

AV POWER



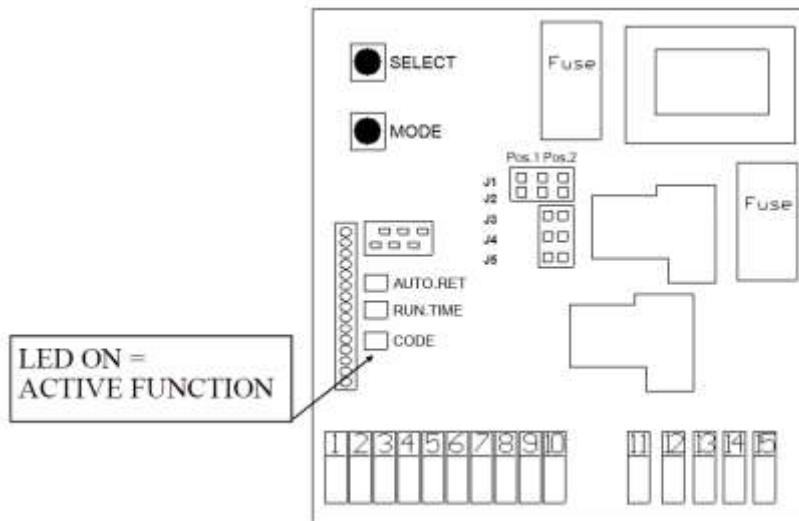
Heavy Duty Tube
Motor Controller

1.Introduction

Control panel for an AC tubular motor with a maximum power of 2500W, OPEN/CLOSE buttons, Photocell safety input, Stop button, step by step (GO function) and built-in radio receiver.

This control panel has been designed for the automation of roller shutters.

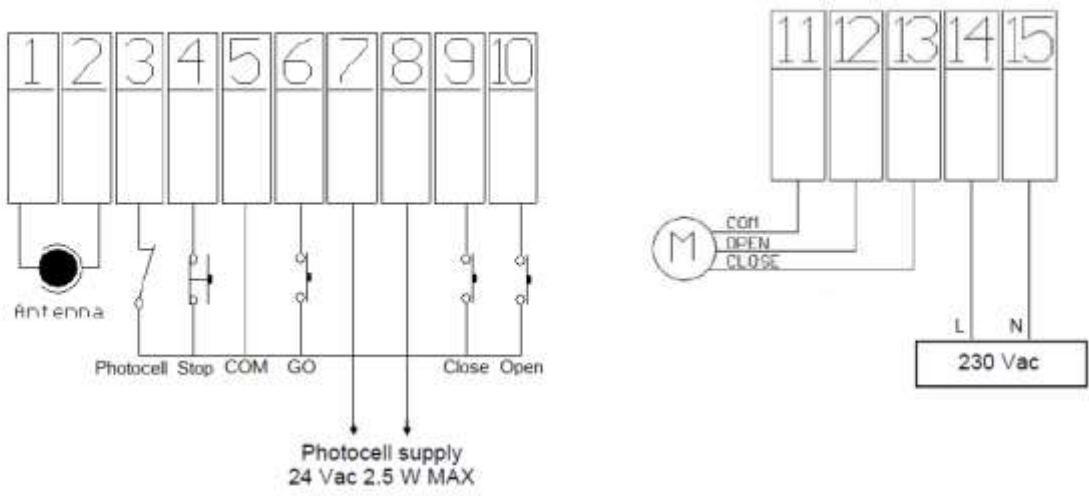
2.Configuration



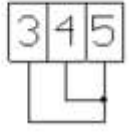
SELECT FUNCTIONS
(See page 4).

J1	Pos. 1 – GO Function Pos. 2 – Open/Close
J2	Pos. 1 - Automatic Mode Pos. 2 - Deadman Mode
J3	ON – Rolling Code OFF – Fixed Code
J4	Partial Opening ON/OFF
J5	Jumper OFF

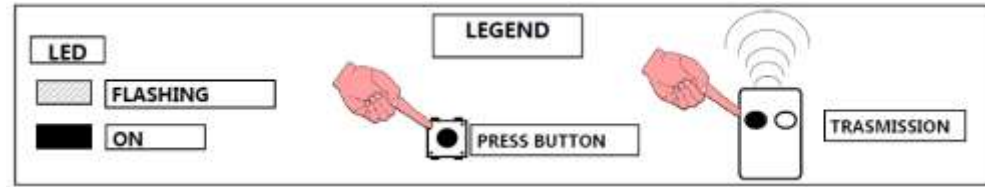
3. Electrical connections.



