



AL2007 light fitting user and installation manual

Type: AL2007 - AL2007D - ALPL70D



AGRILIGHT b.v.

Vlotlaan 560,
2681 TX Monster
The Netherlands

Tel: +31 (0)174.287.287

Fax: +31 (0)174.287.292

Internet: www.agrilight.nl

E-mail: info@agrilight.nl



Dear customer

Thank you for buying an Agrilight b.v. product. These light fittings were designed specifically for lighting cattle houses and meet the requirements and specifications of the contemporary market. These light fittings are the result of comprehensive research and clever development and have been built in accordance with the latest technical developments.

This manual will give you the necessary information to enable you to safely and correctly install and use your light fittings. We advise you to read it carefully and to keep it safe. When in doubt, please do not hesitate to contact us for additional information.

Use

Since these light fittings have reflecting covers, perfect light distribution can mostly be achieved in a cattle house of up to 24 metres wide, using a single row of light fittings in the centre of the house. The light fittings in the AL2007 series are dust and watertight and comply with the inspection requirements for intensive livestock farming.

Bespoke lighting layout

A successful lighting system starts with a thoroughly devised lighting layout with 4 light options, created specifically for your cattle house. This advice is free of charge and obligation and takes into account any obstacles in your cattle house to ensure that the light is uniformly distributed throughout the house. You will be receiving this lighting layout enclosed with our quotation.

In-line test for AL2007 light fittings

The following tests are carried out during production:

- 500 Volts test
- Earth test
- Function test

CE-marking



Referring to the declaration of conformity for the light fitting, the CE mark on the light fitting's rating label also confirms that the light fittings comply with the strict European safety standards.

Designated use

The AL2007 light fittings are intended for lighting cattle houses. Any other use does not comply with their designated use.

Agrilight b.v. does not accept any responsibility for damage or loss or injury resulting from any other use than that for which the light fittings have been developed and designed.

For your safety: Note!

Agrilight b.v. attaches the greatest importance to the light fittings being used and maintained in a manner which gives priority to user safety.

To ensure safe and reliable use, proceed as follows:

1. Read this manual before installing the light fittings.
2. Make sure that all people involved in installing the light fittings and putting them into use know the relevant information from this manual before the light fittings are installed and/or put into use. Make sure that the instructions are actually understood. Responsibility for this rests with the person who is responsible for installation.



230V electric power

There is 230V live power on components in the light fittings.



Safety instructions

Always comply with the safety instructions in this manual. Any failure to comply with the safety instructions, warnings and instructions may result in serious or lethal personal injury and to material damage to the installation.

Installation

To enable optimum performance of these light fittings it is crucial that they are installed and put into use by a recognised installer, in accordance with the lighting layout (installation drawing).

Service parts

To ensure proper and safe operation, always use original Agrilight b.v. parts.

Declaration of conformity:

The manufacturer: Agrilight b.v.
Address: Vlotlaan 560, 2681 TX Monster, The Netherlands
hereby certifies:
that the Agrilight b.v. light fittings of the types:

AL2007 / AL2007D / ALPL70D

The light fittings have been tested according to: - EN60598-1
- EN60598-2-1

Monster, 2007 Agrilight b.v.

Unpacking and inspecting

1. Carefully unpack the AL2007 light fitting.
2. Immediately inspect it for any damage due to transport or other causes.
3. Immediately report any damage to a light fitting to the carrier, the insurance company and Agrilight b.v., referring to the delivery documents. We advise you not to put a damaged light fitting into use, even if the damage seems to be only superficial. If you are considering putting a damaged light fitting into use, first consult Agrilight b.v.

