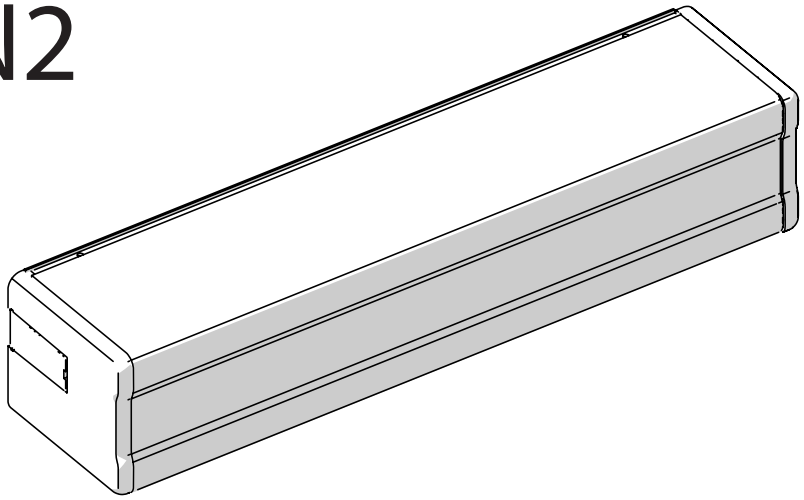
EntraPASS™
ACCESS SECURITY SOFTWARE

Man Trap Automatic Door Opener 950N2



Quick Reference Guide

Intertek

1 Technical data

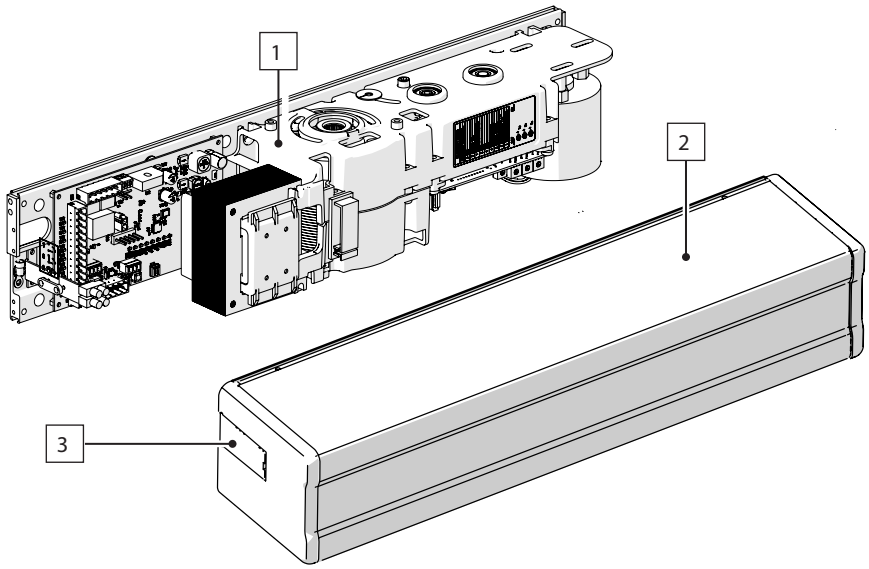
	950N2 115 V
Power supply voltage	115 V~ 60 Hz
MAX absorbed power	100 W
Absorbed power in standby without accessories	5 W
Use frequency	100%
Ambient operating temperature	14°F - 131°F
Installation	on header / door
Dimensions (LxHxD)	20.9 x 4.1 x 6.3 in
Weight	22 lb

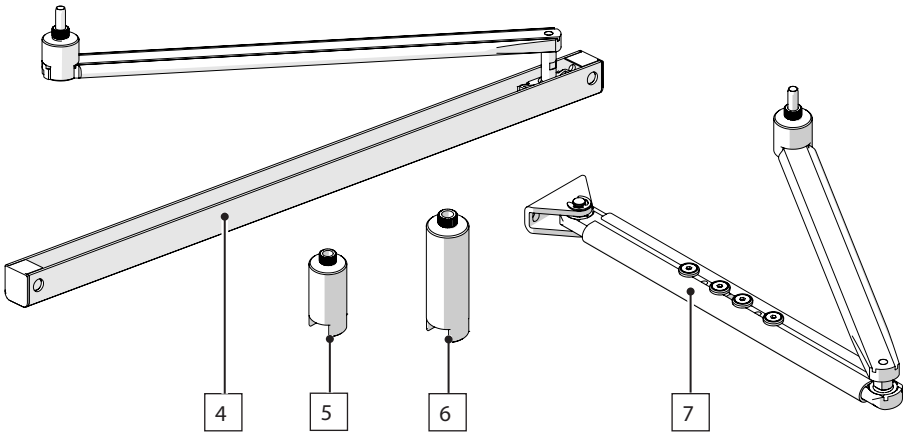
2 Application limits according to the weight and length of the leaf.

	MAX. leaf weight (lb)		
Length (in)	Articulated arm	Short sliding arm	Standard sliding arm
27 ½	809	631	
29 ½	705	549	
31 ½	619	483	
33 ½	548		428
35 ½	489		381
37 ½	438		342
39 ½	396		309
41	359		280
43	328		256
45	299		234
47	275		214
49	254		198
51	236		183
53	218		170
55	203		157

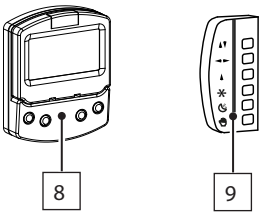
3 Application limits of transmission arms

	Header depth (in)	Maximum opening angle
Articulated arm		
header mounted	0...10	100°...125°
door mounted	0	100°
Short sliding arm		
header mounted	0...6 ¼	90°
Standard sliding arm		
header mounted	0...6 ¼	90°...105°



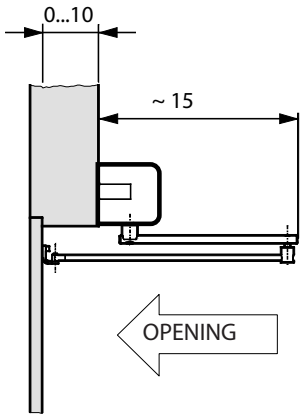


1	Door operator 950N2	included
2	Aluminium cover	included
3	Functions selector	included
4	Sliding arm (standard / short)	optional accessory
5	Extension H50	optional accessory
6	Extension H80	optional accessory
7	Articulated arm	optional accessory
8	KP EVO function programmer	optional accessory
9	LK EVO function programmer	optional accessory

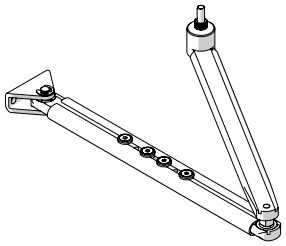


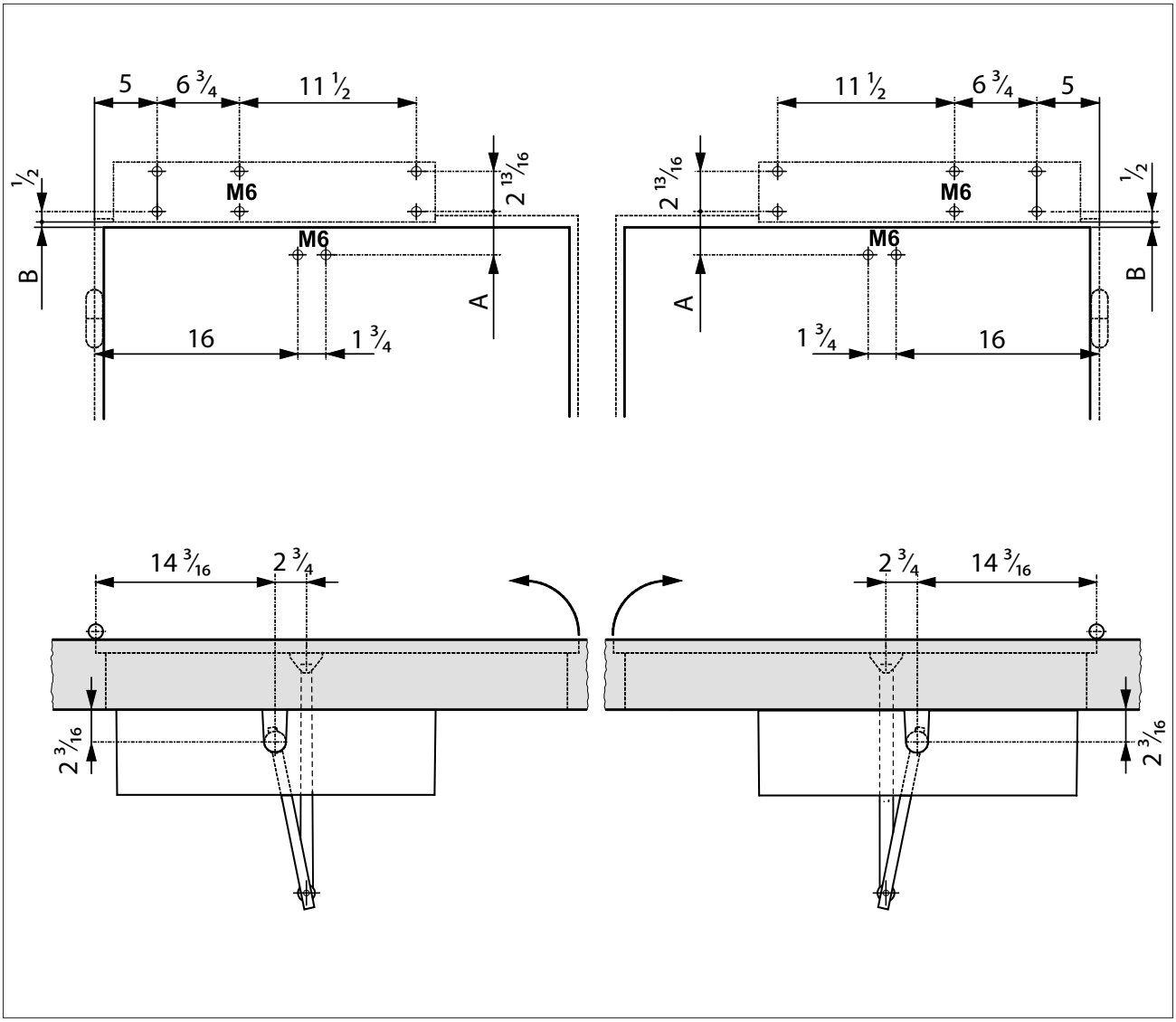
HEADER MOUNTING WITH PUSHING (ARTICULATED) ARM

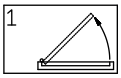
The door opens outwards, as seen from the operator side

