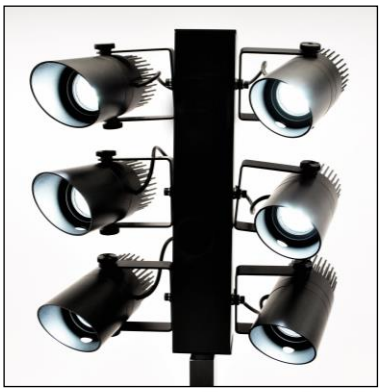
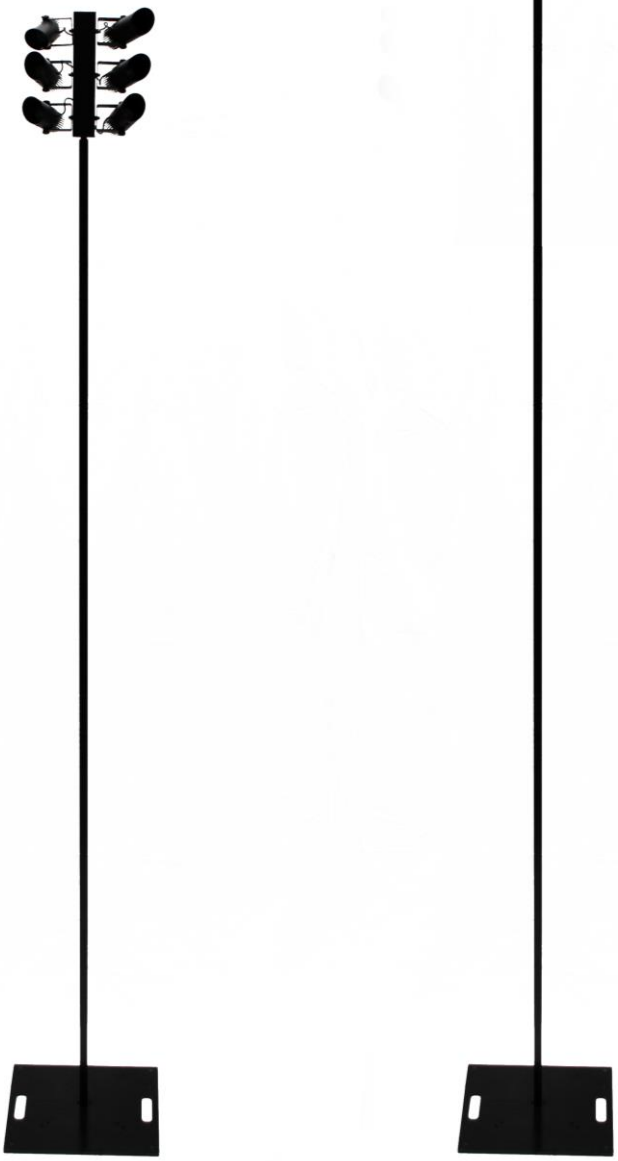
StarPole

CONTENTS

1 Picture





The StarPole combines multiple StarEye Maxi led-fixtures in a flexible configuration

2

Dimensions

2.1 General

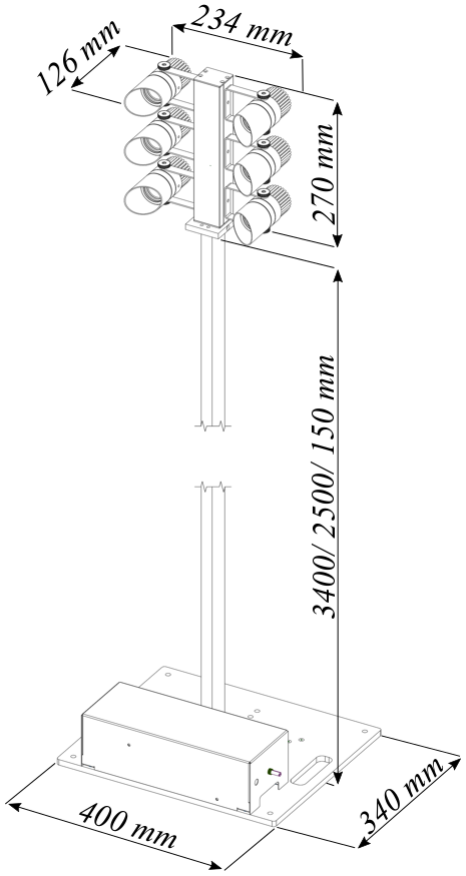
The StarPole consists of multiple elements:

	L (cm)	W (cm)	H (cm)
StarPole			
HEAD	23,4	12,6	27,0
POLE	2	4	15, 250 or 340
BASE PLATE	40	34	10
Power supply cases			
LED DRIVER BOX	35	28	11
LED DRIVER RACK	65	72	83
Transport cases			
CASE for 10 heads	90	60	53
CASE for 12 poles	60	40	11,8
CASE for 16 base plates	91	52,8	66
CASE for cables	90	61,5	53