The packaging contains (figure 1)

No.	Quantity	Description
(1)	1	AL2007 light fitting
(2)	1	Swivel nut
(3)	1	Swivel plug
(4)	2	Suspension bracket (for chain suspension)
(5)	1	Mounting bracket (for bracket installation)
(6)	2	(a) 950-mm support (for bracket installation)
		(a) 450-mm support (for bracket installation)
		(a) 200-mm support (for bracket installation)
(7)	1	Bulb (is supplied separately, contrary to this picture)

Other fasteners. (if and to the extent that they have been ordered)

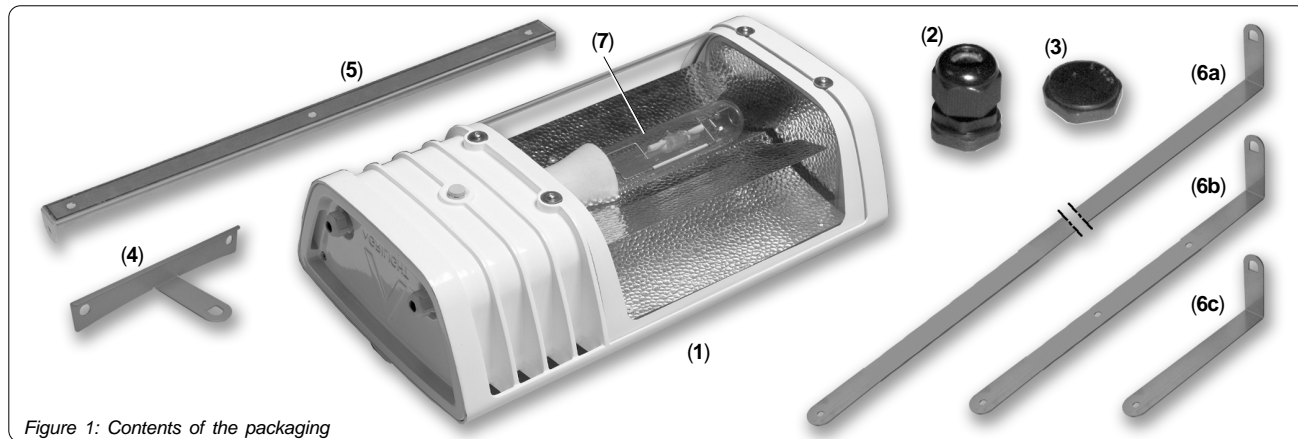


Figure 1: Contents of the packaging

An introduction to the different types of light fitting

The AL2007 series comprises three types of light fitting, each of which is available in various watt ratings (see also the Technical specifications).

- AL2007 : AL100 Watts, AL150 Watts, AL250 Watts, AL400 Watts
- AL2007D : AL100D Watts, AL150D Watts
- ALPL70D : AL70D Watts

<p>TYPE: AL2007</p> <p>The AL2007 light fitting was designed specifically for lighting cattle houses. Depending on your requirements and the results of the lighting layout, the light fittings have high-quality:</p> <ul style="list-style-type: none"> • high-pressure sodium bulbs (yellow light) (A) or • metal halide bulbs (white light) (B). 	<p>TYPE: AL2007D</p> <p>Type AL2007 is also available in a dim version, identified by the letter D. This AL2007D has been fitted with 0-10 Volt control for this purpose. This enables you to control the light level in the cattle house to use between 20% and 100% of the bulbs' power to save energy.</p>	<p>TYPE: ALPL70D</p> <p>The ALPL70D light fittings can be dimmed and have been designed specifically for lighting poultry houses. The light fittings have white 70W fluorescent bulbs with colour code 830. The light level of this type of bulb can be dimmed from 100% to 3% of the bulbs' power, which will lower their current consumption by a proportionate level.</p>
<p>Choke</p> <p>AL2007D and ALPL70D light fittings have electronic chokes. This enables optimum light level control and makes the bulb perform even better.</p>		

