



Instruction Manual

Searchlight

SX 450 Series/Remote Focus(optional)

Contents

1	About this manual	2
1.1	Warning symbols and markings used in this manual	2
1.2	Who should read these instructions	2
2	Safety	3
2.1	General information	3
2.2	Working with Xenon lamps	3
2.3	Protective measures	4
2.4	Operating requirements	5
2.5	Maintenance / cleaning	5
3	Overview	6
3.1	Assembly drawings	6
3.2.	Technical specifications	7
3.3	Unit nameplates	9
3.4	Dimensions	10
4	Installation	14
4.1	Unpacking the unit	14
4.2	Installation	14
4.3	Electrical connections	15
5	Operation	16
5.1	Control unit RCU	16
5.2	Turning on the searchlight	16
5.3	Turning off the searchlight	17
5.4	Remote focus (option)	17
6	Maintenance.....	18
6.1	Cleaning	18
7	Replacing defective parts	18
7.1	Before you begin	18
7.2	Construction overview	19
7.3	Changing the lamp	20
7.4	Changing the primary reflector	22
7.5	Changing the secondary reflector	23
7.6	Replacing the ignition unit	24
8	Disposal	25
9	Spare parts	26
10	Annex	28
10.1	Annex Data sheet SX450 remote focus (option)	28
10.2	Electric Circuit Diagrams	29

1 About this manual

1.1 Warning symbols and markings used in this manual



Danger! Failure to observe this warning poses the risk of personal injury or death.



Danger of electrical shock! Failure to observe this warning poses the risk of personal injury or death from electrocution.



Wear protective clothing!

Safety goggles to protect eyes

Face mask with throat protection

- Safety gloves with wrist protection.

Failure to observe this warning poses the risk of personal injury or death.



Attention! Failure to observe this precaution poses a risk of damage to the environment and the product.

1, 2, 3, ...

Operating instructions that are to be followed in a certain order are numbered.

- **A bullet point** sets off operating instructions consisting of only a single Step or of Steps which can be carried out in any order.

- **An arrow** precedes confirmation messages in response to completed operation steps.

- **A dash** precedes listing items.

1.2 Who should read these instructions

These operating instructions are intended for all personal assigned to install maintain and operate the searchlight.



Danger of electrical shock! All electrical work related to installing and repairing the searchlight should only be carried out by qualified electricians.



Wear protective clothing! Personnel assigned to maintain and care the searchlight must wear protective clothing for all the work where it is recommended further on in this manual. Personnel must also be trained on how to use it.

2 Safety

Be sure to observe the following safety instructions. Failure to do so will pose a danger to yourself and others.

2.1 General information

Intended use

The searchlights the SX 450 Series are designed to shine a spotlight on distant objects. The searchlights have a range between 6700 m and 9600 m, depending on the type of unit.

The searchlights are designed for use on ships, in particular for polar voyages through icy waters.

Due to its high intensity, the searchlight is not to be used to illuminate persons near the searchlight.

It is not designed for lighting rooms on the ship or in buildings.



Danger! The searchlight should not be altered or modified in any way due to the danger this to persons and damage which may occur to the searchlight. Failure to observe this will void the approval certificate.

Only original spare parts may be used.

The use of unauthorized spare parts will void any warranty.



Danger of burns! Never touch the searchlight during operation. The housing may reach temperatures as high as 150 °C. Always allow the searchlight to cool down before carrying out maintenance work or repairs. In case of burns, immediately cool the burned area and get medical help.



Danger of blinding! Never look into the source of light during operation. This poses a danger to your eyesight. Never point the searchlight at people.



Danger of crushing! Danger of cutting! Be sure that there are no persons directly next to the searchlight before rotating or tilting the searchlight. Persons standing near the searchlight may get limbs caught between the searchlight and base, and serious injuries may result.

2.2 Working with Xenon lamps



Danger of explosion! Xenon lamps are under high pressure even if not in use (20 bar). During operation, the pressure may rise to as much as 70 bar. For this reason, the following safety precautions must be observed when working with Xenon lamps:

Transport

- Always store and transport xenon lamps in their protective shroud.
- Keep the protective shroud in a safe place after installing the lamp.
- Place xenon lamps back in their protective shroud immediately after taking them out of the searchlight.

Required protective clothing

Never open the searchlight when not wearing appropriate protective clothing. Always wear protective clothing while near to an uncovered xenon lamp or while moving a xenon lamp without its protective shroud.

The required protective clothing consists of:

- Safety goggles to protect eyes
- Face mask with throat protection
- Safety gloves with wrist protection

Operating the lamp

- Never touch the bare lamp bulb with your bare hands. Before screwing in the lamp, remove any fingerprint smudges using a non-abrasive, lint-free cloth and alcohol solution.
- Check the lamp for any scratches, cracks, or other signs of damage. Do not use damaged lamps.
- Be sure to observe the correct polarity. Installing the lamp with the wrong polarity renders the lamp useless.

Service life

Xenon lamps have an average life of about 1,500 operating hours. Replace the lamps at the latest when this level of service life has been reached.

Disposal

Xenon lamps must be fractured to depressurise them before disposal.



Danger of explosion! Depressurise the lamp bulbs in a suitably safe place. Be sure that there are no other people in the immediate vicinity.



Wear protective eyewear and clothing!

2.3 Protective measures

Temperature

- The installed xenon lamp becomes very hot during operation. A thermostat controlled blower circulates air in the housing to reduce the temperature by conducting heat to the outside.
- To avoid moisture accumulation and facilitate ignition, a minimum temperature of 6 °C inside the lamp housing is required. To ensure that the minimum temperature is maintained, the searchlight housing is equipped with a thermostat- controlled heater. The heater also protects the searchlight from freezing.
- The optional FL52 pan and tilt unit can additionally be equipped with an optional thermostat-controlled heating unit (Option: ICE-version).



Attention! To ensure that the minimum temperature is maintained during cold weather conditions:

- Keep the searchlight ready for operation by leaving the main switch S8 in ON condition. Turn on the searchlight only through the switch S1,

which may be located on the control unit or may exist as a separate switch.

- Do not turn on the searchlight immediately if power has been cut off for a prolonged period of time while the temperatures were at 6 °C or less. First, place the searchlight in standby mode by switch S8 and wait until the minimal internal operating temperature has been reached inside the housing.

Radiation/ Emission of dangerous particles

- Xenon lamps emit UV light, which is hazardous to your eyes. The special design of the searchlight prevents direct eye contact with the arc searchlight.
- If a Xenon lamp should explode during operation, the robust housing will stay intact and prevent hot glass shards from being expelled.

2.4 Operating requirements

Protection Class

The searchlight, power supply unit and the optional drive unit have an IP 56 protection class rating (dust-protected, heavy seas and powerful water jets). All electrical cables may only be inserted through appropriate cable glands to maintain this protection class.