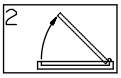


	A	B
Standard joint	2 3/8	0…5/8
Extension H50	3 1/2	0…1 3/4
Extension H80	4 3/4	0…3



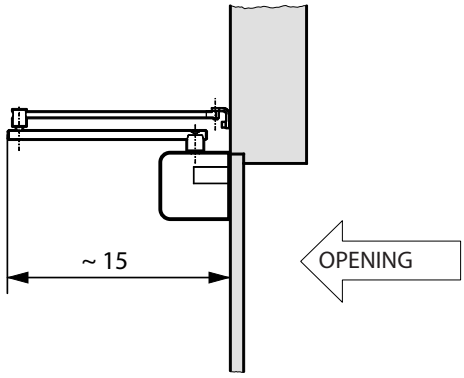




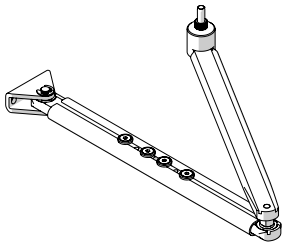


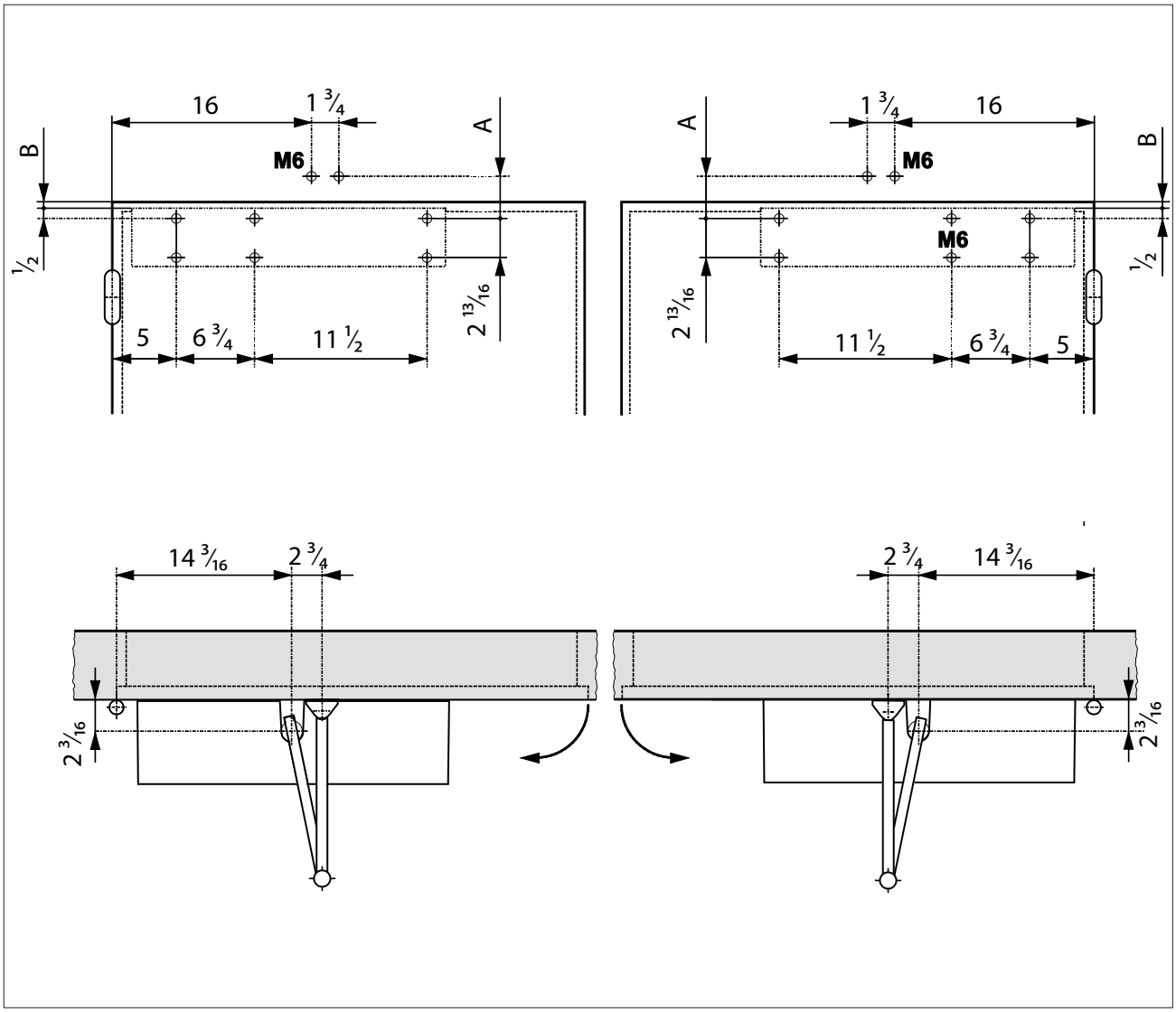
DOOR MOUNTING WITH PUSHING (ARTICULATED) ARM

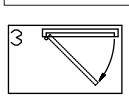
The door opens nwards, as seen from the operator side

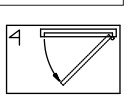


	A	B
Standard joint	2 3/8	0…5/8
Extension H50	3 1/2	0…1 3/4
Extension H80	4 3/4	0…3