All Normally Closed Contacts NOT in use should be connected to terminal 5 as illustrated in the diagram below



4. Learning.



CONFIGURATION OF SETTINGS IS NOT POSSIBLE WHILE THE DOOR IS IN OPERATION

4.1 Learning of Remote Controls

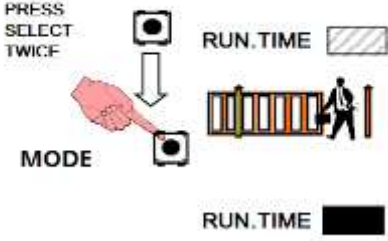
LEARN:

- 1) Press the SELECT button, the CODE LED flashes.
- 2) Press the "a" BUTTON ON THE TRANSMITTER. The control unit also automatically stores the "b" button (which may be used as a partial open). When the CODE LED remains ON learning is completed.

DELETE:

- 1) Press the SELECT button until the CODE LED flashes.
- 2) Press the MODE button. All the LEDs light up and at the end all the codes of the radio controls learned will be deleted (the CODE LED remains off).

4.2 Learning of Running Time



The diagram illustrates the procedure for learning the running time. It shows a hand pressing the 'MODE' button, followed by the 'RUN.TIME' LED flashing. A central illustration shows a person standing next to a door. Below this, the 'RUN.TIME' LED is shown as a solid black rectangle, indicating it is on.

Running Time can be set from 1 sec to 3 min.
The default running time is 3 min.

TO SET RUNNING TIME:

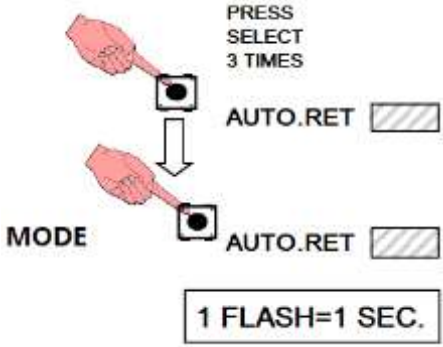
- 1) Move door to close position.
- 2) Press the SELECT button TWICE. The RUN.TIME LED Flashes.
- 3) Press and hold the MODE button to operate the door. Keep MODE button held until the door is open. When MODE is released the Running time is learnt.
- 4) The RUN.TIME LED flashes for a few seconds and the door closes, after which it stays on permanently.

To change the Running Time, repeat the procedure as described.
If an infinite Running Time is required the MODE button must be pressed for less than 1 sec. in step 3. The RUN.TIME LED is OFF.

PLEASE NOTE:
WHEN POWER IS APPLIED TO THE CONTROL UNIT WHILST THE DOOR IS IN A MID-POSITION, THE RUNNING TIME WILL ASSUME THE FULL DOOR TRAVEL IS REQUIRED, THE MOTOR LIMIT SWITCH MUST STOP THE DOOR. WHEN THE GO FUNCTION IS SELECTED THE FIRST COMMAND ALWAYS OPENS THE DOOR.

5. Configuration

5.1 Automatic Closing



The diagram shows a hand pressing the 'SELECT' button three times, followed by the 'MODE' button. The 'AUTO.RET' LED is shown flashing. A box below indicates '1 FLASH=1 SEC.'. A central illustration shows a person standing next to a door.

Automatic Closing time can be set from 4 sec to 2 min.
Automatic closing is active by default, the set time is 30 seconds.