Requirement for placement

Where to install

- the searchlight: under normal operating conditions, the housing of the searchlight will reach temperatures up to 150 °C. Mount the searchlight only in an environment that can resist this heat. To rule out all potential dangers: do not store any explosive or easily inflammable materials in the immediate area of the searchlight. Such materials include gasoline, paper and paint.
- The power supply unit PSUX: Install the PSUX at a cool place which is not exposed to direct sunlight, vented hot air or other dissipated heat from fuel tanks



Attention! The searchlight and power supply unit PSUX are operating under high voltage. To prevent electromagnetic interference with the compass, make sure an appropriate distance is maintained between the searchlight, the power supply unit PSUX and the compass. Also, do not run cables in the direct proximity of the compass.

2.5 Maintenance / cleaning

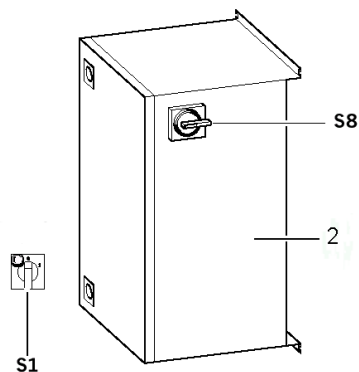
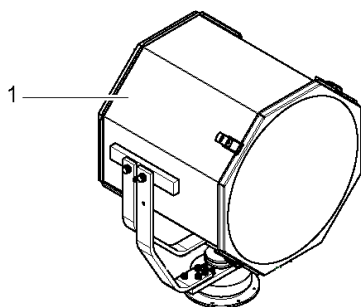
Before carrying out maintenance or cleaning work:

- Turn off the main switch.
- Make sure the entire electrical system is dead.
- Wait until the searchlight has cooled down.
- Wear protective clothing when opening the searchlight.

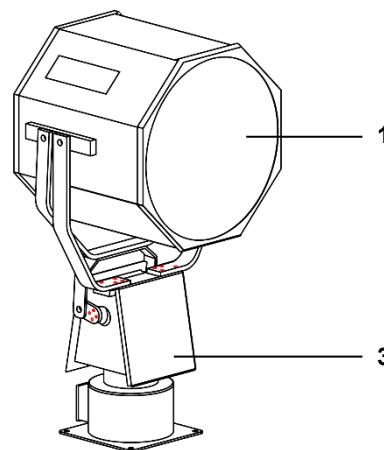
3 Overview

3.1 Assembly drawings

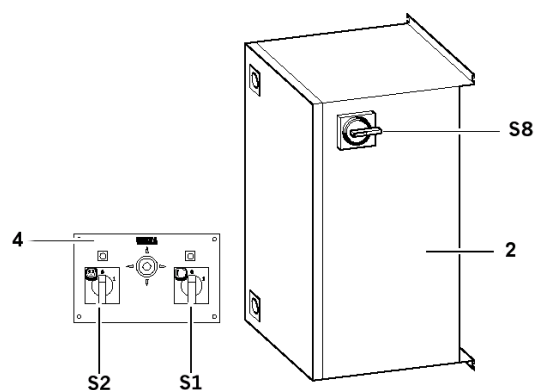
Basic configuration



Configuration with drive unit FL52 and control unit RCU



- 1 Searchlight SX 450
- 2 Power supply unit PSUX
- 3 Drive unit FL52
- 4 Control unit RCU for FL52
- S1 ON/OFF switch for searchlight
- S8 Main power switch
- S2 ON/OFF switch for the drive unit



Technical specifications

There are four types of SX450 Searchlights, which differ from each other, basically by the performance of its Xenon lamp. The two types of lamps are 1000 W and 2000 W. The following table will show the technical details of each type in individual columns.

To differentiate between the four types, you may consult the nameplate of your searchlight.

(for optional remote focus see data sheet Annex. 1.1)

Type SX450/xxx FL52 230 V 50/60 Hz

Manufacturer WISKA Hoppmann GmbH

Searchlight type	SX450/1000	SX450/2000 ¹
Lamp:		
Type of lamp	Xenon arc lamp	
Illumination	64 Mio. cd	92 Mio. cd
Range	8000 m	9600 m
Diffusion angle	1,8 ° I/10	2,7 ° I/10
Lamp power	1000 W	2000 W
Average service life of lamp	1500 h	
Glass parabolic reflector	Ø 450 mm	
Secondary reflector	Ø 100 mm	
Focus	fixed focus	
Housing:		
Material	stainless steal 1.4301	
Colour	Traffic white, RAL 9016	
Diameter	522 mm	
Depth	505 mm	
Weight	30 kg	31 kg
Protection class	IP 56	
Operating temperature	-25°C .. +55°C	

Power supply unit PSUX	
Supply voltage	230 V 50/60 Hz
F1 fuse	60 A
F2 fuse	16 A
F3 fuse	6 A
Dimensions w/d/h	500x340x500 mm
Weight	60 kg
Protection class	IP 54

¹ With electronic power supply as per attached datasheet PSUX-E

<i>Lamp ignition sequence</i>		
1.	Standby booster voltage (PSUX)	Approx. 100V DC
2.	High frequency ignition voltage (searchlight)	20 KV .. 50 KV
3.	Operating voltage	18...28 V DC

Drive unit FL52	
Rotation and tilt drive unit made of salt water-resistant stainless steel with grips for holding and operating the searchlight	
Standby heater	Optional
Power cable	3 m
Power consumption	80 W (220 W*)
Horizontal rotation	185°; 2°/s
Vertical tilt	+30° to -30°; 1,2°/s
Height of drive unit without shaft	approx. 416 mm
Base plate diameter	368 mm
Weight	42,6 kg
Protection Class	IP 56
Colour	RAL 9016

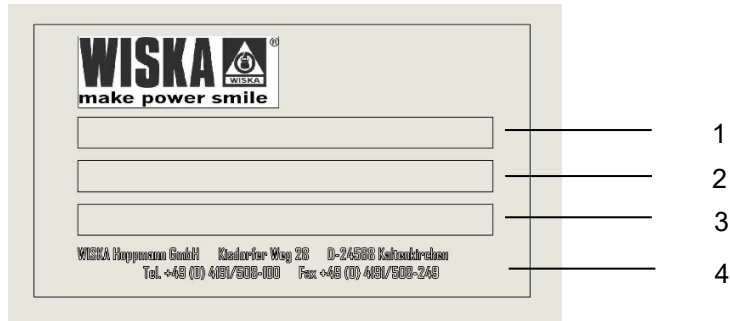
*with optional standby heater

Control unit RCU-E	
Remote control with ON/OFF switch for searchlight and drive unit, position control switch (joystick) and indicator lamps for installation in a control panel.	
Front	120 x 200 mm
Height + Joystick	90 x 170 mm
Weight	2,1 kg
Protection class	IP 23

