the release cord to the desired length.

Fit the release cord to the lock [5] as illustrated in the diagram.

WARNING: shorten the surplus steel cable and secure it with the supplied cable clamps.

The release cord must not be excessively bent.

Fix the head [14] by means of the supplied screws.

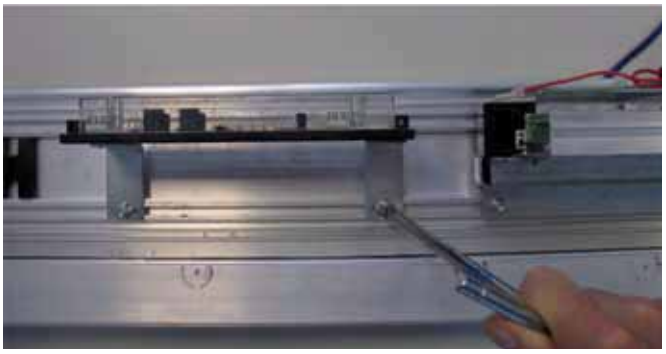
Insert the release handle [6] and fix it to the head [14], by means of the supplied screws, as illustrated in the diagram.

Adjust the tension of the cord by means of the release handle in order to obtain the correct connection/release of the lock.

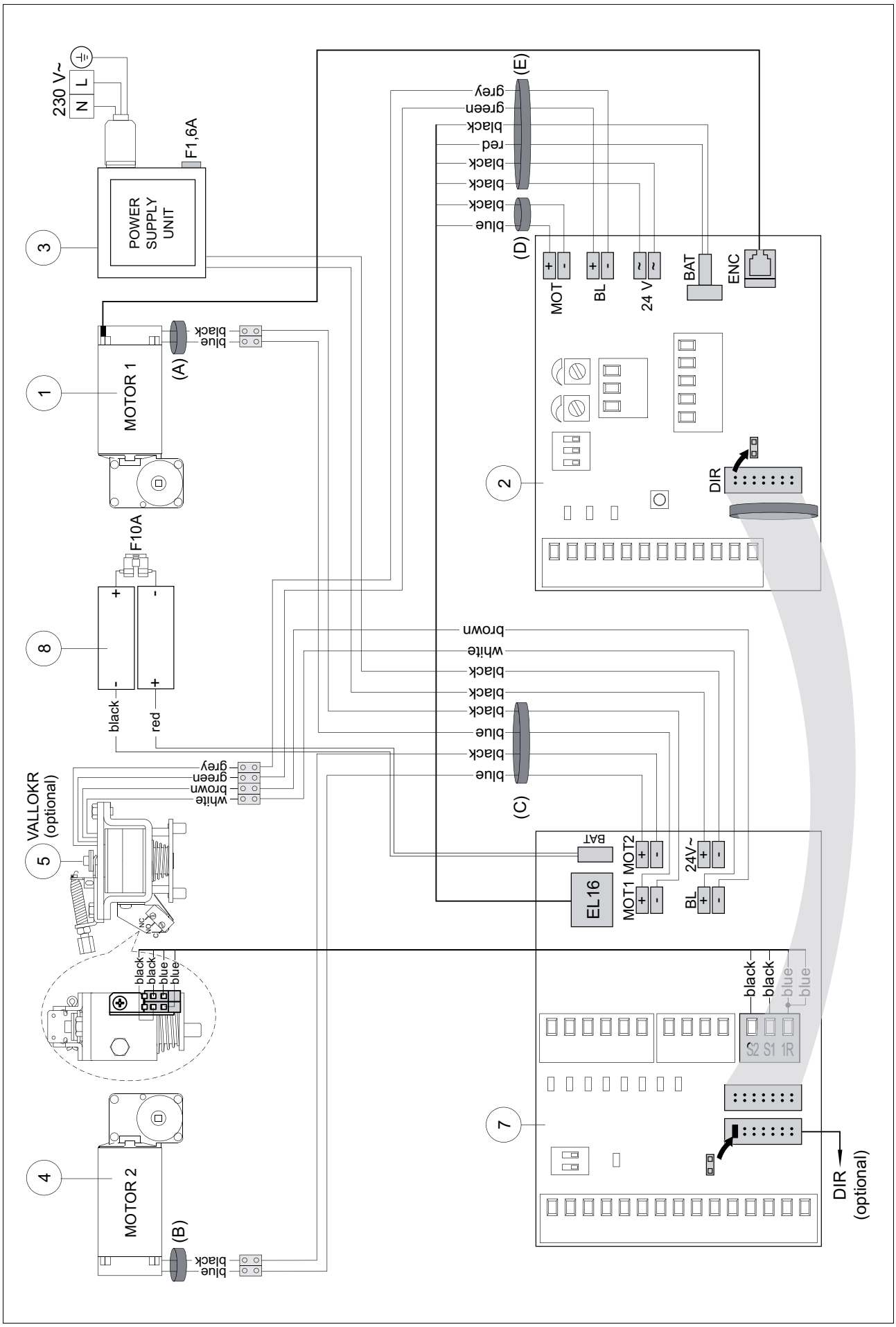
WARNING: if the space available in the head does not allow for installing the VALSB release handle, it is possible to install the LOKSBM release handle external to the automation.