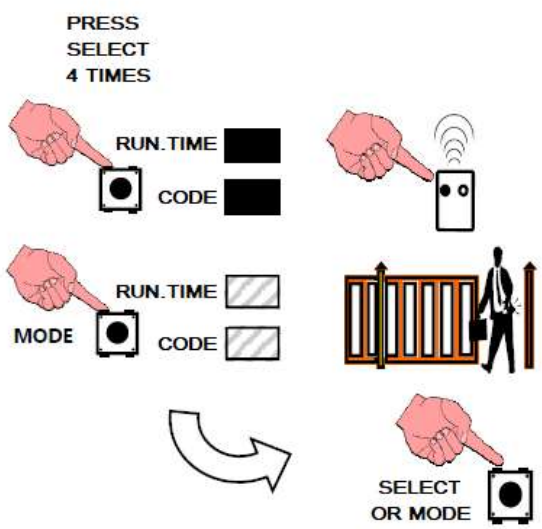
AUTOMATIC CLOSING TIME SETTING:

- 1) Press the SELECT button three times, the AUTO.RET LED flashes.
- 2) Press and hold the MODE button. Each flash of the AUTO.RET LED represents 1 sec. of time. Release the MODE button when the desired closing time is reached. The automatic closing time is stored and the AUTO.RET LED remains on.

In operation, the automatic closing time begins to count down when the door is fully open. The open position is determined by the Running Time so this MUST be correctly set. Automatic closing does not occur when the door is stopped by command.

To change this automatic closing time, repeat the procedure as described. To TURN OFF the automatic closing time, press and hold MODE FOR LESS THAN 3 SEC in Step 2. The AUTO. RET LED is OFF.

5.2 Partial Opening Function



PRESS SELECT 4 TIMES

RUN.TIME [Solid LED] CODE [Solid LED]

MODE [Solid LED] RUN.TIME [Flashing LED] CODE [Flashing LED]

GO [Solid LED]

SELECT OR MODE [Solid LED]

The control unit comes with the partial opening disabled. To use this function, it is essential to use channel 2 of a transmitter already learned (see section 4)

SETTING:

- 1) Press the SELECT button 4 times, CODE and RUN.TIME LEDs are lit.
- 2) Press the MODE button, the CODE and RUN.TIME LEDs flash.
- 3) Press the GO button, the door opens and continues opening until the SELECTION or MODE button is pressed. When released, the motor stops and the position reached is learnt as the PART OPEN position.

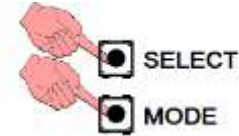
Now, the pressing the transmitter channel 2 button "b" will open the door to the PART OPEN position. To change the PART OPEN position, repeat the procedure as described.

To disable the part opening function: Carry out procedure above, at step 4; press MODE button instead of GO button. CODE and RUN.TIME LEDs are ON for a few seconds.

5.3 Exit of programming.

Each time a parameter is set, the control unit exits the setting menu of that parameter. If a parameter is accessed but not changed within 10 seconds the setting menu is exited automatically. If the SELECT button is pressed 7 times the setting menu is exited.

5.4 Reset.



SELECT

MODE

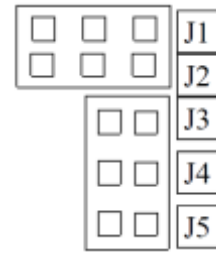
To return the control panel to factory settings, press the SELECT and MODE buttons TOGETHER until all LEDs light up, then flash and then turn off.

6. Advanced Programming:

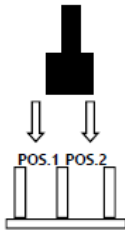
FUNCTION SELECTION

The position of the jumpers determines the operating mode of the controller. The table below describes the effects that each jumper has on the operation of the controller.

PLEASE NOTE: POWER MUST BE TURNED OFF WHEN REPOSITIONING JUMPERS!!!



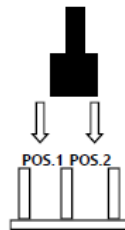
J1



POS.1: The transmitter works in STEP-BY-STEP MODE (GO Function). Transmitter button "a" performs the OPEN, STOP, CLOSE, STOP function. Transmitter button "b" operated the PART OPEN function. In this mode the transmitter does not operate in dead man or OPEN/CLOSE modes.

POS.2: Transmitter works in OPEN/CLOSE Mode, First learned button is opening, the second is closing. PART OPEN function is not possible.