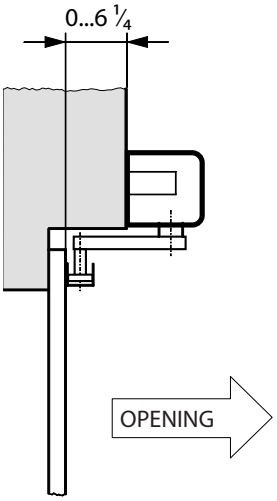




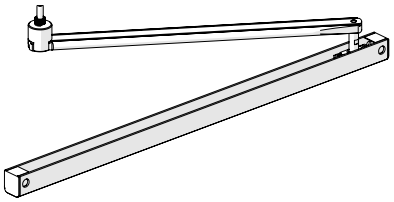


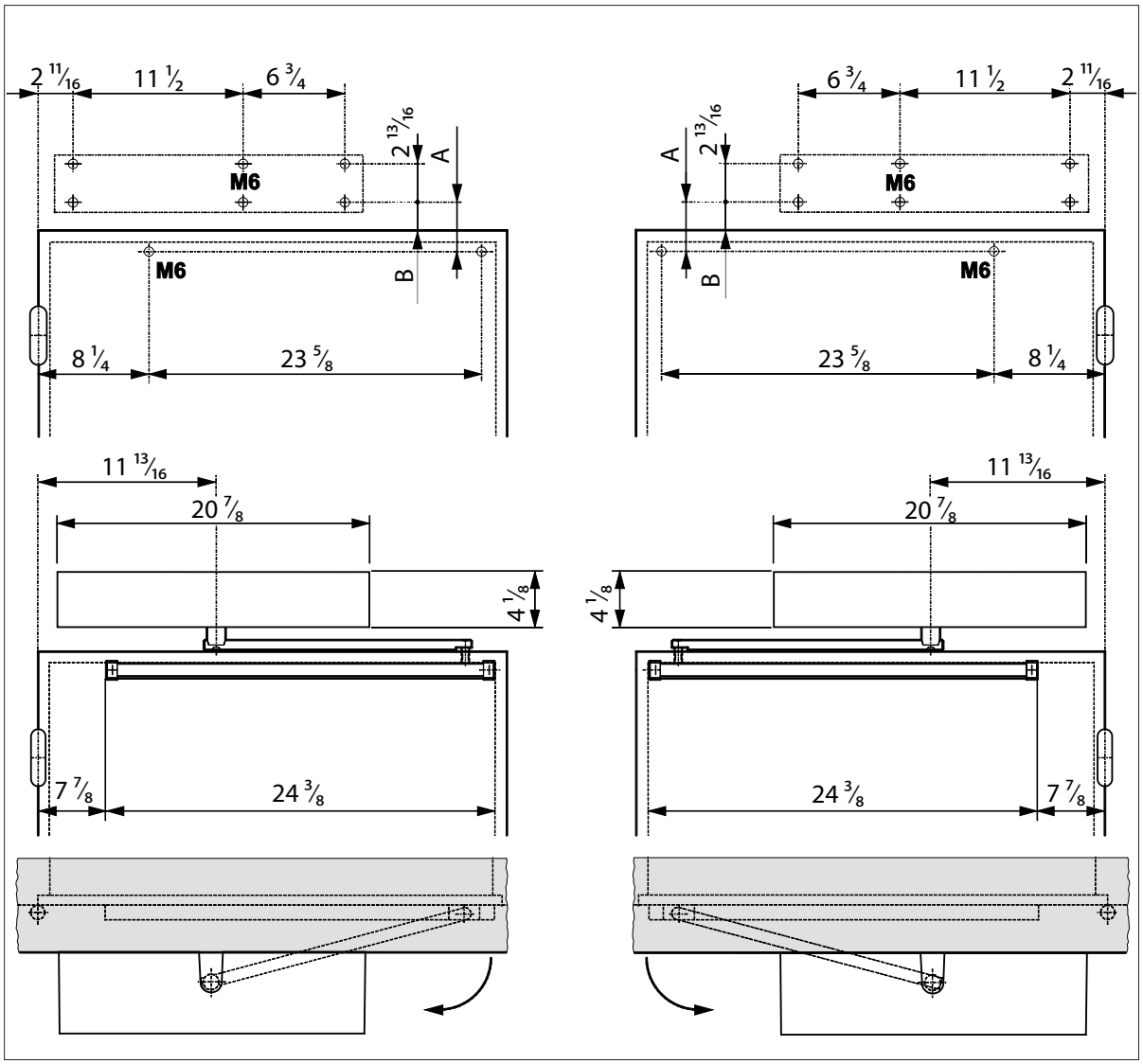
HEADER MOUNTING WITH STANDARD PULLING (SLIDING) ARM

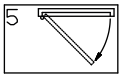
The door opens inward, as seen from the operator side

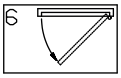


	A	B
Standard joint	3	1 7/8
Extension H50	4 1/4	3
Extension H80	5 3/8	4 1/4



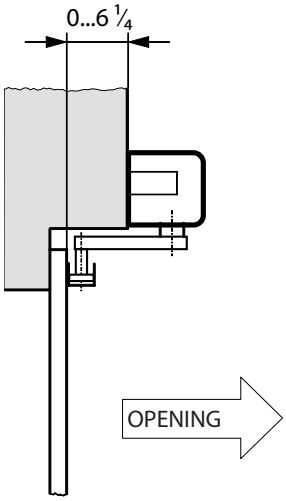




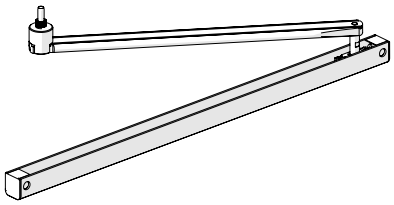


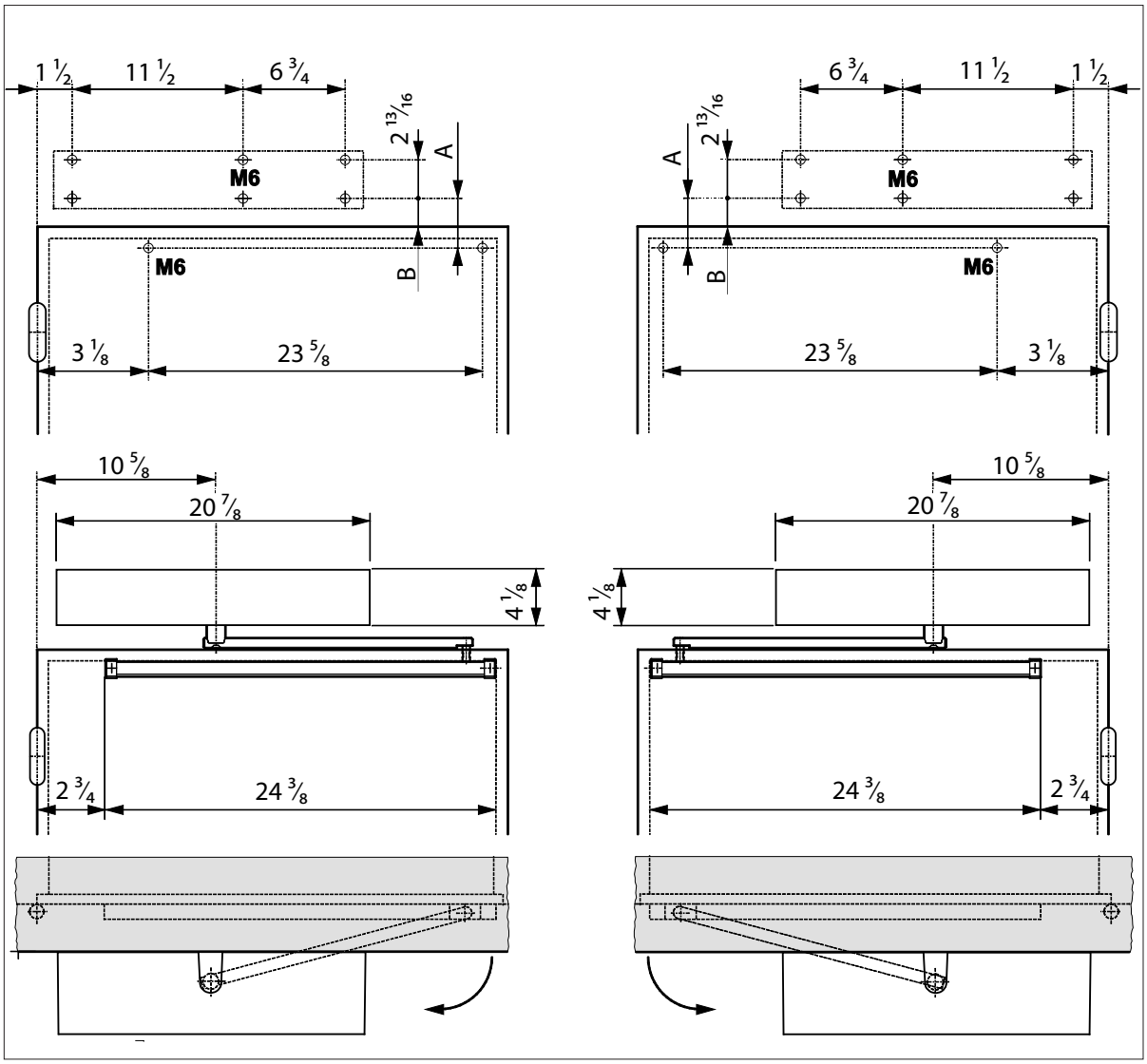
HEADER MOUNTING WITH SHORT PULLING (SLIDING) ARM

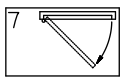
The door opens inward, as seen from the operator side

