

FAULTY OPERATION AND ITS POSSIBLE DIAGNOSIS

LED indicator does not light up

AC power failure or the battery not connected or damaged.

The luminaire does not operate in emergency mode the required time for a selected model

It is possible that the battery requires a full charge cycle (48h). If after 48 hours of charging the luminaire still does not keep a predefined autonomy, it is possible that the battery is run-down or damaged due to possible incorrect formatting and needs to be replaced.

RECOMMENDED PERIODICAL MAINTENANCE

The luminaire should be tested on regular basis in accordance with valid laws and regulations. The results of the tests should be recorded and stored for the use of a fire safety inspector.

One time daily

It is suggested to check visually if the LED indicator in the luminaire lights up in green.

One time each month

It is necessary to perform a function test by disconnecting the AC power supply and checking whether the luminaire is operating in emergency mode - the green LED indicator should turn off, and LED light source light up.

One time each year

In order to make an autonomy test, disconnect the AC power supply and test if the luminaire operates in emergency mode for a specified time. If the autonomy time of emergency operation is not sufficient, the battery needs to be fully recharged and the test is to be carried out again. If the result of the test continues to be negative, the battery needs to be replaced.

CAUTION!

All damage that might occur as an effect of the device being used not in accordance to this instruction will result in loss of guarantee.

Used or damaged lamps including batteries, are subject to be recycled. They should be delivered to the point of collection of electrical and battery waste or to the manufacturer.



The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

Handling of obsolete equipment



Pursuant to the Act of 29 July 2005 on waste electrical and electronic equipment and the Act of 24 April 2009 on batteries and accumulators, the presented device, after use, due to hazardous substances contained in it, is subject to collection of waste electrical and electronic equipment. Detailed information on WEEE collection can be obtained from municipal authorities.

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ORION LED EMERGENCY LUMINAIRE

Installation and maintenance instructions



ORION LED 100



ORION LED DS



ORION LED 150/250



ORION LED D

TECHNICAL SPECIFICATIONS:

Light source (non-replaceable):	White LED
Operating modes *:	SA - mains and emergency operation (M) or A - emergency operation (NM)
Test versions:	MT – manual test
Emergency autonomy *:	1h, 2h or 3h
Battery (replaceable) *:	NiCd or NiMH 3,6V 1500mAh ÷ 4500 mAh
Battery charging duration max.:	24h
Power supply:	220-240V AC 50Hz
Max. power *:	4W ÷ 7W
Module:	Orion LED
Luminous flux *:	Versions – 100: 104 lm; 150: 152 lm; 250: 273 lm
Visibility *:	20 metres (with flat cover) or 30 metres (D / DS)
Enclosure IP rating:	IP65
Ambient temperature:	10°C ÷ 55°C

*- depending on model



INTRODUCTION

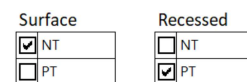
1. The lamp should be installed when power supply is off. Safety rules, construction and electrical installation standards should be followed all the time.
2. The luminaire should not be powered with circuits connected to inductive power-receiving devices at the same time. This type of solution may cause damage to the electronic module of the luminaire.
3. The luminaire should be used indoors.