1.9 DIR FASTENING

If required, fix the DIR card [17] next to the EL16R supervisor [7] as indicated in the figure.



2. ELECTRICAL CONNECTIONS



2.1 ELECTRICAL CONNECTIONS OF THE COMPONENTS

The electronic parts must be handled using earthed antistatic conductive arms.

Carry out the electrical connections of the following components, by means of the wirings supplied, as indicated in the diagram on page 13.

- connect the transformer [3] to the EL16R supervisor [7], shorten the cable in excess.
- connect the motor 1 [1] to the EL16R supervisor [7], passing through ferrite A (1 turn) and ferrite C, shorten the cable in excess.
- connect the encoder of the motor 1 [1] to the EL16 control panel [2].
- connect the motor 2 [4] to the EL16R supervisor [7], passing through ferrite B (1 turn) and ferrite C, shorten the cable in excess.
- connect the EL16R supervisor [7] to the EL16 control panel [2], by means of the 8-conductor cable.
- connect the EL16R supervisor [7] to the EL16 control panel [2], by means of the DIR-DIR flat cable (remove the jumper from the DIR terminal of the EL16 control panel and insert it into the corresponding terminal of the EL16R supervisor).
- connect the batteries [8] to the EL16R supervisor [7].
- if the VALLOKR block [5] is installed, connect it to the EL16R supervisor [7] and the EL16 control panel [2], passing through ferrite E, shorten the cable in excess.
  Also connect the VALLOKR block limit switches [5] to the EL16R supervisor [7], shorten the cable in excess.
- if installed, connect the DIR card [17] to the EL16R supervisor [7], by means of the DIR-DIR flat cable (move the jumper from the supervisor to the terminal of the DIR card).

Set up and block the cables by means of the cable clamps supplied.

2.2 DIP-SWITCH setting

EL16	DIP1 = OFF	*The selection of the direction is set by means of the correct installation of the belt fitting bracket [10] as indicated on p. 5-6-7.*
	DIP2 = OFF	- for VALOR automation
	DIP3 = OFF	- safety device test enabled
EL16R	DIP1 = OFF	
	DIP2 = OFF DIP2 = ON	- VALLOKR redundant block - without block (S1, S2 must remain open)
DIR*	DIP1 = ON	- continuous battery operation
	DIP2 = ON	- last opening operation
	DIP3 = OFF	

2.3 Trimmer control

EL16	R1 = MED	thrust on obstacles adjustment
	TC = MIN	automatic closing time adjustment
DIR*	RF = MED	motor thrust adjustment
	VA = MED	opening speed adjustment
	VC = MED	closing speed adjustment
	RP = MED	partial opening adjustment

(*) Optional component

2.4 Functional test

Carry out the connections and close the contacts as indicated on p. 16-17.
Also connect the internal sensor [30] as indicated on page 16-17.
Connect the COMER selector [31] as indicated on page 16, or COMKR selector as indicated on pag. 17
Connect the transformer to the mains power supply (230 V~ / 50-60 Hz).
Set the function selector on TWO-WAY OPENING.

Give the following commands to the control panel and visually check the effect of the commands and the linearity of the stroke.