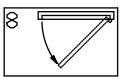


	A	B
Standard joint	3	1 7/8
Extension H50	4 1/4	3
Extension H80	5 3/8	4 1/4







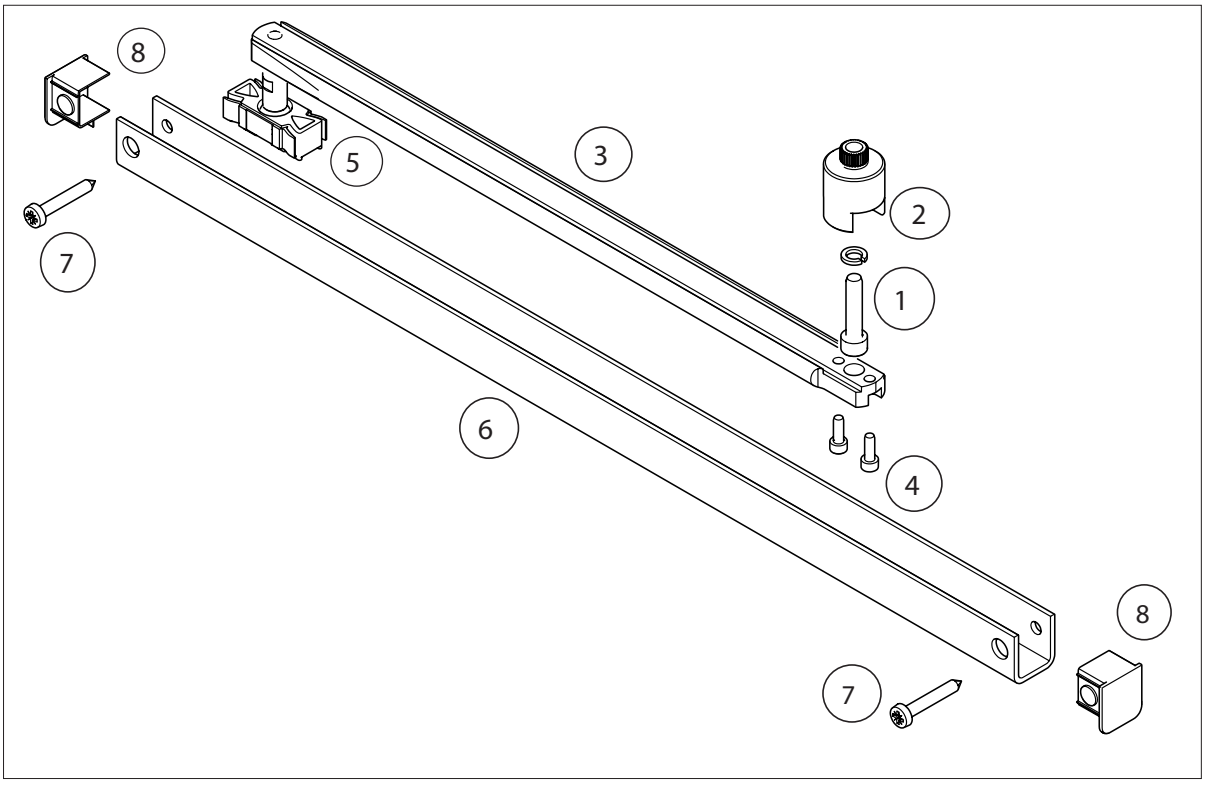


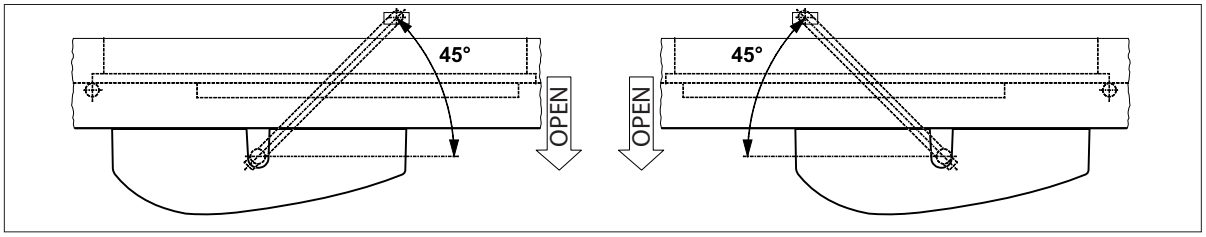
SLIDING ARM ASSEMBLY

1. Insert the screw and the split washer (1) into the joint (2)
2. Fasten the arm (3) to the joint (2) using the screws (4)
3. Insert the joint onto the drive shaft of the 950N2 so that the arm is angled at 45° outwards
4. Tighten the screw (1)
5. Mark the mounting points of the guide (6) on the leaf according to the configuration to be used. Then fasten it to the door using the screws (7), making sure it is horizontal

⚠ The guide must be fastened to the door using suitable fasteners and tightened appropriately according to the support material.

6. When installing the operator, pull back the arm manually and insert the sliding shoe (5) into the guide (6), then fasten the 950N2 to the header
7. Move the door manually to make sure there is no friction and that it does not jam
8. Press the two end plugs (8) onto the guide



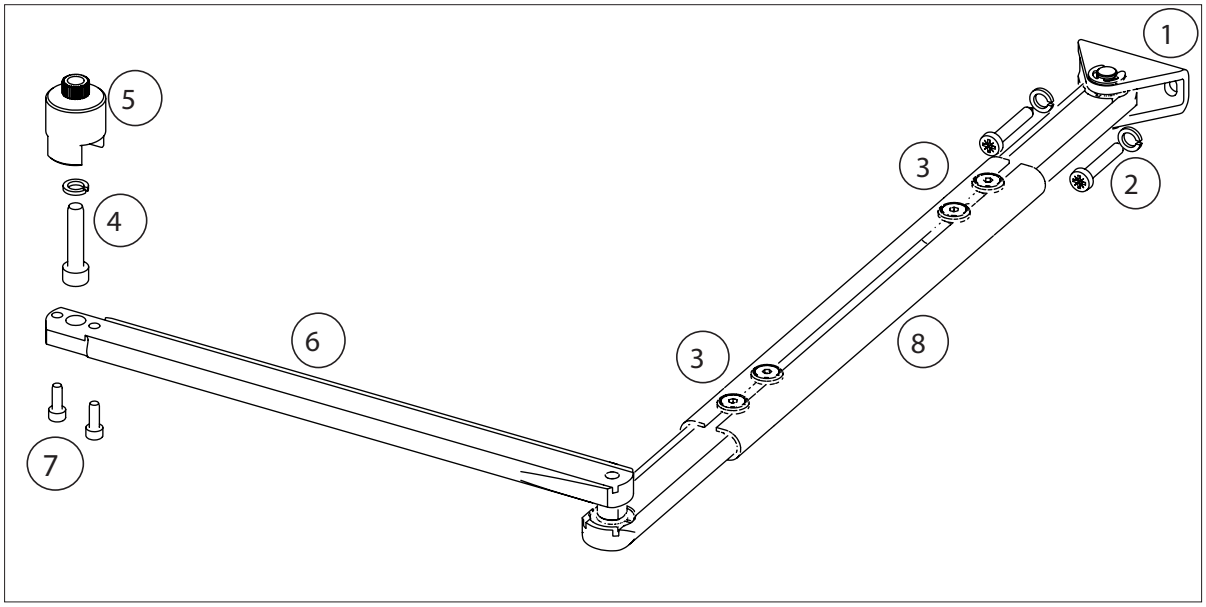


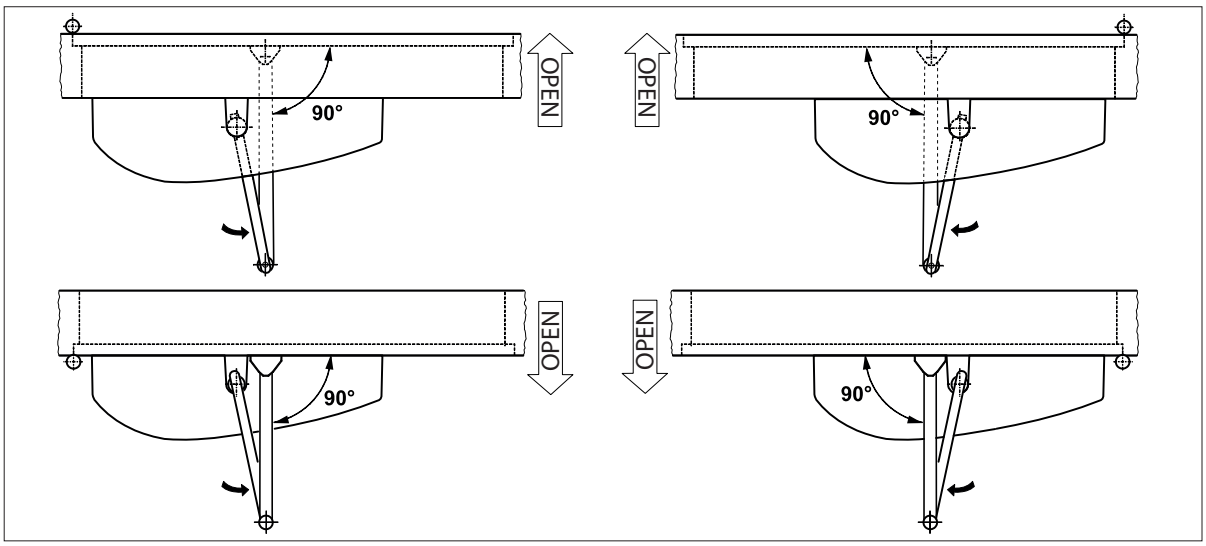
ARTICULATED ARM ASSEMBLY

1. Mark the mounting points of the plate (1) according to the configuration to be used. Then fasten it using the screws (2)

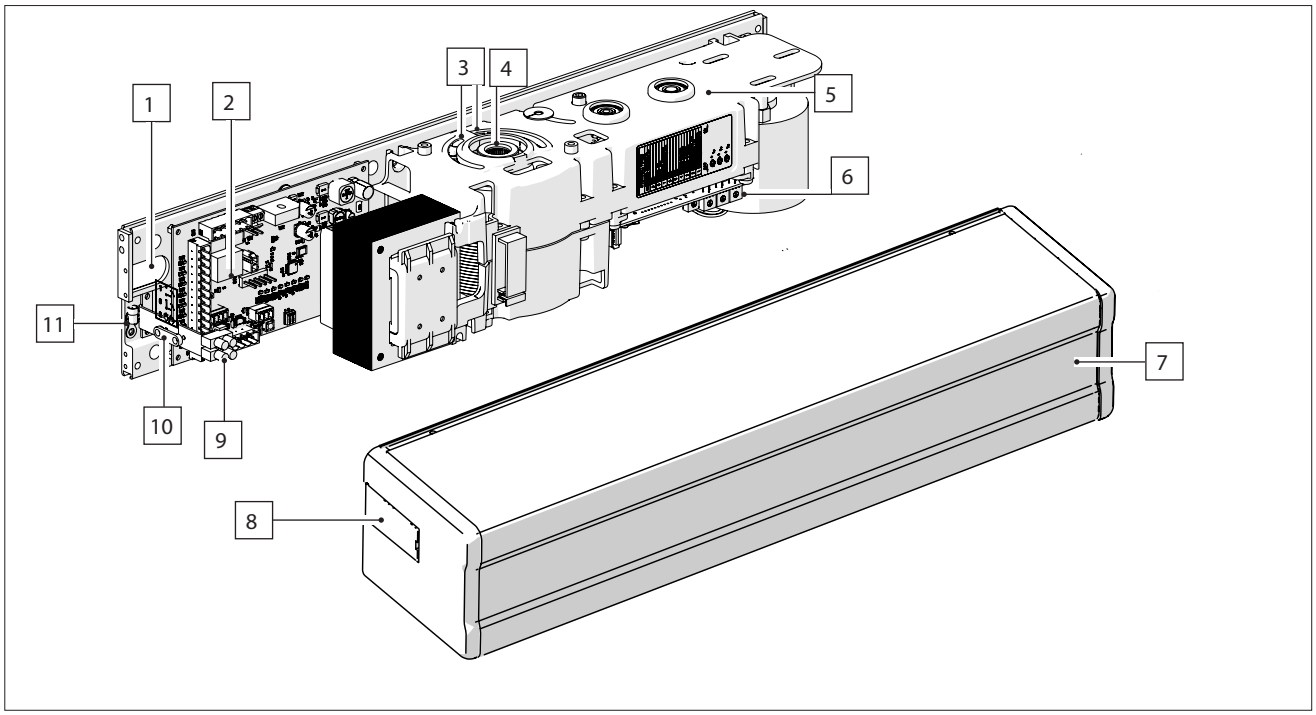
⚠ The plate must be fastened using screws (wall plugs, self-tapping screws etc.) and tightened appropriately according to the support material.

