



www.v2home.com

IL n. 365
EDIZ. 20/03/2012

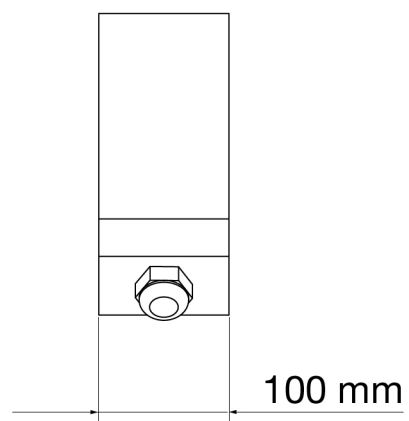
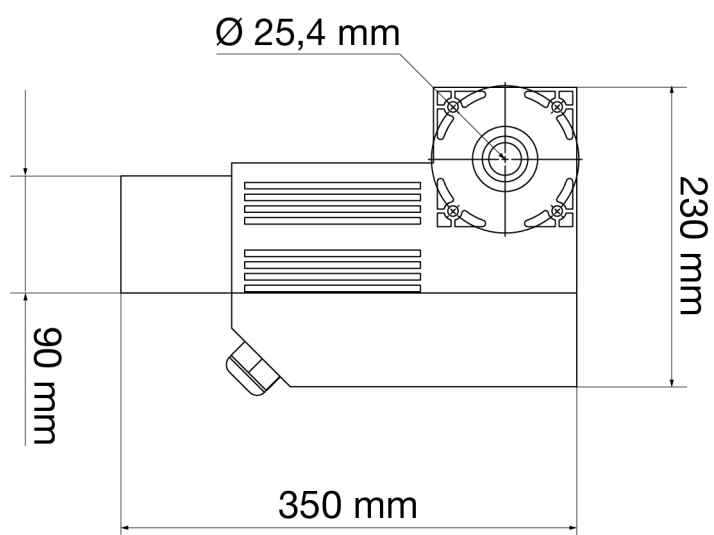


WISANT-16

SPV001



**400V ELECTROMECHANIC GEARMOTOR FOR INDUSTRIAL
SECTIONAL DOORS UP TO 16 M²**



EC DECLARATION OF INCORPORATION FOR PARTLY COMPLETED MACHINERY

(Directive 2006/42/EC, Annex II-B)

The manufacturer (*) **V2 S.p.A.**, headquarters in
Corso Principi di Piemonte 65, 12035, Racconigi (CN), Italy

Under its sole responsibility hereby declares that:

the partly completed machinery model(s):

WISANT-16-400V (*)

WISANT-16-230V (*)

Description: **electromechanical actuator for sectional doors**

- is intended to be installed on **sectional doors** to create a machine according to the provisions of the Directive 2006/42/EC. The machinery must not be put into service until the final machinery into which it has to be incorporated has been declared in conformity with the provisions of the Directive 2006/42/EC (annex II-A).
- is compliant with the applicable essential safety requirements of the following Directives:
Machinery Directive 2006/42/EC (annex I, chapter 1)
Low Voltage Directive 2006/95/EC.
Electromagnetic Compatibility Directive 2004/108/EC.

The relevant technical documentation is available at the national authorities' request after justifiable request to:

**V2 S.p.A., Corso Principi di Piemonte 65,
12035, Racconigi (CN), Italy**

The person empowered to draw up the declaration and to provide the technical documentation:

Cosimo De Falco

Legal representative of V2 S.p.A.

Racconigi, 16th January 2012



(*) made in extra EU Countries on behalf of V2 S.p.A.

TECHNICAL DATA

	WISANT-16-230V	WISANT-16-400V
Maximum door area	16m ²	16m ²
Power supply	230Vac - 50Hz	400Vac - 50Hz
Rated absorbed power	350W	350W
Motor absorption	2A	2A
Torque	30Nm	60Nm
Shaft diameter	25,4mm	25,4mm
Average speed	32rpm	32rpm
Working cycle	30%	30%
Thermal protection	120°C	120°C
Working temperature	-20 ÷ +40 °C	-20 ÷ +40 °C
Protection degree	IP44	IP44
Motor weight	12	14
Limit switch range	18	18

PRELIMINARY CHECKINGS

Before installing WISANT, please check the following basic points:

- The door must be suitable to be automated (check the door operation manual and directions). The door structure itself must be stout and appropriate to be automated.
- Fix the engine steadily and using suitable material.
- If necessary, make the structural calculation and enclose to the technical specification paper.
- The door must be functional and safe.
- The door must open and close easily without any friction.
- The door must be equipped with balance springs, otherwise the operator will be damaged. Before installation of the door operator, the door should be carefully checked for being kept well balance.
- It is recommended to install limit devices on door tracks to prevent the door from sliding out of the tracks.