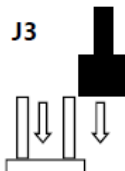
J2



POS.1: IMPULSE OPERATION of both the external buttons and the transmitter. To stop a moving door a command must be made in the opposite direction e.g. If the door is opening, it can be stopped by a close command. **In this position the activation of the closing photocells will stop and reverse the door.**

POS.2: DEAD MAN OPERATION of both the external buttons and the transmitter. The door will operate in hold-to-run mode in both directions. **In this position the activation of the photocells will prevent movement of the door.**

J3

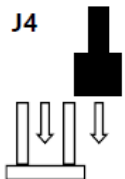


OPEN: The control panel accepts FIXED CODE transmitters.

CLOSE: The control panel accepts ROLLING CODE transmitters.

To switch from FIXED CODE to ROLLING CODE and vice versa, the control unit must be reset

J4



PARTIAL OPENING FUNCTION:

The control panel is supplied with the partial opening function disabled.

CLOSE: PARTIAL OPENING FUNCTION ENABLED

OPEN: PARTIAL OPENING FUNCTION DISABLED

J4 must be repositioned with power OFF. Change of position is recognised on power up.

WARNING:

- Some parts of the circuit board may have dangerous voltages. Therefore, the installation, opening and programming of the framework must be carried out only by qualified personnel.
- Provide for the use of a means to ensure ubiquitous disconnection from the power supply to the plant. These can be either a switch (connected directly to the power terminals) with a minimum contact distance of 3 mm at each pole, or a device integrated into the power supply network.
- It is advisable to check the power consumption of all devices connected to the outputs of the control unit, such as warning lights, photocells, safety devices, etc. so as to be within the limits indicated in the table of technical characteristics. It is not guaranteed that the product will function properly in case of non-compliance with these limitations.
- To maximize the range of the remote transmitters it is necessary to pay attention to the positioning of the receiving antenna: it must not be placed close to walls and/or metal shields. The terminals of the shielded cable of the antenna must be tightened.
- The tuned antenna is necessary to obtain the maximum range performance from the apparatus, otherwise the range would be reduced to a few meters.
- The manufacturer shall not be liable for any failure to comply with these warnings.

Technical characteristics	
Supply voltage	230 Vac +10% -15% 50Hz
AUX output	24 Vac 2.5W MAX
Motor output	230Vac 2500W MAX
Working temperature	-10 +60 °C
Working time	from 1 to 180 s
Automatic Closing Time	from 4 to 120 s
Radio receiver	433.92 MHz
Type of radio	Fix Code Rolling Code
Antenna	50 W
Number of codes	4096 (Fixed Code) 18 trillion (Rolling Code)
Range	50-150 m in free space
IP Rating	IP54

DISPOSAL OF THE PRODUCT - This product is an integral part of the automation, and therefore, they must be disposed of together. As for the installation operations, at the end of the life of this product, the dismantling operations must be performed by qualified personnel. This product is made from different types of materials: some can be recycled; others must be disposed of. Please check the recycling or disposal regulations for this category of product.



CAUTION! – some parts of the product can contain polluting or dangerous substances which, if dispersed in the environment, may cause serious harm to the environment and human health. As indicated by the symbol at the side, it is forbidden to throw this product into domestic refuse. Therefore, follow the “separated collection” instructions for disposal, according to the methods provided for by local regulations in force, or redeliver the product to the retailer at the moment of purchase of a new, equivalent product.

CAUTION! – the regulations in force at local level may envisage heavy sanctions in case of abusive disposal of this product.

WARRANTY - In compliance with legislation, the manufacturer’s warranty is valid from the date stamped on the product and is restricted to the repair or free replacement of the parts accepted by the manufacturer as being defective due to poor quality materials or manufacturing defects. The warranty does not cover damage or defects caused by external agents, faulty maintenance, overloading, natural wear and tear, choice of incorrect product, assembly errors, or any other cause not imputable to the manufacturer. Products that have been misused will not be guaranteed or repaired. Printed specifications are only indicative. The manufacturer does not accept any responsibility for range reductions or malfunctions caused by environmental interference. The manufacturer’s responsibility for damage caused to persons resulting from accidents of any nature caused by our defective products, are only those responsibilities that come under Italian law.