Control unit RCU-A	
Remote control with ON/OFF switch for searchlight and drive unit, position control switch (joystick) and indicator lamps for wall mount installation.	
Front	200 x 200 mm
Height + Joystick	80+ 85 mm
Weight	2,5 kg
Protection class	IP 23

3.3 Unit nameplates

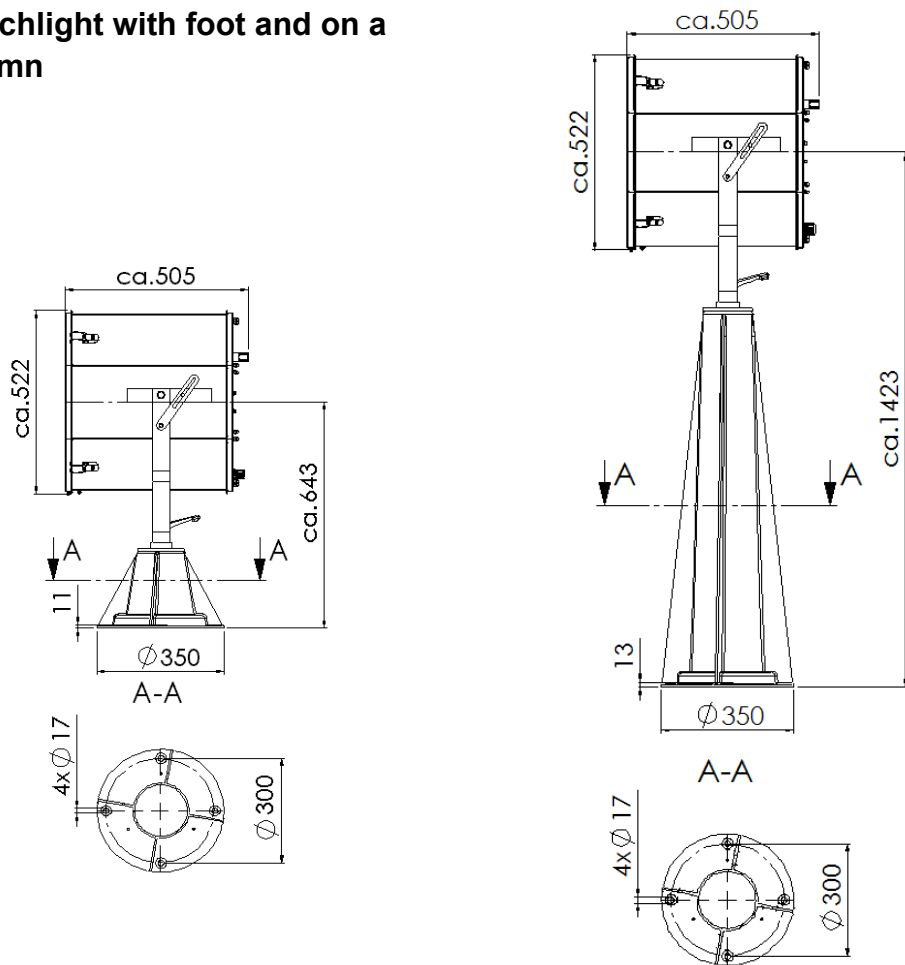
Nameplate



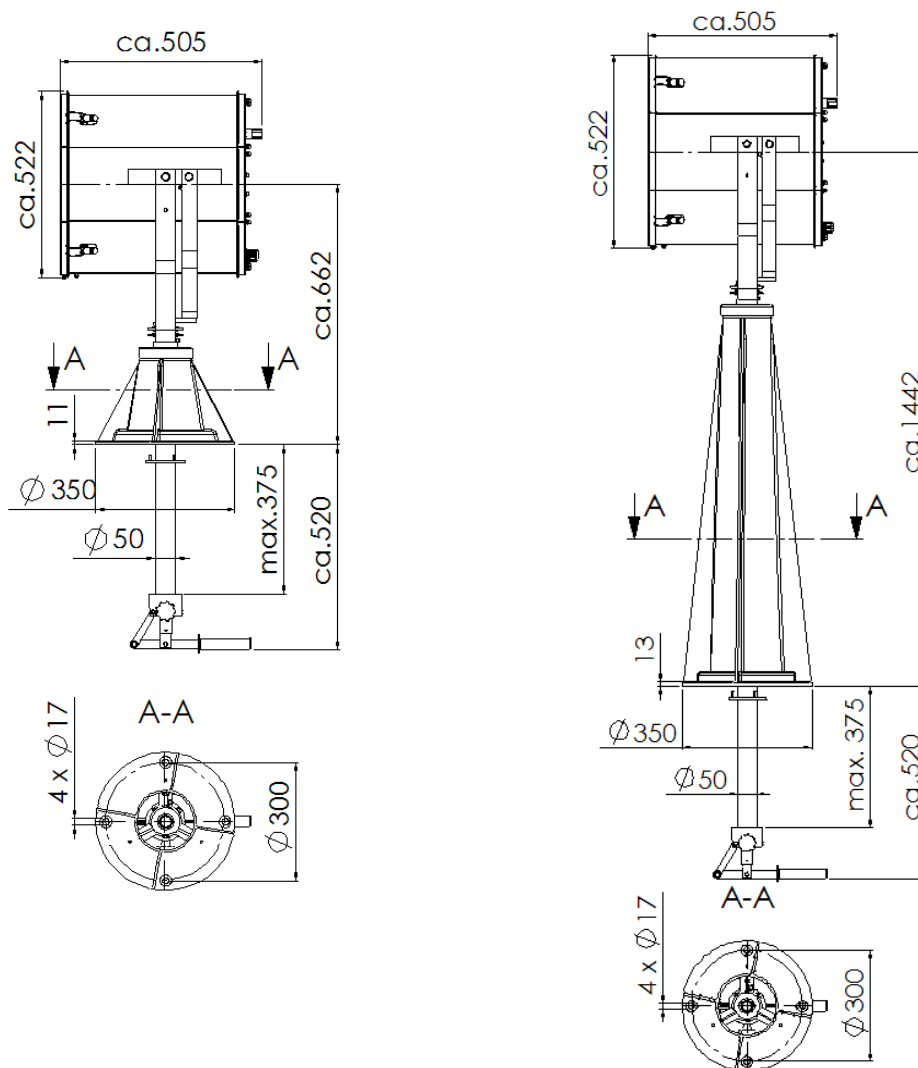
- 1 Product designation
- 2 Product specification
- 3 Product serial number
- 4 Manufacturer