IMPORTANT REMARKS

For any installation problem please contact our Customer Service at the number +39-0172.812411 operating Monday to Friday from 8:30 to 12:30 and from 14:00 to 18:00

V2 S.p.A. has the right to modify the product without previous notice; it also declines any responsibility to damage or injury to people or things caused by improper use or wrong installation.



PLEASE READ THIS INSTRUCTION MANUAL VERY CAREFULLY BEFORE INSTALLING AND PROGRAMMING YOUR CONTROL UNIT.

- This instruction manual is only for qualified technicians, who specialize in installations and automations.
- The contents of this instruction manual do not concern the end user.
- Every programming and/or every maintenance service should be done only by qualified technicians.

AUTOMATION MUST BE IMPLEMENTED IN COMPLIANCE WITH THE EUROPEAN REGULATIONS IN FORCE:

EN 60204-1 (Machinery safety. electrical equipment of machines, part 1: general rules)

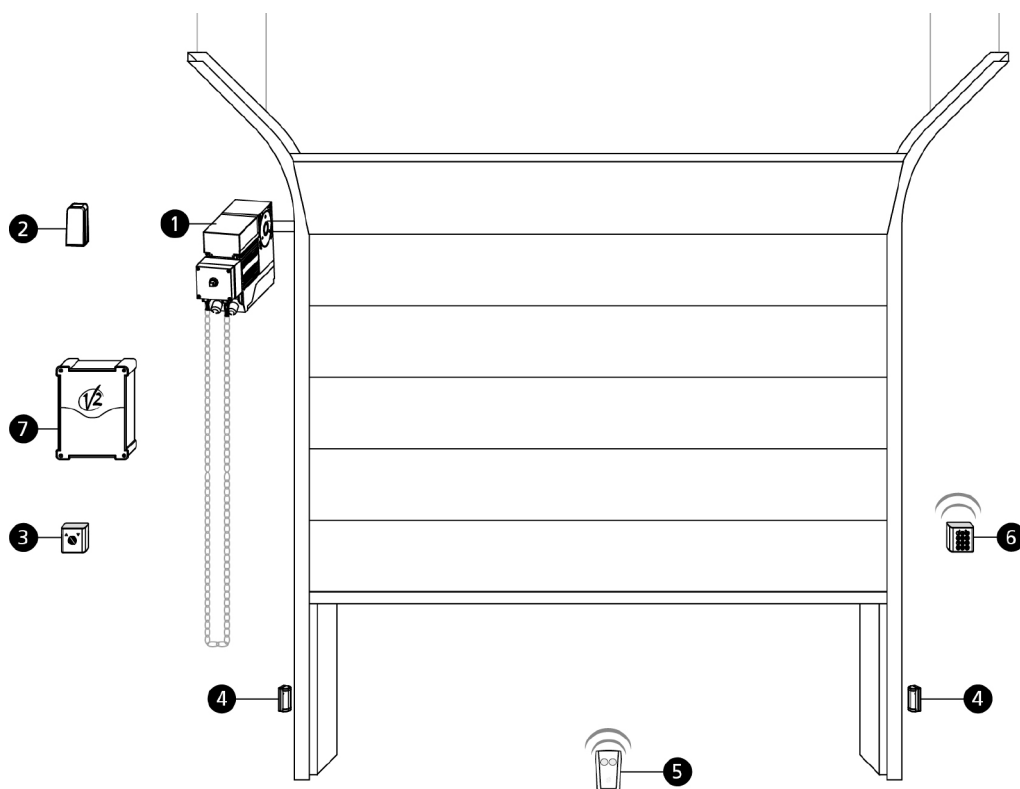
EN 12445 (Safe use of automated locking devices, test methods)

EN 12453 (Safe use of automated locking devices, requirements)

