

BLUE CANNON

CE

46700108

INSTALLATION, USE AND MAINTENANCE

| | |
|--|------------------|
|  | = Generic danger |
|  | = Warning |

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• MANUAL USE MODES

The section of this manual dedicated to the installation contains information for installers. For this reason we have used technical terms without providing explanations which would be necessary for end users only.

THE INSTALLATION MUST BE CARRIED OUT BY AUTHORIZED AND SKILLED PERSONNEL ONLY. ARAG IS NOT RESPONSIBLE FOR ANY OPERATION SPECIFIED IN THIS MANUAL CARRIED OUT BY UNAUTHORIZED OR UNSKILLED PERSONNEL.

• RESPONSIBILITY

The installer must carry out "workmanlike" installations and ensure to the end user the perfect operation of the whole system both with ARAG components only and other brands' components.

ARAG always recommends using its components to install control systems.

The installer will be held responsible for any malfunction if he decides to use other brands' components even without actually changing the system parts or harness.

The compatibility check with components and accessories of other manufacturers shall be carried out by the installer.

If the ARAG components installed together with other brands' components get damaged because of what stated above, no direct or indirect warranty will be provided.

1 RISKS AND PROTECTIONS

All installation works must be done with battery disconnected, using suitable tools and any individual protection equipment deemed necessary.

2 PRODUCT DESCRIPTION

BlueCannon is a spotlight with a light beam designed to illuminate the fluid jet coming out of the nozzles, thus allowing the user to check correct operation also during the night. The blue light and its low absorption make this product the best solution available to illuminate a crop spraying boom.

3 INTENDED USE

This device is designed to work on agricultural machinery for spraying and crop spraying applications. The equipment is designed and built in compliance with UNI EN ISO 14982 standard (Agricultural and forestry machinery - Electromagnetic compatibility - Test methods and acceptance criteria), harmonized with EMC Directive - 2014/30/EU.

The device is designed for professional use, as a component for spraying machines and crop sprayers and therefore for the agricultural sector, used as a spotlight for lighting the boom.

4 PRECAUTIONS



- Do not use solvents or fuel to clean the case outer surface.
- Do not clean equipment with direct water jets.
- Comply with the specified power voltage (12 or 24 Vdc).
- In case of voltaic arc welding, remove connectors from the device and disconnect the power cables.
- Only use ARAG genuine spare parts and accessories.



CAUTION: The product emits potentially dangerous optical radiation. Do not stare at the lamp when it is on; it can be harmful to the eyes. The device is classified within RISK GROUP 2 according to IEC/EN 62471.

5 PACKAGE CONTENT



1 Blue Cannon complete with adjustable bracket.



To be ordered separately:

- power cable
- fixing components: bolt, washer, nut (M8).