3.4 Dimensions

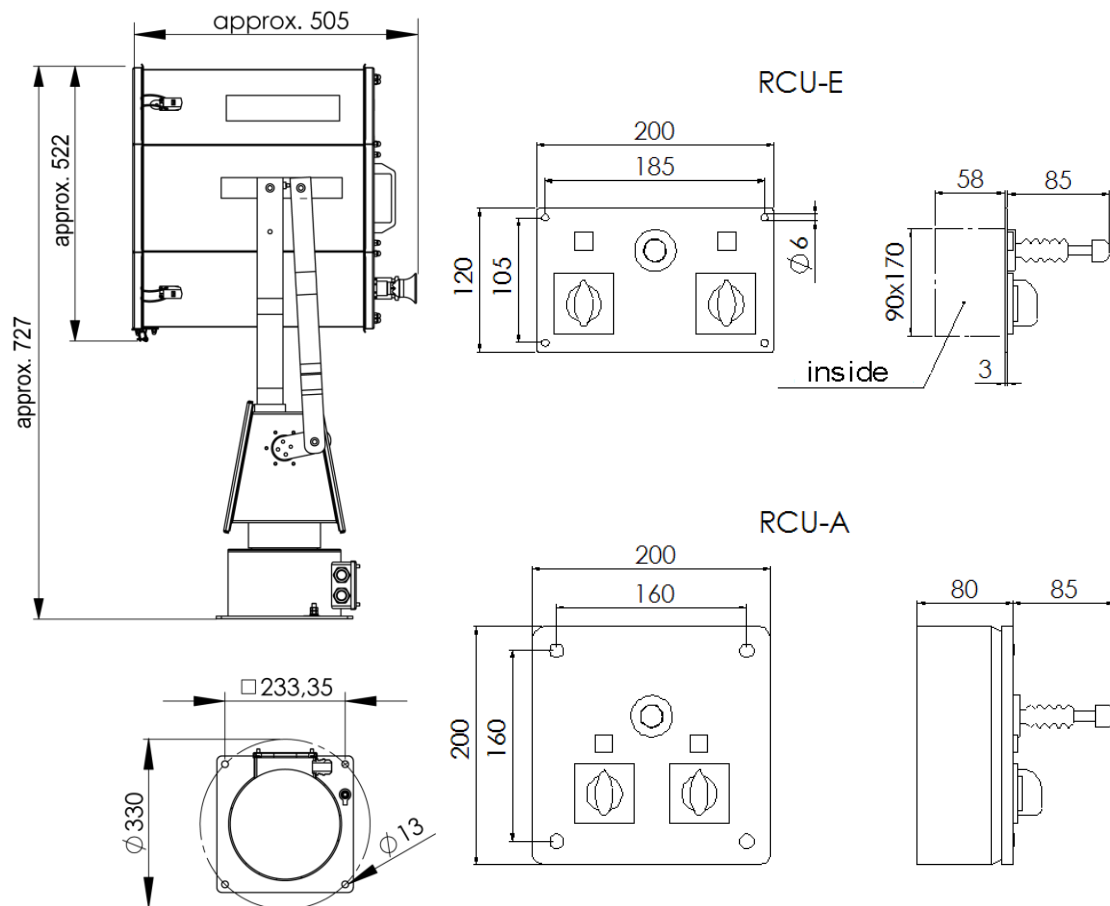
Searchlight with foot and on a column



Searchlight with foot and on a column with internal mechanical operation

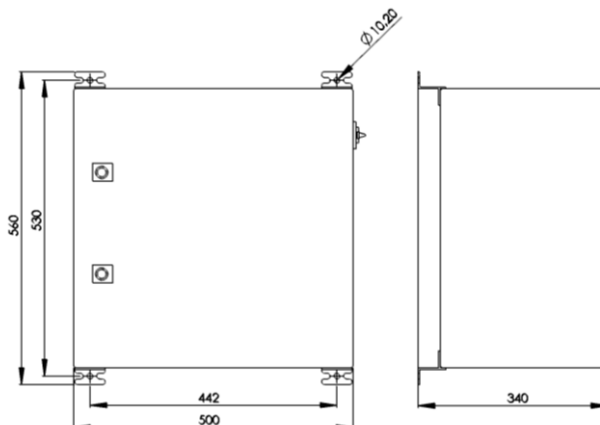


Searchlight with drive unit FL52 and Control unit RCU

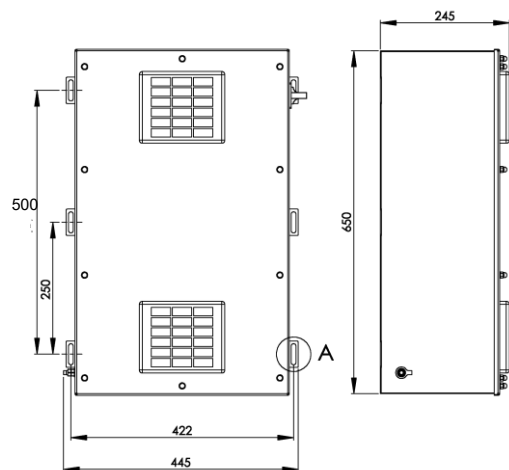


Power supply unit

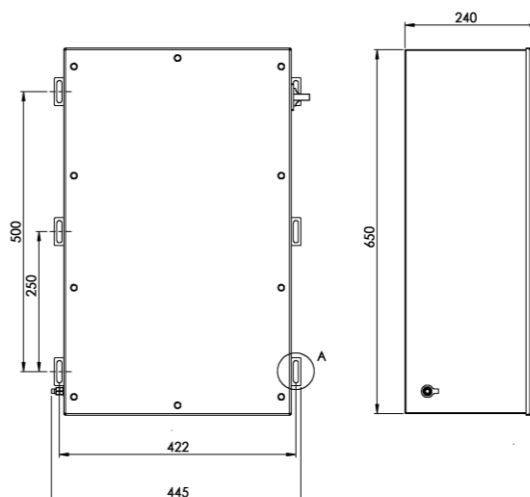
PSUX-K



PSUX-E



PSUX-EO



4 Installation

4.1 Unpacking the unit

Check that all parts have been included in the package. Do not operate the searchlight if there has been damage during transportation or parts are missing. Please contact your WISKA agent or our distribution partner in your country. You will find the address on the back of these operating instructions or go to www.wiska.de.

Remember to protect the environment and recycle the packaging.

4.2 Installation

Installing the searchlight with FL52 drive unit

If your searchlight was ordered with its electromechanical drive unit the searchlight comes pre-assembled on the FL52 drive unit.

At least two persons are required for installation due to the weight of the searchlight.

1. Pre-drill four holes along a \varnothing 330 mm circle in diameter. For more information see chapter 3.4 *Dimensions*.
2. Place the drive unit at desired location and tighten screws.
3. Connect earth cable.

Installing the searchlight on a rest or a column.

As an alternative, the searchlight can be mounted on a low base rest or a column.

At least two persons are required for installation due to the weight of the searchlight.

1. For mounting, four holes have to be drilled in a circle of \varnothing 300 mm in diameter, see chapter 3.4 *Dimensions*.
2. Place the drive unit at desired location and tighten screws.
3. Connect earth cable.