2. Loosen the fixing screws of the telescopic arm (3)
3. Insert the screw and the split washer (4) into the joint (5)
4. Fasten the shaft (6) to the joint (5) using the screws (7)
5. Install the joint on the transmission shaft of the 950N2 so that the shaft is perpendicular to the operator
6. Tighten the screw (4)
7. Rotate the shaft (6) so that the telescopic arm (8) is perpendicular to the door / header
8. Tighten the fixing screws of the telescopic arm (3)
9. Move the door manually to make sure there is no friction and that it does not jam





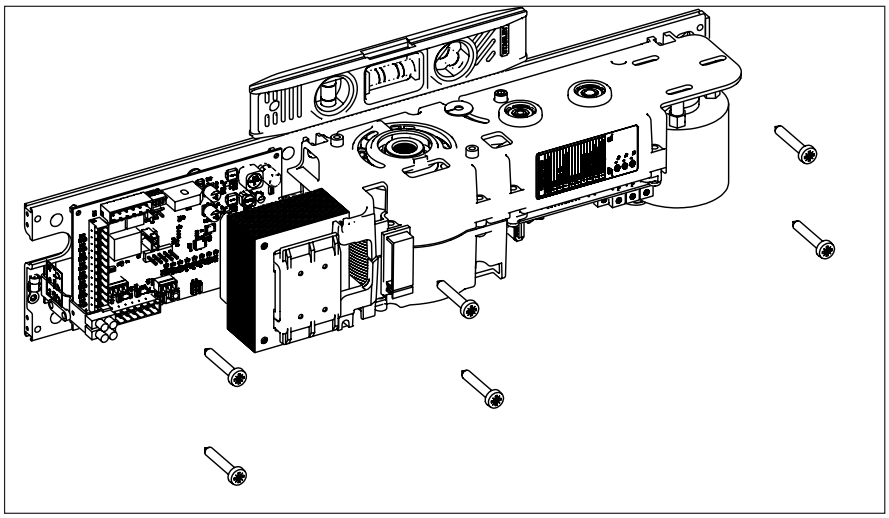
COMPONENTS IDENTIFICATION



1	Cable routing	7	Cover
2	I/O board	8	Functions selector
3	Integrated mechanical stops	9	Mains power terminal board
4	Drive shaft	10	Cable grip
5	Gearmotor	11	Earth ground connection
6	Logic board		

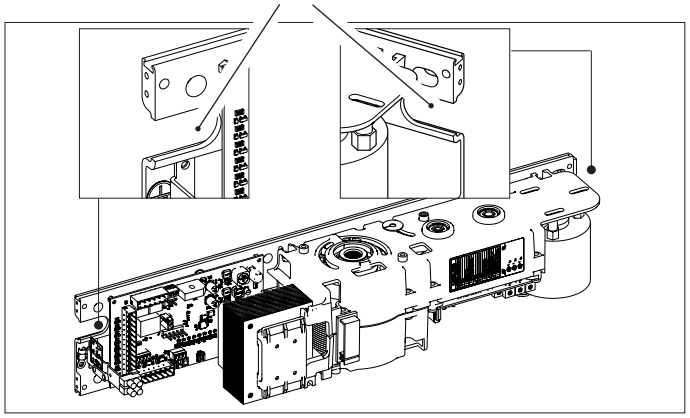
MOUNTING

Mount to operator using 6 M8 screws (not supplied) that are appropriate for the material of the header or the door. Make sure that the screws are adequately tightened so that the operator is secure.

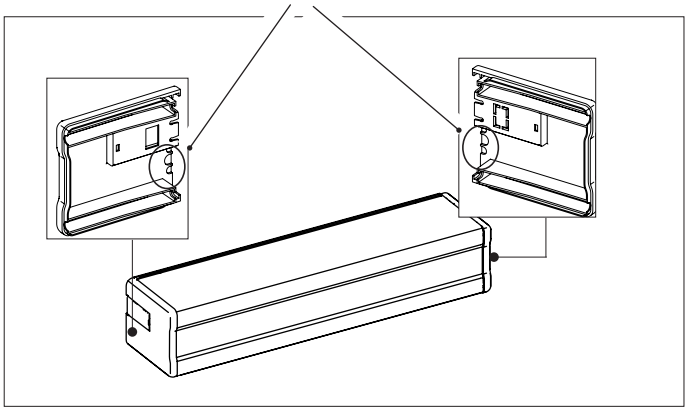


The 950N2 is designed so that the cables to enter from the back (using cutouts in the backplate) or from the sides, by breaking off the cable knockouts on the panels. Allow at least 18 in of cable from the cable inlet area to connect to the door operator.

Backplate cutouts



cable knockouts

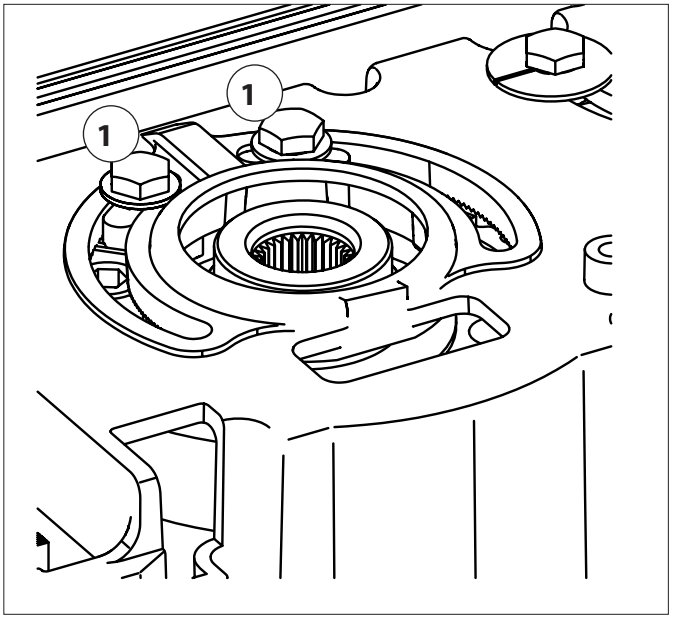


ADJUSTING THE INTERNAL STOPS

The 950N2 comes with integrated mechanical stops that can be adjusted in order to limit the swing angle of the door. These should be used if there are no external mechanical stops, it is anyway recommended to adjust them, even if there are external stops.

The stops are adjusted at the factory for the maximum drive shaft rotation.

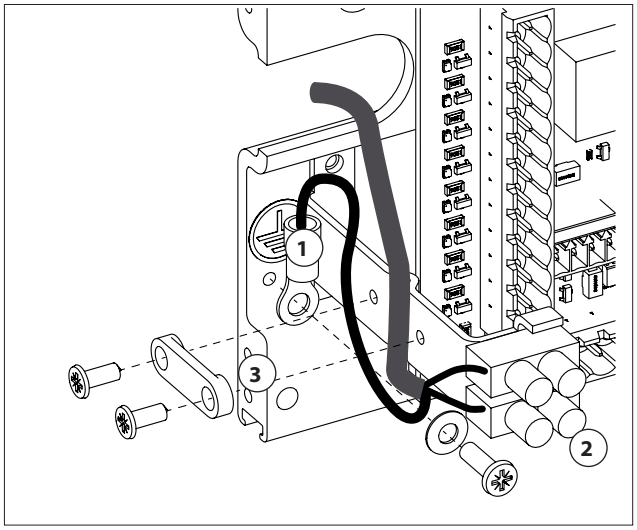
- Loosen the screws (1)
- With the door is in the closed position, identify the closing stop and slide it inside the slot until it comes into contact with the cam underneath. Tighten the screw
- With the door is in the open position, identify the opening stop and slide it inside the slot until it comes into contact with the cam underneath. Tighten the screw



