

ACTUATOR FOR SWING BLINDS



USE AND MAINTENANCE MANUAL

English version

This user manual is an integral part of the machine and must be kept in an appropriate manner to maintain its integrity and allow it to be consulted during the life of the equipment.

Read this manual carefully before proceeding with any intervention on the equipment

The manufacturer has the right to make changes to the production and to the manual, without this entailing the obligation to update the production and previous manuals.



PREFACE

Dear Customer,

In thanking you for the preference given to us in choosing our equipment which will surely prove to be important, especially over time, we invite you to strictly follow the instructions given in this manual, this will be of great help for optimal use and to keep it unchanged over time. the characteristics of your equipment.








CHIAROSCURO SAS by Girelli Marco & C.

1. GENERAL INFORMATION

This user manual is an integral part of the equipment supplied and constitutes the indispensable support for installation and correct use. Read it with particular attention and completely before proceeding with the installation and use of the equipment. The manual must accompany the equipment in case of resale. Partial and total reproduction of this document is prohibited without the written authorization of CHIAROSCURO SAS.

1.1 DEFINITIONS AND SYMBOLS

The paragraphs below contain a series of definitions, terminologies and symbols used in the drafting of this manual.

SYMBOL	DESCRIPTION
	User: (U.) operator without specific skills, able to use the equipment in normal operating conditions and for simple maintenance interventions.
	Electromechanical operator: (E.O.) technician able to install mechanical - hydraulic - pneumatic parts and to carry out adjustments, maintenance or repairs and to operate in the presence of voltage inside cabinets, junction boxes and electrical systems.
	Manufacturer's technician: (M.T.) qualified technician made available by the manufacturer to carry out complex operations in particular situations or, in any case, as agreed with the user. The skills are, depending on the case, of a mechanical and / or electrical and / or electronic and / or software type.
	Note: It contains the important information or information contained in the manual to be read, with particular attention, for the best use of the equipment.
	Danger: Indicates a situation that can cause injury, even death, or serious damage to health.
	Attention: Indicates a situation that could cause, even indirectly, damage to people, property and the environment with consequences also of an economic nature.
	Warning: Indicates that the directions must be followed with particular attention. Failure to observe the warning could cause malfunctions or dangerous conditions or damage.



2. IDENTIFICATION OF THE MANUFACTURER

The plate fixed in the upper part of the actuator contains all the identification data of the WH25 actuator.




The label, applied to all motorizations, shows information relating to the automation model used, the power supply voltages, the absorption, the movement speed, the degree of electrical protection, the operating temperatures, the lot number and the year of production of the automation and compatibility with the European marking .

Fig.3.1 Example of label (the data shown are purely indicative, the real values are shown on the label of the equipment placed on the automation itself).

2.1 INFORMATION ON TECHNICAL ASSISTANCE AND MAINTENANCE

To report faults, contact the Assistance Center:

CHIAROSCURO
CHIAROSCURO SAS di Girelli Marco & C.
C.so General A. Cantore 23 - 38068 Ala (TN) Italia
Tel : +39 0464 424715 fax : +39 0464 712027
Email : info@chiaroscuro.eu site: www.chiaroscuro.eu

For communications, requests for information or any orders for accessories or spare parts, send your requests to the email info@chiaroscuro.eu

3. SALE INFORMATION



During the warranty period, the customer must strictly follow the instructions indicated in this manual. Otherwise the Warranty is void, we will not be held responsible for any problems or malfunctions of the appliance (in this regard, carefully read the validity conditions of the Warranty attached to the manual).



The manufacturer, in order to adapt the equipment to technological progress and specific production needs, may decide, without prior notice, to make changes to it without this entailing the obligation to update the production and previous manuals. Furthermore, if the illustrations in this manual differ slightly from the equipment in your possession, the safety and operating indications of the same are always guaranteed.



4. CHARACTERISTICS AND TECHNICAL INFORMATION

MODEL	W25.2A.60	WH25.1A.30 L/R
NUMBER OF DOORS	2	1 sx / 1 dx
MIN-MAX WIDTH	60 - 150 cm - 2 doors	30 - 80 cm. - 1 doors
MAX. SURFACE	3,00 mq - 2 doors	1,5 mq. - 1 doors
MAX WEIGHT 1 DOOR	50 kg	
ELECTRONIC BOARD POWER SUPPLY	110 ÷ 230 VAC	
MAX CURRENT CONSUMPTION	~ 0,3 A	
IMPACT FORCE OBSTACLE DETECTION	< 150 N	
MAX TORQUE	25 Nm	
ENGINE CERTIFICATION DEGREE	IP X4	
MANEUVER TIME 180 °	30 sec.	20 sec.
WORKING CYCLE	20 cycles/hour	
END OF STROKE ADJUSTMENT	Position self-determination	
SEPARATE CONTROL UNIT LXHP	in box PT5 160x130x70	
IRREVERSIBLE BLOCK	Standard	
PIN DIAMETER	12 o 14 mm	
ENGINE COLOR	Black Ral 9006 opaque	
MAX CABLE LENGTH FROM CONTROL UNIT	5 meter	
ELECTRO BLOCK	on request	
RADIOR RECEIVER	on request	



The blind develops a maximum torque of 25 Nm. With WH25 and 50 Nm. With WH50. In the presence of obstacles or wind that opposes the movement of the door, the automation blocks the operation of the motor for safety. The data of compartment size, door size, weight and surface may vary depending on the conditions (wind, condition and assembly of the hinges, etc.)