HEAD

POLE

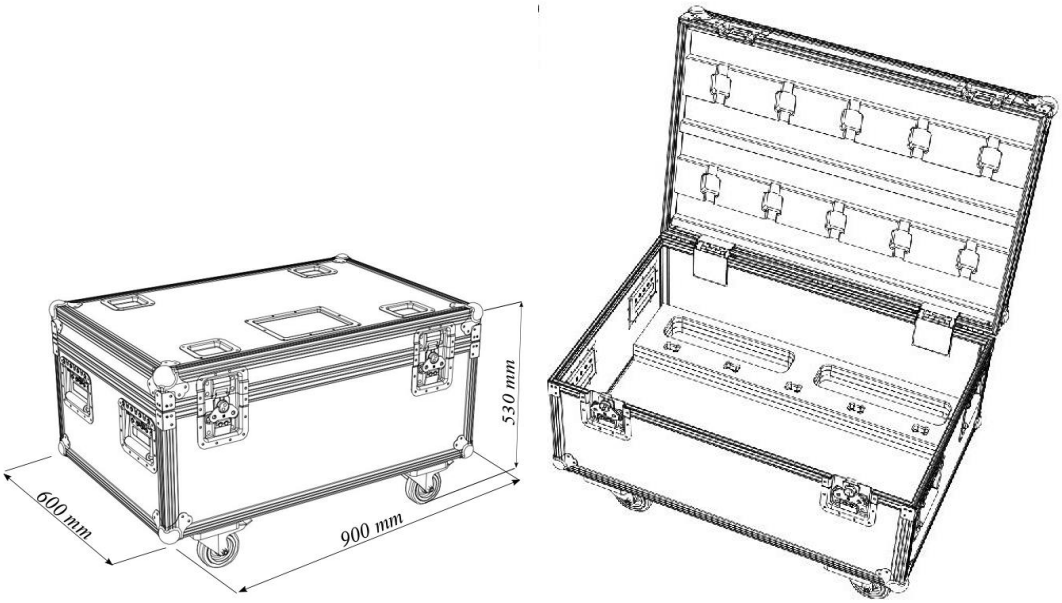
BASE PLATE



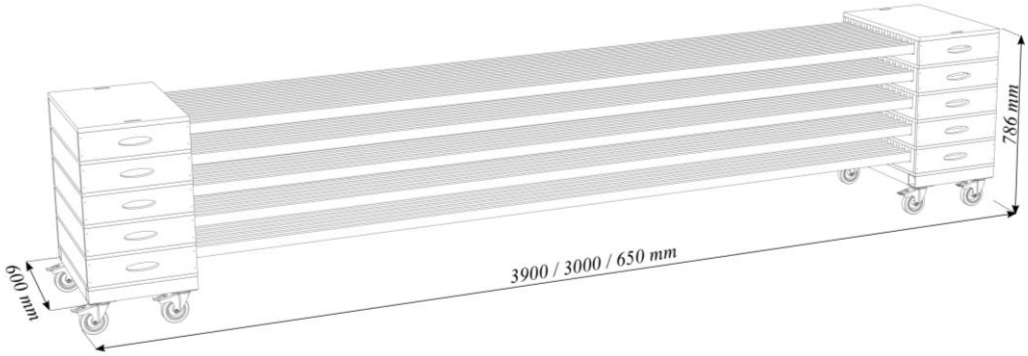
In the setup with head, pole and base plate, the StarPole measures:
***L** 400 x **W** 340 x **H** 2775 / 3675 mm*

2.2 Transport cases

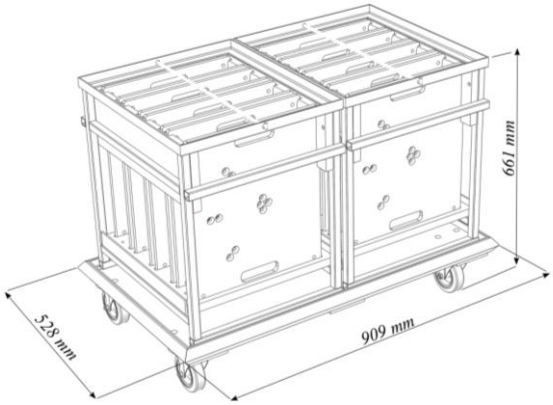
All parts are delivered in dedicated transport cases.