Installing on a rest or a column equipped with internal mechanical operation

As an option, the configuration with rest or column can be equipped with an additional internal mechanical operation. The mechanical linkage runs in an internal pipe of the rest of the column. Consequently the pipe must be brought down. To do so, an additional hole of \varnothing 50 mm has to be drilled in the middle of the \varnothing 300 mm circle.

See also chapter 3.4 *Dimensions*.

Installing the power supply unit PSUX

At least two persons are required for installation due to the weight of the PSUX.

Be sure to observe the instructions in chapter 2.4 *Operating requirements* on where to install the power supply unit.

The Power supply unit comes with four brackets for wall mounting.

The searchlight and the drive unit come with a 3 m power cable. If the PSUX is installed farther away from the searchlight, bear in mind that the supply voltage for the PSUX must be 230V.

Installing the remote control unit RCU

If the searchlight is equipped with an electromechanical drive unit, a control unit is also required. The control unit is available as panel mount unit RCU-E and as wall mount unit RCU-A. Electrically and functionally are both units identical.

To install the units, drill the required holes and make openings if required, as shown in chapter 3.4 *Dimensions*.

Make sure to provide wires of sufficient size (cross-section) for the cable length.

4.3 Electrical connections



Danger of electrical shock! Electrical connections may only be completed by qualified personal. Be sure the power cord is dead and nobody can accidentally resume the power supply during installation!

The circuit diagram is enclosed separately, or you find it in chapter 3.5 *Diagram*.

Connected load values

Supply voltage: 230 VAC, 50/60 Hz.

Unit Fuses: 1 x 6 A, 1 x 16 A, 1 x 60 A included,

for SX450/1600: 1 x 6 A, 1 x 16 A, 1 x 100 A.

(Also 2 spare fuses 60A or 100A are shipped with the unit.)

Waterproof (IP56) installation of all cables



1. Unscrew the cover on the underside of the PSUX power supply unit and remove it.
2. Drill holes matching the cable size and insert cable fittings into holes.
3. Feed the cable through the cable fittings and fasten firmly.
4. Be sure to use the appropriate wire size for current and distance!

Attention! To ensure IP56 protection class:

The unit sheathing must have a waterproof seal: pull the fittings firmly into place so that the seals are wrapped tightly around the cable fitting!

4. Connect cables in accordance with the circuit diagram (see separate circuit diagram or chapter 3.5 *Circuit diagram*).

Note: The cable from the searchlight and FL52 drive unit can be connected directly to the power supply unit (PSUX) or via an optional junction box.

Power supply

- Be sure to observe any applicable international or local country regulations! Connect to the power supply while ensuring reverse polarity protection!
Before first use:
- Check that installation has been carried out correctly. Reverse polarity will destroy the Xenon lamp.
- Check to be sure that grounding and zero current works properly!
- Reinsert fuses.

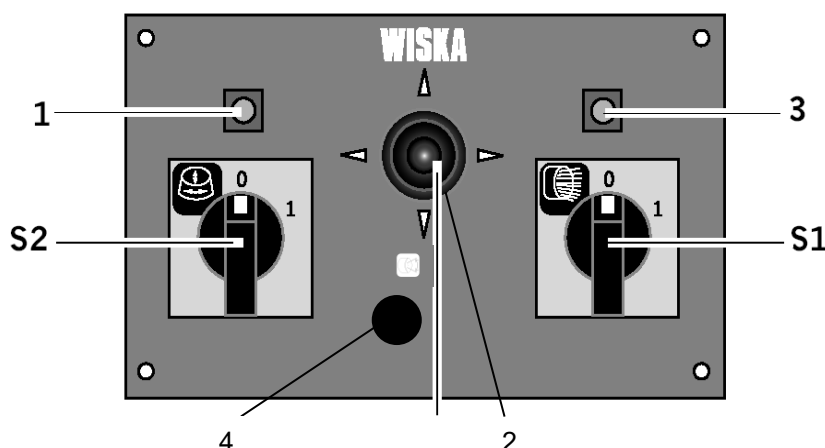
5 Operation

Further on, the operation will be described together with the electromechanical drive unit FL52 and its remote control unit RCU.

If your configuration is not equipped with such operating features, you should have special attention to the following points:

- To direct the searchlight, only use the appropriate handles. Do not touch the housing of the searchlight during operation - **Danger of burns!**
- Ensure that at power-on and during operation, nobody is in front of the searchlight - **Danger of blinding!**
- Switch S1 to turn on the searchlight, as described in chapter 5.2. It is a separate switch in your configuration and is not located in the RCU. Because there is no electromechanical drive unit, switch S2 and the joystick is not available.
- Continue reading with chapter 5.2 Turning on the searchlight.

5.1 Control unit RCU



- | | |
|----|---------------------------------------|
| 1 | Drive unit indicator lamp |
| S2 | ON/OFF switch for the drive unit |
| 2 | Joystick for the drive unit |
| S1 | On/off Switch for Searchlight |
| 3 | Searchlight indicator lamp |
| 4 | Push button for remote focus (option) |

5.2 Turning on the searchlight



Danger of burns! Never touch the searchlight during operation. The housing may reach temperatures as high as 150 °C. In case of burns, immediately cool the burned area and get medical aid.



Danger of blinding! Never look into the light source during operation. This poses a danger to your eyesight. Never point the searchlight at people. Before you turn on the searchlight, make sure that nobody is in front of the searchlight.



1. Turn the main power switch S8 on the PSUX power supply unit to position ON. This supplies power to the searchlight's internal heating system.

Attention! If ambient temperatures are below 6°C, wait until the housing interior has been heated to at least 6 °C before igniting the arc.

Before you ignite the lamp, make sure that all work has been completed and nobody is in front of the searchlight.

2. Turn on switch S1. This triggers the lamp.
 3. In case you operate the searchlight using an electromechanical drive unit FL52, you should turn it on also with switch S2, which is also located on the RCU. The drive unit is now operational and can be controlled by means of the joystick on the RCU.
- If the lamp does not initiate or if it flashes several times, either the ignition voltage for the lamp is insufficient, or the lamp is defective.

See chapter 7.3 *Changing the lamp* for more information on replacing the lamp.

5.3 Turning off the searchlight



Attention! To ensure operational readiness: only turn off the searchlight using the S1 and, if you work with an RCU, with the S2 switch on the control unit.

Do not turn off the S8 switch on the power supply unit because the thermostat controlled internal heater and blower should stay on all the time.

5.4 Remote focus (option)

As an option, the searchlight SX450 series can be equipped with a remote focus device. The remote focus is an endless motor drive device, which will focus and defocus the lamp against the mirror. A push-button on the remote control unit RCU will start (press push button). Just stop pushing the button if the request focus level (diameter of the light spot) is reached and the chosen focus is set.