4.1 REGULATORY REFERENCES

The legislative references applied and the national and harmonized technical standards applied for compliance with the above legislative references are:

The legislative references are:	The international technical standards are:
2004/108 / EC EMC Directive	EN 60335-1 (2008_07)
2006/95 / EC LVD directive	EN 60335-2-103 (2003_08) / A11 (2009_07).
2006/42 / EC machinery directive	EN 55014-1 (2008_01) / A1 (2010_10) / A2 (2012_02)
2011/65 / EC RoHS2 Directive EN 55014-2 (1998_10) / A1 (2002_09) / A2 (2009_09)	EN 55014-2 (1998_10) / A1 (2002_09) / A2 (2009_09)



On request of the customer, a version of the WH25 / WH50 system is available equipped with a radio receiver module and transmitters operating in the 433MHz band that meet the requirements of Directive 1999/95 / EC (radio equipment and telecommunications equipment) and subsequent amendments.

5. GENERAL DESCRIPTIONS

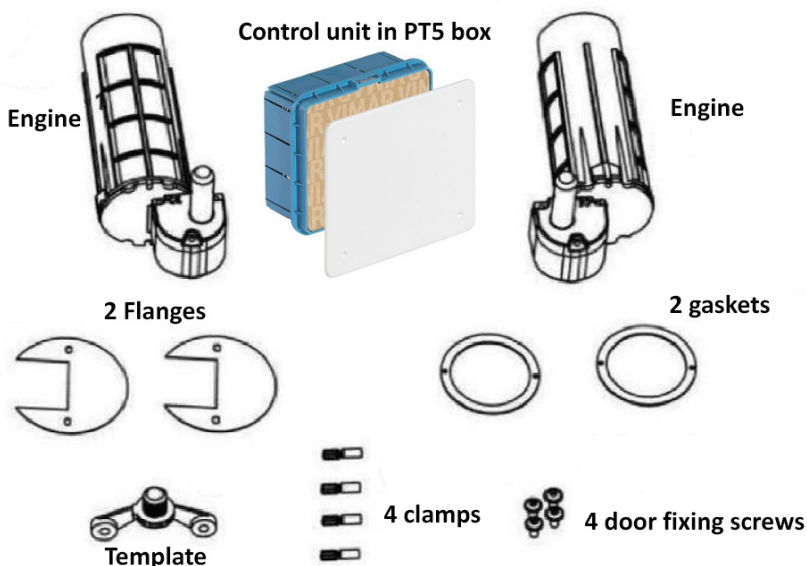
The WH25 / WH50 equipment is an automation for opening / closing swing shutters (windows). It consists of a high performance non-reversible automation coupled with high resistance metal gears. The possibility of closing or opening with simple manual controls placed in remote positions (remote control) or with automation systems (home automation) allows the user to make the most of the protection offered by the blinds in the different environmental conditions present (e.g. hot, cold, sheltered from insects etc.)

6. RECEIPT AND STORAGE

6.1 CHECK UPON RECEIPT OF THE EQUIPMENT

Upon receipt of the equipment, remove the packaging and ensure the integrity of the content.

6.2 BOX CONTENTS:



Pz.1	Engine 1 DX internal view
Pz.1	Engine 2 SX internal view
Pz.1	Control unit in PT5 box
Pz.1	Template for coring center
Pz.4	Strap fixing pins
Pz.2	Flanges
Pz.2	Gasket to be interposed between the engine block and the cap
Pz.4	Motor connection terminals



In the event that the product, upon receipt, is damaged and / or with missing parts and / or defects / malfunctions are detected, do not try to repair the equipment but contact the service center indicating the model, code and serial number of the equipment.

6.3 STORAGE



If the equipment is not used for a long time, store the equipment in a dry, clean and dust-free place.



In the event of material storage for more than 24 months from registration, CHIAROSCURO SAS provides the Guarantee provided for in the General Conditions of Sale.

7. INSTRUCTIONS FOR MECHANICAL ASSEMBLY



Electromechanical operator: (E.O.) technician able to install mechanical - hydraulic - pneumatic parts and to carry out adjustments, maintenance or repairs and to operate in the presence of voltage inside cabinets, junction boxes and electrical systems.



The automation provided is a product for professional use for free installation. Assembly must be carried out by a qualified electromechanical operator. CHIAROSCURO SAS is exonerated from any responsibility in case of bad installation and / or installations made by unauthorized operators.

7.1 TOOLS REQUIRED FOR ASSEMBLY

To proceed with the installation, the following tools and materials are required:

Drill / Hammer	Cup core drill from Ø 66mm to Ø 70mm
Screwdriver	Wall tip diam. 6.5mm.
Iron tip diam. 4mm.	4x1 power and control cable
Phillips and slotted screwdrivers	# 4 Allen screwdriver
Template cutting scissors	



The list shown is not supplied with the WH25 / WH50 product, but is necessary for correct bench installation. D.P.I. or other are edited and evaluated by the O.E. depending on the installation itself in the field.

7.2 IDENTIFICATION OF THE TYPE OF APPLICATION



TIP.1 Straight hinge hinge wall



TIP.6 Striped hinge hinge to wall

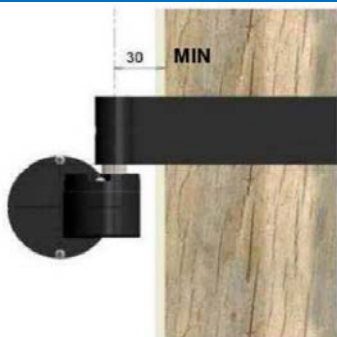


The flaps can be retractable or supported, to be made to measure and to be ordered separately from the automation.

