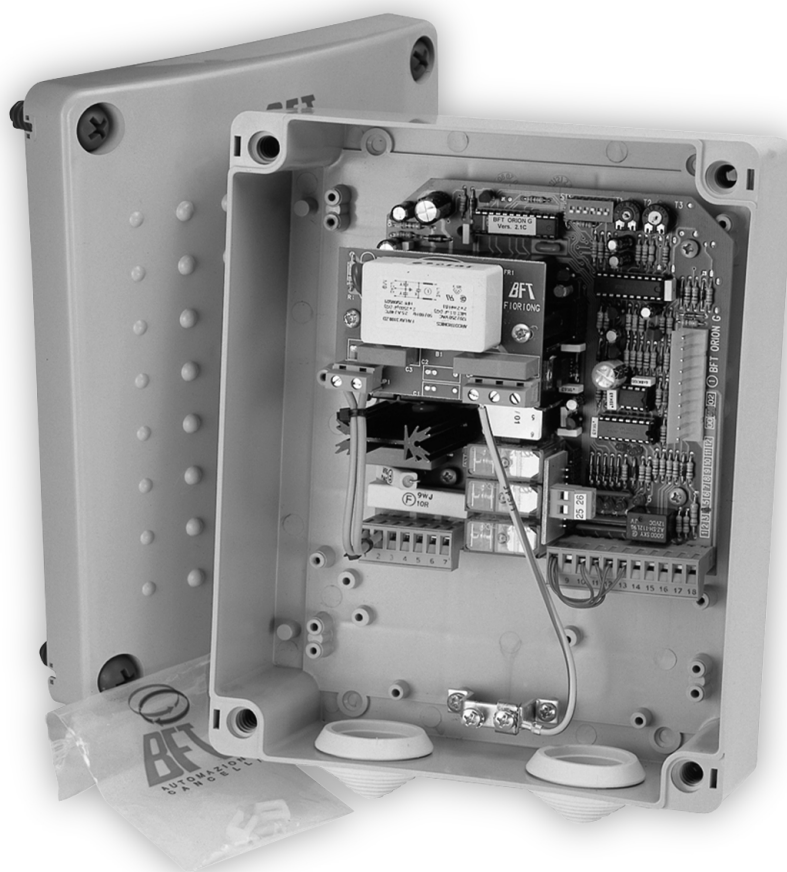


ORION G

D811230 30-11-00 Vers. 04

CONTROL UNIT



Thank you for buying this product, our company is sure that you will be more than satisfied with the product's performance. The product is supplied with a "WARNINGS" leaflet and an "INSTRUCTION MANUAL". These should both be read carefully as they provide important information about safety, installation, operation and maintenance. This product complies with the recognised technical standards and safety regulations. We declare that this product is in conformity with the following European Directives: 89/336/EEC and subsequent amendments.

1) GENERAL OUTLINE

The **ORION G** board is used to control one single-phase motor of up to 800W. Its main feature is the electronic breaking control during the stopping phase.
ATTENTION - Only qualified personnel should be employed.

2) GENERAL SAFETY

WARNING! An incorrect installation or improper use of the product can cause damage to persons, animals or things.

- The "Warnings" leaflet and "Instruction booklet" supplied with this product should be read carefully as they provide important information about safety, installation, use and maintenance.
- Scrap packing materials (plastic, cardboard, polystyrene etc) according to the provisions set out by current standards. Keep nylon or polystyrene bags out of children's reach.
- Keep the instructions together with the technical brochure for future reference.
- This product was exclusively designed and manufactured for the use specified in the present documentation. Any other use not specified in this documentation could damage the product and be dangerous.
- The Company declines all responsibility for any consequences resulting from improper use of the product, or use which is different from that expected and specified in the present documentation.
- Do not install the product in explosive atmosphere.
- The Company declines all responsibility for any consequences resulting from failure to observe Good Technical Practice when constructing closing structures (door, gates etc.), as well as from any deformation which might occur during use.
- The installation must comply with the provisions set out by the following European Directives: 89/336/EEC and subsequent amendments.
- Disconnect the electrical power supply before carrying out any work on the installation. Also disconnect any buffer batteries, if fitted.
- Fit an omnipolar or magnetothermal switch on the mains power supply, having a contact opening distance equal to or greater than 3mm.
- Check that a differential switch with a 0.03A threshold is fitted just before the power supply mains.
- Check that earthing is carried out correctly: connect all metal parts for closure (doors, gates etc.) and all system components provided with an earth terminal.
- The Company declines all responsibility with respect to the automation safety and correct operation when other manufacturers' components are used.
- Only use original parts for any maintenance or repair operation.
- Do not modify the automation components, unless explicitly authorised by the company.
- Instruct the product user about the control systems provided and the manual opening operation in case of emergency.
- Do not allow persons or children to remain in the automation operation area.
- Keep radio control or other control devices out of children's reach, in order to avoid unintentional automation activation.
- The user must avoid any attempt to carry out work or repair on the automation system, and always request the assistance of qualified personnel.
- Anything which is not expressly provided for in the present instructions, is not allowed.

3) TECHNICAL SPECIFICATIONS

Power supply: 230Vac $\pm 10\%$ 50/60Hz
 Max. motor power: 800W
 Power supply to accessories: 24Vac - 180mA max
 Panel consumption: 100 mA
 Fixed operation time: 140 s approx.
 Fixed pedestrian operation time: 9 s approx.