- The installer must provide for a device (es. magnetothermal switch) ensuring the omnipolar sectioning of the equipment from the power supply. The standards require a separation of the contacts of at least 3 mm in each pole (EN 60335-1).
- Installation requires mechanical and electrical skills, therefore it shall be carried out by qualified personnel only, who can issue the Compliance Certificate concerning the whole installation (Machine Directive 98/37/EEC, Annex IIA).
- The automated vehicular gates shall comply with the following rules: EN 12453, EN 12445, EN 12978 as well as any local rule in force.
- Also the automation upstream electric system shall comply with the laws and rules in force and be carried out workmanlike. V2 S.p.A. declines any responsibility in case of automation upstream electric system not complying with the laws and rules in force and not carried out workmanlike.
- The door thrust force adjustment shall be measured by means of a proper tool and adjusted according to the max. limits, which EN 12453 allows.
- The use of WISANT in dusty, saline or explosive environment is forbidden
- The opener is designed for operation in dry rooms exclusively.
- For the safety and life of persons it is absolutely necessary to follow all instructions.
- Keep these instructions save for later reference
- Do not permit children to play with the automated garage door. Transmitters are to be kept safe and away from children!

- Only operate the door if the entire door area is in your field of view. Always be sure, that no persons or objects are located within traveling range of the door.
- Do not use the opener when service or adjustment work is required. A badly balanced door, or a faulty garage door system may cause injuries.
- Please inform all persons using the door system on how to operate it correctly and safely. Demonstrate and test the reversion (with a 50 mm high obstacle at max. 150 N) as well as the mechanical release.
- For the safety of persons and objects a safety check has to be performed. Before finishing the initial operation make sure that the drive stops and reverses according to the valid norms (EN 12453) when hitting an obstacle (max. 150N force, equivalent to approx. 15 kg, more than 50 mm above ground).
- This test and measurement of force may only be performed by a professional.
When hitting an obstacle the door has to stop and reverse (completely or partially, depending on the setting of the PCB). If the door does not run the correct path or if the door does not reverse when hitting an obstacle the programming of force and path has to be repeated.
Then please repeat the test.
If the door after the performed corrections does not stop and reverse according to the valid norms, the door may not be operated automatically.
- Check often the automation, particularly the cables, springs and mechanic parts for wear and tear, damages and unbalancing
- Permanently mounted auxiliary devices (such as push buttons etc.) should be mounted within view of the door.
The distance between moving parts and the height must be at least 1.5 meters. It is essential that they are mounted out of reach of children!
- Affix warning signs indicating the risk of being caught in the door where they may be seen immediately or in the vicinity of the permanently mounted push button.
- The operator should be switched off before repairing it or opening its cover.
- The operator may only be repaired with the door closed.
- Do not pull the hand chain during opening or closing the door