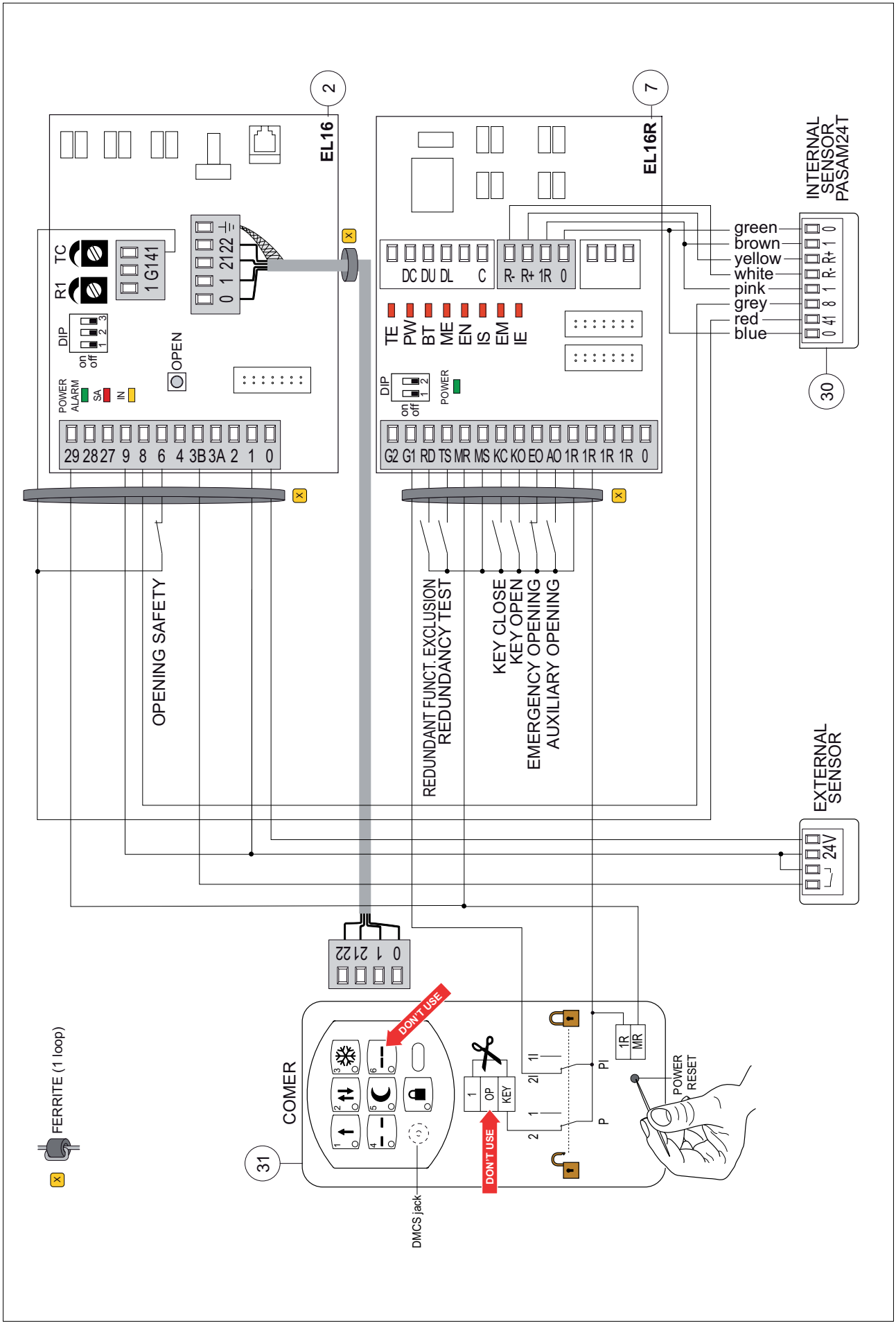
ACTION	EFFECT
Turn on the power	green led on
Wait for 60 s	- led 1 on COMER on - automatic opening and closing - automatic test procedure execution: two short opening movements and two short activations of the block (if present). Verify the completion of the opening and closing operation.
Set the function selector in TWO-WAY mode.	the door closes after the time set on the TC
Internal sensor command	opening operation and automatic closing operation
Command 1-3B (impulsed)	opening operation and automatic closing operation
Command 41-6 during the opening (opening by contact)	reduction of the opening speed in the last 500 mm of the stroke
Command 1R-EO (opening by contact)	emergency opening operation

2.5 General checks

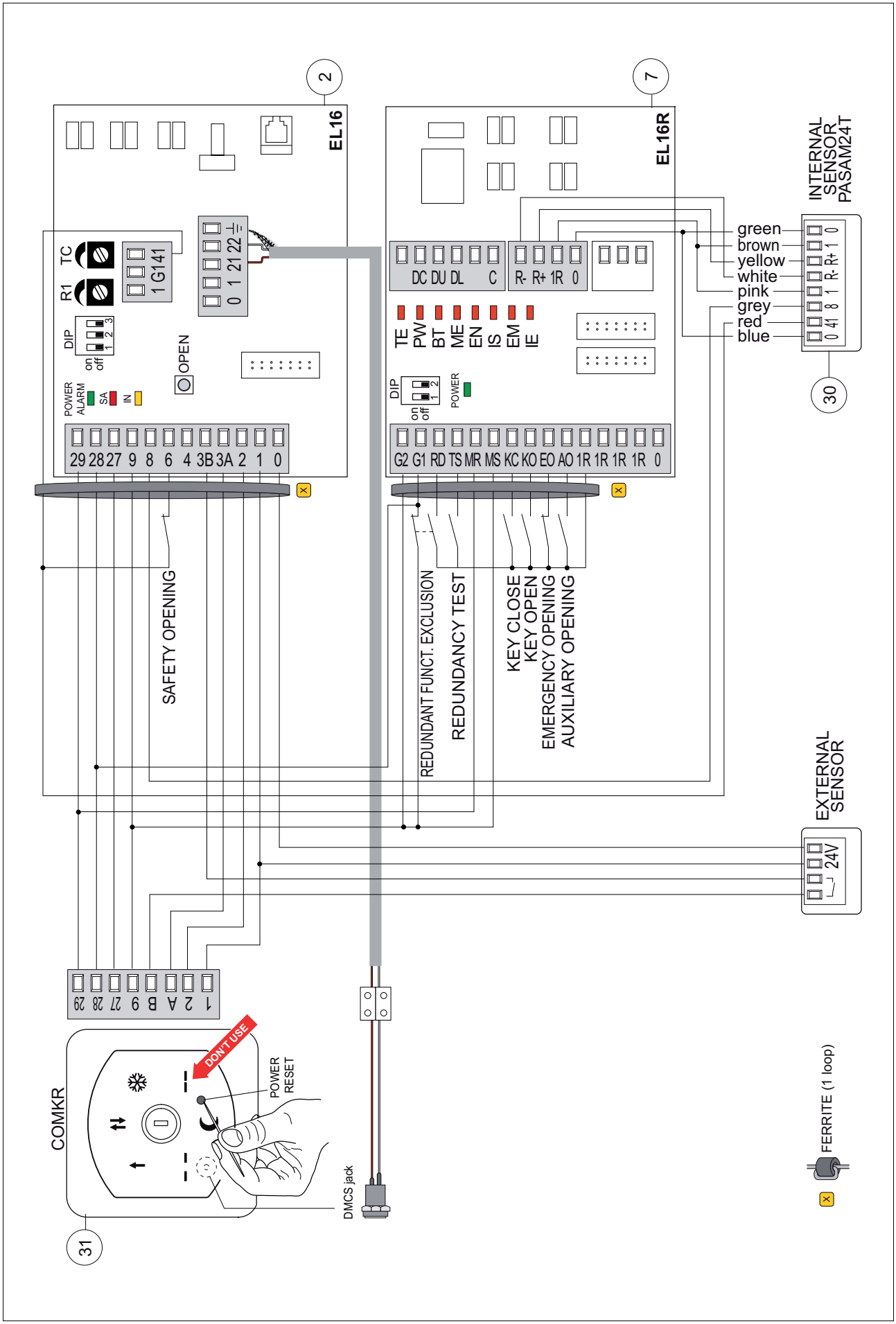
At the end of the assembly and testing operations for the VALOR automation, make the following checks:

