



AUTOMATIC ENTRANCE SPECIALISTS

LogicA21

IP1550
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- I** Manuale di installazione quadro elettronico per un motore 230 V~.
- GB** Electronic control panel installation manual for one 230 V~ motor
- F** Notice d'installation de la carte électronique pour 1 moteur 230 V~
- D** Installationsanleitung für Steuerung-230 V~ ein Motor
- E** Manual de instalación cuadro electrónico para 1 motor 230 V~

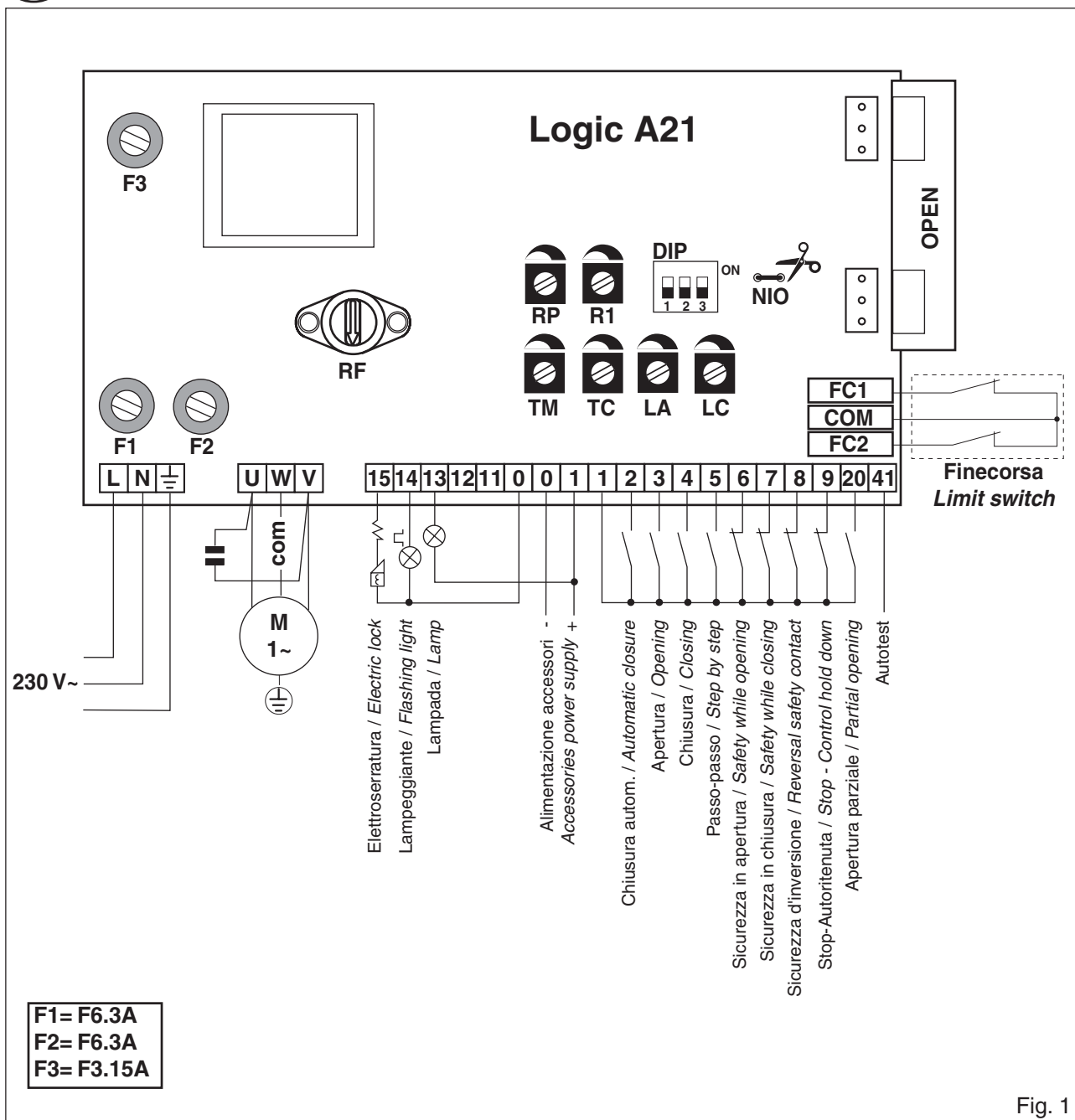


Fig. 1



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GENERAL SAFETY PRECAUTIONS

This installation manual is intended for professionally competent personnel only.