Technical specifications of AL2007, AL2007D and ALPL70D

Specifications	ALPL70D*	AL2007				AL2007D*	
	AL70D* Watts	AL100 Watts	AL150 Watts	AL250 Watts	AL400 Watts	AL100D* Watts	AL150D* Watts
Dimensions L x W x H	480 x 370 x 240 (mm)						
Weight (fully assembled)	9,70 Kg	12,40 Kg	12,80 Kg	13,30 Kg	14,40 Kg	10,10 Kg	10,10 Kg
Bulb type	PL	HPS of MH	HPS of MH	HPS of MH	HPS of MH	HPS	HPS
Bulb power	70 watts	100 watts	150 watts	250 watts	400 watts	100 watts	150 watts
Mains voltage**/Frequency	230V / 50Hz	230V / 50Hz	230V / 50Hz	230V / 50Hz	230V / 50Hz	230V / 50-60Hz	230V / 50-60Hz
Current	0,4 Amp	0,52 Amp	0,76 Amp	1,30 Amp	2,3 Amp	0,50 Amp	0,75 Amp
Power factor (indicative)	> 0,98	> 0,85	> 0,85	> 0,85	> 0,85	> 0,98	> 0,98

* D = can be dimmed via 0-10 volt control

** Other voltage ratings on request.

Installation



Any failure to comply with the following instructions, safety instructions and warnings may result in serious or lethal personal injury and to material damage to the installation.

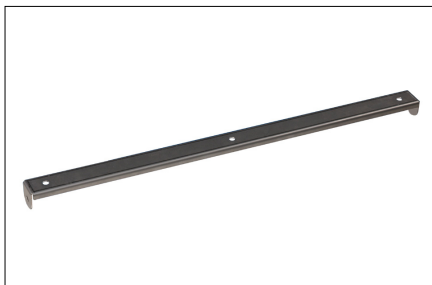
- The control cabinet must be installed in accordance with the generally and locally applicable building, safety and installation instructions and regulations of the local municipality, the electricity company and the water board.
- The light fitting must only be installed by a recognised installer.
- Always fully interrupt the mains voltage before carrying out work on the light fitting!
- Make sure that the mains voltage cannot be switched on again unexpectedly or unintentionally!
- Only use insulated tools!

- It is imperative that you check the sticker on the outside of the light fitting for the voltage and ampere ratings. The voltage on the sticker must be in accordance with the supply voltage. Only continue installing the unit if this is OK; if not, check the wiring diagram for the ballast resistor, since certain ballast resistors enable the voltage to be changed from 230 to 220 volts, but this is only allowed if the unloaded supply voltage is less than 220 volts.

The installation drawings enclosed with your quotation list the conditions which have to be observed while installing the light fittings, like the distance between light fittings, their height and the number of rows. These installation conditions must be observed in their entirety to ensure good uniformity and a good light level. Also observe the connection conditions according to NEN 1010. Agrilight b.v. is not liable for any damage or loss resulting from improper installation of the light fitting.

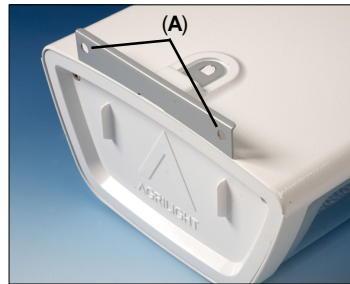
Installing a light fitting using a mounting bracket

1. Install the bulb in the light fitting. Consult the section "Installing/replacing bulbs" on page 4 for the work procedure.



2. Install the mounting bracket (5) to the ceiling, mounting structure or supporting beam. Properly anchor the bracket to prevent it coming loose!
3. Attach the two supports (6) to the mounting bracket.
4. Push the 2 supports (6) into the slots at the top of the light fitting (1) until the lugs click into the support ends, locking them to prevent them coming loose. In principle, this connection cannot be undone again.

Installing a light fitting using chains



1. Push the 2 suspension brackets (4) into the slots at the top of the light fitting until the lugs click into the bracket ends, locking them to prevent them coming loose. In principle, this connection cannot be undone again.
2. Install the chains to the ceiling, mounting structure or supporting beam.
3. Attach the light fitting by engaging the chains in the holes (A).

Levelling



A spirit level vial has been installed in the plastic cover on the electronics side of the light fitting. You can adjust the light fitting horizontally (around the bulb axis) by turning the light fitting around the bulb axis until the spirit level vial is central.