- check the length of the box (LT), the width of the passage opening (PL), and the width of the door wings (LM)
- check the tension of the belt is correct
- check the carriages slide correctly and the slide guide is clean
- check the lock is correctly activated
- check the electrical wires are correctly connected and blocked in the rolling shutter box profile with the cable fasteners supplied
- check the screws are correctly tightened.

COMER SELECTOR CONNECTION



COMKR SELECTOR CONNECTION



3. INSTALLATION

This assembling manual is intended for professionally competent personnel only.
The assembling, the electrical connections and the settings must be completed in conformity with good workmanship and with the laws in force.
Read the instructions carefully before beginning assembling the product. Incorrect assembling may be a source of danger.
Packaging materials (plastics, polystyrene, etc) must not be allowed to litter the environment and must be kept out of the reach of children for whom they may be a source of danger. Before beginning the assembling check that the product is in perfect condition.
Before connecting to the mains check that the rating is correct for the destination power requirements.
A multipolar isolation switch with minimum contact gaps of 3 mm must be included in the mains supply.
Check that upstream of the electrical installation there is an adequate differential switch and a suitable circuit breaker.
In addition to the prescriptions in this manual, the instructions in the VALOR manual must be observed, regarding installation of the complete door.
The VALOR sliding redundant door, which was built in conformity with the prescriptions of the above-mentioned manuals, complying with the sample tested by TÜV (n. G341), is suitable for installation and used as evacuation and emergency exit, in conformity with the European regulation DIN 18650-1 and with the German guideline AutSchR.
The VALOR sliding redundant door consists of two motors controlled by electric board EL16 and supervisor EL16R and guarantees complete opening (by sideways sliding of the doors) in all situations where power is off, and under all breakdown conditions. A redundancy test (lasting about 10 seconds) is carried out every 24 hours to check working efficiency of all components.

3.1 EL16R supervisor command

WARNING: make a jumper on all N.C. contacts if not in use. The terminals with the same number are equal.

Command		Function	Description
1R — AO	N.O.	AUXILIARY OPENING	The closing of the command activates the opening manoeuvre. If the emergency redundant functioning is deactivated (by means of RD command), it is reactivated for 5 minutes. *This command may be combined with a magnetic card reader for access to cash dispensers should the door be set in "UNI-DIRECTIONAL DOOR" mode and with the exclusion of the redundancy test .*
1R — EO	N.C.	EMERGENCY OPENING	The opening of the contact activates the emergency opening manoeuvre. This command is active under all conditions (also in "NIGHT-TIME CLOSURE" mode) and prevails over all other commands. After the closing of the contact, the door performs as set on COMER or COMKR selector. *NOTE: this command can be linked to an emergency button.*
1R — KO	N.O.	KEY OPEN	The closing of the contact activates the opening manoeuvre. If the door is set to "NIGHT-TIME CLOSURE" mode, the KEY OPEN command performs the opening manoeuvre and activates the functioning of the door for the next 10 s *NOTE: this command can be associated with a key to allow to go out in the evening or to come back in the morning from the shop door set to "NIGHT-TIME CLOSURE" mode.*
1R — KC	N.O.	KEY CLOSE	The closing of the contact activates the closing manoeuvre. If the door is set to "NIGHT-TIME CLOSURE" mode, the command KEY CLOSE, set after opening by means of command 1R-KO, performs the closing and reset immediately the "NIGHT-TIME CLOSURE" mode. *NOTE: this command can be associated with a key to allow the immediate re-closure of a shop door set in the "NIGHT-TIME CLOSURE" mode.*