The installation, the power connections and the settings must be completed in conformity with Good Working Methods and with the regulations in force.

Read the instructions carefully before beginning to install the product. Incorrect installation 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 installation check that the product is in perfect condition.

Do not install the product in explosive areas and atmospheres: the presence of flammable gas or fumes represents a serious threat to safety.

The safety devices (photocells, sensitive edges, emergency stop, etc) must be installed taking into account: the provisions and the directives in force, Good Working Methods, the installation area, the functional logic of the system and the forces developed by the motorised door or gate.



Before making power connections, check that the rating corresponds to that of the mains supply

A multipolar disconnection switch with a contact opening gap of at least 3 mm must be included in the mains supply.

Check that upstream of the electrical installation an adequate residual current circuit breaker and an overcurrent cut out are fitted.

When requested, connect the motorized door or gate to an effective earthing system carried out as indicated by current safety regulations.

During installation, maintenance and repair operations, cut off the power supply before opening the cover to access the electrical parts.



The electronic parts must be handled using earthed antistatic conductive arm bands.

The manufacturer of the motorisation declines all responsibility in the event of components which are not compatible with the safe and correct operation of the product.

For repairs or replacements of products only original spare parts must be used.



INSTALLATION WARNING

Secure the control panel permanently. Drill a hole into the lower side of the container so as to run the cables through it. Secure the cables, if they are accessible, by means of appropriate gland plates (not provided by us). Keep the line and motor conductors separate (at least 8 mm) from the control conductors at the terminal board connection points (for example, by means of clamps). Connect the line and motor protection conductors (yellow-green) by means of the terminal provided. Re-close the container by means of the 4 screws, taking care to properly position the cover (lower side = devoid of gasket).

All right reserved

All data and specifications have been drawn up and checked with the greatest care. The manufacturer cannot however take any responsibility for eventual errors, omissions or incomplete data due to technical or illustrative purposes

TECHNICAL DETAILS

Power supply	230 V~ / 50 Hz
Motor output	230 V~ / 5 A max
Safety accessories power supply	24 V= / 0.3 A (nominal) 24 V= / 0.5 A (peak)
Temperature	-20° C / +55° C
Degree of protection	IP55
Dimensions	180x250x100

1. POWER CONNECTIONS

1.1 Controls

Control	Function	Description
1 — 2 N.O.	AUTOMATIC CLOSING	The automatic closing function is enabled by a permanent contact.
1 — 3 N.O.	OPEN	It starts the opening operation.
1 — 4 N.O.	CLOSE	It starts the closing operation.
1 — 5 N.O.	STEP BY STEP	It starts the closing or opening operation in sequence: open-stop-close-open. Important: if the automatic closure is enabled, the stop is not permanent but lasts for the time set by means of TC.
1 — 6 N.C.	OPENING SAFETY STOP	It stops and/or prevents the opening operation.
1 — 7 N.C.	CLOSING SAFETY STOP	It stops and/or prevents the closing operation.
1 — 8 N.C.	REVERSE SAFETY CONTACT	Reverses movement (re-opens) during closing. When door is not moving, inhibits all operation.
1 — 9 N.C.	STOP	With contact 1-9 open, the door stops or remains stopped and automatic closing is disabled. By restoring control 1-9 the door remains at a standstill until it receives a control 1-5 or remote control.
	STOP / CONTROL HOLD TO RUN	When contact 1-9 is open, it causes the door or gate to stop moving and enables the “service-man” function. Under these conditions, “open” and “close” commands (1-3/1-20 and 1-4, respectively) are operative only if kept pressed, when released the drive mechanism stops. “Stop” is activated by safety devices (if present) and “step-by-step” and automatic “closing” functions are disabled.
1 — 20 N.O.	PARTIAL OPENING	It causes a timer-controlled opening which lasts for the time set by trimmer RP.
0 — 11 N.C.	FC2 LIMIT SWITCH	DIP2 set to OFF causes the gate or door to stop moving when closing. DIP2 set to ON causes the gate or door to stop moving when opening. As an alternative, limit switches can be connected to the COM-FC2 fastons (in which case terminals 0-11 must remain open).
0 — 12 N.C.	FC1 LIMIT SWITCH	DIP2 set to OFF causes the gate or door to stop moving when opening. DIP2 set to ON causes the gate or door to stop moving when closing. As an alternative, limit switches can be connected to the COM-FC1 fastons (in which case terminals 0-12 must remain open).
OPEN	STEP BY STEP / OPEN	This is the seat for the coupling of the radio receiver. The remote control function is selected by means of DIP1 (OFF = 1-5; ON = 1-3).