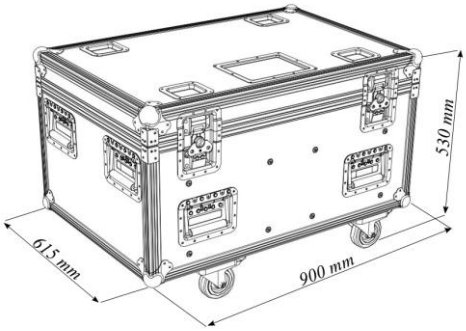
Case for 10x StarPole heads

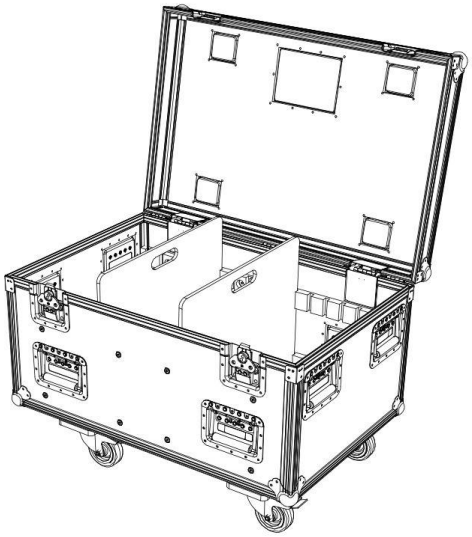


Case combination for 12x poles per level
(image exemple: 5 levels, cases piled up):



Case for 16x StarPole base plates:





Case for StarPole cabling:

3 Physical Installation

Thank you for selecting this StarPole led-luminaire as best solution in your setup.

Warning! Read the safety precautions in this manual before integrating this led-luminaire into your installation.

Installation must be carried out by qualified professionals only.

Assure yourself that there is sufficient and unrestricted air flow around the StarPole led-luminaire.

3.1 Specification

The StarPole luminaire is an elegant and efficient solution for indoor event lighting.

The ingress protection of the StarPole luminaire is IP20.

The housing is out of anodized aluminum in black finish.

RAL colors are not available.

It is possible to use accessories to manipulate the light, like lenses, snoots or barndoors

The StarPole uses a simple stabilized 24 VDC power supply.
It is also possible to choose for battery packs for a stand-alone functionality (see chapter 6 - External connections).

- Power consumption: max. 60Watt (6x 10W)
- Power voltage: 24 VDC
- Current: max 3A (full rated output)
- Weight: 15,4kg (base-pole-head version)

- Different lenses are possible:
  - Spot: 22° (FWHM)
  - Medium: 26° (FWHM)
  - Wide: 48° (FWHM)
  - Ultra Wide: 60° (FWHM)
  - Lens material: PMMA

- Different white light colors are possible:
  - Warm White: 2700K CRI: 80
  - Warm White: 3000K CRI: 80
  - Warm White: 3500K CRI: 80
  - Neutral White: 4000K CRI: 80
  - Cold White: 5700K CRI: 80

3.2 StarPole configuration overview

The following items are available for your StarPole configuration:

Luminaire set: StarPole Head with 6x StarEye Maxi Led-units

Pole combination:

- StarPole Pole in following heights:15cm (floor model), 250cm or 340cm
- StarPole Base plate

Suspension: StarPole Bracket for suspension on trusses

Power supply carriers

- StarPole Led-driver box containing 1x 6 channel led-driver and 2x 240W power supplies.
- StarPole Led-driver rack containing 4x 6 channel led-drivers and 8x 240W power supplies.

Connecter cables : Extension cables 4x#1,5mm, with wago 5p connectors in following lengths: 1m, 2m, 3m, 4m, 5m, 10m and 20m.

Stand-alone supply: StarPole Battery unit

Please also consult the specifications:

- StarPole Assembly
- StarPole Configuration document

3.3 StarPole configuration

The StarPole **Head** consists of 6x StarEye Maxi led-spots, linked with Higo connectors. The head fits on the pole and is secured with bolts.

The **pole** can have a height of 15cm or 250cm or 340cm. It is mounted with bolts on the **base plate** on top of the base block. This base block has 4 possible positions on the plate, also to be fixed with bolts. The position of the base block determines the position of the pole.

Cabling, with an XLR 5p connector on top and a wago 5p connector at the bottom, goes through the aluminum pole.

The StarPole uses a simple stabilized 24 VDC power supply.

The 6x StarEye Maxi spots are controlled per 2 by a 6 channel led-driver.
1 StarPole uses 3 outputs of the 6 channel led-driver. This also means that it is possible to connect 2x StarPoles totals to a led-driver.