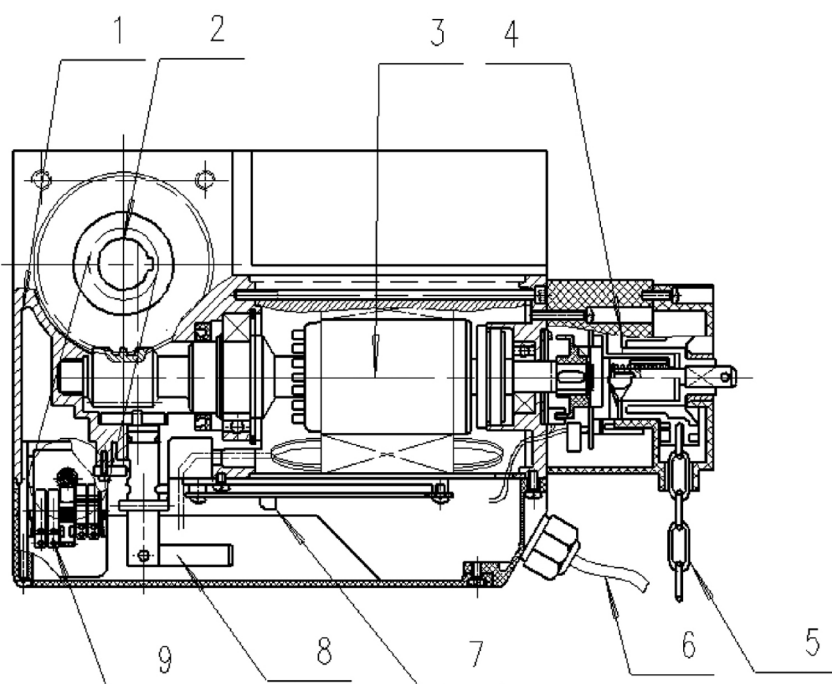
INSTALLATION LAYOUT



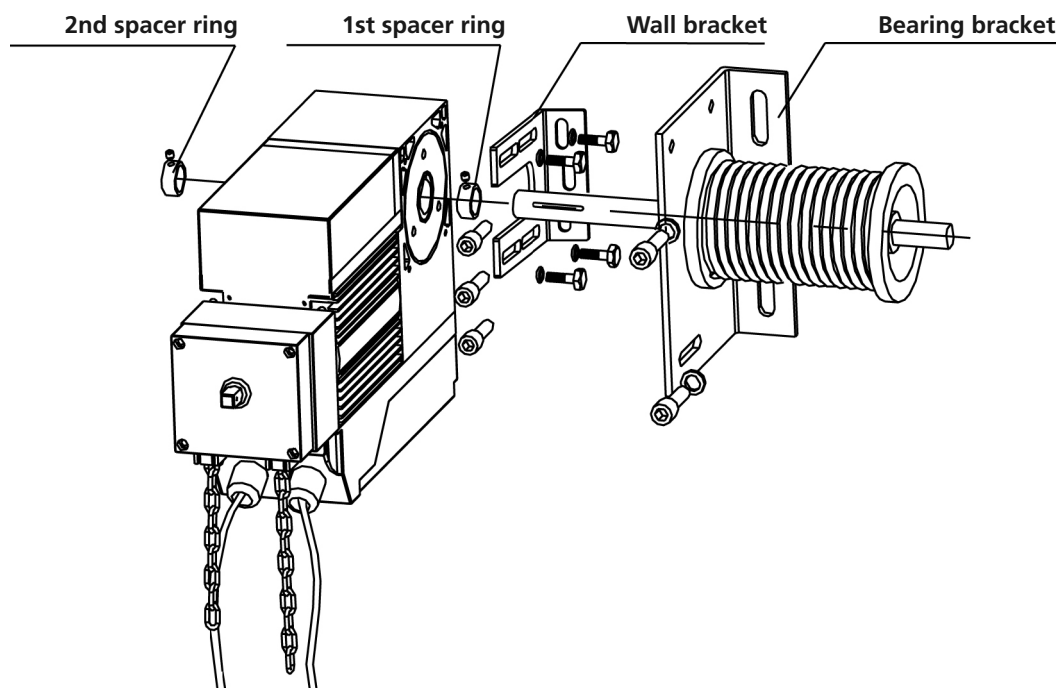
1 WISANT actuator	cable 4 x 1,5 mm ²
2 Flashing light with built-in antenna	cable 2 x 0,5 mm ² cable RG-58
3 Key switch	cable 3 x 0,5 mm ²
4 Photocells	cable 4 x 0,5 mm ² (RX) cable 2 x 0,5 mm ² (TX)
5 Transmitter	-
6 Digital radio switch	-
7 Control unit	cable 3 x 1 mm ²

NOTE: V2 recommends the use of the control unit CITY6 / CITY6-I for WISANT16-400V and of the model CITY4 for WISANT16-230V