IMPORTANT: Make a jumper among all the N.C. contacts if not used. The terminals bearing the same number are equivalent. The given operating and performance feature can be guaranteed only if original DITEC accessories and safety devices are used.

1.2 Output and accessories

Output	Value	Description
1 ● — + 0 ● — -	24V = / 0.3 A (nominal) 0.5 A (peak)	Accessory supply. Output to power external accessories including the gate-open signal lamp.
0 ● — — 14	24V = / 50 W	Flashing light (LAMPH). It is activated during the opening and closing movements. For pre-flashing see LA and LC. Protected output with fuse F3.
W ● — — N	230 V ~ / 100 W	Flashing light (LAMP). It is activated during the opening and closing operations (pre-flashing is not possible).
0 ● — — 15	24V = / 1.2 A	Electric lock. With 12 V electric lock, connect the 8.2 Ω 5 W resistance in series. Is activated upon each opening command (see trimmer TM par. 1.3). Protected output with fuse F3.
1 ● — — 11	24V = / 3 W	State-of-the-automation signal lamp. It signals the automatic system is open with DIP2 set to OFF. It signals the automatic system is closed with DIP2 set to ON.
1 ● — — 12	24V = / 3 W	State-of-the-automation signal lamp. It signals the automatic system is closed with DIP2 set to OFF. It signals the automatic system is open with DIP2 set to ON.
1 ● — — 13	24V = / 3 W	Open gate light. Light comes on and only goes off when the gate is closed.
41 ● —		Autotest. Control to activate the autotest (For self-controlled safety devices: SICUR1).

1.3 Settings and adjustments

TM MIN=10 s MAX=90 s	Maximum operating time. From 10 to 90 s with TM set from min to max. Setting TM to max: - obstacle detection during closing causes gate movement to reverse; - safety devices 1-6 and 1-7 with disengagement manoeuvre: triggering of the safety causes gate movement to reverse for 1 s before coming to a stop; - the 0-15 output remains activated throughout gate opening and closing movement for motor brake control at 24V = (the 8.2 Ω 5W resistance is not required).
TC MIN=0 s MAX= 120 s	Automatic closing time. From 0 to 120 s with TC from min. to max.. Count down initiates or starts up again: - according to the time set by TC at the end of opening or upon an open command being given, when the gate is stationary in the open position. - for half of the time set by TC after triggering a safety device (1-6 / 1-7 / 1-8) or at the end of partial opening. With 1-2 or 1-9 open, automatic closing is disabled. Closing 1-2 re-enables automatic closing. If disabled from 1-9, automatic closing is once again enabled, by contacts 1-9 being reclosed, only after an opening command is given.
LA MIN=0 s MAX=15 s	Pre-opening flashing time. From 0 to 15 s, with LA set from min to max.
LC MIN=0 s MAX=15 s	Pre-closing flashing time. From 0 to 15 s, with LC set from min to max.
RP MIN=0 s MAX=30 s	Partial opening time. From 0 to 30 s, with RP set from min to max.
R1 MIN MAX	Thrust on obstacles. The control panel features a safety device which stops movement in the event of an obstacle during opening or closing. With TM set to max., obstacle detection during closing causes gate movement to reverse. With R1 at minimum, we have max sensitivity to obstacles (minimum thrust). With R1=MAX: the detection function is disabled (maximum thrust);
RF MIN=1 MAX=5	Power adjustment. At start-up the motor is powered at full mains power for 1 s before switching over to the power set via RF (position 1 for minimum power, position 5 for maximum power).