INSTALLATION

- Before installation one has to make sure that the luminaire will be connected to 220-240VAC mains by means of a min. 1,5mm² wire.
- Open the luminaire by unscrewing two screws on its ends. Remove the cover.
- Open the reflector plate with LED light source either by unscrewing two screws at indicated points (for Orion LED 100) or releasing two plastic locks (Orion LED 150/250/D). Leave it on hinges.
- Cut out an opening in the body for power supply wires. When making openings in the body, bear in mind the IP rating of the body and use appropriate sealing afterwards. It is necessary to use either grommets or cable glands to maintain IP65 protection level.
- Install the body of the luminaire on the wall or ceiling, making the information label visible for people who will carry out testing in future.
- Prepare power cable and connect all the wires to the appropriate terminal block entries.
- The description of luminaire terminals:
L - phase wire - brown or black insulation colour; power source for battery charging, presence signalled by signal LED lighting up in green;
L1 - a terminal to be optionally used for a wall switch connection, enabling to switch a luminaire off during M mode operation, if no switch is used the terminal L1 should be connected to a phase wire in parallel with the L terminal;
N - neutral wire - blue insulation colour;
PE - earth wire - yellow and green insulation colour.
- Luminaire designed for EMERGENCY operation (A, NM).** To wire a luminaire designed for a Non-Maintained operation, AC mains power has to be connected to appropriate terminals: **L** (phase) and **N** (neutral). Always remember about connecting the protection earth wire (**PE**). The luminaire should be constantly supplied by power - voltage drop on L will result in emergency mode activation.
- Luminaire designed for MAINS AND EMERGENCY operation (SA, M).** To wire a luminaire designed for a Maintained operation, AC mains supply needs to be connected to appropriate terminals: **L** (phase), **N** (neutral) and **L1** (wall switch wire). Always remember about connecting the protection earth wire (**PE**). **L1** terminal can be optionally connected through a wall switch, enabling switching the luminaire off for a time (the luminaire stays ready for an emergency operation). The luminaire should be constantly AC supplied, phase loss on L will cause automatic activation of the emergency mode.
- Please remember to indicate the date of installation on the label attached to the battery pack.
- Insert the battery plug into the socket on the PCB.
- Close the reflector/LED plate and fix it to the body, using either screws or locks, depending on model.
- Install the diffuser and screw it to the body. If a luminaire with flat cover is to be used as directional (one-sided), one need to stick a desired pictogram on it, too. If an optional DS directional set is being installed, one need to fix (in pair with the diffuser, on its outside, by means of same screws) a metal frame with PMMA light guide plate put inside, on which desired pictograms were stuck prior to this assembly.
- One need to remember about sticking the desired pictograms for version D (with a high cover) and DS (with an optional DS set), in the latter case this operation should be done before final assembly of the DS set. Sticking the pictogram for a version with a flat cover is optional, depending on planned use.
- Orion LED 100, 150 or 250 versions, which will work as directional luminaires, either by means of a pictogram stuck on a flat transparent cover or by using a DS directional set, require a modification of their marking in the third segment of the classification table by putting there the letter G, by means of a permanent marker.
- For versions being installed in a recessed ceiling, one need first to make a hole with dimensions 550x125mm in the ceiling, then screw the base into the upper arms of the frame by means of attached M4x10 screws. Installation in the ceiling is being done using springs mounted on both sides of the PT frame.
- After the luminaire is being installed, one need to mark (on label, by means of a permanent marker) if the luminaire was installed as surface one or as recessed one. See on right both markings:
- For quick operation testing – switch on the AC power supply. The green LED indicator should light up, signaling the battery charging.
- First-time charge of the luminaire battery pack should be carried out continuously for 48 hours. This will allow appropriate formatting of the battery pack. During the first-time charge, no testing should be carried out and power supply should not be disconnected for any other purpose. Power supply should be disconnected after 48 hours for the first time. The luminaire should complete a full emergency operation cycle, after which it should be connected to power supply for another 36 hours. This sequence shall complete the formatting cycle.



xxx	xxx	xxx
xxx	G	xxx
xxx	xxx	xxx



Surface	Recessed
<input checked="" type="checkbox"/> NT	<input type="checkbox"/> NT
<input type="checkbox"/> PT	<input checked="" type="checkbox"/> PT

OPERATION

Emergency operation mode

In this mode (A / NM) the luminaire does not light when powered by AC supply voltage. Correct operation of the device is confirmed by LED indicator lighting up in green. The battery is being continuously trickle charged for the purpose of a possible emergency operation. When AC power supply is off, the luminaire automatically starts operating in emergency mode and the source of light is activated for the period specific for a particular model.

Mains and emergency operation mode

In this mode (SA / M) the luminaire lights up when powered by AC supply voltage. Correct operation of the device is also confirmed by LED indicator lighting up in green. The battery is being continuously trickle charged for the purpose of possible emergency operation. When AC power supply is off, the luminaire automatically starts operating in emergency mode and the source of light is activated for the period specific for a particular model.

Information on lamp operation

The luminaire operates correctly and charging circuit works if the LED indicator lights up in green. If the indicator does not light up, the lamp is not operating with AC power supply on or the battery has been damaged. See more info about signaling in “TESTING” section.

Battery pack

The luminaire is equipped with a rechargeable Ni-Cd or Ni-MH battery pack. Please remember to carry out the correct first-time charge cycle. After such a formatting cycle it achieves its capacity and is prepared to perform a possible full time emergency operation. It is recommended to replace the battery once every four years of operation or in a case of poor test results. Obsolete batteries, similarly to packaging, fluorescent lamps or electronics, are recyclable products that should be disposed to a recyclable waste collection point.

TESTING

ORION LED luminaire can be equipped with a test button that can be used for manual testing. It enables to check the readiness for emergency operation at any time.

MT manual test function

When the emergency luminaire is connected to mains and there is no voltage drop, pressing and holding TEST button will result in activation of the “voltage drop” mode, the signal LED will go off and the luminaire should light up. When the button is released - the luminaire will switch back into its standard operation mode.

The above action means that in a case of emergency mode version the luminaire will go from unlit to illuminated. In a case of mains and emergency mode the luminaire will change a power source, from mains to a battery supply, the switch-over moment should be visible as a quick blink – during a very short while the light source will be off.

CAUTION! In a case of SA (M) luminaire version, but wired as A (NM) one, the lamp behaves according to A (NM) typical behaviour.