The minimum thickness must be 4mm, where possible 5mm.



The hinge of the motor is Ø 12mm.



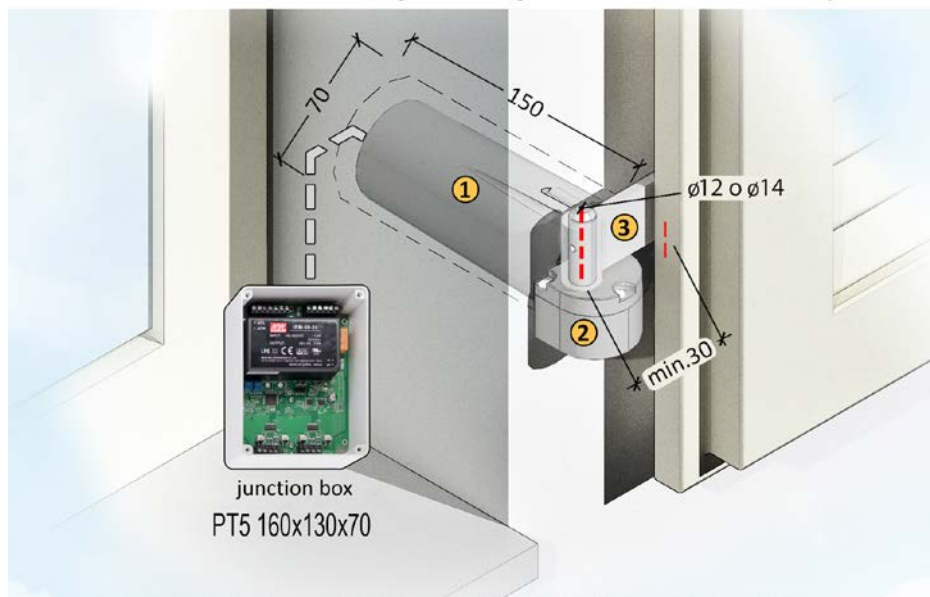
The minimum distance between the plane of the door and the axis of the hinge is 30mm.



It is denoted that the product WH25 / WH50 is specific for doors and windows with hinged doors. Any other use is not guaranteed correct operation and compatibility with the CE marking

8. ELECTRICAL PREPARATION

Cable outlet centered on core drilling, with corrugated tube suitable for 2x1.5mmq cables.



9. PRE INSTALLATION CHECK

If you do not have the recommended space of 30mm between the side of the door and the axis of the hinge, it will be necessary to change the position of the hinges and reposition all the hinges before proceeding with the installation of the WH25 / WH50 automation.

9.1 CHOICE OF THE HINGES TO BE MOTORIZED

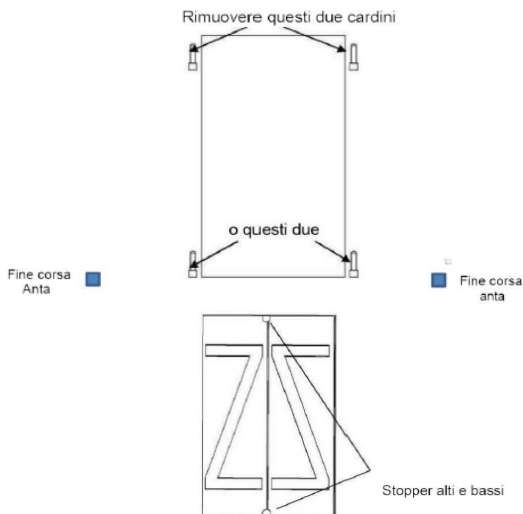
For doors that have 2 hinges, you can choose to motorize the high or low hinges indifferently.

For the shutters that have 3 hinges it is recommended to motorize the central hinge.

Provide for the installation of the opening stroke stops.

Also install the closing stroke stops, both at the top and at the bottom.

It is possible to install a closing electro-piston at the top or at the bottom (optional).



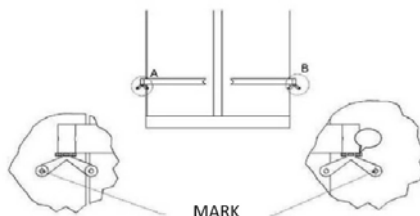
10. PHYSICAL INSTALLATION OF THE AUTOMATION

10.1 CHECK OF LEAF MOVEMENT AND FASTENING

The automation you are installing integrates a safety device which, detecting impediments, stops the movement of the doors. For this reason, it is necessary to check, even before installing the automation, that the doors have compatible characteristics as per the table on page 4 (in particular the maximum weight of the door of 50kg / 75Kg and the door that must not exceed 1.5 sq.m. / 2.0 sq.m. for each door). It is also necessary to check the rotation of the leaves, which must rotate smoothly, free and without obstacles. We suggest carrying out this check by closing the door and pushing it from the closed position. With a normal push, the door should open completely until it touches the opposite wall. If the door exhibits some friction in its movement, it is necessary to suspend the assembly phase of the automation and intervene on the hinges and elements of the shutter that compromise the fluidity of movement, making the appropriate changes to the elements that create friction. A door that presents problems will reduce the life of the automation, which will be unnecessarily fatigued for its entire life of use. Furthermore, once connected, it will be more complex to identify this type of problem that must therefore be solved initially.