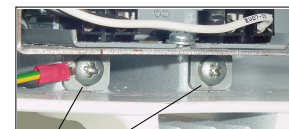
Making the electrical connections



Never remove the glass cover of the light fitting, otherwise the gasket in the cover might not seal properly anymore. Removing the glass cover invalidates your guarantee rights! Only carry out assembly and disassembly work via the plastic end covers of the light fitting.

Type AL2007 comes with a 1.5 m lead as standard which only has to be connected in the junction box.

1. Remove the plastic end cover from the light fitting on the electronics side (2 screws).
2. Undo the two screws at the bottom of the electric slide and remove the slide from the light fitting.



Maintenance



Always remove the voltage from the light fitting before carrying out maintenance work on the light fitting!

Pollution may negatively affect the service life of the light fitting. To maintain optimum light output we recommend regularly checking the state of the bulbs and cleaning the light fitting. A special cleaning kit is available for the AL2007 light fittings, consisting of a rounded brush, a telescopic bar, a customised bucket and special detergent. For additional information or to order this cleaning kit, contact your installer or Agrilight b.v.

Failures / Replacing bulbs

The light fitting does not work:

Check that there is mains voltage:

- Check the switch panels;
- Check the fuses;
- Check your computer settings (if computer-controlled);
- Check / replace the bulb.

Check to determine whether the bulb has reached the end of its lifecycle:

- The bulb is flashing on and off;
- The end of the bulb is starting to turn black;
- Brown discoloration on the glass of the bulb;

If the bulb does not work: replace the bulb as soon as possible or disconnect the light fitting from its power supply.

Installing / replacing bulbs



Always use the correct bulb in a light fitting, otherwise the light fitting may be damaged. The correct type of bulb is stated on the rating sticker on the light fitting.

- **AL2007** bulb types: HPS of MH (100W, 150W, 250W, 400W)
- **AL2007D** bulb types: HPS (100W, 150W)
- **ALPL70D** bulb types: PL 70W 4pin



Let the bulb cool down for at least half an hour before removing it. Bulbs which have just been used are very hot and may cause serious burns.



Before replacing the bulb interrupt the power supply to the light fitting to ensure a safe work situation.

1. Manually unscrew the two screws from the plastic end cover on the bulb side of the light fitting. Do not use a power screwdriver as this might damage the two (blue) sealing rings.
2. Hold the cover by its two lugs to pull it out of the light fitting.



Other than suggested by the photo, the opening which has thus been created will reveal a reflector plate with a rectangular window. You can replace the bulb through this window.



Do not touch the bulb with your bare hands but wear clean gloves. This way you prevent the bulb glass being polluted and dirt burning into the glass.

Bulbs of AL2007 and AL2007D light fittings

Carefully turn the bulb in an anti-clockwise direction to unscrew it and screw the new bulb into the light fitting in the opposite direction until it is finger-tight. Make sure you do not deform the reflector plates while replacing bulbs.

After installing the bulb, we recommend carefully centring it in respect of the reflector / bulb axis by hand.

The slight lateral clearance of the bulb in the fitting can be used for this.

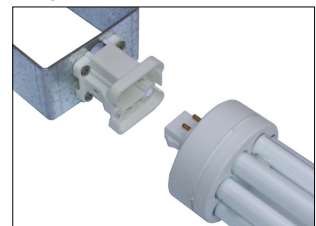
Slightly pushing the glass of the bulb from the side should suffice.



Bulb for an ALPL70D light fitting

Carefully pull the bulb out of the clamps of the bulb holder without turning it and push the new bulb into the clamps of the bulb.

Make sure you do not deform the reflector plates while replacing bulbs.



Restoring the end cover

Clean the sealing surfaces of the light fitting and the end cover using a damp cloth with a mild detergent. Inspect the sealing rubber: it must be intact at all positions around the cover. Then apply some mild soap or acid-free Vaseline to the sealing surfaces of the light fitting and to the sealing rubber of the cover. This makes it easier to install the cover and prevents the sealing rubber slipping out of position when the end cover is being installed. Close the light fitting by carefully placing the plastic end cover back and manually tightening the two screws (incl. the two (blue) sealing rings). Do not use a power screwdriver as this might damage the two sealing rings.