EL16	1R — TS	N.O.	REDUNDANCY TEST	The closing of the contact sets off the redundancy test sequence. During the redundancy test (which lasts about 10 seconds) the door carries out automatic movements and is not available for use. If the door is in “NIGHT-TIME CLOSURE” mode, the command has no immediate effect but the test will be run on exiting from the “NIGHT-TIME CLOSURE” mode. If redundancy is disabled, the command has no immediate effect but the test will be run as soon as redundancy is re-enabled. This control permits to set the automatic redundancy test to the desired time.
			AUTOMATIC REDUNDANCY TEST (EVERY 24 HOURS)	The redundancy test is carried out every 24 hours. *NOTE: when exiting the night mode (maintained for at least 4 hours), the redundancy test is carried out automatically.*
COMER	1R — RD	N.O.	REDUNDANT FUNCTIONING EXCLUSION COMER	In order to disable the redundant operation, close the 1R-RD contact (EL16R). *WARNING: in this case the redundant automatic system behaves like a standard automatic system (except emergency opening 1R-EO).*
COMKR	1R — RD 9 — 28	N.O. N.C.	REDUNDANT FUNCTIONING EXCLUSION COMKR	In order to disable the redundant operation, close the 1R-RD contact (EL16R) and open the 9-28 contact (EL16). *WARNING: in this case the redundant automatic system behaves like a standard automatic system (except emergency opening 1R-EO).*
	OPEN		SETTING RESET	Keep the OPEN button pressed (for 4 s), until the IN LED starts to flash. To confirm the operation, press the OPEN button again for 2 seconds within 4 seconds. The SETTINGS RESET annuls all the remote software settings made via DMCS, MD1 module and COMER selector. *NOTE: We recommend carrying out the SETTING RESET during starting (see section 4), or whenever the COMER selector is replaced with COMKR selector.*

3.2 Output and accessories

Output		Value	Description
1R — **+** **0** — **-**		24V= / 0.5 A	**Accessories power supply.** Output for external accessories power supply.
G1		24V= / 10 mA	**General Purpose 1.** COMER function selector disabling (page 16) or block management with COMKR selector (page 17).
G2		24V= / 10 mA	**General Purpose 2.** DELAYED STOP management, NIGHT mode with COMKR selector (page 17).
C **DC**	N.C.	24V= / 1 A	**Door closed output.** The output contact opens when the door is completely closed.
C **DU**	N.C.	24V= / 1 A	**Door unlocked output.** The output contact opens when the locking device is in the unlocked position.
C **DL**	N.C.	24V= / 1 A	**Door locked output.** The output contact opens when the locking device is in the locked position.

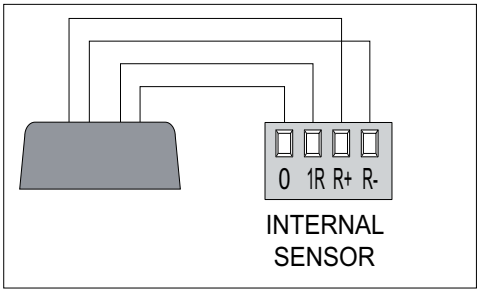
3.3 Signals

	LED	ON	FLASHING
EL16	**POWER ALARM**	24 V= power supply.	Encoder / automation fault.
EL16	**IN**	ON during partial or total opening commands.	It flashes once each time the dip switch and COMKR selector status change.
EL16	**SA**	Safeties 41-6, and 41-8 open.	Safety test failure.
EL16R	**POWER**	24 V= power supply.	-
EL16R	**BUZZER**	**EVENT**	**EFFECT**
EL16R		Escape route test	1 acoustic signal every second
EL16R		Alarm signalling	5 acoustic signals every minute
EL16R		COMER selector enabled	6 acoustic signals every 10 seconds

3.4 Escape routes sensor

WARNING: On sliding doors used in escape routes, the opening on the exit direction shall be controlled by an autocontrolled safety sensor model PASAM24T (or equivalent).

If you use a PASM24T sensor, make connections as shown in the pages 16-17.



4. STARTING

- check that the connections are correct (jump all the N.C. contacts not utilised);
- check the DIP-SWITCH settings as indicated in paragraph 2.2:
- check that the internal safety sensor (PASAM24T) is correctly connected;
- check the connections of the COMER or COMKR selectors;
- check batteries connection;
- turn on the power (connect the mains) and wait for 60 s for the initial autoconfiguration and for the test procedure execution;
  WARNING: the control panel performs an automatic POWER RESET on each start and the first opening or closing manoeuvre is performed at low speed allowing the automatic self-learning of the stop positions (acquisition);
- set SETTINGS RESET with the OPEN button as indicated in paragraph 3.1;
- if DIR command branch card is present, press the ENABLE button for 3 s;
- set two-way operating mode using COMER selector or COMKR selector, as indicated in the user instructions;
- check that the automation is operating correctly with further opening commands;
- make the desired operating setting and adjustments using trimmer/dip-switch;
- connect possible accessories and safety devices and check they are functioning;
- *WARNING: pass the accessory cable through the ferrite (1 turn), as shown on page 16 or 17.*
- check the operating force and that the contact force between the door and the obstacle is lower than that indicated by the DIN 18650-1 standard;
- once starting is completed, the installer shall supply all the information relating to automatic, manual and emergency operating modes of motorised door and must provide the user with the operating instructions;
- the sliding door which was built in conformity with the prescriptions of the above-mentioned manuals, complying with the sample tested by TÜV (n. G341), is suitable for installation and used as evacuation and emergency exit, in conformity ith the European regulation DIN 18650-1 and with the German guideline AutSchR;
- the sliding door guarantees complete opening (by sideways sliding of the doors) in all situations where power is off, and under all breakdown conditions. An escape route test (lasting about 10 seconds) is carried out every 24 hours to check working efficiency of all components.