10.2 ENGINE POSITIONING

Install and lock the doors in the closed position. Use the template supplied by inserting it into the strips to be motorized and mark the point where to drill with a pencil.



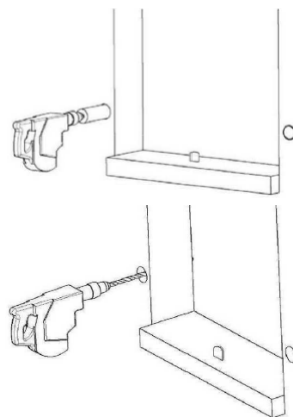
When marking the core drill holes make sure the jigs are snug against the wall

10.3 DRILLING THE WALL

Remove the doors and use the hammer drill with the core drill bit.

Drill the wall with a depth of 150mm making sure to be perpendicular to the wall both vertically and horizontally

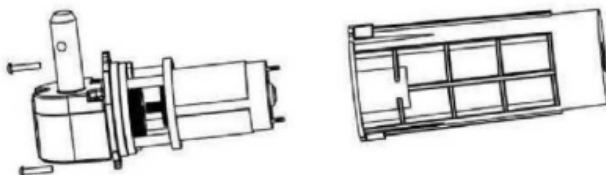
For the passage of the sheath for the electrical connection, drill with a 16-20mm bit



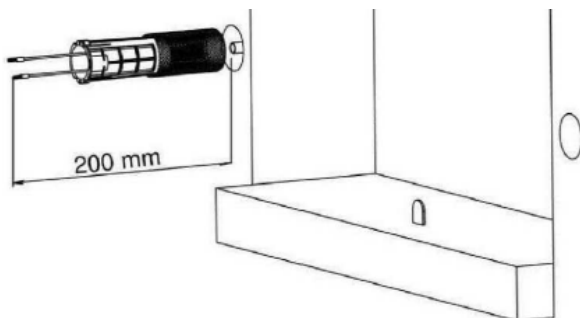
Thoroughly clean the holes with a vacuum cleaner and wire brush to allow the chemical sealant to take hold

10.4 ASSEMBLY OF THE AUTOMATION

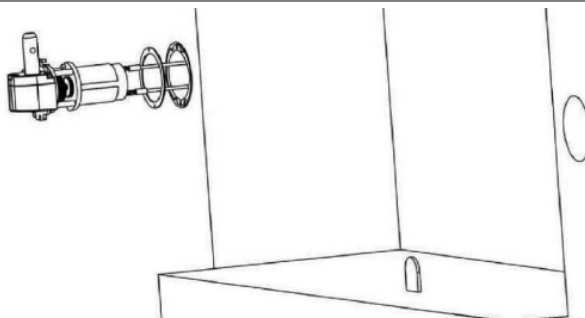
Unscrew the two screws that hold the motor fixed to the shell and remove the motor from the casing.



Prepare the electrical sheath to allow the passage of the cables and leave a cable length of 200mm outside the wall, section 2x1.5mmq.



Insert the gaskets and connect the cables following the wiring diagram. The NEGATIVE pole is marked with a white dot on the rear of the engine. Insert the motor in the cover and fix it with the screws previously unscrewed.

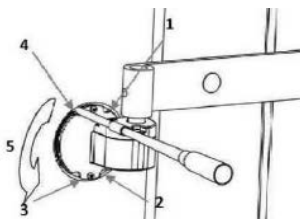


Fix the strips to the doors and insert the doors on the hinges.



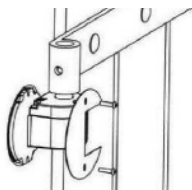
Pay particular care and attention to the alignment of the manual hinges with the motorized hinge. Always keep in mind that the reference for alignments is always the motorized hinge. If it is necessary to protrude further, it is possible to order 10mm extensions to be interposed between the hood and the motor block.

Use the notches present in the cap to insert the chemical glue into the spaces between the hole in the wall and the cap. Start clockwise from hole 1 up to number 4 as you gradually use more and more adhesive. Once finished, go over the outermost part following the entire perimeter, taking care to clean the surplus of material.



Wait for the chemical adhesive to dry respecting the times and methods recommended by the manufacturer

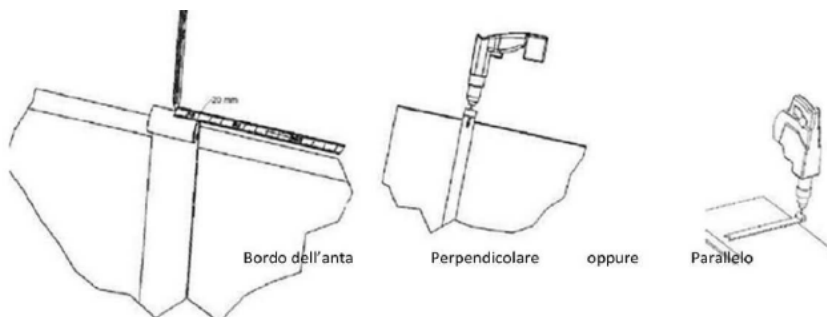
Fit the protection flange



The protection flange will be spaced a few mm from the masonry

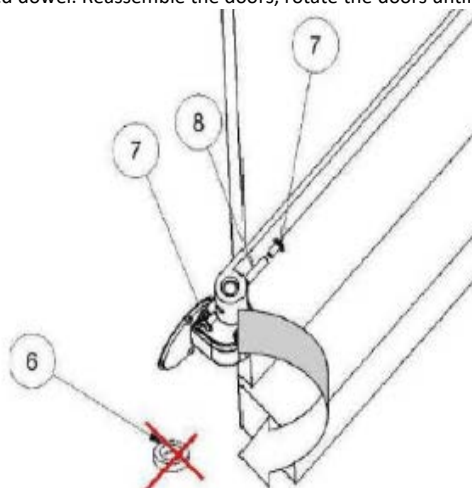
10.5 ASSEMBLY OF THE DOOR ON THE MOTORIZED HINGES

Disassemble the doors and mark the point to be drilled 20mm from the upper edge of the eye of the strip. Drill the eye of the strip with a 6.5mm metal drill, the hole must be through and perfectly perpendicular or parallel to the door.



