

Operating manual

X-Light-F, X-Light-E



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IMPORTANT!

Before taking the product into operation, these operating instructions must be read and applied with care.

In case of incorrect use of the product, no warranty is given.

Please keep the manual carefully for future reference.

Pesch Marinescheinwerfer reserves the right to make technical changes to the products described here.



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Introduction

These operating instructions inform you about the safe operation of the product. The product has been designed, constructed and manufactured according to the applicable safety guidelines. Despite compliance with these regulations, hazards to persons and objects may arise. Therefore, these instructions point out the dangers.

For this reason, it is very important to read and use the operating instructions in order to minimize the risks and to deal with the dangers. These operating instructions are only intended for the X-Light product line. To avoid later demands, keep the instructions carefully. If instructions are lost, contact the address indicated on the cover sheet. Reproduction is prohibited here.

If a change made by the operator takes place on the product, the warranty expires and no liability takes place. Changes to the product must be approved in writing by the manufacturer.

Safety instructions

General

The searchlight was developed in its construction according to the current state of the art. Nevertheless, the searchlight can be dangerous. If the searchlight is operated by untrained personnel, is not used according to the intended use or is not properly maintained, unpredictable situations may occur.

Therefore, the following safety instructions must be read and taken note of. The text marked with the symbols in the following chapters must also be observed. Furthermore, the operator is responsible for the compliance with the protective regulations and the intended use. Thus, the operation is at your own risk. As long as the manufacturer is not accused of gross negligence, there is no liability.

Symbol – and notes X-Light searchlight

The following symbols can be recognized on the searchlight:

Type label

The type label must always be easy to read. Unreadable or destroyed signs must be replaced immediately.

Pesch Searchlight Window Wiper Floodlight	SEEMATZ 		
	ORTSRING 2 D-21423 WINSEN Tel. +49 4171-5684 Fax. -50765		
Type	X-LIGHT	24	V
PROT. SYSTEM	IP66	VDC	Hz
SERIAL No.	XXXXXXX	350	VA

Symbol – and notes operating manual

Please note the meaning of the following symbol and note explanations

 Note	
	<p>Indicates general instructions, useful user tips and work recommendations, which, however, have no influence on the safety and health of the personnel.</p>
 ATTENTION	
	<p>Indicates a potentially dangerous situation. Failure to follow the instructions will result in property damage and minor or moderate personal injury.</p>
 WARNING	
	<p>Indicates a potentially dangerous situation. If the information is not followed, death or serious bodily injury (disability) will result.</p>
 DANGER	
	<p>Indicates an imminent situation. If the information is not followed, death or serious bodily injury (disability) will result.</p>

Intended use

The faultless operation is only given when used as intended. The intended use is only present if the searchlight is mounted on the existing holes on the foot at a defined place. Installation must be carried out by trained specialist personnel in accordance with the current safety guidelines. When assembling, a second person should help because of the weight of the searchlight.

The product is used to illuminate the system environment up to the maximum specified range.

 Danger	
	In the event of improper use, death or serious bodily injury (disability) will result. Likewise, substantial property damage can occur.

Not intended use

All deviations from the section "Intended use" are considered to be improper use.

Product description

Functional description

To ensure trouble-free operation, the input voltage must be maintained as described in chapter Technical data.

To prevent excessive heating of the X-Light, it must not be covered. Also, a monthly visual inspection of whether an exceptionally high pollution, must be carried out.

After the searchlight is powered, the vertical axis learns for about 10 seconds. Afterwards all functionalities are unlocked.

If this process does not work, the searchlight cannot be operated. Please contact the customer-service.

If the searchlight is not used but is powered, an automatic learning for the vertical axis process takes place every 12h.

To control the X-Light searchlight, you have to use the X-Light panel.



- 1.) Power On/Off
- 2.) DIM -/+
- 3.) Lamp On/Off
- 4.) Focus -/+
- 5.) Up/Down - Left/Right
- 6.) Focus indicator
- 7.) Horizontal indicator
- 8.) Vertical indicator

 NOTE	
	The backlight can be switched off completely, then no visual feedback is displayed. But all functionalities are possible.

Backlight:

The backlight can be adjusted via the DIM button.

Turn on the searchlight:

To turn on the searchlight, the power button on the control panel must

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be pressed.

Searchlight with angle display:

-As soon as the searchlight is switched on, the horizontal and vertical angles are visually displayed

Turn off the searchlights:

To switch off the searchlight, the power button on the control panel must be pressed.

Searchlight with angle display:

- As soon as the searchlight is switched off, the horizontal and vertical angles are no longer displayed

Turn on the light:

Switch on the searchlight, then the lamp button on the joystick must be pressed.

Visual feedback is the focus indicator. Once this is displayed, the light is on.

Turn off the light:

Searchlight can be switched off via two ways:

1. Press the lamp button again.
2. Press the power button, then all functions are switched off

Visual feedback is the focus indicator. Once this is no longer displayed, the light is off.

Set focus:

The focus of the searchlight can be adjusted via the rotary axis of the joystick. The focus can only adjust when the light is on. Visual feedback is the focus indicator.

Left = focused -> narrow beam; Right = out of focus -> wide beam

Between these angles, the searchlight lets you adjust continuously.

Set home position:

To set a home position, the searchlight must be on. Then a position can be stored via the lamp button. To do this, press the button for at least 3 seconds.