Fig. 1

6 INSTALLATION

6.1 Size (mm) and positioning

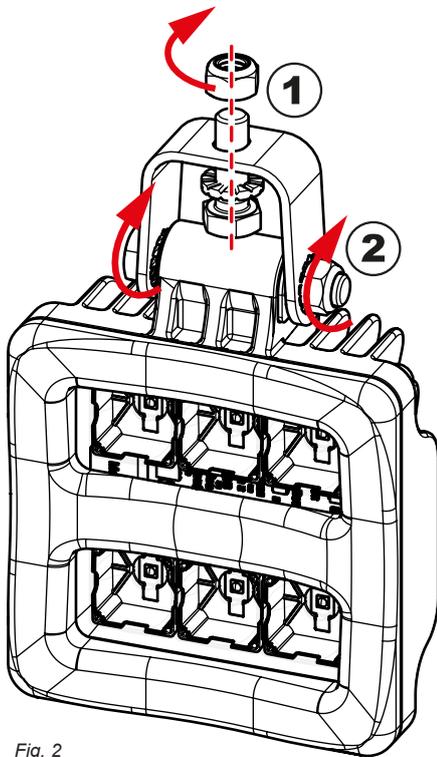


Fig. 2

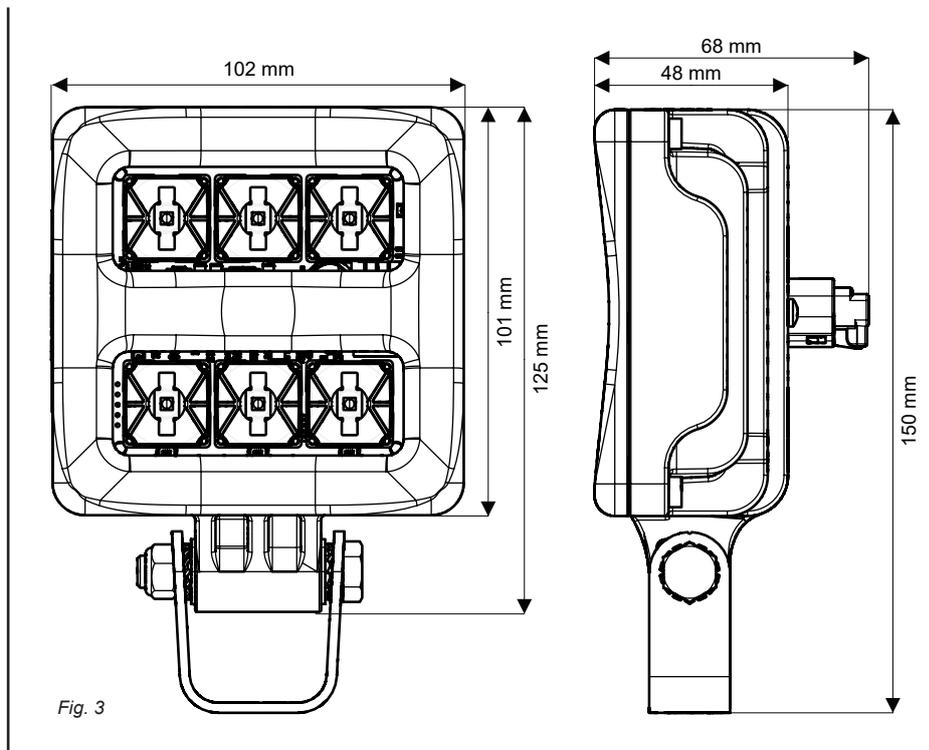


Fig. 3

1 The fixing bracket is pre-assembled to the body of the spotlight: fix the device by means of an M8 bolt, an M8 toothed washer and an M8 self-locking nut, if required.

2 Orient the spotlight and then fix the bracket with a tightening torque of 6 Nm.

Do not exceed the maximum tightening torque of 6 Nm to avoid damaging the anti-vibration system.

If you do not use the supplied bracket, provide for a fixing that will self-lock on the toothed washers, which must be placed in correspondence of the rubber pads (Fig. 4):

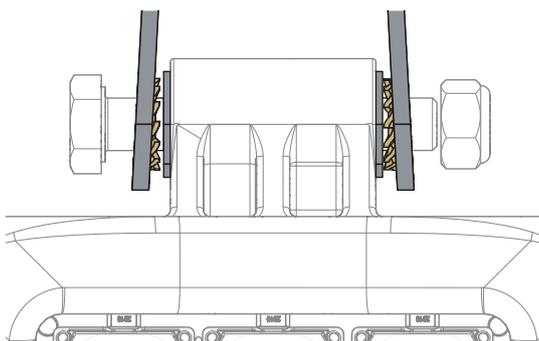


Fig. 4

7 WIRING CONNECTIONS

- Use original ARAG harnesses only.
- Take care not to break, pull, tear or cut the cables.
- Use of unsuitable cables not provided by ARAG automatically voids the warranty.
- ARAG is not liable for any damage to the equipment, persons or animals caused by failure to observe the above instructions.

7.1 General precautions for a correct harness position

- **Securing the cables:**
 - secure the harness so that it does not interfere with moving parts;
 - route the harnesses so that they cannot be damaged or broken by machine movements or twisting.
 - the product's power cable must be properly secured once installation of the spotlight is complete.
- It is advisable to use a rigid protection on the back of the connector (backshell) so as not to cause a bend angle too close to the connector (Fig. 5) thus compromising its watertightness

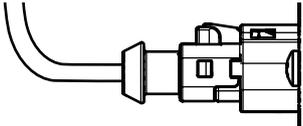


Fig. 5

- **Routing the cables to protect against water infiltrations:**
 - the cable branches must ALWAYS be facing down.
- **Fitting the cables to the connection points:**
 - Do not force the connectors by pushing too hard or bending them: the contacts may be damaged and system operation may be compromised.