To make the holes in the strips easier, a template (optional) is available that guides the tip both in height and in direction.

It may be necessary to widen the holes present in the hinge of the motor to allow the passage of the through pin, or use the supplied dowel. Reassemble the doors, rotate the doors until it is possible to insert the through pin.





11. ELECTRICAL INSTALLATION PREPARATION

WARNING !

The electrical installation must be carried out following the national standards in force, thus for all the obligations established by law. The electrical connections must be made without voltage, do not power the work area before completing all assembly operations.

RADIO SPECIFICATIONS

Frequency: 433.92 Mhz Transmitter range: approx: 70m free field

The good propagation of radio waves depends on the nature of the environments to pass through.

The range of radio waves is affected by the type of construction.

12. AUTOMATION OPERATION

The automation operates the doors after pressing the button and continues to move them until the button is pressed. The operator switches off automatically when the effort is detected, with the leaf completely open or completely closed. The closing / opening force must be set appropriately by means of a trimmer (see chapter "Adjustment trimmer"). To stop the leaves at an intermediate point during movement, simply stop pressing the button.



Make sure that there is a soft pad in the upper corner of the door or a small dark man without automatic release, so that the door always remains free and can rest without marking itself. In this way, the motorization will also be able to better determine the "All Open" position.

These elements are generally charged to the supplier of the shutters, but can be supplied as accessory elements upon request.

13. ELECTRICAL CONNECTION

Assembly must be carried out by a qualified electromechanical operator. CHIAROSCURO SAS exonerates itself from any responsibility in case of bad installation and / or installations made by unauthorized operators. (Minimum card size 145 x 105mm)



The proper functioning of the equipment and compliance with safety requirements are guaranteed only if connected to an efficient electrical system built in accordance with the laws in force (in Italy Legislative Decree 37/2008). The manufacturer assumes no responsibility for any damage to the equipment or to third parties caused by the use of a system that does not comply with current regulations.



If the behavior of the equipment does not reflect the above, do not use the automation and immediately report the anomaly to the authorized CHIAROSCURO SAS service center. Never open the enclosure of the equipment unless expressly authorized in writing by CHIAROSCURO SAS. Failure to comply with this rule results in the immediate forfeiture of the warranty and consequent liability of CHIAROSCURO SAS for aspects concerning the safety and operation of the equipment.



It is the sole responsibility of the electromechanical operator to set up the system. CHIAROSCURO SAS is in no way responsible for any deficiencies of any nature on the system. All the information necessary for a good system is fully available, it is the buyer's responsibility to request them formally.

14. TYPE OF CONTROL BUTTON AND CONNECTION TO THE INTEGRATED CONTROL UNIT

TYPE OF CONTROL BUTTON

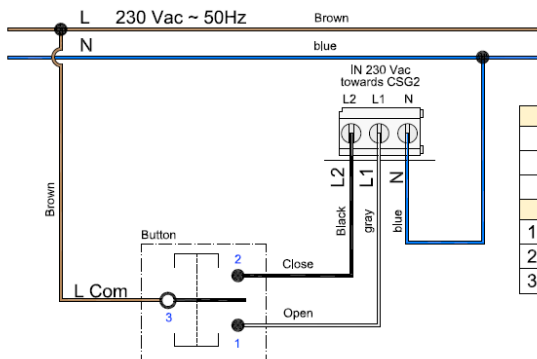


The switch must necessarily be of the type:
interlocked up and down switch switch
without restraint.