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Visual feedback gives the backlight. When the position is saved, the backlight turns off. Now the button can be released. A slow flashing shows that a home position has been set. Each time the searchlight is switched off, it moves to the home position.

In case of power failure, the position must be readjusted.

Reset home position:

To reset the home position, the searchlight must be on. Then the previously stored position can be reset via the lamp button. To do this, press the button for at least 3 seconds. Visual feedback gives the backlight. When the position is reset, the backlight turns off. Now the button can be released. A quick flashing visualizes that the home position has been reset. Each time the searchlight is switched off, the searchlight remains in its previous position.

Horizontal driving:

To move the searchlight horizontally, the joystick must be moved to the left or right. The horizontal axis can be moved 360 ° and has no stops.

As soon as the searchlight is switched on, the horizontal display gives a visual feedback. The actual angle is displayed.

Vertical driving:

To move the searchlight vertically, the joystick must be moved up or down.

As soon as the searchlight is switched on, the vertical display gives a visual feedback. The actual angle is displayed.

Technical data

description	unit	X-Light
dimensions	mm	455x400x365
weight	kg	21,5
power	VA	350
voltage DC	V	24
protection class	IP	66
LED	PCS.	90
Angle	°	3-12
temperature range	°C	-30 bis +55

The searchlight is fused with following fuse:

6,3 x32mm, 16AT.

The fuse can be replaced from the outer housing. In the appendix you can see the position of the fuse plug.

Installation

 Attention	
	If you look directly into the glowing LED's it can cause considerable damage to the eyes. Always switch off the appliance when working on the headlight.

Attachment searchlight

The searchlight may only be attached to the base by the three mounting holes. The technical drawing for the fixing holes can be found in chapter Annex Figure 3.

The following screws are recommended for mounting the searchlight:

- 3x ISO4017 M12 1.4401
- 3x ISO7089 Form A polyamide
- 3x ISO7089 Form A 1.4401

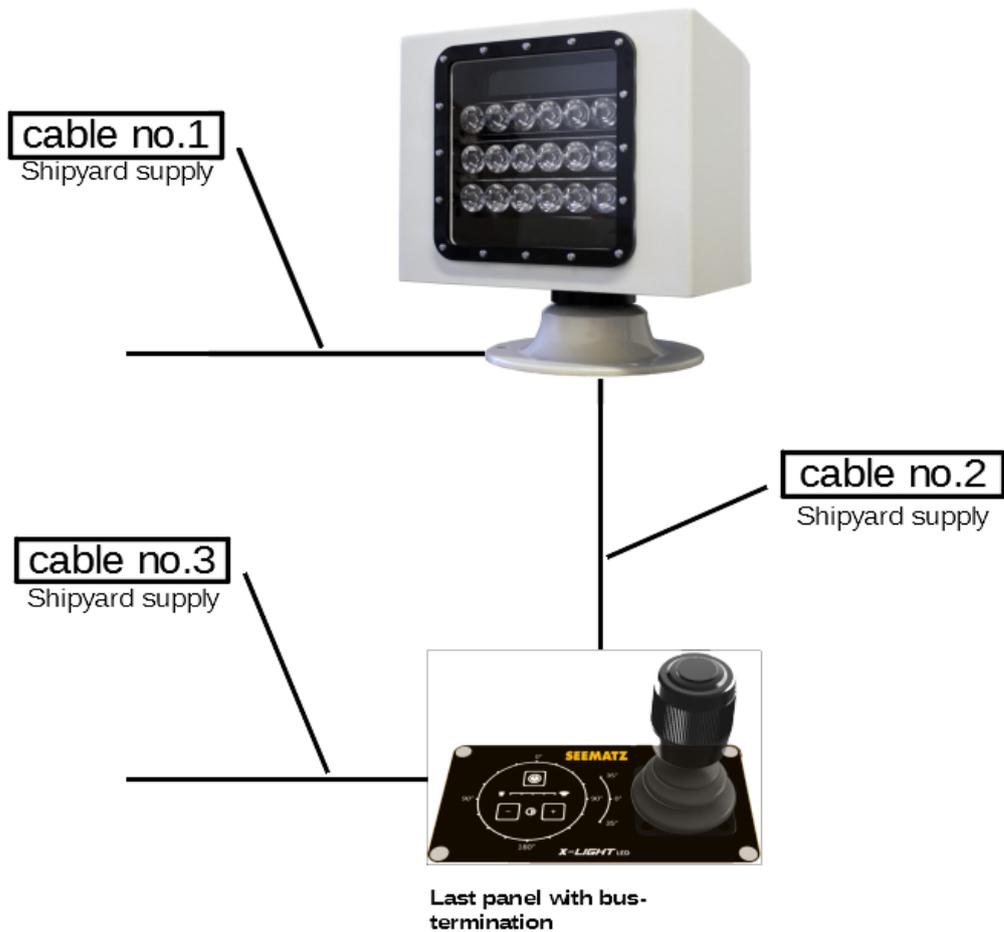
Connection of searchlight

Before starting the connection, the safety regulations and, in any case, the five safety rules must be observed.

When connecting the searchlight, no connection box needs to be opened. Only the supplied connectors must be wired.