 Use **ONLY** the cables and accessories indicated in the catalog, having technical features suitable for the use to be made of them.

7.2 Device connection

 **CAUTION:**
TO AVOID SHORT CIRCUITS, DO NOT CONNECT THE POWER CABLES TO BATTERY BEFORE THE INSTALLATION IS COMPLETED. BEFORE POWERING UP THE SYSTEM, MAKE SURE THE TRACTOR BATTERY VOLTAGE IS AS SPECIFIED.
 The device can operate on 12/24 Vdc battery-powered systems.

Use the specific cable, to be purchased separately, to connect the device to the power supply.

| PIN | CONNECTION |
|-----|-----------------------|
| 1 | Power supply positive |
| 2 | Power supply negative |

-  **CAUTION:**
- The power circuit shall ALWAYS be protected by a 2 A fuse like the ones for automotive applications.
 - Use cables with suitable terminals ensuring correct connection of all wires.
 - Directly connect the power cable to the key-on power supply (15/54) or to a utility capable of delivering the required current.

WARNING, CAUTION:
 if you power the device with 24 Vdc, the power supply line (+24 Vdc) must feature a pulse suppressor limiting voltage to 58V (ISO 16750--2: 2012). Should this not be the case, the device control electronics could get damaged!

8 USE

Turn on the spotlight when the light conditions do not allow a proper view of the liquid cone produced by the nozzles. Always turn off the spotlight during the daytime or when it is not useful for increasing vision.

9 MAINTENANCE / DIAGNOSTICS / REPAIRS

- Clean only with a soft wet cloth.
- Do not use aggressive detergents or products.
- Do not use solvents or fuel to clean the case outer surface.
- Do not clean equipment with direct water jets.

9.1 Troubleshooting

| PROBLEM | CAUSE | SOLUTION |
|---|---|---|
| The spotlight does not switch on. | Possible lack of power. | Check for proper power supply to the spotlight. |
| | Incorrect connection. | Check for correct polarity of the mobile connection. |
| | External power fuse interrupted. | Check that the fuse is intact. |
| The spotlight does not illuminate all nozzles properly. | Incorrect spotlight orientation. | With the nozzles in place, aim the beam so that all nozzles are illuminated, then lock the bracket retaining nuts in place. |
| The spotlight loses proper alignment with the nozzles. | Incorrect tightening of the bracket. | Check tightening torques. |
| | Missing toothed washers. Incorrect positioning of the toothed washers. | Check the presence and the correct installation of the toothed washers. |
| The luminous flux of the spotlight is not efficient enough. | Possible dirt on the front glass. | Clean the front glass of the spotlight with a damp cloth. |

10 TECHNICAL DATA

10.1 Electrical features

Supply voltage 9+36 Vdc
 For use on 24-Vdc powered vehicles:
 protect the system from load dump pulse ISO 16750-2:2012 with clamp at max. 58 V.
 Maximum absorption at 12 Vdc 1.5 A
 Maximum absorption at 24 Vdc 0.75 A
 Typical wavelength 475 nm
 Protection against polarity inversion Yes
 Protection against short-circuit Yes
 Overvoltage protection Yes
 Overtemperature protection Yes
 The overtemperature protection is activated and progressively reduces the luminous flux.

10.2 Environmental features

Operating temperature -40°C + +75°C / -40°F + +167°F
 Storage temperature -40°C + +85°C / -40°F + +185°F

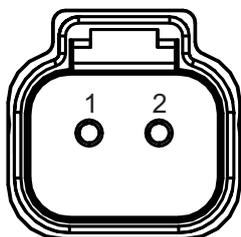
10.3 Physical features

Anti-vibration fixing system Yes
 Weight 600 g

10.4 Materials

External body Die-cast aluminum AL EN AC 46100 with black cataphoresis treatment
 Bracket AISI 304 stainless steel with black cataphoresis treatment
 Front glass Tempered glass
 Vibration dampers EPDM
 Seals Silicone
 M8 bolt and nut Black zinc-plated steel
 M8 washer Black zinc-plated steel

10.5 Connector pin-out



| PIN | Signal |
|-----|-----------------------|
| 1 | Power supply positive |
| 2 | Power supply negative |

Fig. 6

11 END-OF-LIFE DISPOSAL

INFORMATION TO USERS OF PROFESSIONAL EQUIPMENT



Pursuant to Art. 24 of Italian Legislative Decree of March 14, 2014, no. 49 “Implementation of Directive 2012/19/EU on waste electrical and electronic equipment (WEEE).”