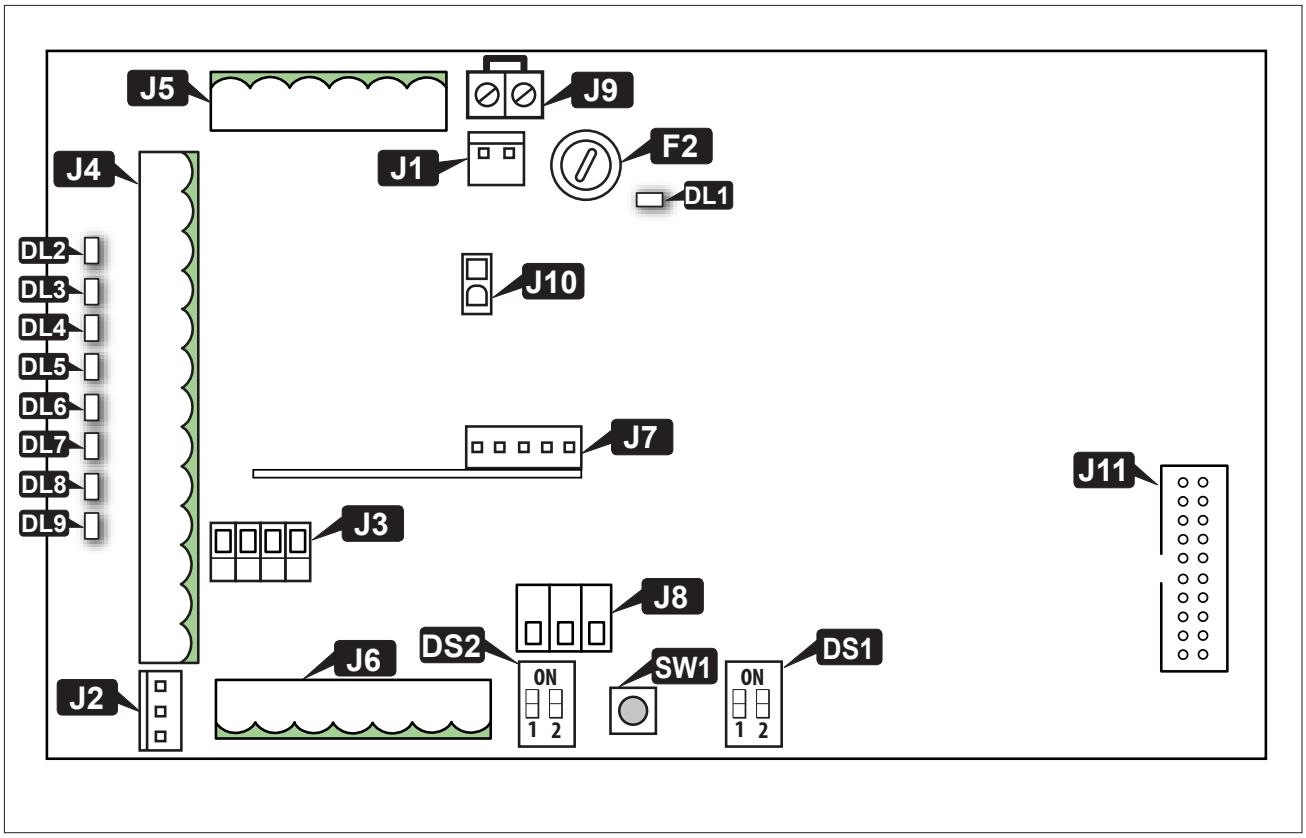
AC POWER CONNECTION

Crimp the cable lug (1) to the earth ground wire and fasten it using the washer and screw into the hole marked with: ⏚

Connect the mains power supply wires to the terminal block (2).
Secure the power cable using the cable grip (3)



I/O BOARD

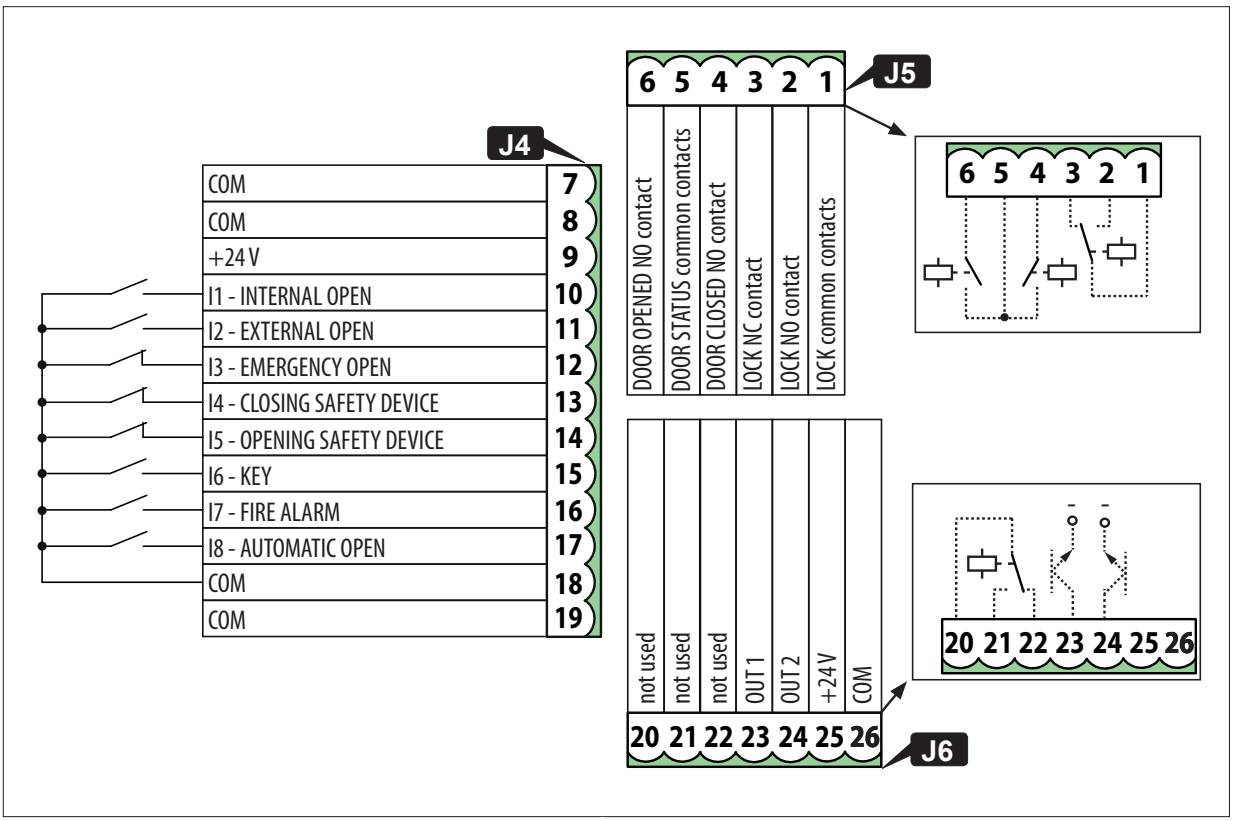


I/O	
J 1	Transformer connector
J 2	Connector for side functions selector
J 3	KP EVO connector
J 4	Inputs terminal board
J 5	Door and lock status terminal board
J 6	Outputs terminal board
J 7	Connector (5 pin) for radio receiver board
J 8	Intercom bus terminal board
J 9	Motor disconnection terminal
J 10	Logic board power supply connector
J 11	Logic board connector
F 2	Power supply fuse

I/O	
DS 1	Not used
DS 2	Intercom functions DIP switch
SW1	SETUP/RESET button
DL 1	Accessories power supply LED
DL 2	Input 10 status LED (command INTERNAL OPEN)
DL 3	Input 11 status LED (command EXTERNAL OPEN)
DL 4	Input 12 status LED (command EMERGENCY OPEN)
DL 5	Input 13 status LED (command CLOSING SAFETY)
DL 6	Input 14 status LED (command OPENING SAFETY)
DL 7	Input 15 status LED (command KEY)
DL 8	Input 16 status LED (command FIRE ALARM)
DL 9	Input 17 status LED (command AUTOMATIC OPEN)

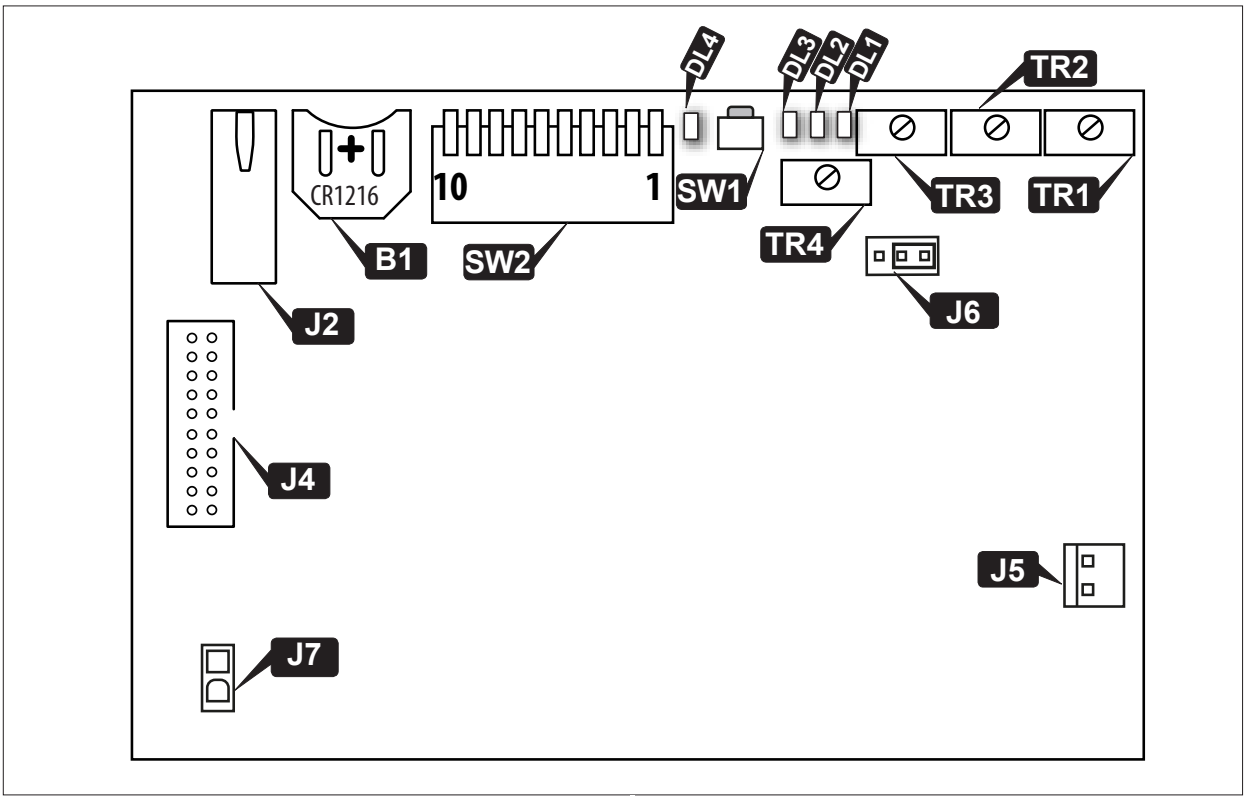
J9		
NOT-AUS	Motor connected	Motor disconnected

