

## 5.1. CONNECTING THE ELECTRONIC UNIT

**Important!** Disconnect the power supply before you perform any type of operation (connections, programming or maintenance) on the electronic unit.

**Warning:** When terminal strip J2 is disconnected, the power supply outputs of the motor, fan and flashing lamp are still connected to electric power.

Follow points 10, 11, 12, 13 and 14 of the GENERAL SAFETY REGULATIONS.

Position the pipes, as shown in Figure 3, and connect the 624 MPS electronic unit to the accessories.

Keep the power supply cables separate from the control and safety signal ones (photocells, receiver, pushbutton, etc.). To prevent electric interference, use separate pipes.

**TAB. 4** TECHNICAL CHARACTERISTICS OF 624 MPS

POWER SUPPLY	230 V (+6 -10 %) 50 Hz
MAX. MOTOR LOAD	300 W
MAX. ACCESSORY LOAD	500 mA
MAX. WARNING LIGHT POWER	5 W (24 Vac)
TEMPERATURE RANGE	- 20°C to 55°C

**TAB. 5** OPERATION OF STATUS LEDS

LED	ON (contact closed)	OFF (contact open)
FCC	closing limit switch not engaged	closing limit switch engaged
FCA	opening limit switch not engaged	opening limit switch engaged
OPEN	activated	deactivated
CLOSED/FSW	activated (*)/saf. disengaged (**)	deactivated (*)/saf. engaged (**)
STOP	deactivated	activated
ALARM	beam moving	beam stationary
WARN. LIGHT	see warn. light operation	see warn. light operation
POWER	motor power on	motor power off

(\*) P logic operation

(\*\*) A / E logic operation

**TAB 6** CURRENT DRAWN BY ACCESSORIES

ACCESSORY	NOMINAL CONSUMPTION
R 31	50 mA
PLUS 433 E	20 mA
MINIDEC SL / DS	6 mA
DECODER SL / DS	20 mA / 55 mA
RP 433 ESL / EDS	12 mA / 6 mA
DIGICARD	15 mA
METALDIGIKEY	15 mA
FOTOSWITCH	90 mA
DETECTOR F4 / PS6	50 mA
MINIBEAM	70 mA

624 MPS CONTROL UNIT

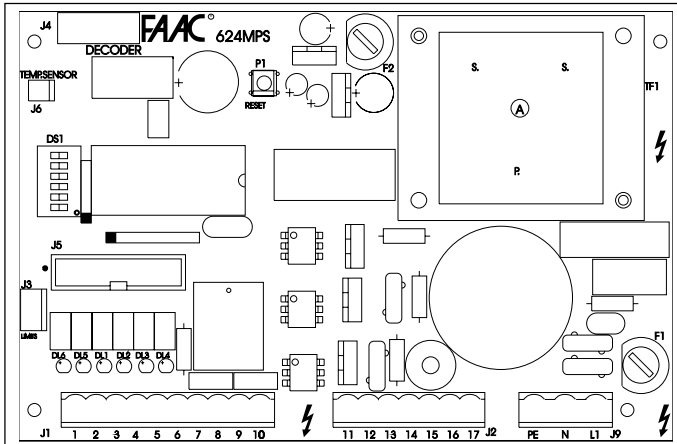


Fig. 13

- TF1 TRANSFORMER.
- J1 REMOVABLE LOW-VOLTAGE TERMINAL STRIP
- J2 REMOVABLE POWER TERMINAL STRIP
- J3 LIMIT SWITCH CONNECTOR
- J4 DECODER CONNECTOR
- J5 CONNECTOR FOR FSW, SLAVE, RELAY BOARDS
- J6 CONNECTOR FOR NTC PROBE
- J9 REMOVABLE TERMINAL STRIP NETWORK POWER SUPPLY
- P1 RESET PUSHBUTTON.
- F1 F5A FUSE (MOTOR).
- F2 T1.6 FUSE (ACCESSORIES).
- DL1 OPEN IMPULSE LED (A/E/P LOG.)
- DL2 CLOSE IMPULSE LED (P LOG.) SAFETY CONTACT (A LOG.)
- DL3 STOP IMPULSE LED
- DL4 ALARM LED (PANIC)
- DL5 OPENING LIMIT SWITCH LED
- DL6 CLOSING LIMIT SWITCH LED

A / E LOGICS CONNECTIONS

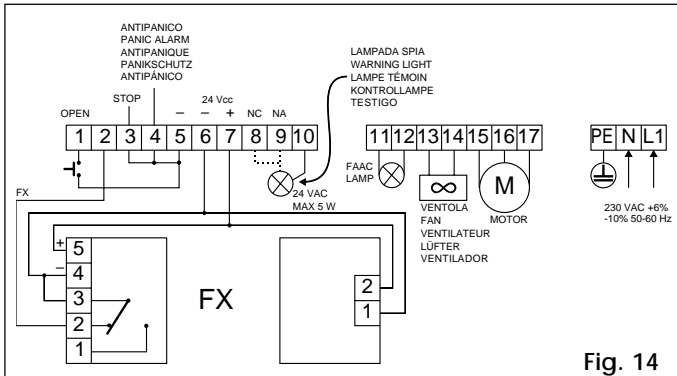


Fig. 14

P LOGIC CONNECTIONS

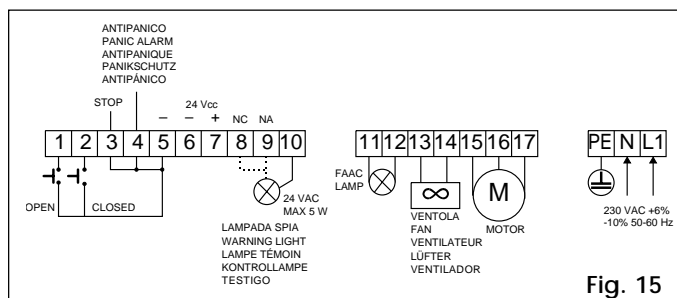


Fig. 15

DESCRIPTION OF TERMINAL STRIP

OPEN

This word indicates any activating device with normally open contact, whose activation causes the beam to perform an opening movement. In automatic and semi-automatic logics, it controls both opening and closing movements.