If the bulb still does not work:



Always remove the voltage from the light fitting before carrying out trouble-shooting work on the light fitting!

- Check the wiring;
- Replace the starter if the light fitting still does not work;
- Replace the ballast resistor if the light fitting still does not work.

Note! Light fittings which can be dimmed (D) have no loose starters or capacitors. Replace the ballast resistor unit if the new bulb does not work.

Guarantee conditions

- 1 Agrilight b.v. light fittings, including their bulbs, are covered by a guarantee of one year from the date of purchase stated on the Agrilight b.v. invoice. No other guarantees apply to the light fittings.
- 2 Faulty parts covered by these guarantee conditions are replaced free of charge. Faulty parts must be returned to Agrilight b.v. for verification purposes within one month of the fault occurring.
- 3 An invoice will be enclosed with the shipment of replacement parts; this will be credited to you if and to the extent that our verification confirms that the defect remedied by the part or parts is covered by our guarantee. Return shipments must be sent carriage paid.

Choke

The choke does not contain any serviceable parts. The guarantee is invalidated if this unit is opened. Due to the necessity of using various 'heavy' parts in the electronics, due care is called for to prevent damage: you should therefore avoid all impacts and improper loads and stresses during transport, installation and use of the light fitting.

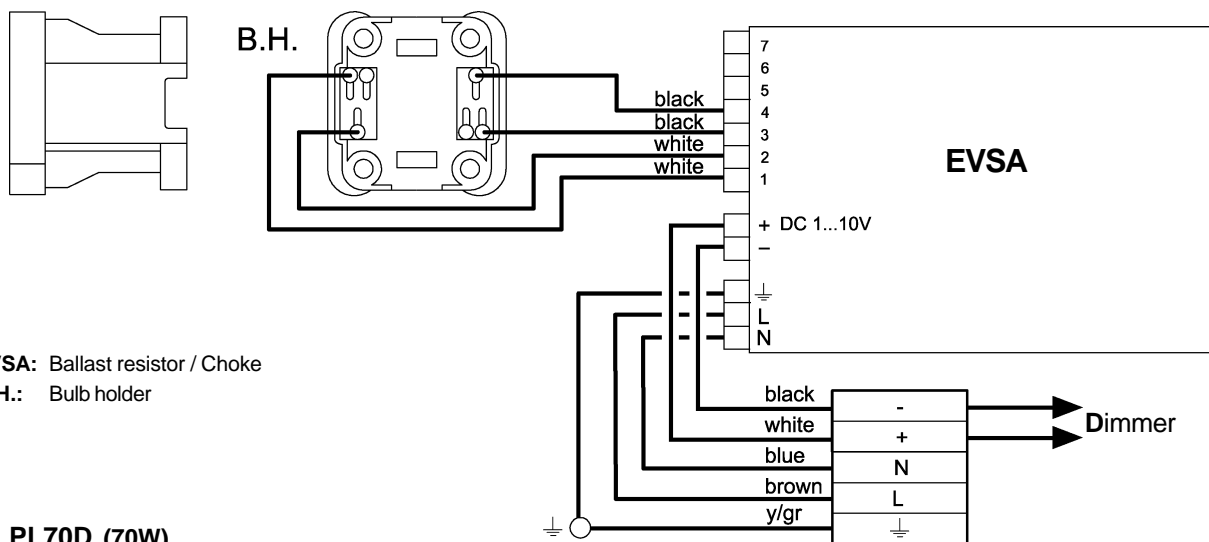
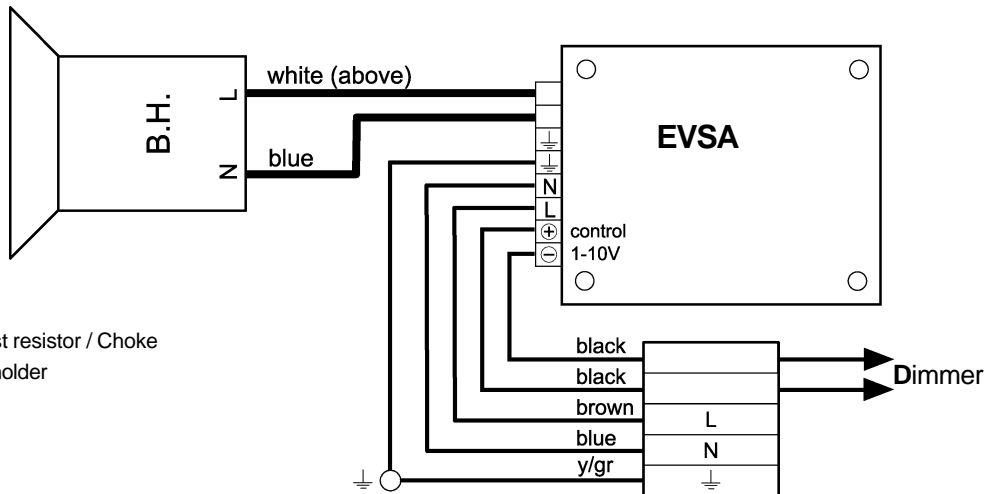
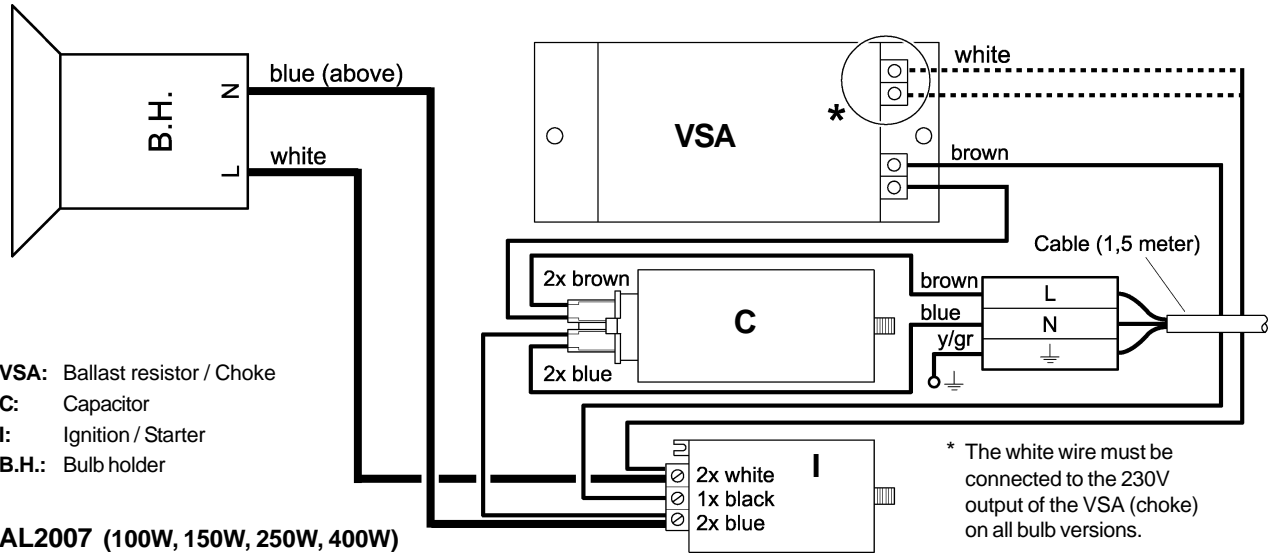
Liability

Agrilight b.v. explicitly waives all liability for damage or loss of any scope and nature resulting from the instructions in this manual or the connection conditions according to NEN 1010 not fully being complied with or not being complied with at all. In addition, we refer to the Dutch Metaalunie Conditions and the additional guarantee provisions of Agrilight b.v. for our terms of delivery. Subject to technical changes.



Schematic wiring diagram of AL2007 light fittings

Type: AL2007 - AL2007D - ALPL70D



We reserve the right to make changes to the diagrams without prior notice.