3.4 Adjusting of intensity

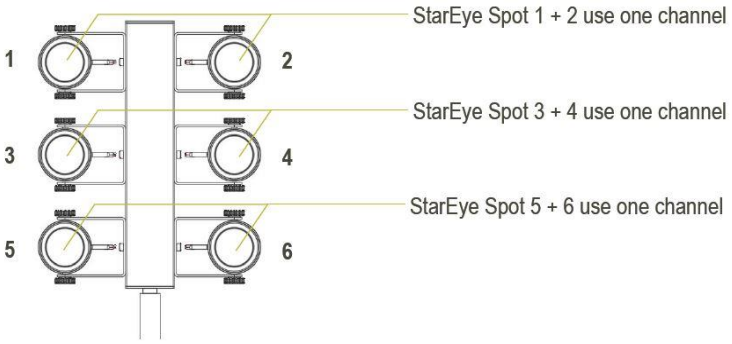
The StarEye Maxi led-units have a built-in step-down convertor. The StarEye Maxi led-units are dimmable with a Lux Lumen constant voltage DMX led-driver.

Preferred PWM led-driver:

➢ Lumen Radio CRMX - 12 V – 48 V DC

- DMX rotary wheels for 3 DMX channels

Start address*	2x Bottom StarEye Maxi
Start address + 1	2x Middle StarEye Maxi
Start address + 2	2x Top StarEye Maxi



* DMX start address, to be set using the wheels:

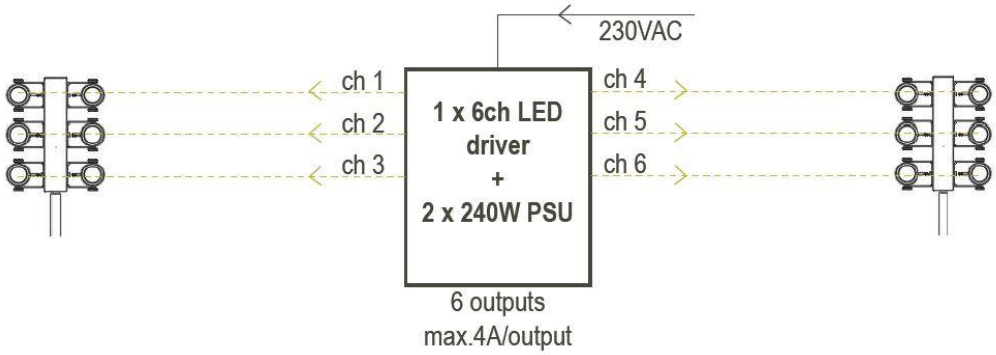
001 up to 509	Customized
6xx	Stand-alone static
7xx	Stand-alone dynamic
8xx	Battery status
9xx	Wireless Signal status

- Status leds on Electronic controller:
  - Power: Red led
    - Off: No power
    - Fix led: Operational
    - Single blinking led: Standalone modus
    - Double blinking led: Short circuit
  - DMX: Green led
    - Off: No signal from transmitter
    - Fix green led: Active signal from transmitter
    - Single blinking led: Link from transmitter, no radio
    - Double blinking led: Active radio, no DMX
- Synchronize
  - Use the push button on the transmitter to synchronize all receivers.
  - To disconnect from the transmitter signal, press long on the push button of the receiver.

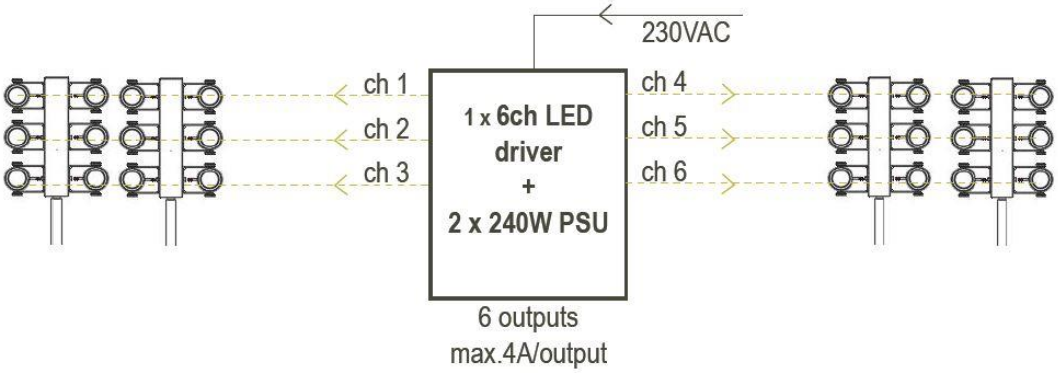
4 Configuration

Please also consult the 'StarPole configuration' document.