CLOSE

This word indicates any activating device with normally open contact, whose activation causes the beam to perform a closing movement. (Present only in P logic).

STOP

This word indicates a activating device with normally closed contact, whose activation suspends the current status of the beam (opening, pause or closing), until another pulse is sent.

SAFETY

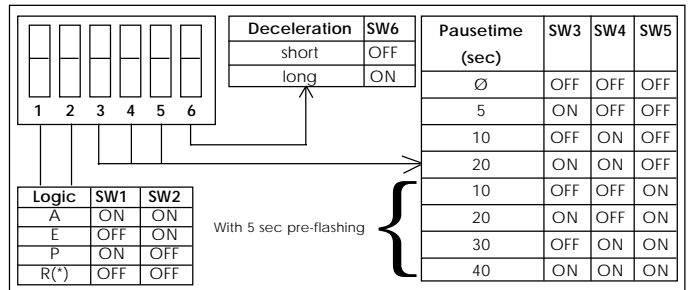
This word indicates all devices (photocells, sensitive pneumatic safety edges, magnetic coils) with normally closed contact, which interrupt the movement of the beam whenever there is an obstacle within their range.

PANIC

This word indicates a activating device with normally closed contact, which is activated in an emergency and causes the beam to open, suspending its current status (open) until the RESET pushbutton is pressed.

PROGRAMMING THE MICROSWITCHES

NOTE: WHENEVER YOU CHANGE THE MICROSWITCH PROGRAMMING, PRESS THE RESET PUSHBUTTON AFTERWARDS.



(\*) **IMPORTANT!**: The R logic (remote) must be selected only if there are two opposing barriers that work simultaneously. (See paragraph "624 SLAVE CARD", below.)

OPERATION OF SAFETY DEVICES

In the A or E logics, it is possible to obtain two different types of safety device operation, depending on the pause times that are selected:

- PAUSE TIMES WITH LAMP PRE-FLASHING (10-20-30-40 sec): the closing movement is stopped, then reversed on disengagement.
- PAUSE TIMES WITHOUT LAMP PRE-FLASHING: (0-5-10-20 sec): the closing movement is reversed at once.

ALARM CONDITION

It arises in the following cases:

- 1) Enabling of anti-panic input.
- 2) Activation of safety TIME-OUT device, which interrupts the operation of the system when operating time exceeds 30 sec.
- 3) Simultaneous triggering of the two limit switches.
- 4) Microprocessor reading anomaly (syncro).

The alarm condition is indicated by the quick flashing (0.25 sec) of the Warning Light LED and of the warning light (if connected).

In this condition, all the functions of the system are disabled. Normal operation is restored only after the cause of the alarm has been eliminated and the RESET pushbutton has been pressed.

**ENGLISH**

**OPERATION WITH THE DIFFERENT CONTROL LOGICS**

**TAB. 7** A LOGIC (AUTOMATIC)

impulse beam status	OPEN	STOP	SAFETY	PANIC
closed	opens, recloses after pause time	no effect	no effect	Beam opens and/ or remains open. Alarm condition is activated (see relevant paragraph).
open	recloses at once (*)	stops counting	freezes pause time up to disengagement	
closing	reverses movement	stops	see relevant paragraph	
opening	no effect	stops	no effect	
stopped	recloses at once (*)	no effect	no effect	

(\*) If pre-flashing has been selected, the barrier closes after 5 sec.

**TAB.8** E LOGIC (SEMI-AUTOMATIC)

impulse beam status	OPEN	STOP	SAFETY	PANIC
closed	opens	no effect	no effect	Beam opens and/ or remains open. Alarm condition is activated (see relevant paragraph).
open	recloses (*)	stops	no effect	
closing	reverses movement	stops	see relevant paragraph	
opening	stops	stops	no effect	
stopped	recloses (*)	no effect	no effect	

(\*) If pre-flashing has been selected, the barrier closes after 5 sec.

**TAB. 9** P LOGIC (PARKING: this logic does not allow pre-flashing)

impulse beam status	OPEN	CLOSED	STOP	PANIC
closed	opens	no effect	no effect	Beam opens and/ or remains open. Alarm condition is activated (see relevant paragraph).
open	no effect	recloses	no effect	
closing	reverses movement	no effect	stops movement	
opening	no effect	opens, recloses at once	stops movement	
stopped	opens	recloses	no effect	

**TAB. 10** OPERATION OF WARNING LIGHT

BEAM STATUS	N.A. CONTACT (*)	N.C. CONTACT (**)
closed	off	on
opening or open	on	off
pre-flashing (if selected) and/or closing	flashing	

(\*) Warning light connected between terminals 8 and 10.

(\*\*) Warning light connected between terminals 9 and 10.