NOTE: in case of alarms, follow the instructions given in section 6.

5. ORDINARY MAINTENANCE SCHEDULE

Perform the following operations and checks every 6 months according to intensity of use of the automation.

Power off 230 V~ and batteries:

- Clean and lubricate the moving components (especially the inside edges of the guide along which the carriages run).
- Check the tension of the belt.
- Clean sensors and photocells.
- Check for the stability of the automatism and check that all the screws are tightened all the way.
- Check that the wings are correctly aligned, that stops are properly positioned and that the lock has been correctly fitted.
- Connect the batteries

Power on 230 V~ and batteries, wait 60 s for initial auto-configuration.

- Set the desired functioning mode with COMER and COMKR selector.
- Check for the stability of the door and that the movement is steady, without friction.
- Check that the blocking system is working correctly.
- Check the operation of all command functions.
- Check the functioning of the photocells and safety devices.
- Check that the forces generated by the door comply with legal requirements.
- If the emergency opening command is present, check its good working condition.

NOTE1: Use original spare parts only for repairing or replacing products.

NOTE2: In case firmware needs updating, connect DMCS device to jack DMCS socket present on the COMER or COMKR function selector.
Once these operations are completed, disconnect the DMCS device and make a POWER RESET, as specified in the instructions for use on page 27.

4. TROUBLESHOOTING

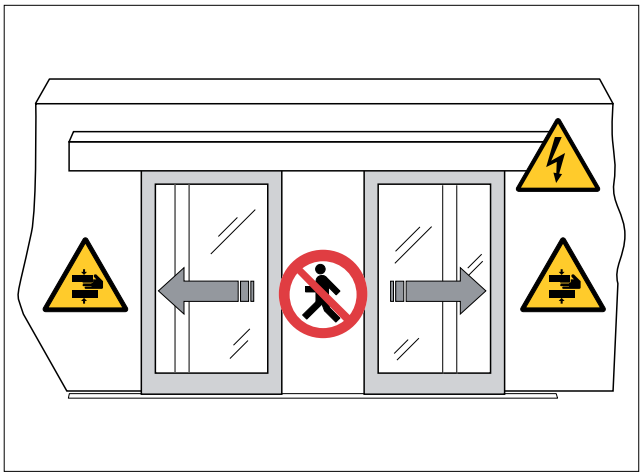
NOTE: where specified, to restore door operation, make a POWER RESET as specified on the INSTRUCTIONS FOR USE on page 27.

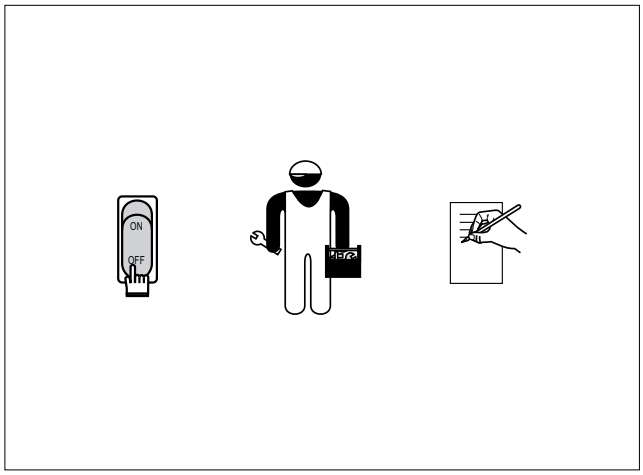
LED	NUMBER OF FLASHES	POWER RESET	ALARM DESCRIPTION	INTERVENTION
TE	1	YES	Motor 1 test failure	Try new start-up. Check motor 1 wirings. Check door wing flowability
	2	YES	Motor 2 test failure	Try new start-up Check motor 2 wirings. Check door wing flowability.
	3	YES	Supervisor test failure	Try new start-up If repetitive, replace EL16R.
	4	YES	Motor 1 and motor 2 test failure	Try new start-up. Check motor wirings. Check door wing flowability.
	5	YES	Battery output release failure	Try new start-up. Check EL16-EL16R wiring. Replace EL16R.
	6	YES	Battery 1 input release test failure	Try new start-up. Replace EL16R.
	7	YES	Battery 2 input release test failure	Try new start-up Replace EL16R.
PW	1	NO	Lack of mains voltage	Check power supply wirings. Check mains voltage presence.
BT	1	NO	Very low battery	Try new start-up. Replace battery.
	2	NO	Run down battery	Try new start-up. Leave door powered until automatic reset.
BT	3	NO	Short-circuited battery	Try new start-up. Check battery wirings. Replace battery.
	4	NO	Absent battery	Try new start-up. Check battery wirings. Replace fuse.
	5	NO	No battery charge 1	Try new start-up. Replace EL16.
	6	NO	No battery charge 2	Try new start-up. Replace EL16. Replace battery.
	7	NO	No battery charge 3	Try new start-up. Replace EL16.
ME	1	YES	Block microswitch failure	Try new start-up. Check microswitch wiring and microswitch operation. Verify block-type settings.
	4	YES	EL16 motor output short circuit	Try new start-up. Check wiring between EL16 and EL16R. Replace EL16.
	5	YES	Motor 1 short circuit	Try new start-up. Check motor 1 wiring. Check motor 1 conditions.