6 Maintenance

6.1 Cleaning

Clean the front glass panel of the searchlight when required. When cleaning, check if the fasteners are firmly in place and check for rusting/corrosion.

No cleaning of the searchlight interior is required. In the course of use, slight discoloration of the reflector surface will occur. This has no adverse effect on the unit and does not diminish the power of the lamp.



Danger of blinding! Make sure that nobody can turn on the searchlight while cleaning.

7 Replacing defective parts

7.1 Before you begin

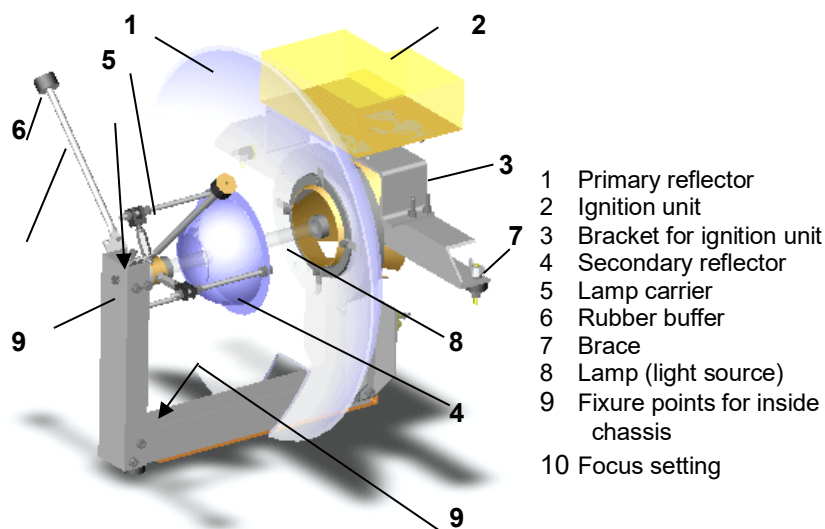
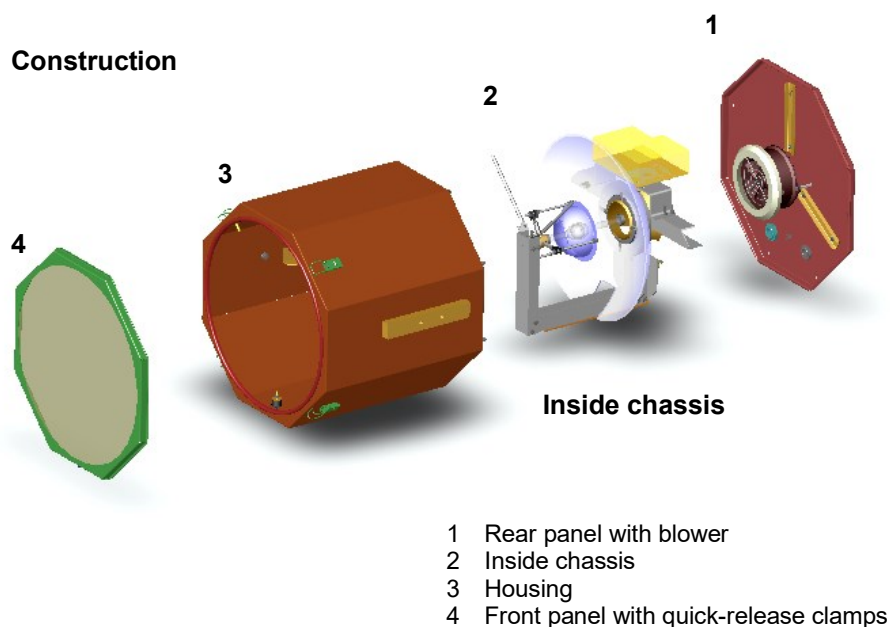


1. Turn the main switch S8 to OFF.
2. Make sure the entire electrical system is dead and it can not be turned on accidentally.
3. Wait until the searchlight has cooled down.
4. Read chapter 2.2 *Using Xenon lamps*.
5. Wear protective clothing (safety goggles, face mask with throat protection and safety gloves with wrist protection).
6. when opening the searchlight housing. Do not touch the lamp with your bare hands.
7. Keep the xenon lamp in its protective shroud.

7.2 Construction overview

The following figure should help to understand the assembly of the searchlight before you begin with replacement work.

To do the actual replacement work, follow the instructions on the following pages!



All functional components are assembled on the inside chassis. The inside chassis is mounted in the housing employing three screws **10** and two braces **7**. The lamp carrier **5** is fastened with screw **8** to the inside chassis and carries the lamp **9** and the secondary reflector **4**.

7.3 Changing the lamp

The lamp is defective if it

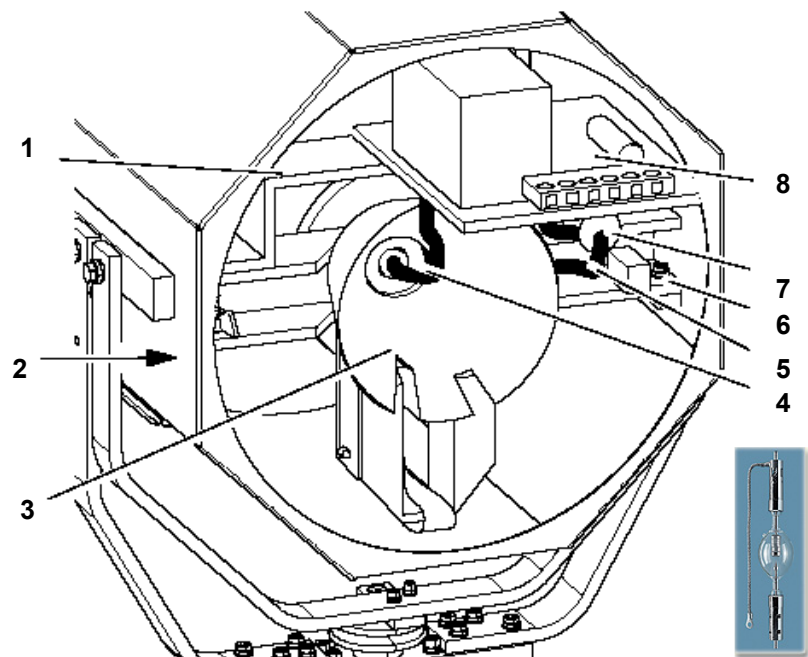
- Only flashes a number of times without lighting up
- The lamp electrodes have burned out
- If the glass body is blackened.

Be sure also to replace the lamp if its average life of 1500 hours has been exceeded.