 WARNING	
	Only plug in and disconnect the power connector power-free. The cable must also be released without power.
 DANGER	
	When selecting the connection cable, reference must be made to the applicable regional regulations for the connection of electrical systems. Using too small cable cross sections can cause serious consequences for people and the environment. CAUTION!! Acute fire hazard !!
 NOTE	
	Pay attention to markings on the counterpart when tightening the plug. Observe the enclosed instructions of the plug

X-Light installation overview



Cable no.	type	destination	comment
1	Min. 2x2,5mm ²	X-Light searchlight ↔ supply 24VDC/14A	Max. cable outer diameter: 14mm, Max. cable-diameter: 6mm ²
2	2x0,5mm ² , twisted pair, shielded	X-Light searchlight ↔ X-Light panel	max. cable length 250m, wave impedance 120Ω, max. cable outer diameter: 8mm
3	2x0,75mm ²	X-Light searchlight ↔ supply 24VDC/0,5A	24 VDC supply for X-Light panel

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In order to install the searchlight, it must be supplied with 24VDC (cable no.1). For this, the cable must be provided with the power connector.

Furthermore, the X-Light searchlight is connected to the X-Light control panel via cable no.2. In this case, the cable on the searchlight must be provided with the bus connector and on panel side with the panel connector (Can).

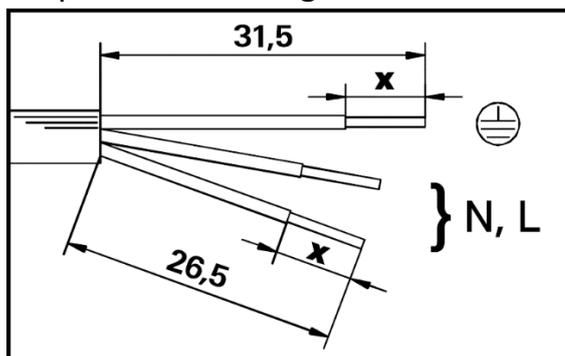
There are two 2-pin connectors on the control panel. The X-Light control panel must be supplied with 24VDC (cable 3) with the 24V-conector.

Power-connector X-Light

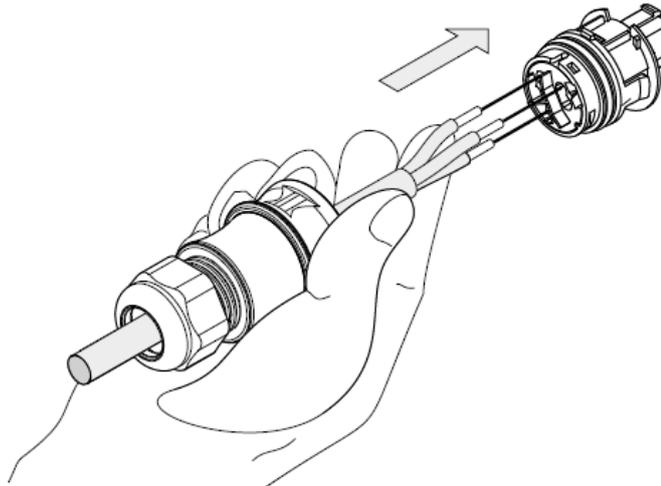
 NOTE	
	max. outer cable diameter 14mm

The following steps must be followed:

1. The cable must be stripped down 26,5mm for – and +.
2. Strip the wires. Length $x=8\text{mm}$. For x , see figure below.

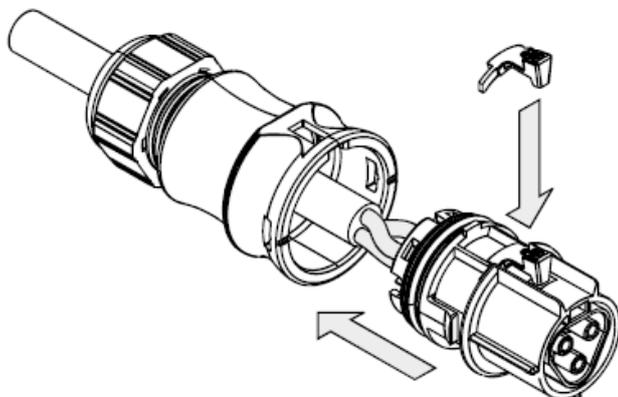


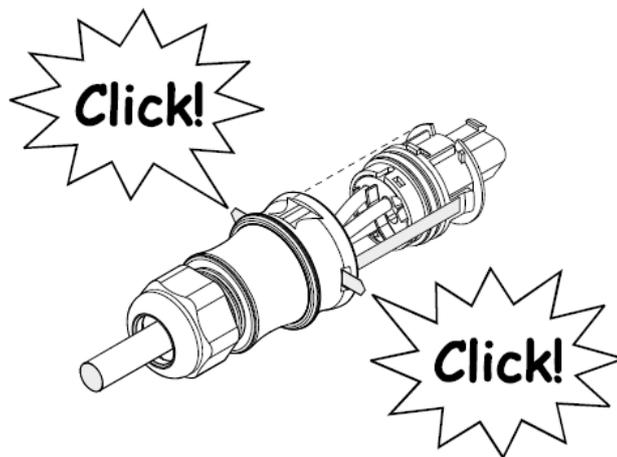
3. Insert the cable into the connector
4. Insert the wires into the designated terminal points and tighten the screws with a torque between 0.8Nm-1.0Nm.
 - a. Terminal point + -> 24V+
 - b. Terminal point - -> 24V-



		X-Light searchlight	
		24V+	24V-
Shipyards supply	24V+	Cable no.1/1	x
	24V-	x	Cable no.1/2

5. Cut the overhanging wire
6. In the next step, please put both main parts of the connector together. Please make sure, that the unlocking button is placed on the front end of the connector, before you put both main parts together.