LED	NUMBER OF FLASHES	POWER	ALARM DESCRIPTION	INTERVENTION
ME	6	YES	Motor 2 short circuit	Try new start-up. Check motor 2 wiring. Check motor 2 conditions.
	7	YES	Generic motor short circuit	Try new start-up. Check all motor wirings. Replace EL16/EL16R.
	8	YES	Generic motor malfunctioning	Try new start-up. Check motor conditions.
	9	YES	Door dimension error	Try new start-up. Check door wing stroke.
	10	YES	Lack of normal block activation	Try new start-up. Check block and microswitch wiring, microswitch operation and block movement.
	11	YES	Lack of normal block deactivation	Try new start-up. Check block and microswitch wiring, microswitch operation and block movement.
EN	1	YES	Motor 1 encoder failure	Try new start-up. Check encoder-motor 1 wirings. Replace motor 1 encoder. Replace EL16.
IS	1	YES	Block settings error	Check block-type settings on EL16 and EL16R.
	2	NO	Operation mode settings error	Check mode set on selector
	3	YES	Power supply output connection error	Check that the terminal board outputs “1” and “1R” are not connected to each other.
	4	YES	STOP contact connection error	Check that contacts 1-9 on EL16 and 1R-MS on EL16R are simultaneously activated/deactivated.
	5	YES	Wrong key contact connection (COMER only)	Check that KEY contacts on COMER and 1R-G1 on EL16R are simultaneously activated/deactivated.
	6	NO	Key contact unlocked (COMER only)	Lock selector by means of a key. Check that the key contact wiring is correct.
	7	YES	Mechanical selector connection error (COMKR only)	Failure or wrong mechanical selector wiring. Check selector wiring. Replace selector.
EM	1	NO	Emergency opening command activation	Check that 1R-EO contact is closed.
IE	2	NO	Failed response from EL16	Try new start-up. Check flat cable between EL16 and EL16R. If the problem is frequent, replace the flat cable, replace EL16.
	3	NO	Failed communication	Try new start-up. Check flat cable between EL16 and EL16R. Replace flat cable.

LED	NUMBER OF FLASHES	POWER	ALARM DESCRIPTION	INTERVENTION
IE	4	YES	Internal radar input failure	Try new start-up. If repetitive, replace EL16R
	5	YES	Failed opening	Try new start-up. Verify cause of absent or incomplete opening.
	6	YES	Failed closing	Try new start-up. Verify cause of absent or incomplete closing.
	7	YES	Redundancy test phase timeout	Try new start-up. If repetitive, replace EL16R
	8	YES	Microcontroller failure	Try new start-up. If repetitive, replace EL16R
	9	YES	Failed opening by means of emergency stage	Try new start-up. If repetitive, replace EL16R
	10	YES	Battery test phase timeout	Try new start-up. If repetitive, replace EL16R
	11	YES	Internal parameter error	Try new start-up. If repetitive, replace EL16R
	12	YES	Operation mode error	Try new start-up. Repeat start-up as per the installation manual.
	14	YES	EL16R power supply output failure	Try new start-up. Verify current drawn by 0-1R on EL16R. If repetitive, replace EL16R
	15	YES	Redundancy disabling input failure	Try new start-up. If repetitive, replace EL16R

7. USER INSTRUCTIONS





7.1 General safety precautions

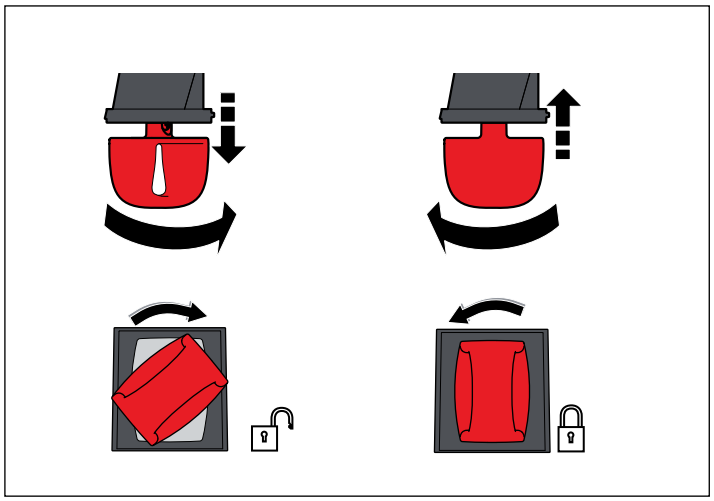
The following precautions are an integral and essential part of the product and must be supplied to the user. Read them carefully as they contain important indications for the safe installation, use and maintenace.
These instruction must be kept and forwarded to all possible future user of the system.
This product must be used only for that which it has been expressely designed.
Any other use is to be considered improper and therefore dangerous.
The manufacturer cannot be held responsible for possible damage caused by improper, erroneous or unreasonable use.
Avoid operating in the proximity of the hinges or moving mechanical parts.
Do not enter the field of action of the motorised door while in motion.
Do not obstruct the motion of the motorised door as this may cause a situation of danger.
Do not lean against or hang on to the door when it is moving.
Do not allow children to play or stay within the field of action of the motorised door.
Keep remote control or any other control devices out of the reach of children, in order to avoid possible involuntary activation of the motorised door. In case of breack down or malfunctioning of the product, disconnect from mains, do not attempt to repair or intervene directly and contact only qualified personnel.
Failure to comply with the above may create a situation of danger.
All cleaning, maintenance or repair work must be carried out by qualified personnel.
In order to guarantee that the system works efficiently and correctly it is indispensable to comply with the manufacturer's indications thus having the periodic maintenance of the motorised door carried out by qualified personnel.
In particular regular checks are recommended in order to verify that the safety devices are operating correctly.
All installation, maintenance and repair work must be documented and made available to the user.
For the correct disposal of electric and electronic equipment, waste batteries and accumulators, the user must take such products to the designated municipal collection facilities.