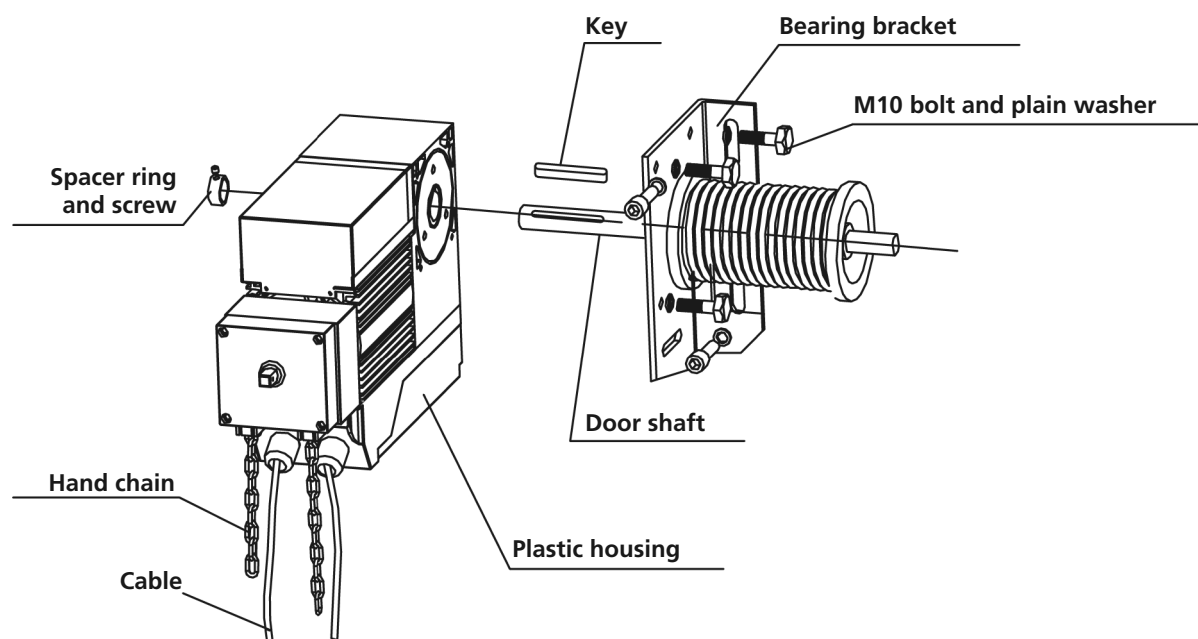
MAIN STRUCTURE



1. Reducer casing
2. Output shaft
3. Motor
4. Hand chain components
5. Hand chain
6. Cable
7. Wiring terminal block
8. Release handle
9. Limit switch



- Screw the wall bracket (L-shaped iron fitting) onto the wall. You may install the wall bracket to left side or right side of operator.
- Remove the plastic housing, rotate release handle 180° counter-clockwise.
- Slot the 1st spacer ring onto the door shaft.
- Slot the door operator onto the door shaft (ensure correct position of the key) and screw onto the wall bracket.
- Slot the 2nd spacer ring onto the door shaft and push against the door operator.
- Push the 1st spacer ring against the door operator and fix both rings.



The door actuator can also be installed as shown in the figure above.

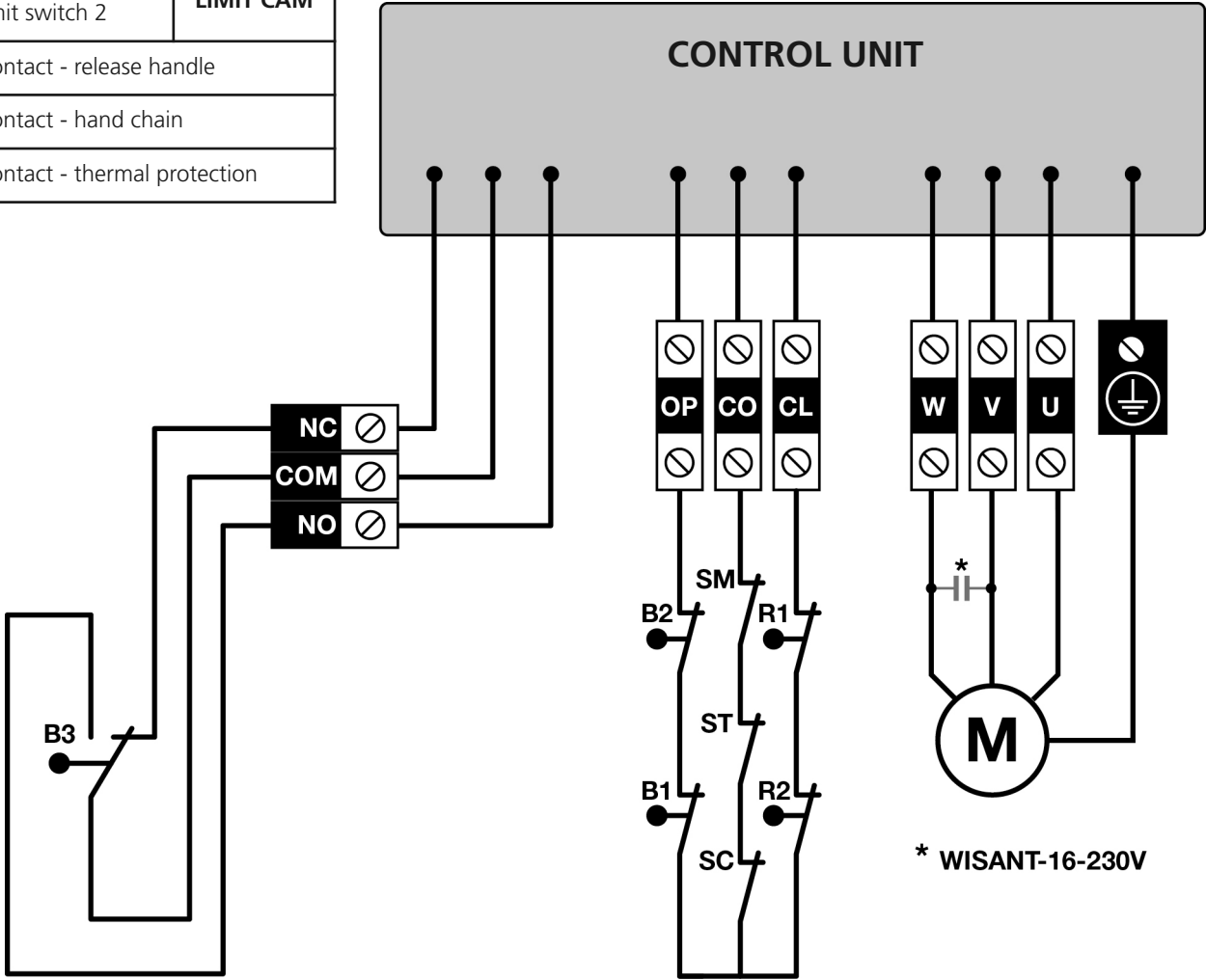
- Drill four holes (Ø11) on the shaft bearing bracket.
- Remove the plastic housing, rotate release handle 180° counter-clockwise.
- Direct attach the door operator onto the door shaft end and screw onto the shaft bearing bracket, ensure the correct position of the key.
- Adjust the position of the operator and ensure the hand chain hangs vertically.
- Slot the spacer ring onto the shaft and fix it with a screw.