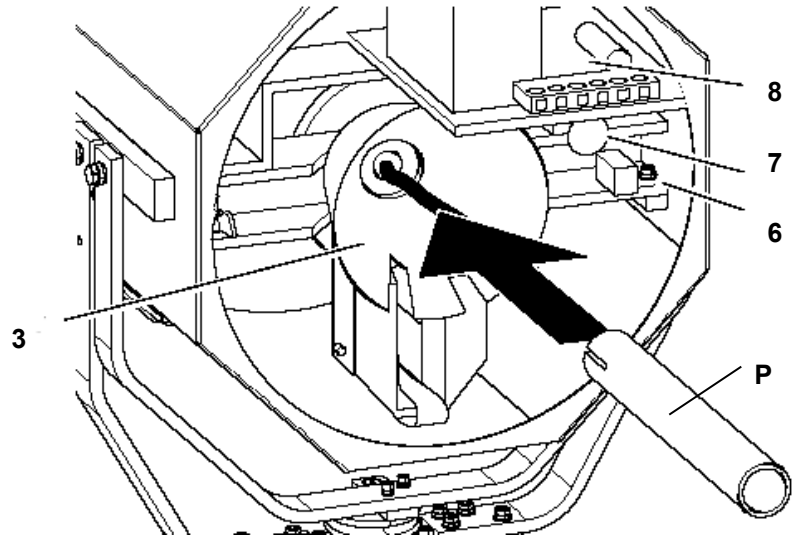
Danger! Any personnel carrying out repairs and maintenance must have been properly instructed by a qualified specialist about the dangers and required safety precautions!

Be sure to read chapter 7.1 *Before you begin*.



Removal:

1. Place the protective shroud for the xenon lamp within easy reach.
2. Loosen the screws on the back on the searchlight housing and lower the rear panel.
3. Loosen the wing nut which connect the lamp cable **5** to ignition unit **8** and remove the lamp cable **5**.
4. Open the protective shroud on one side and place over the lamp **4**. The two gaps overlap the two catches on the other end of the lamp.
5. Use the protective shroud to unscrew the lamp. Be sure that there is no bending or twisting force applied to the lamp.
6. Close the protective shroud. (If the cover of the old shroud is no longer there, use the cover from the new one.).

**Installation:**

Attention! Before screwing in the new lamp, check it for any fingerprint marks or damage as such as scratches and cracking. Do not use the lamp if there are any signs of damage. Remove any fingerprint smudges using a non-abrasive, lint-free cloth and alcohol solution.

1. Open the protective shroud of the new lamp.
2. With the lamp in the shroud **P**, screw the lamp into the searchlight socket until the threading engages.
3. Use the protective shroud to screw in the lamp carefully. Be sure that there is no tension applied to the lamp.
4. Remove the protective shroud.
5. Feed the lamp cable **5** through the Teflon clamp **3** and cable holder **7** and connect it with the wing nut below the ignition unit **8**. Be sure to leave enough room between the lamp cable and housing.
6. Put the rear panel back into place and tighten screws.
7. Keep the protective shroud on the searchlight.

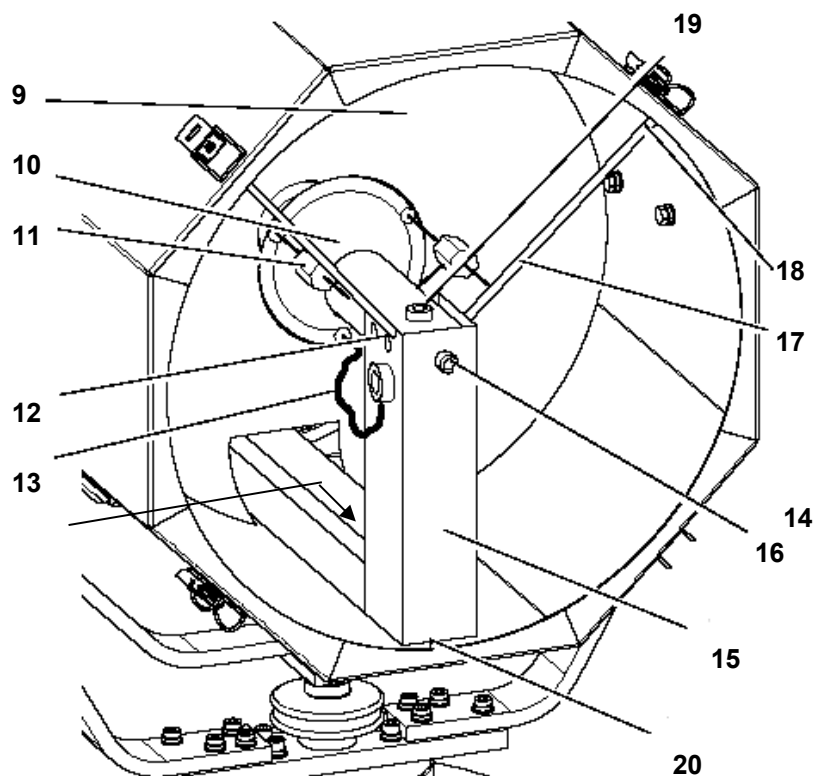
Store the used lamp in its protective shroud. Be sure to properly dispose of the lamp.

7.4 Changing the primary reflector



Danger! This repair work must be completed by a qualified electrical technician!

Be sure to read chapter 7.1 *Before you begin*.



Removal:

– Rear panel:

1. Remove the lamp. For more information, see 7.3 *Changing the lamp*.
2. Disconnect all connected cables.
3. To loosen the interior housing: Unscrew the wing nut **2** (not visible) on the left and the screw on the right **6**.

– Front panel:

1. Loosen the quick-release clamps, carefully remove the front panel and place safely out of the way.
2. Loosen nuts **12** and remove braces **17**.
3. Unscrew rubber buffers **18**.
4. Loosen screw **14** on inside chassis **15**.
5. Lift the inside chassis slightly, pull out inner housing and place safely on a clean work surface.
6. Loosen the leaf springs on the reflector and remove the reflector.
7. Cut open the silicone seam with a knife and remove the reflector from the retaining ring.

Installation:

Attention! Only use degassed silicone gel. Vapor from silicone which has not been degassed will collect on the lamp and destroy it.

1. Glue the new reflector onto the retaining ring using silicone gel. Allow drying for one day!
2. Place the reflector into the unit and re-fasten using the leaf springs.
 - Front panel:
 1. Carefully push the inside chassis into the fixture.
 2. Screw the inside chassis **15** firmly into place.
 3. Replace rubber buffers **18**.
 4. Put braces **17** back in and screw tight.
 5. Check that the reflector is seated correctly.
 6. Put the front pane back in and fasten using the quick-release clamps.
 - Rear panel:
 1. Fasten the inside chassis into place by tightening the wing nuts **2** and screw **6**.
 2. Connect the cable as indicated in the circuit diagram (included with delivery). Be sure to observe the correct polarity!
 3. Installing the lamp: see 7.3 *Changing the lamp*.

7.5 Changing the secondary reflector

Danger! A qualified electrical technician must complete this repair work! Be sure to read chapter 7.1 *Before you begin*.