I/O CONNECTIONS



J4	
7,8	Common contacts and accessories power supply negative
9	+24 V accessories power supply (0.5 A max)
10	I1 - Open command from internal sensor (active in Automatic and Exit Only)
11	I2 - Open command from external sensor (active in Automatic and Only In)
12	I3 - Emergency open command (enabled in all modes apart from Manual)
13	I4 - Safety command during closing: causes the direction of movement to be reversed and prevents closing until released.
14	I5 - Safety command during opening: causes the leaf to stop until released and then continues to open.
15	I6 - Open command with Key (active in all modes apart from Manual)
16	I7 - Fire alarm command: closes the door and keeps it closed, has absolute priority
17	I8 - Opening command (not active in Night)
18,19	Common contacts and accessories power supply negative
J5	
1,2,3	Relay outputs with NO/NC contact for lock (rating max 0.5 A 24 V⎓)
4,5,6	Relay outputs with NO contact for door open and door closed status (rating max 0.5 A 24 V⎓)
J6	
20,21,22	Not used
23	Output OUT1: Gong function with NO contact
24	Output OUT2: Failsafe function with NC contact
25	+24 V accessories power supply (0.5 A max)
26	Common contacts and accessories power supply negative

LOGIC BOARD



I/O	
J 2	USB port
J 4	I/O board connector
J 5	Motor connector
J 6	Spring closing system speed selector in the event of a mains power failure.
J 7	Power supply connector from the I/O board.
SW 1	Button
SW 2	Functions DIP switches
TR 1	Opening speed adjustment trimmer
TR 2	Closing speed adjustment trimmer
TR 3	Pause time adjustment trimmer
TR 4	Spring closing system speed adjustment trimmer
B1	CR1216 battery holder
DL 1	Green USB connection LED
DL 2	Red SETUP/ERROR LED
DL 3	Blue 5V power supply LED
DL 4	Yellow LED - consistency of parameters saved on the board with the values of the trimmers and DIP switches.

J6 (MOT BRAKE)	FIXED	ADJ
Spring closing system speed in the event of a mains power failure.	Minimum speed, non-modifiable	Adjustable using trimmer TR4

SW2		OFF	ON
DIP 1	Anti-intrusion: When active the operator resists attempts to open the door manually or by wind gusts	Not active	Active
DIP 2	Type of transmission arm installed	Articulated arm	Sliding arm
DIP 3	External selector position 2	MANUAL mode	NIGHT mode
DIP 4	PUSH & GO:	see "PUSH & GO" below	
DIP 5	Not used		
DIP 6	PUSH & GO:	see "PUSH & GO" below	
DIP 7	Partial safety: STOP: Defines the detection area of the safety in opening	Obstacle detection active over the entire opening stroke	Obstacle detection NOT active in proximity to the opening stop
DIP 8	SCP (selectable close power): Increases the force with which the door pushes in the final section of the closing. It is useful to activate this function if there is high friction, if the seals are particularly rigid or if locks have a stiff latch ⚠ DO NOT enable SCP in "low energy" mode	Not active	Active
DIP 9	FAILSAFE: Test for checking the operation of the devices connected to the safety inputs	Not active	Active
DIP 10	Not used		

PUSH & GO

DIP 4	DIP 6	PUSH & GO
OFF	OFF	not active
ON	OFF	standard (automatic opening and closing of the door after an initial manual push)
OFF	ON	assisted closing (manual opening, motorised closing)
ON	ON	assisted closing (manual opening, motorised closing)

TR 1

Adjusts the opening speed

TR 2

Adjusts the closing speed

TR 3

Adjusts the pause time (0...30 s)

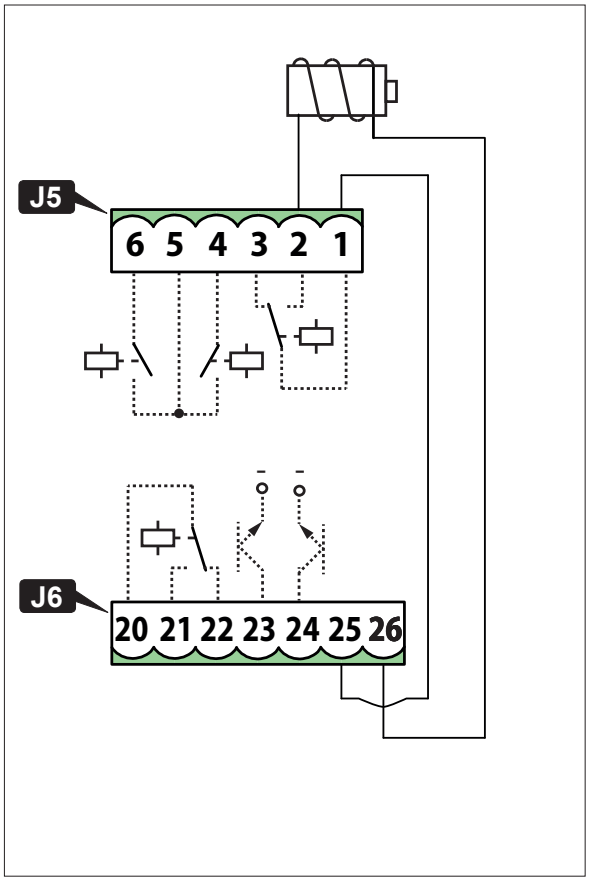
TR 4

Adjusts the closing by spring speed in the event of a main power failure; only active if J6 (MOT BRAKE) is set to ADJ.

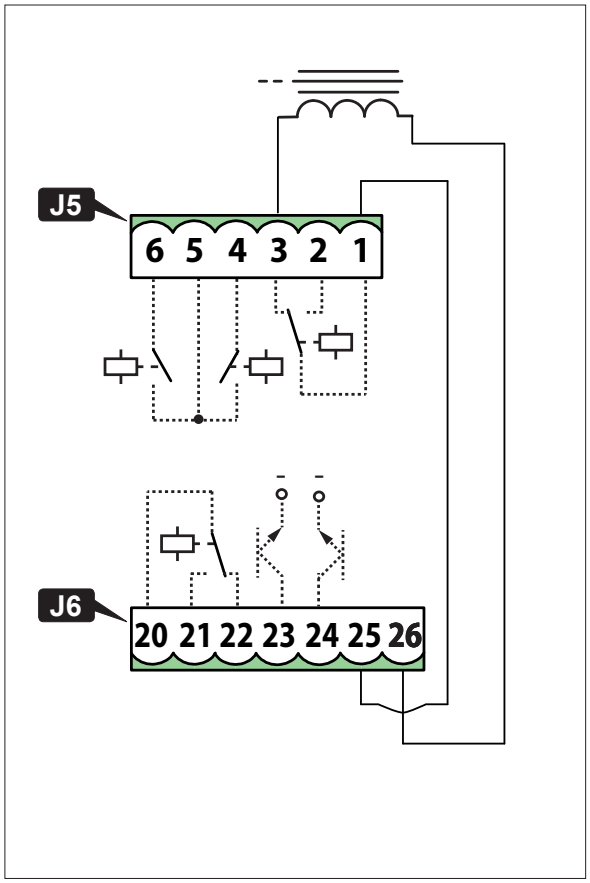
ⓘ If the yellow LED is lit, it indicates that the parameters stored on the board are different to those indicated by the trimmers and DIP switches.
Any adjustments made to the trimmers (except Tr 4) or DIP switches cause the yellow LED DL4 to light up.
To store the new setting and make it active, briefly press button SW1 on the Logic board. The yellow LED DL4 switches off to confirm that it has been stored.
The parameters that can be modified by the trimmers and DIP switches can also be modified via KP EVO. In this case, the settings are stored immediately and the yellow LED switches on to indicate that the values are different to those indicated by the trimmers and DIP switches.

CONNECTING THE LOCK

Connection of a strike lock that needs to be powered in order to be released:



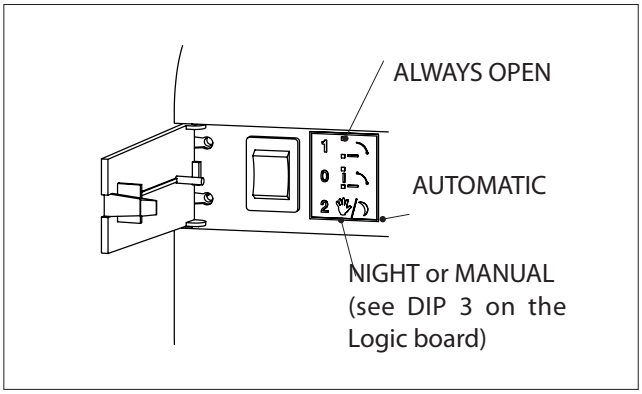
Connection of a magnetic lock that needs power to be removed in order to be released:



NOTE:
Maximum power consumption: 500 mA 24 V

Using the KP EVO:
- specify the operating mode of the lock (parameter 2.4.1).
- set the opening delay of the door to allow the lock to be released, particularly motorised locks (parameter 2.4.2).
- if necessary, enable the reverse stroke to make it easier to the release the lock (parameter 2.5.7)

FUNCTION SELECTOR SWITCH



AUTOMATIC
The door opens and closes again after the set pause time has elapsed.

ALWAYS OPEN
The door opens and remains open.

MANUAL
The door is free to move and can be moved manually. All controls are disabled. The lock is kept open.

NIGHT
The door closes and the internal and external sensors are disabled.

SETUP

The Setup procedure consists of a series of movements during which the force, speed and deceleration values during opening and closing are acquired according to the weight and size of the doors.
The Setup procedure must be carried out:
- When the operator is first installed.
- After the Logic board has been replaced.
- After any variation in the maximum opening angle, the weight of the door or the amount of friction.
- After factory defaults have been restored.