	Description	OFF / 	ON / 
DIP1	Radio control switching	1-5 Step-by-step (*)	1-3 Open
DIP2	Selection of direction	Right opening (*)	Left opening
DIP3	Electric lock release	Disabled (*)	Enabled (recommended location in case of an electric lock having been installed).
NIO	Electronic antifreeze system	It automatically activates the system which permits motor running even at low temperatures. To properly operate, the electric panel must be at the same temperature as the motors.	Disabled (*)

(*) FACTORY SETTING

2. STARTING UP



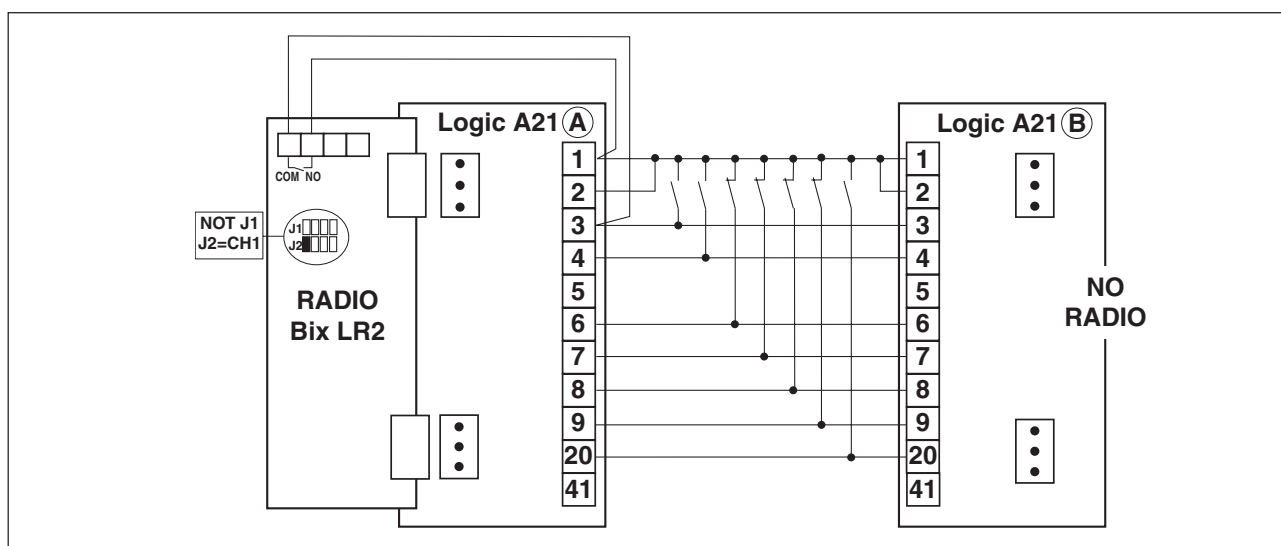
WARNING: the operations regarding point 2.3 are without safety devices. the trimmer can only be adjusted with gate not moving (RF excluded).

- 2.1 Make a jumper between the safety devices and the stop device.
- 2.2 Set TC and R1 to maximum, RF to position 5, and LA, LC and RP to the minimum. If the limit switches are employed, set TM to the maximum.
- 2.3 Power and check the gate functions correctly with a sequence open, close or step-by-step command. Check for proper triggering of the limit switches (if the latter are not used, set the TM trimmer so that the operation time is 2 to 3 s longer than that actually taken by the gate).
- 2.4 Remove the jumpers and connect the safety devices (1-6, 1-7 and 1-8) and the stop (1-9) Check their function.
- 2.5 If desired, connect 1-2 and adjust the automatic closing with TC. **Important:** the automatic closing time after the operation of one of the safety devices is half the set time. If desired, adjust partial opening time by means of RP.
- 2.6 Put RF in the position which ensures best functioning and the safety for the user in the event of accidental impact.
- 2.7 Set the thrust on obstacles by means of R1.
- 2.8 Connect any accessories and check they are properly functioning..
- 2.9 Re-close the box by means of the 4 screws, taking care to properly position the cover (lower side = devoid of gasket).