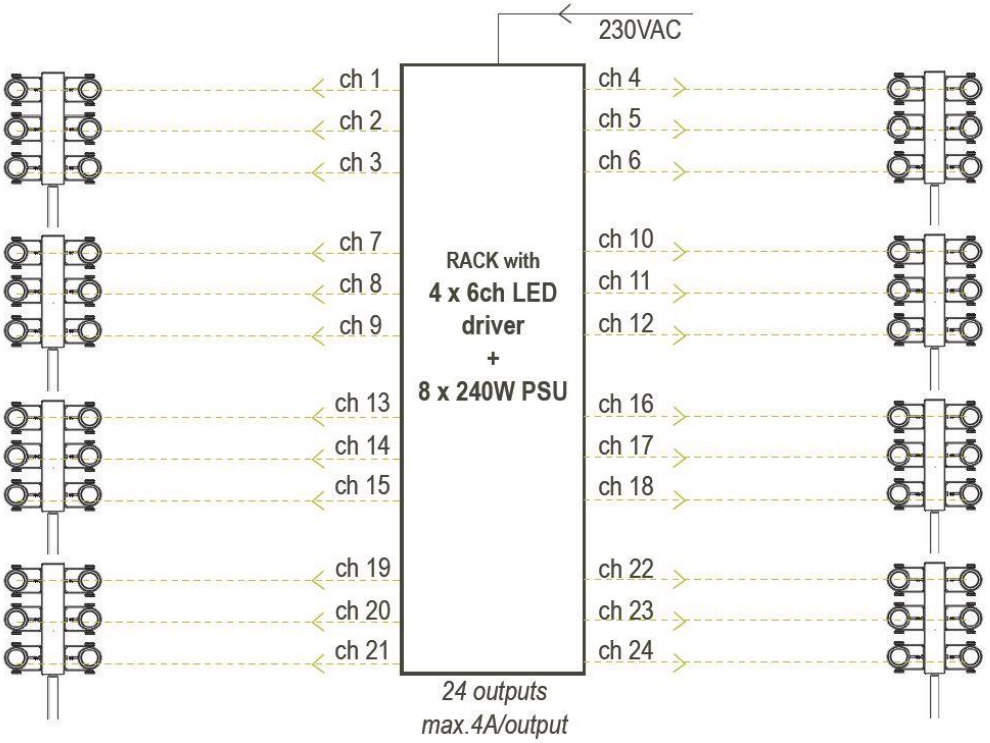
Configuration 1: LED Driver box with 2 StarPoles, separate channels



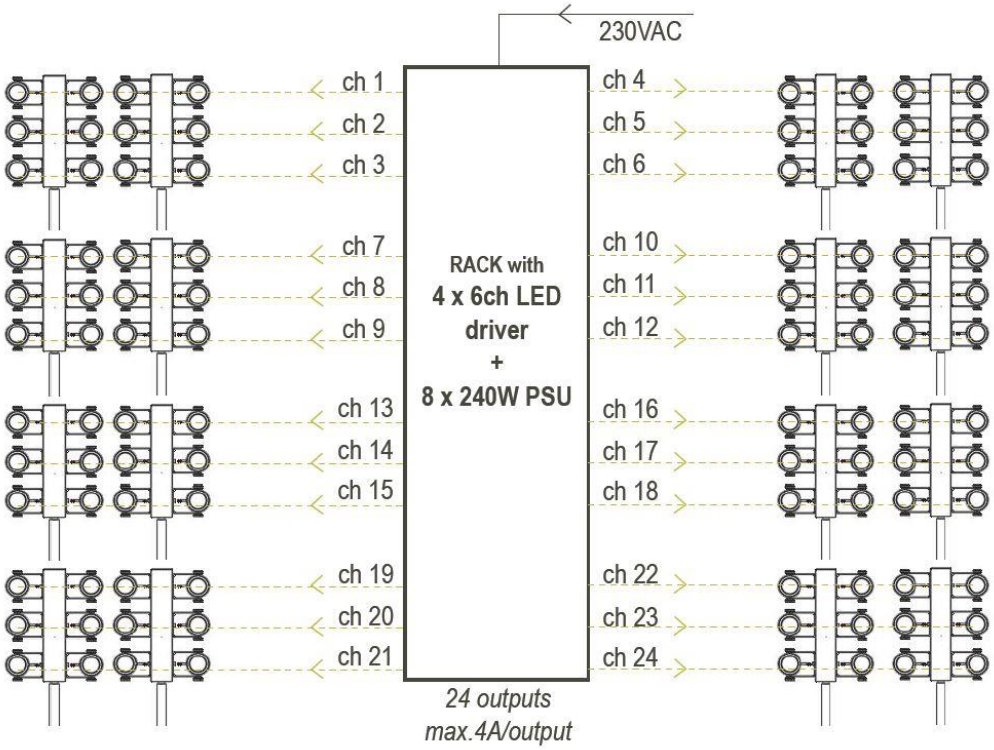
Configuration 2: LED Driver box with max. 4 StarPoles, synchronized channels



Configuration 3: LED Driver rack with max. 8 StarPoles, separate channels



Configuration 4: LED Driver rack with max. 16 StarPoles, synchronized channels



5

Installation

Please additionally consult the document with the StarPole assembly overview.

5.1 Provide the StarEyes Maxi with the correct optics

Step 1:

Screw the front cover counterclockwise to remove it from the led-unit.

Step 2:

Take out the lens. Don't touch the led itself to avoid damage!