TheSetup procedure must NOT be carried out in the following conditions:
- Emergency active
- Fire Alarm active
- MANUAL mode
- NIGHT mode
- DOOR OPENED mode

⚠ During the Setup procedure, the safety detectors are ignored. Keep a safe distance and prevent anyone from approaching the door until the procedure has been completed.

Both the opening and closing mechanical stops must be present during the setup procedure.
The red LED DL2 of the Logic board flashes quickly for the entire duration of the Setup procedure.

To start the Setup procedure from the board:
Press the button SW1 of the I/O board for at least 5 seconds and then release it:

To start the Setup procedure via the KP EVO:
1. Select parameter 2.5.2 from the menu.
2. Confirm the selection when requested to do so.

RESET

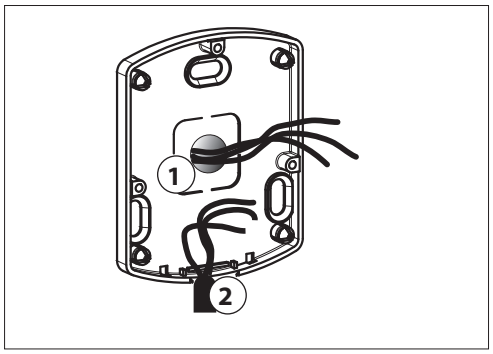
Reset consists of initialising the 950N2, which must be carried out while an error condition is present in order to attempt to restore normal operation.
To carry out a Reset, press and release button SW1 on the I/O board.
Via the KP EVO, keep the two central buttons pressed simultaneously for 5 seconds.

RESTORING FACTORY SETTINGS

To reset all parameters to their default values:
1. Turn power off to the 950N2.
2. Press and hold button SW1 on the Logic board.
3. Switch power on to the 950N2, keeping the button pressed for at least 20 seconds before releasing it. The system needs to be set-up:

When finished, the Setup procedure needs to be run again.

KP EVO (OPTIONAL)

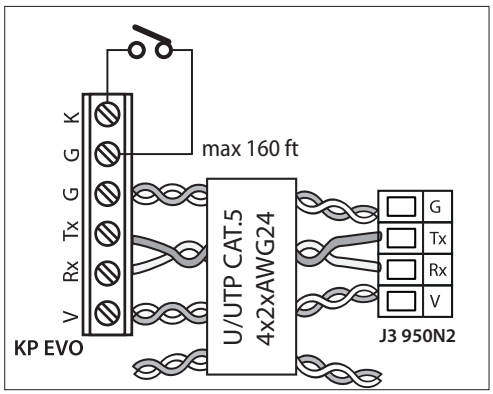


The KP EVO is an optional accessory that can be used to remotely control the operation of the 950N2 and program more advanced functions.

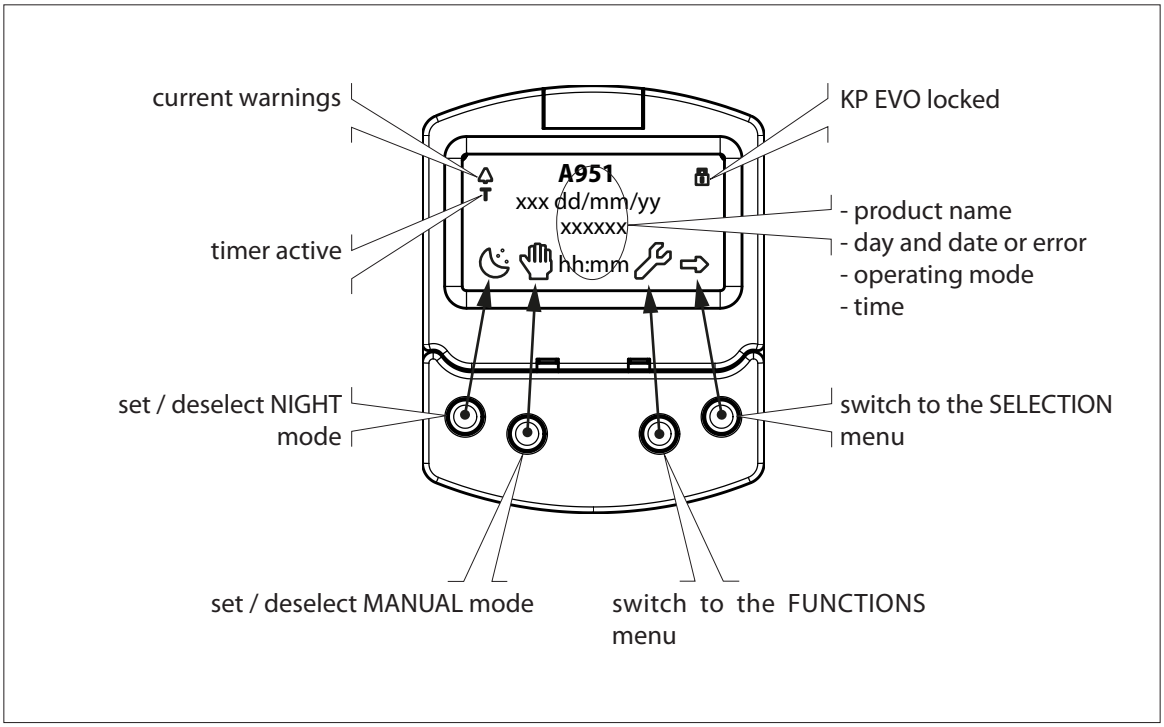
It can be installed in any position on the door, up to 160 ft from the operator, using a wired connection. The cable can enter either from the back (1) or the bottom (2).

Connect the KP EVO to the 950N2 using a 4 pair CAT5 twisted cable, AWG24.

An optional key switch can be connected between terminals G and K in order to enable/disable the KP EVO

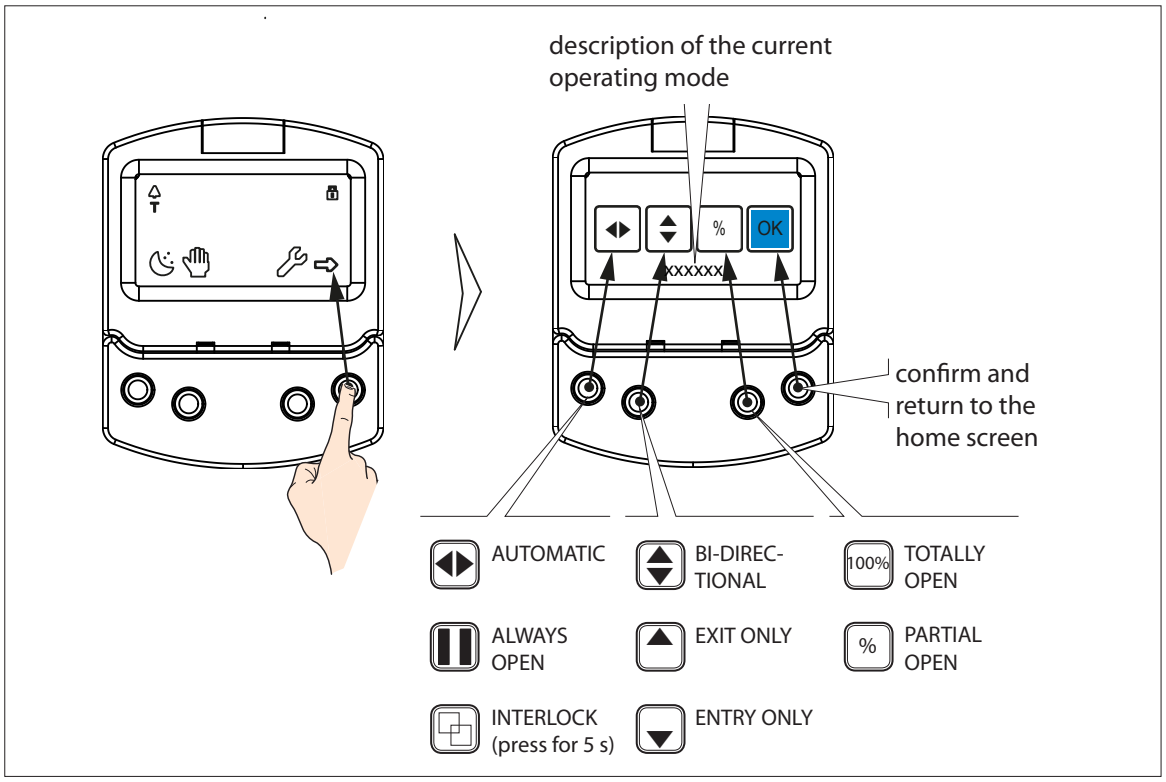


DESCRIPTION



NOTE: For more details on the KP EVO and the additional funtions refer to the full manual.

SELECTION MENU



OPERATING MODES

AUTOMATIC
The door opens and closes again after the set pause time has elapsed.

ALWAYS OPEN
The door opens and remains open.

NIGHT
The door closes and the internal and external sensors are disabled.

MANUAL
The door is free to move and can be moved manually. All controls are disabled. The lock is kept open.

BI-DIRECTIONAL
The pedestrian transit way opens in both directions; the internal and external sensors are enabled.

EXIT ONLY
The pedestrian transit way opens in only one direction; the external sensors are disabled.

ENTRY ONLY
The pedestrian transit way opens in only one direction; the internal sensors are disabled.

100%
TOTALLY OPEN
The door opens completely.

%
OPENING
Only selects the master door in the "2 leaves" mode.

INTERLOCK