ELECTRICAL CONNECTIONS

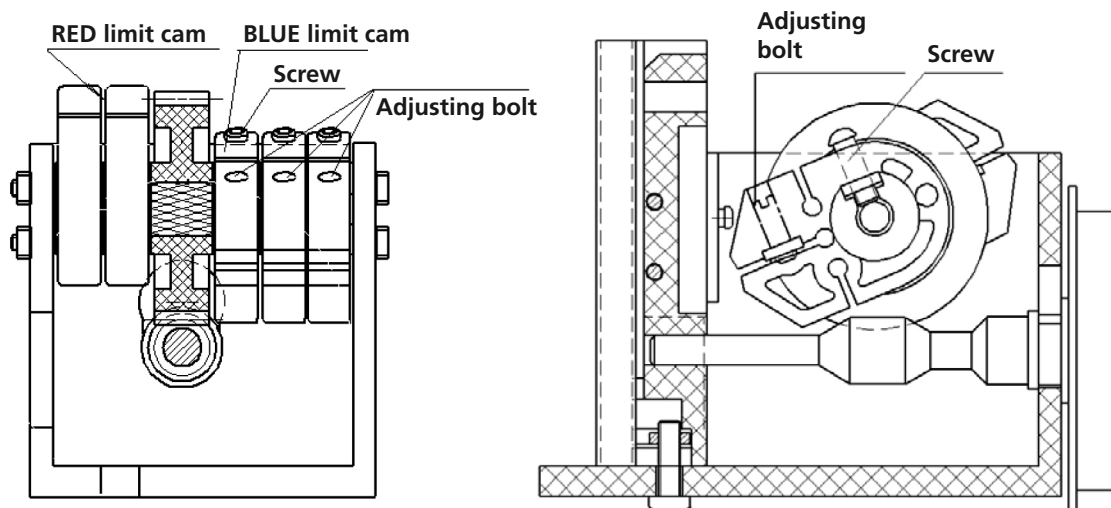
- Locate control box: within sight of door but away from all moving parts of the door and at a height of more than 1.4m above the ground out of the reach of children
- Connect the ground wire of the system to the ground terminal of the actuator marked by the symbol 
- If the door is equipped with mechanical stop, install a safety contact on the stop and connect the terminals of the contact to the STOP input of the control unit

MOTOR TERMINALS	CONTROL UNIT TERMINALS	
	WISANT-16-400V	WISANT-16-230V
NC - COM - NO	N.C. / N.A. dry contact for connecting a OPEN DOOR LIGHT	N.C. / N.A. dry contact for connecting a OPEN DOOR LIGHT
OP	Opening limit switch	Opening limit switch
CO	Limit switch common	Limit switch common
CL	Closing limit switch	Closing limit switch
W	PHASE 1	Motor closing
V	PHASE 2	Motor opening
U	PHASE 3	Motor common