Screw the plug with the counterpart provided on the searchlight and tighten the nut with a torque of 4Nm.

If the line connection is incorrectly disconnected from the terminal point, it is essential to make sure that there is no voltage. Then the connector can be loosened. After successful assembly, connect the power connector to the X-Light searchlight. Subsequently, the line can be placed on the ship. The following electrical specifications must be observed:

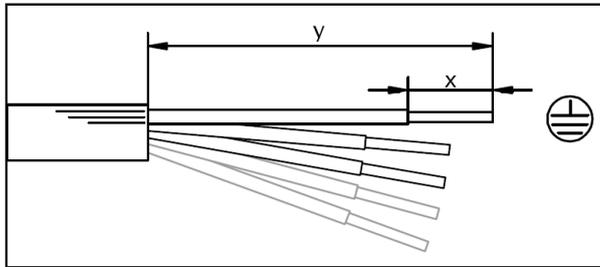
- 24VDC
- up to 14A
- 350VA

Bus-connector X-Light

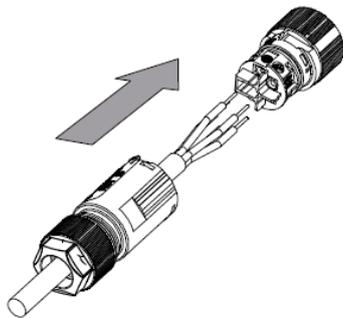
 NOTE	
	max. outer cable diameter 8mm, max. cable length 250m, Wave impedance 120 Ω

The following steps must be followed:

1. The cable must be stripped down with $y=25\text{mm}$ for 1 and 2. For y , see figure below.
2. Strip down the individual wires. Length $x=8\text{mm}$. For x , see figure below.



3. Insert the cable into the connector.

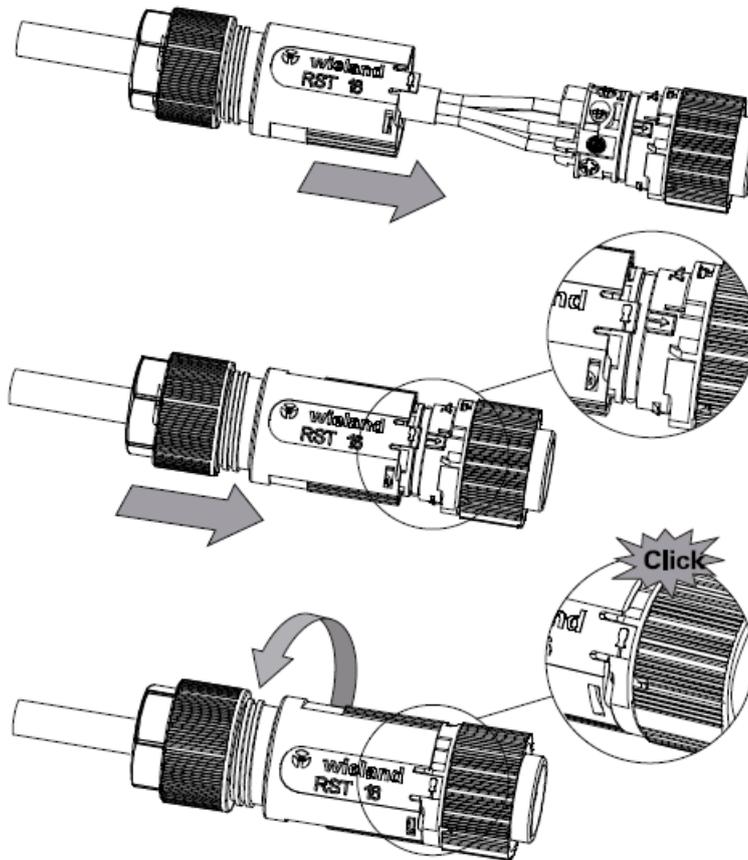


Please make sure, that the pin configuration is correct.

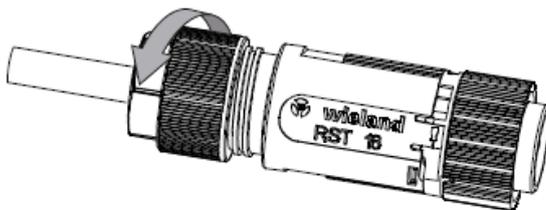
		X-Light panel	
		Can H	Can L
X-Light searchlight (socket)	Pin 1	Cable no.2/1	x
	Pin 2	x	Cable no.2/2

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- When the wires are connected to the front end of the connector, one can connect the back end of the connector with the front end.



- The last step is to tighten the nut. The tightening torque must be between 1.5-2.0 Nm.