Do not loosen screw 16. Screw 16 marks the correct focus setting!

Removal:

1. Removing the lamp: see 7.3 *Changing the lamp*.
2. Loosen quick-release clamps, carefully remove the front panel and place safely out of the way.
3. Disconnect the lamp cable **13** from the inside chassis **15**.
4. Loosen screw **19** and remove the lamp carrier **11** from the inside chassis **15**.

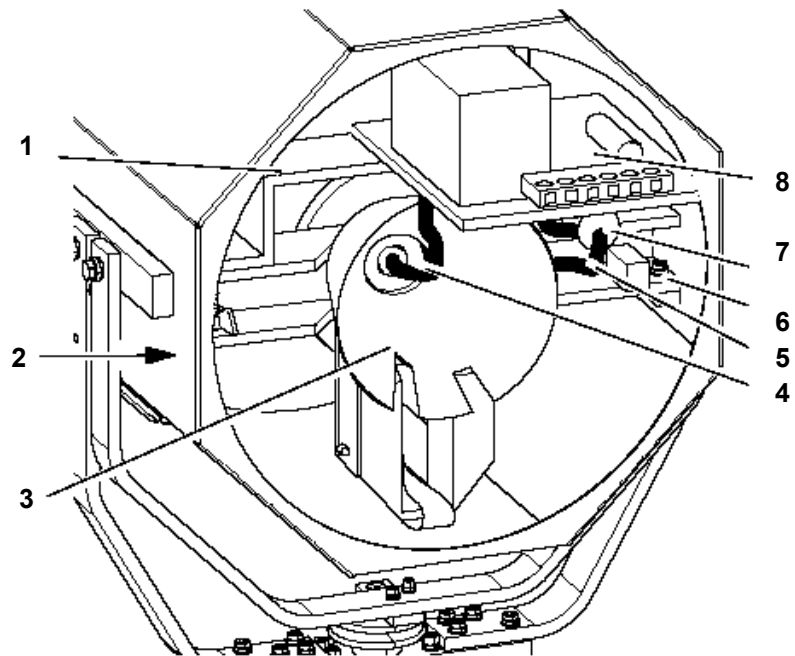
Installation:

1. Replace the reflector **10**.
2. Push the lamp carrier **11** as far in as possible and tighten screw **19**.
3. Fasten lamp cable **13** into place.
4. Put the front panel back in and fasten using the quick-release clamps.
5. Installing the lamp: see 7.3 *Changing the lamp*.

7.6 Replacing the ignition unit



Danger! A qualified electrical technician must complete this repair work!
Be sure to read chapter 7.1 *Before you begin*.



Removal:

1. Have the protective shroud within easy reach.
2. Loosen the screws on the back on the searchlight housing and lower the rear panel.
3. Loosen the wing nut of the lamp cable **5** under the ignition unit **8** and remove the lamp cable **5**.
4. Open the protective shroud and place over the lamp **4** to protect it while changing the ignition unit.
5. Disconnect all other cables from the ignition unit.
6. Loosen the nuts holding the bracket and remove it **1**.
7. Unscrew ignition unit from the bracket.

Installation:

1. Screw the ignition unit onto the bracket.
2. Put the bracket into place and screw on.
3. Connect the power cable, as indicated in the circuit diagram (included with delivery). Be sure to observe the correct polarity!

4. Remove the protective shroud from lamp.
5. Feed the lamp cable **1** through the Teflon clamp **3** and reconnect it under the ignition unit **8** by tightening the wing nut.
6. Be sure to leave enough room between the lamp cable and housing.
7. Put the rear panel back into place and tighten screws.
8. Keep the protective shroud for later use.

8 Disposal

Electrical parts contain toxic substances. Be sure to dispose of these components properly or send defective parts to WISKA. The mailing address is found on the back cover of these operating instructions.

Special care must be taken to dispose of the Xenon lamps. Read chapter 2.2 *How to use Xenon lamps*.

Xenon lamp bulbs must be fractured before disposal.



Danger of explosion! Depressurise the lamp bulbs in a suitably safe place.

Always wear protective clothing! Be sure that there are no other people in the immediate vicinity.

9 Spare parts

Searchlight head SX 450 series

Designation	Art. No.
Front frame + front glass	22000018
Primary reflector	22000019
Secondary reflector	22000020
Xenon lamp 1000 W	22000022
Xenon lamp 2000 W	22000024
Blower kit (for searchlight head)	22000025
Thermostat for blower 50°C	22000026
Focus motor	22000028
Standby heating unit kit	22000027
Ignition unit for 1000W	22000893
Ignition unit for 2000W	22000233
Xenon lamp kit 2000 W	22000234
Chain binder (2 pc)	22000103
Chain binder (4 pc)	22000050

Power supply unit PSUX-E(220) 1000W and 2000W

Designation	Art. No.
PSUX-E-V4 -Electrical. VG 1 OOW	22000783
PSUX-E-V4 -Power supply RS 25W 12V	22000787
PSUX-E-V4 -Cover indoor complete	22000789
PSUX-E-V4 -Mounting pl. 1000W compl.	22000797
PSUX-E-V4 -Mounting pl. 2000W compl	22000887
PSUX-E Blower	22000312

Remote control unit RCU

Designation	Art. No.
Position control switch (XD2-GE3)	22000060
ON/ OFF switch	22000061
Lamp on indicator	22000062
Push buttons remote focus	22000439
24V On/Off switch	22000440
24V Pilot lamp	22000441
Joystick for RC	22000442
24V Pilot lamp bright	22000605

Drive unit FL52

Designation	Art. No.
Motor unit tilt (V) 230VAC	22001025
Motor unit pan (H) 230VAC	22001026
Cover sealing set	22001027
Limit switch unit tilt (V)	22001028
Gear wheel pan (H)	22001029
Circuit board 230VAC	22001030
Limit switch pan (H)	22001031
Limit switch tilt (V)	22001032
Motor plate tilt (V) 230VAC	22001033
Internal control line 7G1.0	22001034

All other parts should only be ordered after consulting with WISKA sales staff.

10 Annex

10.1 Annex Data sheet SX450 remote focus (option)

Searchlight type	SX450/1000		
Lamp:			
Type of lamp	Xenon arc lamp		
Illumination	64 Mio. cd		
Range	8000 m		
Diffusion angle	1,8 °-8° I/10		
Lamp power	1000 W		
Average service life of lamp	1500 h		
Glass parabolic reflector	Ø 450 mm		
Secondary reflector	Ø 100 mm		
Focus	Remote focus		
Housing:			
Material	stainless steal 1.4301		
Colour	Traffic white, RAL 9016		
Diameter	522 mm		
Depth	505 mm		
Weight	29,5 kg	30 kg	30,5
Protection class	IP 56		
Operating temperature	-25°C .. +55°C		