B1	Opening limit switch 1	BLUE LIMIT CAM
B2	Opening limit switch 2	
B3	Opening limit switch 3	
R1	Closing limit switch 1	RED LIMIT CAM
R2	Closing limit switch 2	
SM	Security contact - release handle	
ST	Security contact - hand chain	
SC	Security contact - thermal protection	



LIMIT SWITCH



ROUGH ADJUSTING

Setting of the close limit

- Check that the operator has firmly installed, close the door to fully closed position and observe the rotating direction of red limit cams during closing.
- Loose the screws of the red limit cams, then turn the two cams in the same direction until the limit switches click, finally tighten the screws.
- If the gap between the door and its bottom position is larger than 20mm, repeat this step until the door is less than 20mm from the closed position.

Setting of the open limit

- Open the door to arrive at its opened position, observe the rotating direction of blue limit cams during opening.
- Loose the screws of the blue limit cams, then turn the three cams in the same direction (i.e. in the opposite direction of the red cam) until the limit switches click, finally tighten the screws.

FINE ADJUSTING

The adjusting bolts are used for fine adjustment.

Setting of the close limit

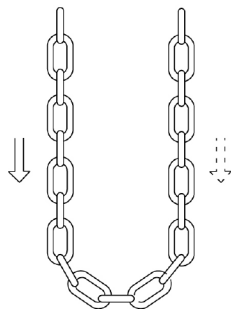
- After rough adjustment, you can close the door and observe whether the door has successfully reached the closed position.
- If need, fine adjust the adjusting bolts in the red limit cams carefully to make the door reach the closed position, anticlockwise to close more, clockwise to close less.

Setting of the open limit

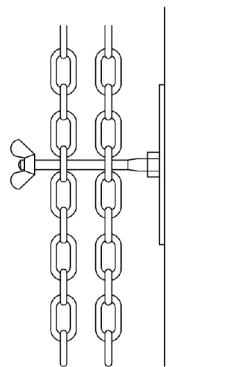
- After rough adjustment, you can open the door and observe whether the door has successfully reached the opened position.
If the door does not reach the fully opened position (less than 20mm), fine adjust the adjusting bolts in the blue limit cams to make the door reach the opened position, anticlockwise to open more, clockwise to open less.
- If the distance between the door and its top position exceeds 20mm, then the blue limit cam (rough adjustment) should be re-adjusted.

HAND CHAIN

- It is possible to manually open or close the door using the featured hand chain when the operator does not function via electrical supply.
- It is important to ensure that the chain is not fitted twisted. If the chain is twisted, malfunctions may occur when the hand chain is used.
- Firmly screw the hand chain in place as shown in the picture.
- Pull the chain only when the power failure. Do not pull the chain during closing or opening the door, otherwise, serious personal injury or property damage may occur.
- Do not pull the chain too strongly in order to avoid damaging the components.



Pull right side or left side of hand chain lightly to carry out an automatic reset



Screw the hand chain

MAINTENANCE

Make sure the door is in good working condition and that it is correctly balanced.

The door operator should be checked and maintained by a qualified technician.

Keep operator clean at all times.

TROUBLESHOOTING

Error	Cause for error	Solutions
The operator does not work	(1) Power is OFF. (2) The door is obstructed. (3) The wires become loose. (4) The emergency switch was pressed. (5) The door is too heavy.	(1) Make sure that power is ON. (2) Remove obstructions. (3) Fasten the wires. (4) Rotate the emergency switch to ensure that the button returns to its original position. (5) Replace or readjust the balance springs.
The operator stops working suddenly	Thermal overload protection in motor is active	Allow the motor to cool down
The door cannot be opened or closed completely	Wrong adjusting of limit switch	Readjust the limit switch

PACKING LIST

After receiving the product, you should make an unpack-inspection, in which you should check whether the product was damaged. If you have any problem please contact our sales agent. You should find the following items in our standard packing:

N.	Item	Quantità
1	Door operator	1
2	Wall bracket	1
3	Spacer ring and screw (M8X15)	2
4	Key (6X5X70)	1
5	Bolt (M10X20)	1
6	Plain washer (10)	4
7	Safety label	4
8	User's manual	1
9	Capacitor (only for 230Vac)	1