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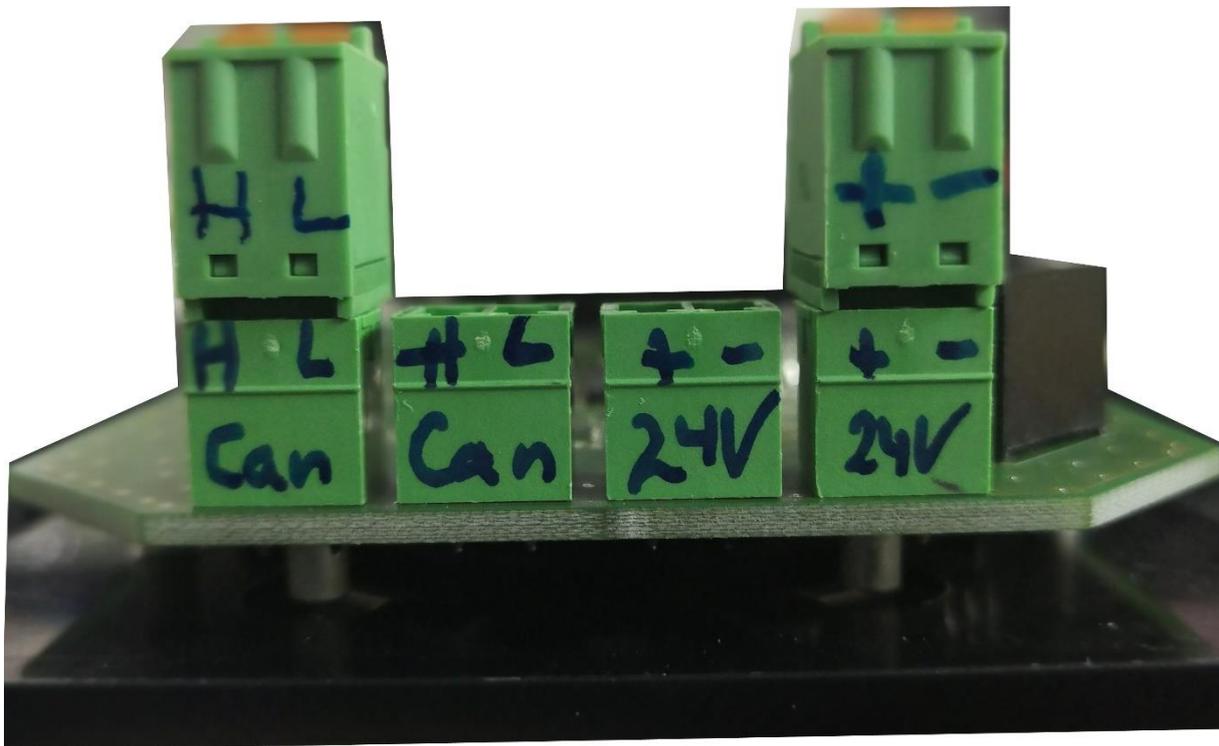
Panel X-Light

To connect the XLight panel, the following steps must be followed:

1. strip wires 9mm and collect as follows:

		X-Light panel		X-Light panel	
		24V+	24V-	Can H	Can L
Shipyard supply	24V+	Cable no.3/1	x		
	24V-	x	Cable no.3/2		
X-Light searchlight	X2.1			Cable no.2/1	x
	X2.2			x	Cable no.2/2

2. connect the connectors



Maintenance

 DANGER	
	When working on the searchlight, this must be switched off. Furthermore, the 5 safety rules must be observed. Work may only be carried out by qualified personnel.
 Danger	
	The searchlight must be checked twice a year. Care must be taken to avoid excessive contamination, damage and seals.
 ATTENTION	
	When looking directly into the luminous LED's it can cause severe damage to the eyes. When working on the searchlight always switch off the device.

The searchlight requires no special cleaning. He can be washed off with a damp cloth. If there is a rust attack, immediately coat the affected area with a cloth soaked in oil.

To ensure compliance with the protection class (IP 66), the seals must be replaced every 2 years. Furthermore, a visual inspection of the seal must be performed at each visual inspection. The order numbers of the seals can be found in chapter spare parts.

Customer service

When ordering spare parts, technical questions, as well as repair work, please contact the customer service:

Pesch Marinescheinwerfer

Ortsring 2

21423 Winsen/Luhe

D-Germany

www.seematz.de

E-Mail: sales@seematz.de

Tel.: 04171/5684

Appendix

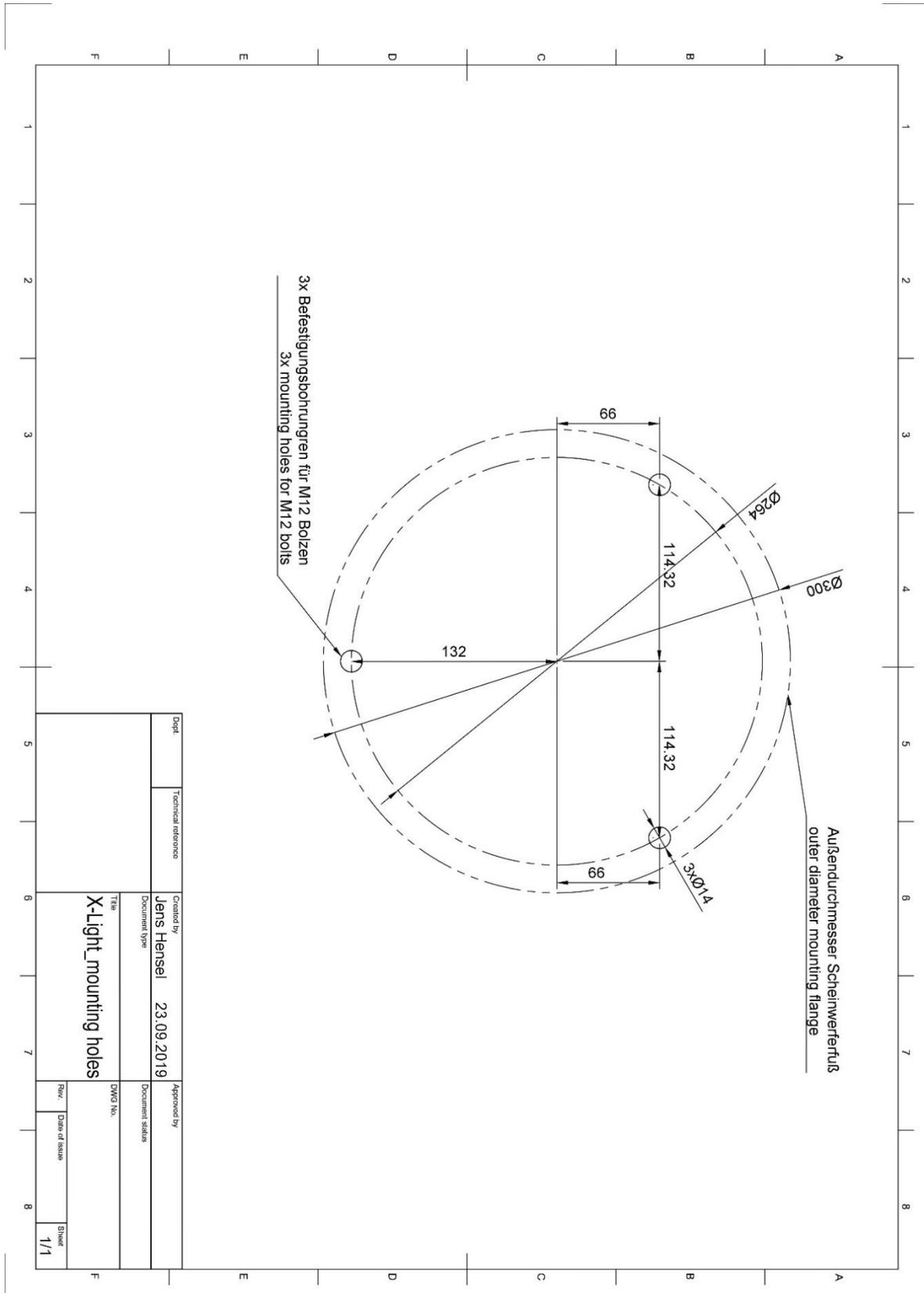
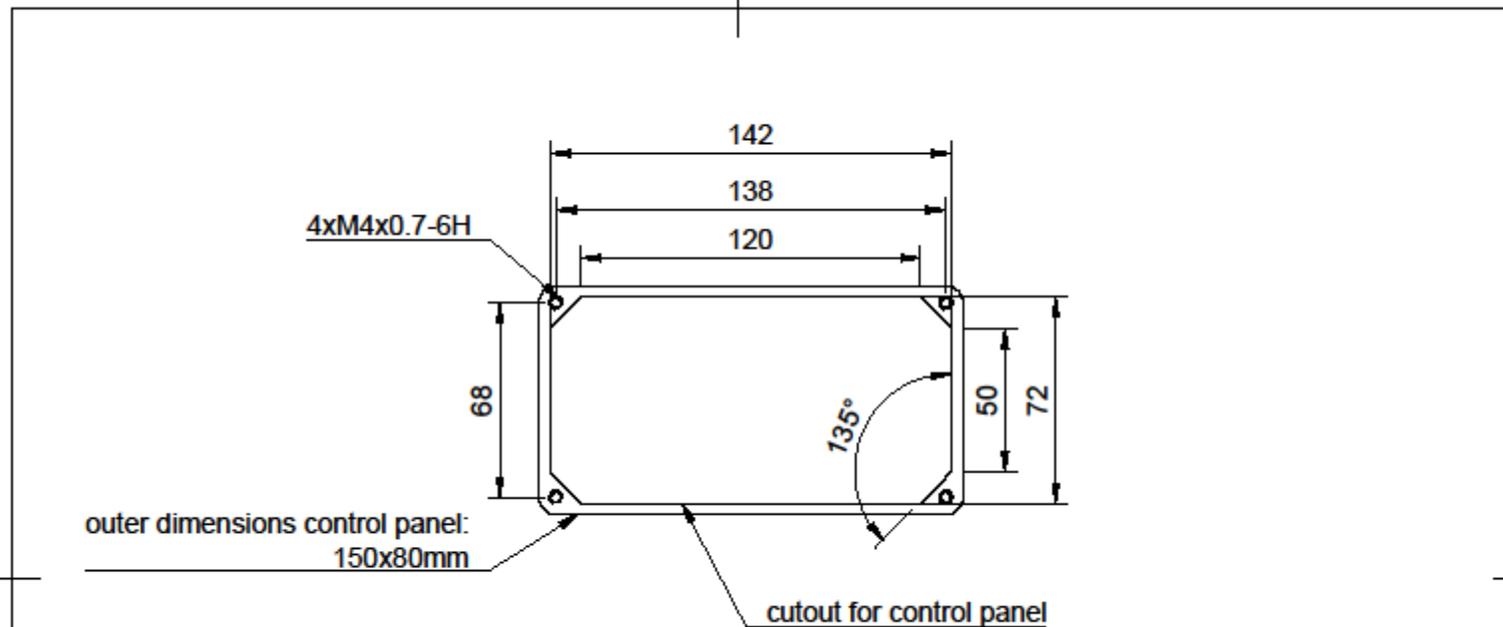
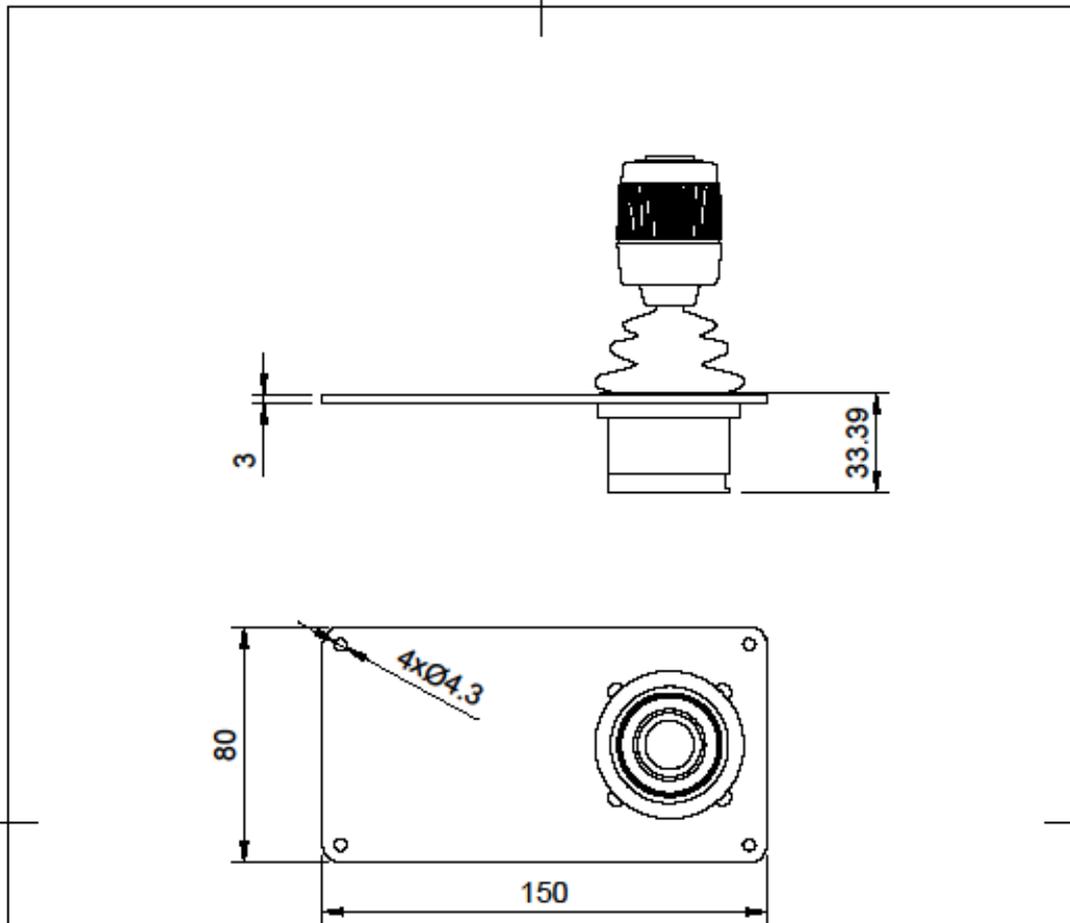