15. WIRING DIAGRAMS

15.1 ELECTRICAL DIAGRAM FOR COMMAND CONNECTION

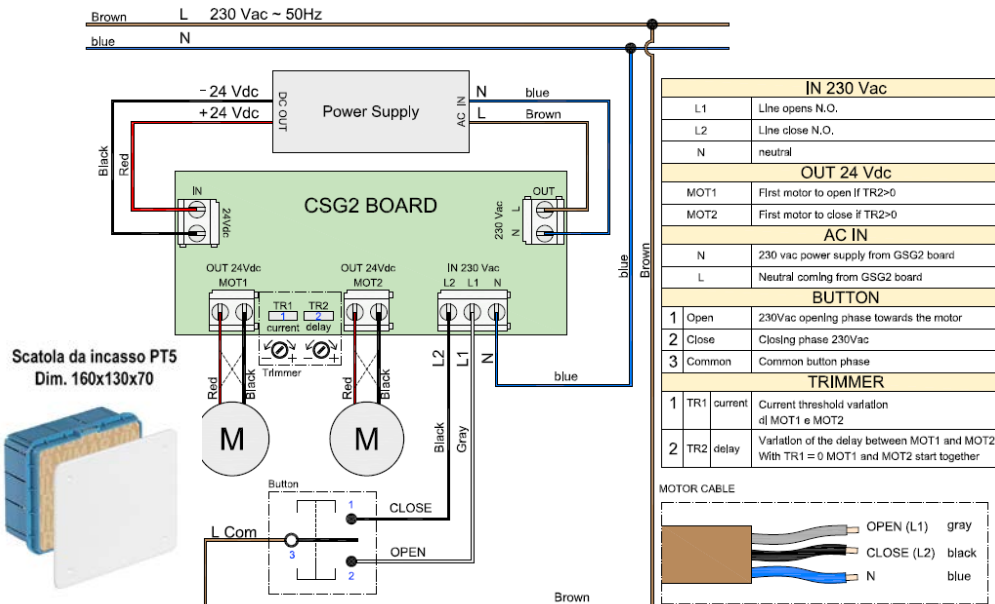
COMMAND CONNECTION FUNCTIONAL DIAGRAM



IN 230 Vac su GSG2	
L1	Line opens N.O.
L2	Line close N.O.
N	neutral
BUTTON	
1	Aprire Opening phase towards 230Vac motor
2	Chiusura Close phase 230Vac
3	Comune Common button phase

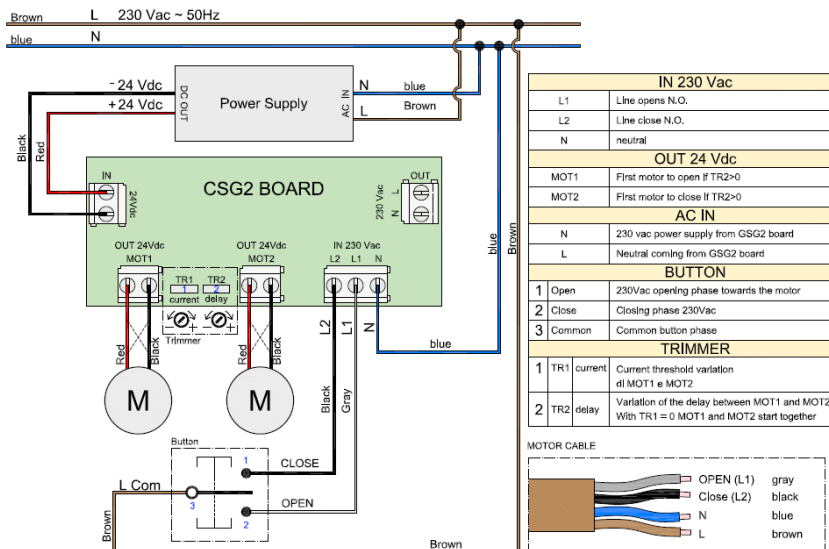
15.2 WIRING DIAGRAM FOR "DEAD MAN" TYPE CONNECTION

WIRING DIAGRAM CSG2 - dead man



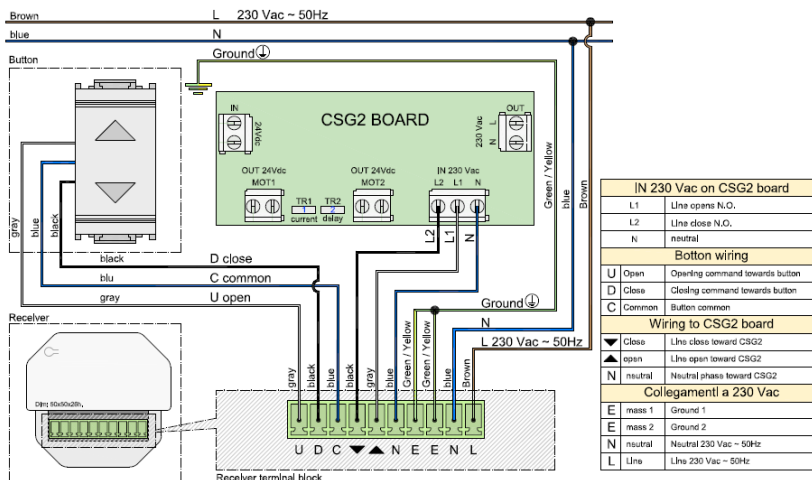
15.3 WIRING DIAGRAM FOR "IMPULSIVE" TYPE CONNECTION

WIRING DIAGRAM CSG2 - IMPULSIVE COMMAND

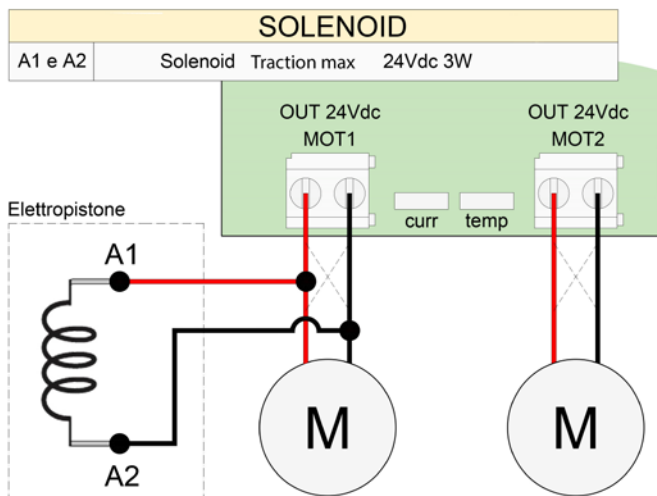




WIRING DIAGRAM FOR CONNECTION TO EWSCE230 RECEIVER ON CSG2 BOARD



15.5 ELECTRICAL DIAGRAM FOR ELECTRONIC PISTON CONNECTION



The solenoid lock must be connected by bridging the motor cables corresponding to the first leaf to open. For further information, refer to the instructions in the solenoid lock package



Check that the electrical setting and all the parameters are respected as indicated in the previous sheets.