Step 3:

Insert the new lens into the led-unit.

Step 4:

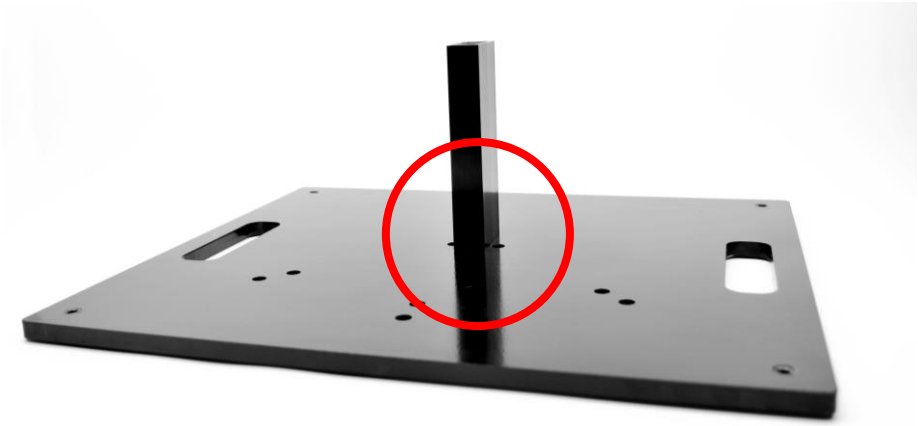
Screw the front cover onto the housing clockwise. Do not displace the rubber band to prevent fluid ingress

5.2 *Provide the StarEye Maxi with snoot if wished for*

5.3 *Focus the StarEye Maxi led-units on the head*

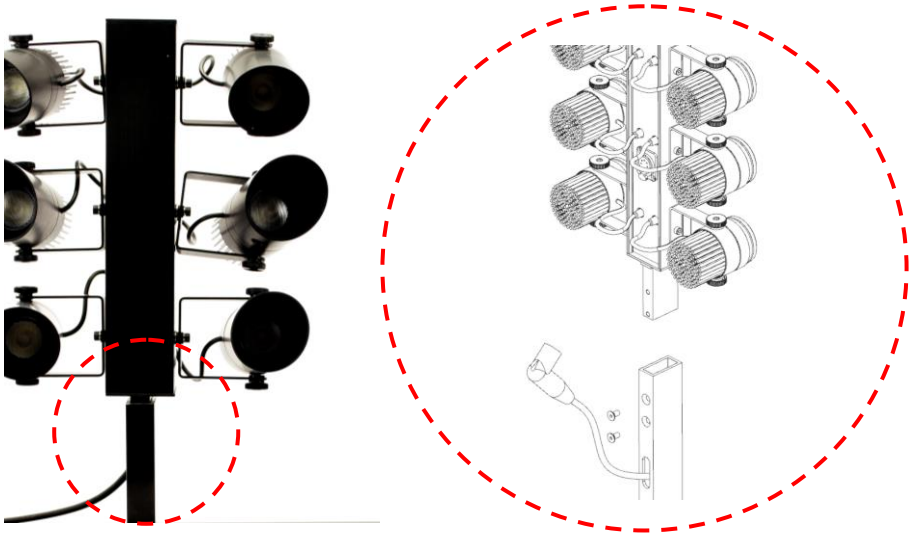
5.4 *Position the base block*

Position the base block on the correct position on the base plate.
Secure with bolts.

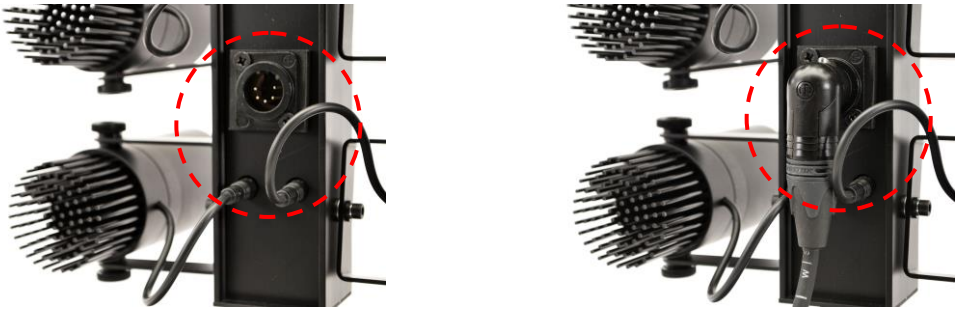


5.5 *Place head on pole*

Put the StarPole head on the pole and secure with bolts.