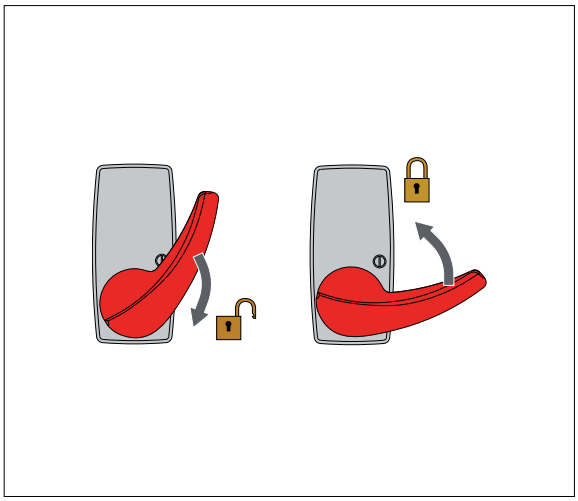
TEAR OFF AND DELIVER TO USER

7.2 Manual release instructions

In the event of maintenance, malfunctioning or emergency, pull the lock release lever VALSB down and turn it to the right or lower the lock release lever LOKSBM (if installed) and move the door wings manually into the open position.
To block the door wings again, reposition the lock release lever to the initial position

WARNING: carry out the door wing blocking and release with the motor switched off.





7.3 Redundancy test

To start the redundancy test, carry out the POWER RESET.
During the redundancy test (lasting about 10s), the door makes some automatic movements and is not usable.
The redundancy test is automatically repeated every 24 hours after the last test made.
NOTE: the redundancy test is also carried out in the following situations: upon every start (see section 4), with the POWER RESET, and when you quit the NIGHT-TIME CLOSURE mode after at least 4 hours.

TEAR OFF AND DELIVER TO USER

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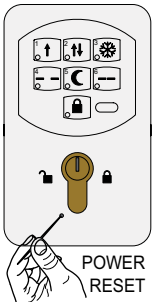
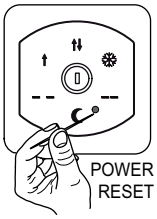
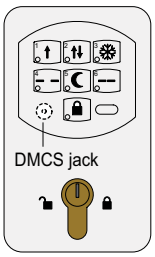
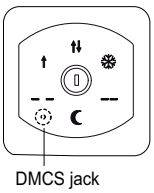
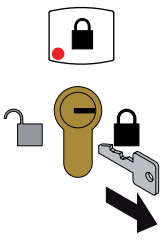
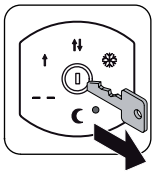
Installer:

TEAR OFF AND DELIVER TO USER

8. FUNCTION SELECTOR USER INSTRUCTION

FUNCTION SELECTOR	COMER	COMKR
DOOR OPEN The door opens and remains open.		
TOTAL ONE-WAY OPENING For one-way operation from the inner side of the door.		
TOTAL TWO-WAY OPENING For two-way door operation.		
PARTIAL OPENING For two-way, one-way and partial opening operation.		
DOOR CLOSED - DON'T USE The door closes and remains closed and locked (if lock is present).		
NIGHT-TIME CLOSURE Door closes after a 10 s operation to allow authorised door management authorised staff to get out before it closes. *NOTE: with the COMER selector, operation can be extended to 60 s.* The NIGHT-TIME CLOSURE mode allows closing the door also when an alarm is present, except when the emergency opening 1-EO contact is open. *WARNING: door operation as escape route is disabled.*		
POWER RESET It deletes the acquired data and after 3 s the door carries out the ESCAPE ROUTE TEST. *WARNING: in case of alarm (see section 6), when envisaged, a POWER RESET shall be performed to restore door operation.*		
DMCS Jack This is used to connect the DMCS software. *NOTE: The DMCS jack can be accessed by removing the function selector switch cover.*		
SELECTOR DISABLED Red LED on. (COMER) Compulsory position during operation. *WARNING: during door operation as escape route, COMER or COMKR selector shall be disabled, key shall be removed, and the set operating mode shall be TWO-WAY, ONE-WAY or OPEN DOOR.* *Any other setting of the selector may affect escape route operation, and can be selected by authorised staff only, when the use conditions allow it.*		
COMER SELECTOR ENABLED It allows selecting the desired function. *WARNING: after having selected the desired function, disable selector removing the key.*		

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