3. PARALLEL CONNECTION

Two motors [A] and [B] in parallel may be controlled by wiring up as shown in the figure below, bearing in mind that terminals 0 and 5 of the two panels are not to be connected. For automatic closing by both motors, proceed as follows:

- make a jumper between 1 and 2 in both [A] and [B];
- set TC to the same value on both [A] and [B].



4. EXAMPLE OF SLIDING GATE OR DOOR INSTALLATION

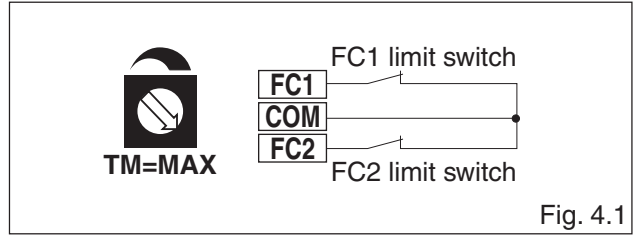
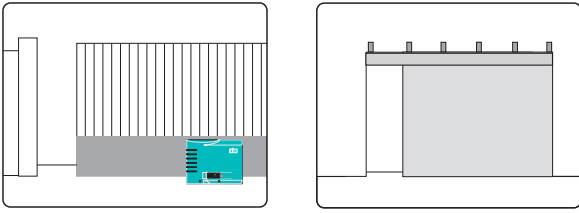


Fig. 4.1

When control panel LogicA21 is used for sliding gate installations,

- set TM to MAX ,
- connect N.C. opening and closing limit switch contacts to FC1-COM-FC2 fastons as shown in Fig. 4.1, or
- connect N.C. opening and closing limit switch contacts to terminals 0-11-12 as shown in Fig. 4.2
- set correct opening direction by means of DIP2 as shown in Fig. 4.3.