Adjustable automatic closing time: from 2 to 90 s
 Pre-alarm time: 3 s
 Environmental conditions: from -20°C to +55°C
 Protection degree: IP 55
 Dimensions: see fig.1
 Weight: 1.2 kg

4) TERMINAL BOARD CONNECTIONS (Fig.2)

ATTENTION! - Keep the low voltage connections definitely separated from the power supply connections.

JP3 FILTER

1 Earth (GND).
 2-3 Single-phase power supply: 230V $\pm 10\%$ 50/60 Hz. (2 Neutral - 3 Phase).

ORION G

3-4-5 Motor connection (3/5 operation - 4 common wire).
 3-6 Capacitor.
 2-7 Blinker 230 Vac.
 8-9 Open-Close push button and key selector (N.O.).
 8-10 Stop push button (N.C.). If not used, leave jumped.
 8-11 Photocell contact or rubber skirt(N.C.) If not used, leave jumped.
 8-12 Opening limit switch (N.C.). If not used, leave jumped.
 8-13 Closing limit switch (N.C.). If not used, leave jumped.
 14-15 Output 24 Vac 180mA max.
 15-16 Gate-open warning light 24 Vac 3W max.
 17-18 Antenna input for radio receiver board (17 signal - 18 braid).

ATTENTION - To invert motor running direction, invert the motor connections 3 and 5 and the limit switch connections 12 and 13.

Do not move the capacitor connection.

SOG OPTIONAL BOARD (fig.2).

9-20 Opening push button (N.O.). When the "Open" command is given, the motor opens independently of its state.
 19-21 Closing push button (N.O.). When the "Close" command is given, the motor closes independently of its state.
ATTENTION: In some versions of the ORION G boards, terminals 20 and 21 of the SOG optional board have the HOLD-TO-RUN control feature (UP) instead of the separate open-close control (ACS).
 19-22 Push button for pedestrian access (N.O.). When the "Pedestrian" command is given, the gate opens of about 1 metre.
 23-24 Rubber skirt contact connection (N.C.). If the rubber skirt steps in, the movement is reversed for about 30 centimetres. If not used, leave jumped.
 25-26 Second radio channel output (if a twin-channel board is fitted).

5) DIP SWITCH FUNCTIONS (Fig.3)

DIP 1 MODE

OFF: A start impulse during the motor run causes the gate to stop (4 - step operation) both in opening and closing phase.
 ON: A start impulse during the motor run causes the gate to reverse direction (2-step operation) in closing phase.

DIP 2 PRE-ALARM

OFF: The flashing light turns on simultaneously with the start of the motors.
 ON: The flashing light turns on abt. 3 seconds before the motors start.

DIP 3 PHOTOCELLS

OFF: Photocell intervention causes the operator to stop both in the opening or closing phase. After removing the obstacle, the operator opens.
 ON: Photocell intervention has no effect on the opening phase and immediately reverses movement during the closing phase.

DIP 4 AUTOMATIC CLOSING TIME TCA

OFF: Switches off the automatic closure
 ON: The gate closes again automatically after a pause time set on the trimmer T1. Such a function is activated:
 - In full open position.
 - In the opening phase by means of the start push button or radio control.

DIP 5 IMPULSE BLOCK

OFF: A start impulse during the opening phase causes the operator to stop.
 ON: A start impulse during the opening phase has no effect.
DIP 6: Not used.

6) TRIMMER FUNCTIONS (Fig.3)

TRIMMER T1 TCA: Sets the pause time before the automatic closure. The time can be increased by turning it clockwise.

TRIMMER T2 BRAKE: Controls the braking couple.

ATTENTION - The trimmer braking effect is set by the manufacturer during testing and is then sealed. If the trimmer needs recalibrating, please take note of the following:

- a) Braking should not be sudden.
- b) Braking which is too weak creates slippage due to inertia.
Braking can be increased by turning it clockwise.

7) LED FUNCTIONS (Fig.1)

7.1) BOARD ORION G

1 - START

Lights up upon start impulse.

2 - STOP

Turns off upon opening of the block contact.

3 - PHOTOCCELL

Turns off if photoelectric cells are not aligned or if there are obstacles interfering with the cells.

4 - OPENING LIMIT SWITCH

Turns off in a full open position.

5 - CLOSING LIMIT SWITCH

Turns off in a full closed position.

6 - OPENS

Turns on during the motor opening phase.

7 - CLOSES

Turns on during the motor closing phase.

8 - MAINS SUPPLY

Turns on when there is power and when the fuses are integral.

SOG optional board

9 - OPENS

Turns on at the "hold-to-run" open command.

10 - CLOSES

Turns on at the "hold-to-run" close command.

11 - RUBBER SKIRT ALARM

Turns on when the rubber or infrared safety skirts is activated.

12 - PEDESTRIAN

Turns on at the pedestrian opening command.

8) MAINTENANCE AND DEMOLITION

The maintenance of the system should only be carried out by qualified personnel regularly. The materials making up the set and its packing must be disposed of according to the regulations in force. **Batteries must be properly disposed of.**

The descriptions and illustrations contained in the present manual are not binding. The Company reserves the right to make any alterations deemed appropriate for the technical, manufacturing and commercial improvement of the product, while leaving the essential product features unchanged, at any time and without undertaking to update the present publication.