The crossed-out wheeled bin symbol on the equipment or on its packaging indicates that the product must be collected separately from other waste to allow proper treatment and recycling at the end of its useful life.

In particular, separate collection of this professional equipment at the end of its useful life is organized and managed:

- a) directly by the user, if the equipment has been placed on the market before December 31, 2010 and the user decides to dispose of it without replacing it with a new equivalent equipment with the same functions;
- b) by the manufacturer, intended as the entity that first introduced and marketed the equipment in Italy or resells the new equipment that replaced the previous one in Italy under its own brand, in the event that, at the same time as the decision to dispose of the end-of-life equipment placed on the market before December 31, 2010, the user purchases a product of equivalent type and used for the same functions. In the latter case, the user may request the manufacturer to collect this equipment within and not later than 15 consecutive calendar days after delivery of the new equipment;
- c) by the manufacturer, intended as the entity that first introduced and marketed the equipment in Italy or resells the new equipment that replaced the previous one in Italy under its own brand, in the event that the equipment was placed on the market after December 31, 2010;

Appropriate separate collection for subsequent recycling, treatment and environmentally compatible disposal of the scrapped equipment helps to avoid possible negative effects on the environment and health, and promotes the reuse and/or recycling of the materials that make up the equipment.

Unauthorized disposal of the product by the user results in the application of the sanctions provided for by current legislation.

ARAG S.r.l. has chosen to join the APIRAEE Consortium, a primary Collective System that guarantees consumers the correct treatment and recovery of WEEE and the promotion of policies for environmental protection.

12 GUARANTEE TERMS

1. ARAG s.r.l. guarantees this apparatus for a period of 360 days (1 year) from the date of sale to the client user (date of the goods delivery note).
The components of the apparatus, that in the unappealable opinion of ARAG are faulty due to an original defect in the material or production process, will be repaired or replaced free of charge at the nearest Assistance Center operating at the moment the request for intervention is made. The following costs are excluded:
 - disassembly and reassembly of the apparatus from the original system;
 - transport of the apparatus to the Assistance Center.
2. The following are not covered by the guarantee:
 - damage caused by transport (scratches, dents and similar);
 - damage due to incorrect installation or to faults originating from insufficient or inadequate characteristics of the electrical system, or to alterations resulting from environmental, climatic or other conditions;
 - damage due to the use of unsuitable chemical products, for spraying, watering, crop spraying or any other crop treatment, that may damage the apparatus;
 - malfunctioning caused by negligence, mishandling, lack of know how, repairs or modifications carried out by unauthorized personnel;
 - incorrect installation and regulation;
 - damage or malfunction caused by the lack of ordinary maintenance, such as cleaning of filters, nozzles, etc.;
 - anything that can be considered to be normal wear and tear;
3. Repairing the apparatus will be carried out within time limits compatible with the organizational needs of the Assistance Center. No guarantee conditions will be recognized for those units or components that have not been previously washed and cleaned to remove residue of the products used;
4. Repairs carried out under guarantee are guaranteed for one year (360 days) from the replacement or repair date.
5. ARAG will not recognize any further expressed or intended guarantees, apart from those listed here.
No representative or retailer is authorized to take on any other responsibility relative to ARAG products.
The period of the guarantees recognized by law, including the commercial guarantees and allowances for special purposes are limited, in length of time, to the validities given here.
In no case will ARAG recognize loss of profits, either direct, indirect, special or subsequent to any damage.
6. The parts replaced under guarantee remain the property of ARAG.
7. All safety information present in the sales documents regarding limits in use, performance and product characteristics must be transferred to the end user as a responsibility of the purchaser.
8. Any controversy must be presented to the Reggio Emilia Law Court.

13 EU DECLARATION OF CONFORMITY

The declaration of conformity is available at the website www.aragnet.com, in the relevant section.

*Only use genuine ARAG accessories or spare parts to make sure manufacturer guaranteed safety conditions are maintained in time.
Always refer to the Internet address www.aragnet.com*

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