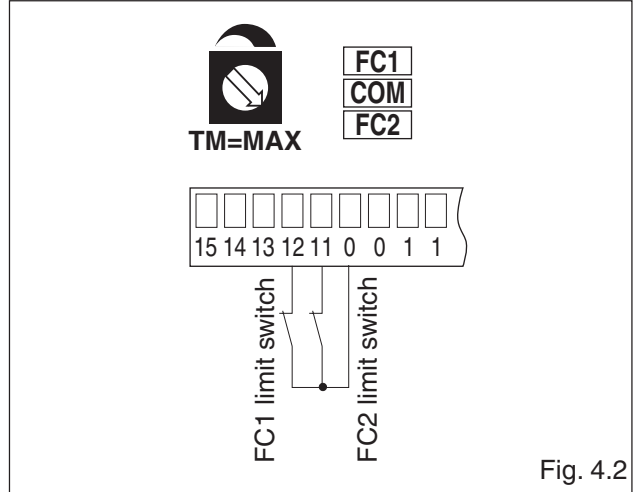


Fig. 4.2

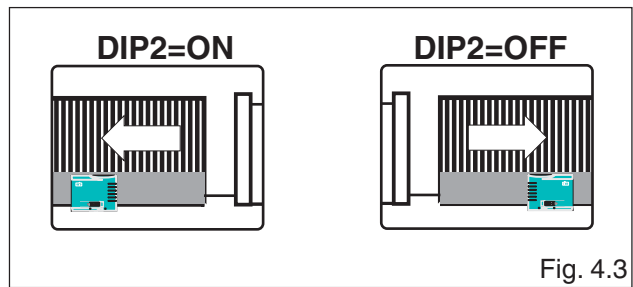


Fig. 4.3

5. EXAMPLE OF BARRIER INSTALLATION

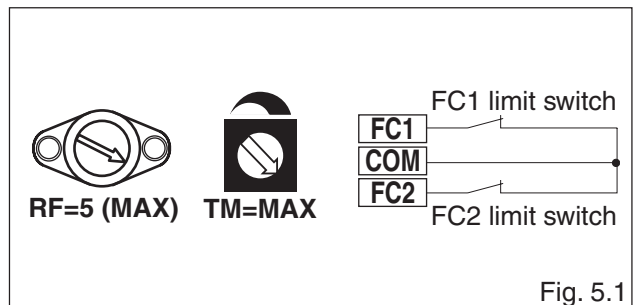
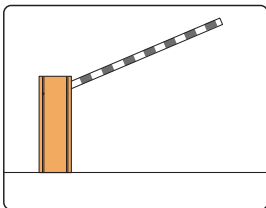


Fig. 5.1

When control panel LogicA21 is used for barrier installations as shown in Fig. 5.1,

- set RF to MAX,
 - set TM to MAX,
 - connect N.C. opening and closing limit switch contacts to FC1-COM-FC2 fastons, and
- Set correct opening direction by means of DIP2 as shown in Fig. 5.2.

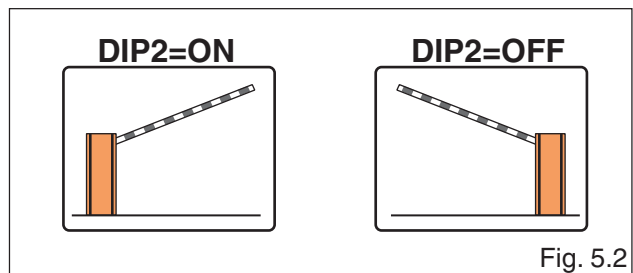
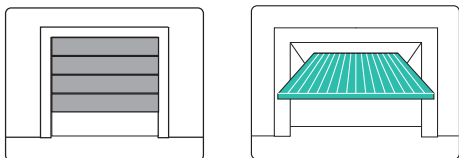


Fig. 5.2

6. EXAMPLE OF SECTIONAL OVERHEAD AND UP-AND-OVER DOOR INSTALLATION (C.P. LogicA21F)



When control panel LogicA21F is used for sectional or overhead or up-and-over door installations as shown in figure 6.1:

- set TM to MAX;
- connect N.C. opening and closing limit switch contacts to terminals 0-11-12;
- set direction of movement by switching DIP2 to OFF.

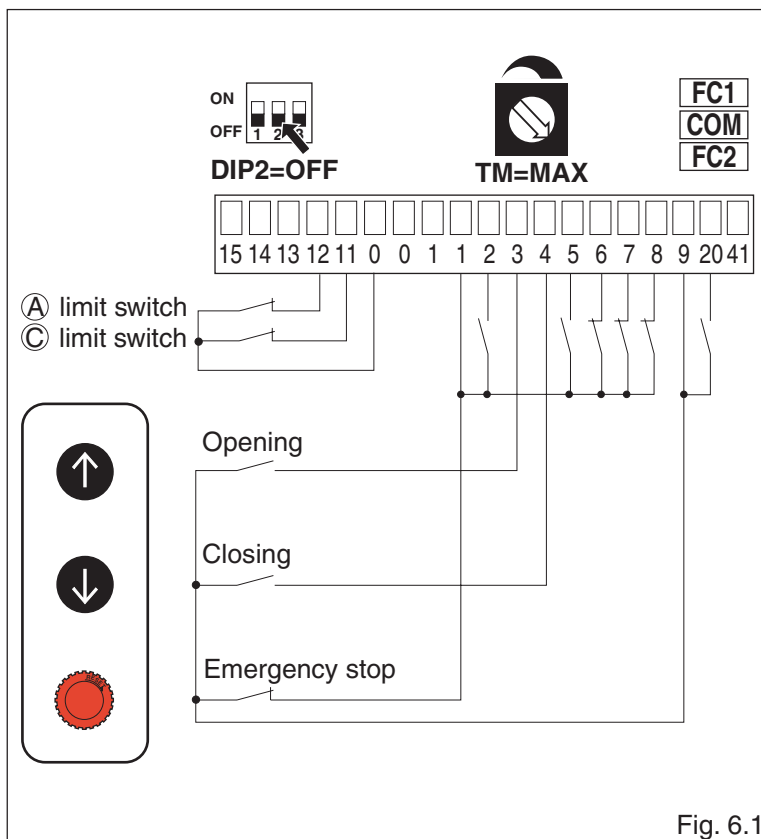
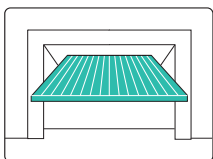