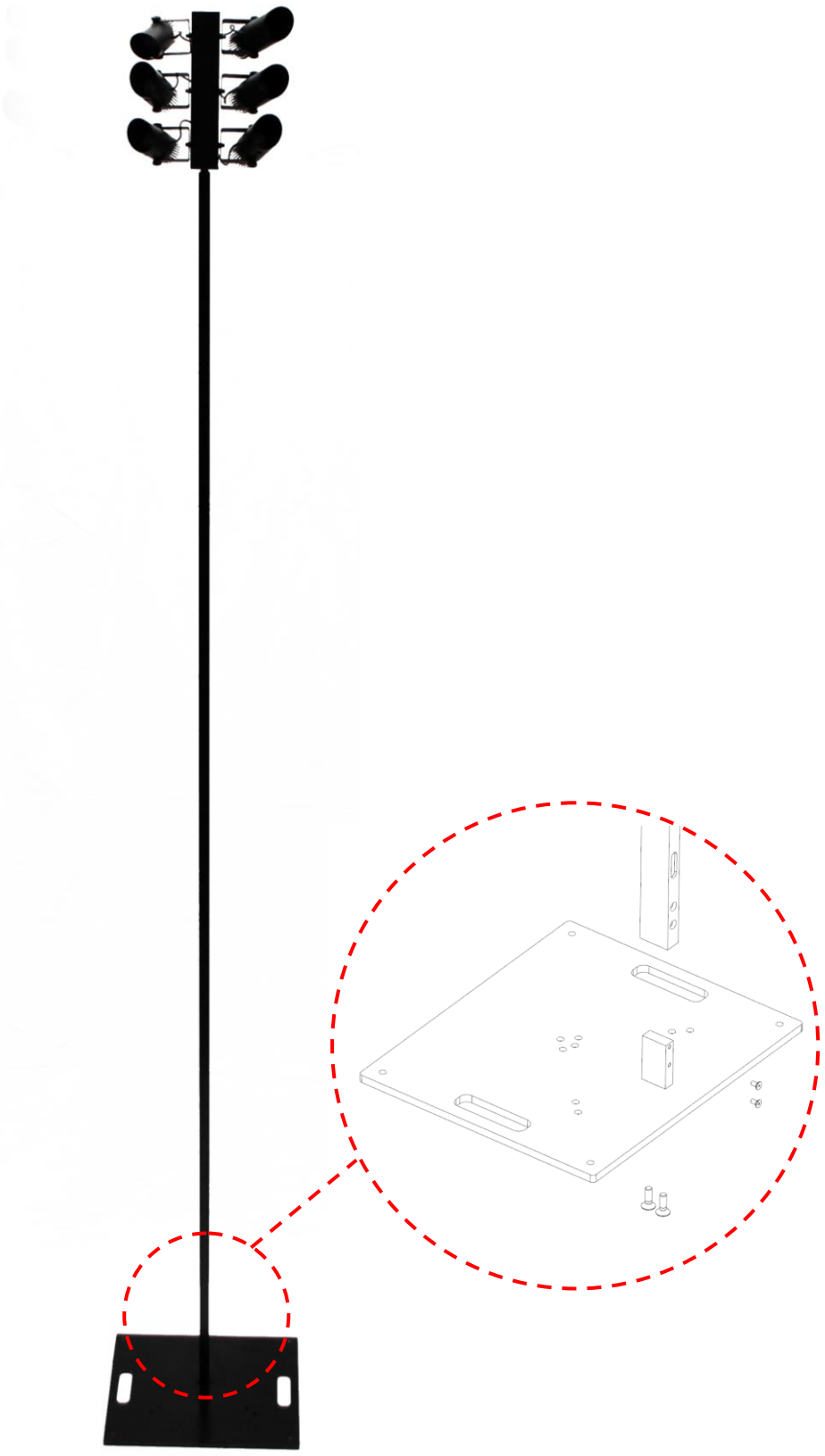


5.6 *Connect the XLR 5p cable on the head*



5.7 Assemble the pole on the base plate

Put the StarPole head + pole on the base plate and secure with bolts.



6 External connections

6.1 DC power input

Safety precautions

Never connect the live power on the input terminals of the StarPole led-luminaire!

In case of doubts, contact your supplier.

Polarity

The StarPole luminaire is polarity sensitive. However the led-units are provided with a Higo connector, it is advised to observe polarity and cabling if necessary:

- Red inner conductor = positive
- Black inner conductor = negative

Improper connection might damage the StarPole luminiare and power supply permanently. In case of inversed polarity, the warranty is void.

Power supply: Rated voltage

The rated input voltage range of the StarPole luminaire is 24 VDC. Due to the use of a step down-convertor, integrated in the housing, a highly efficient system is created.

Cable

The cable used in the StarPole is 4x#0,5mm with a XLR 5p connector on top and a wago 5 connector at the bottom. It is possible to extend the cable with a cable 4x#1,5mm of maximum 25m to the 6 channel led-driver.

Lux Lumen cables are available with length 1m, 2m, 3m, 4m, 5m, 10m and 20m.