Abbildung 1

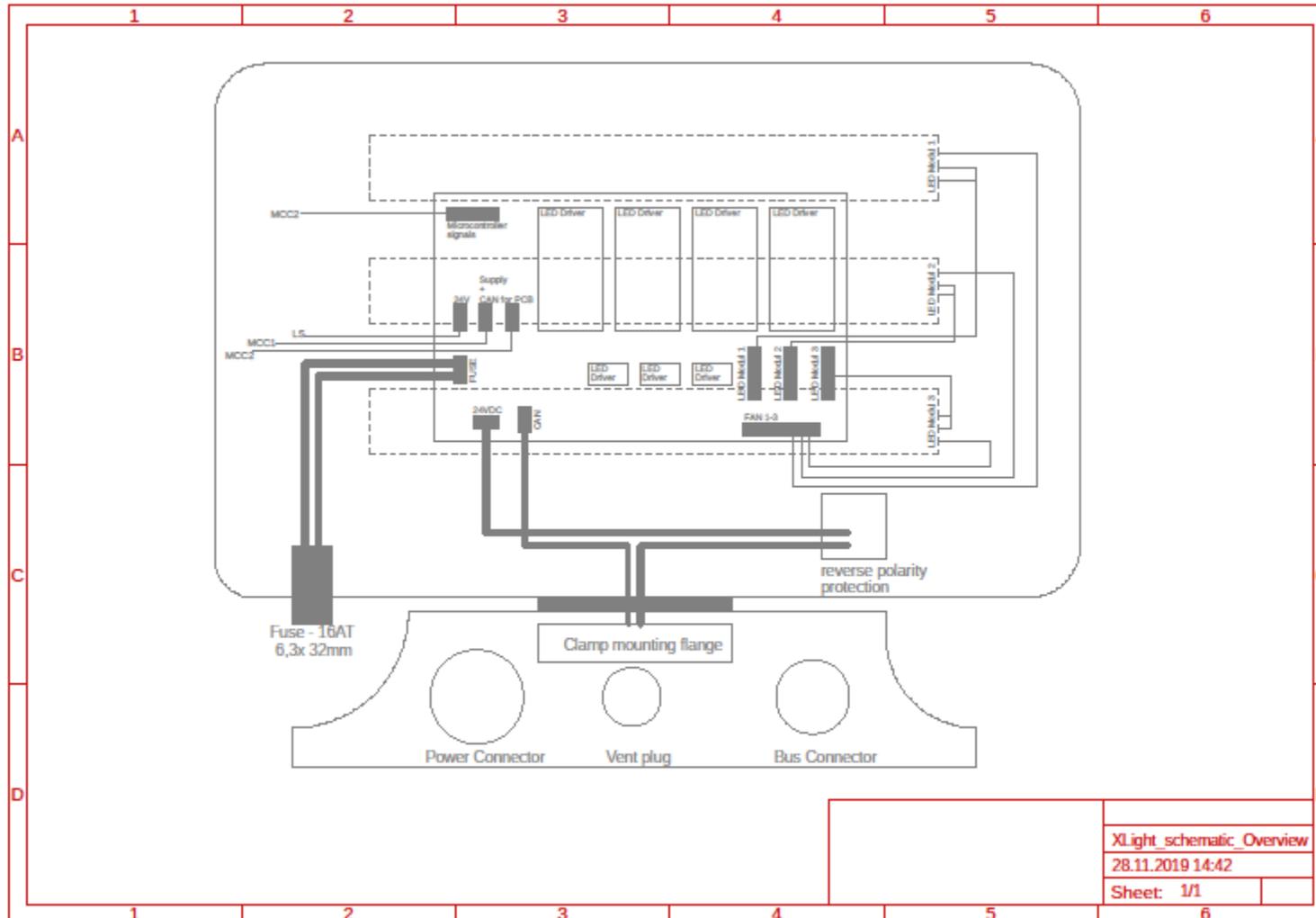


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		Title XLight_Pult_Ausschnitt XLight_Panel_cutout	DWG No.
		Rev. 1	Date of issue Sheet 1/1



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		Document type	Document status	
		Title X_Light panel	DWG No.	
		Rev.	Date of issue	Sheet 1/1





Pesch Marinescheinwerfer (SEEMATZ) warranty terms

- 1.) Pesch Marinescheinwerfer guarantees the quality of their products at the time of dispatch from their premises.
- 2.) The warranty period is 12month commencing from the delivery date of the vessel to its owner. The warranty period ends latest 18month after delivery to the buyer.
- Warranty claims must include all relevant serial numbers of the product to which the claim is related
- 3.) All items produced and in the catalogue are of the highest quality standard, although the actual description may vary from time of publication.
- 4.) We will only accept return of goods if it can be shown that incorrect goods were supplied or unless otherwise written agreement from Pesch Marinescheinwerfer has been obtained.
No returns will be accepted unless received in original condition and packaging, quoting invoice number or dispatch docket number. We reserve the right to credit or replace returned goods.
- 5.) Any warranty claim submitted must be accompanied with evidence or sale & purchase date, details of application to which the product has been subjected and nature of the fault, in order for us to process such claims quickly and efficiently. Our warranty covers all necessary parts to eliminate the claimed deficiency. Our warranty is strictly limited to the supply of necessary spare parts to resolve the claim and does not cover labor or travel expenses. Labor and travel expenses are at the client's expenses.
- 6.) Insurance should be covered by the buyer. Pesch Marinescheinwerfer will not accept claims for damage in transit. The buyer should lodge any such claims for damaged or missing items directly with their carrier. This action does not release the buyer from our standard payment terms.
- 7.) Pesch Marinescheinwerfer will not be liable for any goods damaged through negligence or improper installation or if the product has been used inappropriately for purposes other than that which the product is intended and designed.
- 8.) Lamps, wiper rubbers as well as any consumable parts are not covered under the warranty even if the fault occurs within the warranty period specified in clause 2.
- 9.) Pesch Marinescheinwerfer cannot be rendered liable for any consequential damage or accept any responsibility for late delivery.

The warranty is deemed invalid in the following situations:

- 10.) Damage caused by improper use.
- 11.) Damage caused by natural forces like thunder & lightning strikes, water, fire, etc.
- 12.) Damage caused by improper installation or not abiding by the operational instructions provided with the goods and at the time of purchasing the product.
- 13.) Damage by unauthorized repair or negligence while regular maintenance.
- 14.) Changes to the product and/or removal of the model and/or serial number.
- 15.) Damage caused by improper storage.
- 16.) Substitution or use of non-approved components / parts for the repair or utilizing any faulty system in conjunction with our product.
- 17.) Damage caused by contrary use to the instructions of this manual and their specification.