In the event that defects / malfunctions are found, do not try to repair the equipment but contact the service center indicating the model, code and serial number, data available on the label applied to the engine.

16. COMPATIBILITY WITH HOME AUTOMATION SYSTEMS

The automation is compatible with almost all home automation systems and existing home automation management modules that manage the opening and closing of the shutters (modules that can be purchased from specialized dealers). As for the control of rolling shutters, it is in fact sufficient to set a retention time of more than 60 seconds using your favorite application: the automation will perform the movement and automatically stop when the doors are opened / closed. The integrated card is in fact able to stop the motors when the movement is complete, identify any obstacles or presences during operation, in order to guarantee maximum safety during operation and to protect the motors from stress. This simplified use makes automation extremely easy to manage and configure! We suggest that you check the compatibility of your home automation module by consulting your trusted dealer, showing him this type of simplified use and these wiring diagrams. You can also contact our technicians who will be happy to provide you with further technical and functional details.



17. ADJUSTMENT TRIMMER



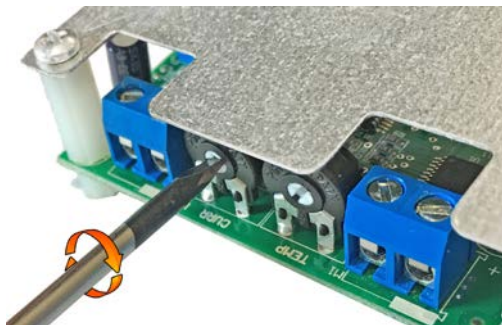
The board, as standard, is pre-wired and configured with pre-optimized "default" parameters that are valid for most users and types of common use. It is not recommended to modify the default parameters of the electronic board, which must only take place when necessary. The modification of the configuration parameters must only be made by knowledgeable and qualified operators.

17.1 TRIMMER TEMP: INCREASE OF THE OPENING DOORS DELAY:



Adjusting the **TEMP** trimmer allows you to set the opening delay between the leaves. Clockwise rotation decreases the opening delay time between the leaves, on the contrary, anticlockwise rotation increases it. Carry out some opening and closing tests to check that the doors in the movement phase do not have overlapping and jamming.

17.2 TRIMMER CURR: INCREASE OF THE MOTOR POWER:



Adjusting the CURR trimmer allows you to set the thrust torque.

By setting a thrust level too low, the leaves will lock in an anomalous way, while too much power would lead to a single effort of the motors when the stroke is complete. We suggest identifying the minimum operating point and from that position, increase the power by $\frac{1}{4}$ of a turn.

18. SPECIAL PROGRAMMING FUNCTIONS

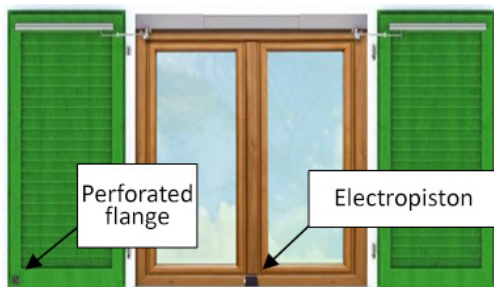
18.1 REVERSAL OF THE FIRST DOOR

Of Standard, the first door to open is the right. To reverse the first door to open it is necessary to open the cover and reverse the cable connections to the electronic board.



ATTENTION: To reverse the opening direction of the leaves, as well as swap the motor cables on terminal blocks M1 and M2, it is also necessary to reverse the polarity by connecting the RED cable instead of the BLACK cable for each motor.

19. ELECTROPISTON ASSEMBLY



The electric lock is an optional accessory and must be mounted near the stop of the main door when closing. On the door, on the other hand, a small perforated flange will be mounted which, when in the closed position, this hole must coincide with the solenoid lock.

The electric lock cables must be routed to the right, usually, or to the left, providing a duct for their protection, until they reach the electronic board.



N.B. our system is able to manage elected 24V powered pistons that do not exceed a current draw of 600mA

20. MAINTENANCE



The operations described in the following paragraphs must always be carried out with the equipment off (equipment disconnecter in the OFF position).



In the event that defects / malfunctions are found, do not try to repair the equipment but contact the service center indicating the model, code and serial number of the equipment (see Fig.3.1. Plate data label).



20.1 PERIODIC MAINTENANCE



User: Periodically clean the casing of the equipment using a soft cloth moistened with neutral and non-aggressive detergents and dry with a dry cloth. Keep the movement area of the window frame clean and well maintained.



Electromechanical operator : Check the correct tightening of the shoe shank, the play of the shoe in the guide, the wear of the bushings present in the joint,.

Record any settlements of the window or door .

20.2 EXTRAORDINARY MAINTENANCE



User: Contact the electromechanical operator in case of breakages or malfunctions .



Electromechanical operator: Identify malfunctions and if necessary contact the service center indicating the model, code and serial number of the equipment. Use the service request form - spare parts on p. 27

21. PROBLEMS AND ANOMALIES



If the proposed intervention has not resolved the anomaly found, interrupt the operations and request the intervention of the Assistance Center.