6.2 Battery Unit

Preferred battery charger:

- Meanwell PA-120N-27c
  110V or 220V, selectable by switch on charger, to be set by Lux Lumen.

Battery:

In order to charge the battery, first connect the XLR to the battery, than plug in the power 220V.

Autonomy (from maximum load): max.12 hours

Time to fully charge empty battery: 10 hours

7 EMC and safety requirements

The StarPole is fully compliant to the LVD and EMC directive of the European council, if used in a properly designed setup.

The StarPole led-luminaire is only intended to be used in lighting applications, and as such, the complete assembly of led-units and power supply needs to be fully compliant with following harmonized standards:

LVD requirements of the power supply

- EN 60598: general requirements of lighting equipment.

EMC requirements of the power supply

Immunity according to:

- EN 61547:2009 (General EMC immunity requirements lighting eq.)
- EN 61000-4-1:2006 (General immunity testing techniques)
- EN 61000-4-2:2008 (ESD immunity test)
- EN 61000-4-3:2006 + A1:2007 (Radiated immunity test)
- EN 61000-4-4:2004 (Fast transients and burst immunity)
- EN 61000-4-5:2005 (Surge immunity test)
- EN 61000-4-6:2008 (Conducted immunity test)
- EN 61000-4-8:1993 (Magnetic field immunity test)
- EN 61000-4-11:2004 (Voltage variations immunity test)
- EN 61000-6-1:2005 (Generic standards for immunity)

Emission according to:

- EN 61000-3-2:2005+A1:2008+A2:2009 (Harmonics emission test<16A)
- EN 61000-3-3:2008 (Flicker+ voltage changes limits< 16A)
- EN 55015:2006+A2:2009 (Conducted + radiated emission lighting equipment)

To achieve this compliance, a proper power supply must be supplied. In case of doubts, contact your supplier.

10 Safety information

Before installing, powering up, or servicing the StarPole luminaire, it is highly recommended that you read this manual and ensure yourself that you completely understand its content. Observe the safety precautions in this manual. Install and operate the led-unit only as described in this manual, and in conformity with local regulations. If you have any questions how to operate this product safely, please contact your supplier.

10.1 Symbols

Following symbols are used to identify important safety information on the product and in this manual.

DANGER! Safety hazard. Risk of severe injury or death.

Warning! Hazardous voltage. Risk of lethal or severe electric shock.

Warning! LED light emission. Risk of eye injury.

Warning! Burn hazard. Hot surface. Do not touch

Warning! Refer to user manual.

10.2 Protection from electric shock

Although this device itself does not operate with dangerous voltages, the installation in which is intended to be used, can contain dangerous voltages.

Shut down the power of the complete installation before carrying out any installation, or maintenance work.

Use only AC to DC power sources, suitable for the application, and conform to local regulations. Please ensure yourself that the AC to DC power supply is able to deliver the rated current requirements of the installation.

If any cable, seal or housing is damaged, cracked, or reformed, disconnect the power of the installation immediately.

For any additional servicing, not described in this manual, please contact your point of sale.

10.3 Protections from fire and burns

Do not operate this led-luminaire if ambient temperature is over 45 °C (113 °F). Please ensure yourself that sufficient ventilation around the led-unit is possible.

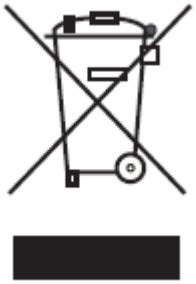
It might be necessary to allow the led-unit to cool down for 5 minutes, before servicing.

Do not modify the led-fixture, in a way, not described in this manual.

10.4 Protection from injury

Ensure yourself that the led-unit and all its accessories are securely fastened. Verify that the led-unit is firmly fixed to its supporting underground.

10.5 Disposing of this product



This led-lighting device is manufactured in compliance with directive of the European community: waste electrical and electronically equipment. Please help to preserve our environment and ensure that this product will be recycled properly at the end of its life.

11 Service and maintenance

11.1 Safety precautions

Read carefully the safety information in this manual. Lock out the power on the entire system and allow all electronic devices to discharge, and cool down, before executing any service or maintenance.

11.2 Cleaning

The StarPole luminaire itself

Extensive dirt, and particle build-up degrades performance, may cause overheating can result in damaged led-unit and power supplies. Damage by inadequate cleaning or maintenance is not covered by the product warranty.

Never use solvents to clean the outer housing of the unit.

Never use water, or wet cloth.

12

List of used abbreviations

- AC: Alternating current
- DC: Direct current
- °F: Temperature in degrees Fahrenheit
- °C: Temperature in degrees Celsius
- LED: Light Emitting Diode
- CRI: Color Rendering Index
- PWM: Pulse Width Modulation
- RMA: Return Material Authorization
- LVD: Low Voltage Directive
- EMC: ElectroMagnetic Compatibility