Fig. 6.1

7. EXAMPLE OF UP-AND-OVER DOOR INSTALLATION (E.B. LogicA21F)



In case of the up-and-over door requiring two motors, connect them as shown in figure 7.1..

A courtesy light may be connected to the control panel terminals W-N.

Note: The courtesy light stays on only as long as the motor is powered.

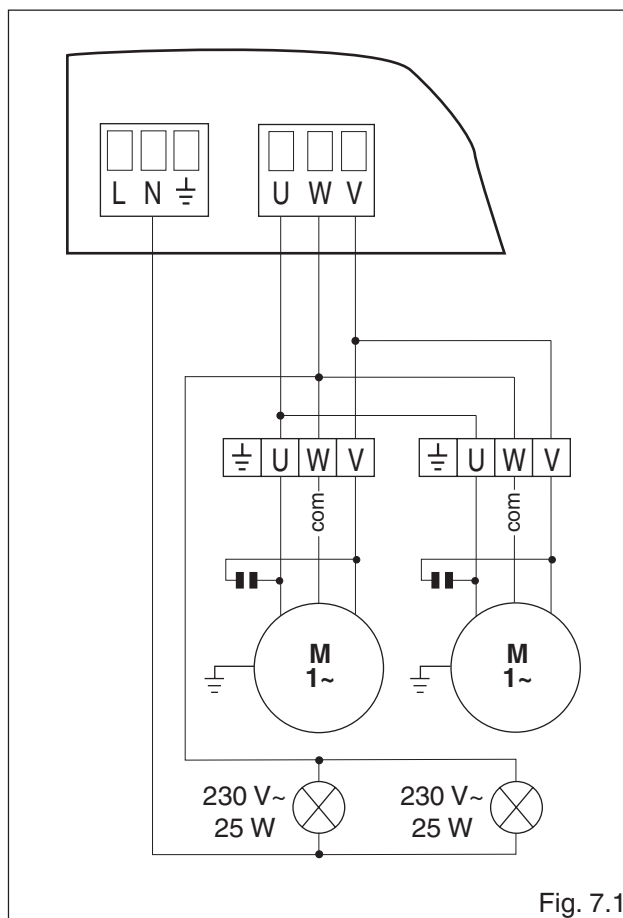
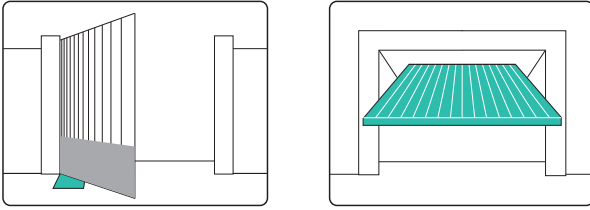


Fig. 7.1

8. EXAMPLE OF SWING GATE OR UP-AND-OVER DOOR INSTALLATION



When control panel LogicA21 is used for wing gate or overhead door installations proceed as follows:

- set operating time 2-3 s longer than the actual wing travel time (i.e. $TM < MAX$) and make a jumper on terminals 0-11-12 as shown in Fig. 8.1; (These contacts cause the wing to stop moving on the mechanical opening and closing stops upon completion of the operation or while operation is in progress in case of an obstacle being detected.)
- set operating time to MAX (i.e. $TM = MAX$) and connect the N.C. opening and closing limit switch contacts to terminals 0-11-12 as shown in Fig. 8.2. (These contacts cause the wing to stop moving upon limit switches triggering. In case of obstacle detection, the wing stops moving when opening and reverses movement when closing).