Never open the enclosure of the equipment unless expressly authorized in writing by the Chiaroscuro company. Failure to comply with this rule leads to the immediate forfeiture of the warranty and the consequent liability of the supplier for aspects concerning safety and operation.

22. DISPOSAL

INFORMATION FOR USERS

Pursuant to art. 13 of the Legislative Decree 25 July 2005, n. 151 "Implementation of Directives 2002/95 / EC, 2002/96 / EC and 2003/108 / EC, relating to the reduction of the use of hazardous substances in electrical and electronic equipment, as well as the disposal of waste"

The crossed-out bin symbol shown on the equipment indicates that the product at the end of its useful life must be collected separately from other waste. The user must, therefore, deliver the equipment complete with the essential components at the end of its life to the appropriate separate collection centers for electronic and electrotechnical waste, or return it to the retailer when purchasing new equipment of an equivalent type, at the one by one. Adequate separate collection for the subsequent start-up of the discarded equipment for recycling, treatment and environmentally compatible disposal helps to avoid possible negative effects on the environment and health and favors the recycling of the materials that make up the equipment. Illegal disposal of the product by the user involves the application of administrative penalties provided for by current legislation.



23. Limits of liability

WH25 offers a torque of 25 Nm, WH50 offers a torque of 50 Nm: these are the maximum driving torques available on the transmission pin which, through the arm and track, impart movement to the leaf or maintain its position. It is the responsibility of the buyer / installer to determine whether this pair is adequate for the needs of the required application; the needs depend on various factors mainly: weight and dimensions of the leaf (the indications given in chap.11.2 are purely indicative and not binding), friction of the hinges and correct verticality of the rotation axis of the same, and above all the extent of the opposing force generated by the wind. The intensity and duration of wind stresses are highly variable and in the absence of complex and expensive measurement and recording procedures they can only be estimated not in a subjective and approximate way. In the offer, the supplier company expresses an evaluation of these factors based first of all on data and information made available by the customer and possibly emerged from the inspection, but such evaluations cannot be considered contractually binding and binding for the purpose of attributing responsibility to the supplier company in the choice and adequacy of the supply to the specific case as only with a pilot installation made in the case considered by the most significant customer can the real needs / problems of the application emerge. The various mechanical elements are designed to cope with the stresses and normal wear resulting from the torque generated by the apparatus for a number of 20,000 operating cycles. However, there are stresses and consequent wear that do not depend on the drive torque but depend on poor installation and above all on stresses caused by the wind when the intensity or frequency of the gusts / gusts are significant or linked to consistent atmospheric phenomena.

Precisely because of the unknown entity and type of said stresses, the resistance of the apparatus for this purpose cannot be guaranteed.



24. MARKING COMPATIBILITY CERTIFICATE

CHIAROSCURO SAS di Girelli Marco & C.

C.so General A.Cantore 23 - 38061 Ala (TN) Italy.

Tel: +39 0464 424715 fax: +39 0464 712027

email: info@chiaroscuro.eu sito: www.chiaroscuro.eu

Declares that the electrical product

Template WH25/WH50

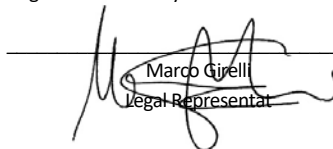
Description Actuator for the movement of hinged doors

It complies with the legislative provisions transposing the following directives and subsequent amendments:

2004/108 EC Directive (EMC Directive) and subsequent amendments 2006/95 / EC EC Directive (Low Voltage Directive) and subsequent amendments 1999/5 / EC RoHS2 Radio and Telecommunications Terminal Equipment 2002/95 / EC Restriction of use of certain Hazardous Substances

Compatibility with the CE marking is valid provided that the WH25 / WH50 actuator is used exclusively for the intended applications and the installation is performed according to the assembly instructions.

ALA, 20/01/2020


Marco Girelli
Legal Representative

25. Warranty

CONDITIONS AND LIMITATIONS:

CHIAROSCURO SAS company guarantees the equipment for a period of 12 months.

The warranty starts from the date of purchase indicated on the fiscal document at the time of delivery of the equipment. The company undertakes to repair or replace free of charge those parts that show manufacturing defects within the warranty period. The guarantee does not include any form of compensation deriving from direct or indirect damage to persons or things. During the warranty period, if the Customer wishes the repair to be carried out by the CHIAROSCURO SAS technicians, a written request must be sent to CHIAROSCURO SAS. In this case, the costs relating to travel, food and accommodation will be fully charged to the customer. For interventions caused by defects or failures not clearly attributable to the material or manufacturing, all travel, repair and / or replacement costs of all parts will be charged to the customer. The extension of the guarantee following a repair on the equipment is excluded. In case of return of parts of the equipment, the Customer will be able to ship them only after receiving written authorization from the CHIAROSCURO SAS company. Packaging and shipping costs are charged to the customer (unless otherwise agreed between the parties). In any case, accidental damage due to transport, neglect, inadequate treatment, use that does not comply with the warnings given in this manual or for all those phenomena not dependent on the normal operation or use of the appliance are excluded from the guarantee. The warranty is void if the equipment is repaired by unauthorized third parties or if equipment or accessories not supplied, recommended or approved by CHIAROSCURO SAS are used or if the serial number is removed or altered during the warranty period. The guarantee immediately ceases its effects in the event that the Customer is late or non-payment, even partial. CHIAROSCURO SAS declines all responsibility for any damage to persons or things caused by misuse or imperfect use of the equipment. The Court of Rovereto (ITALY) is competent for any dispute.