



# Gavita HortiStar 1000 DE EU/US

## 1. Introduction


Thank you for purchasing the Gavita HortiStar 1000 DE EU/US. Please read and understand this manual completely before using the product. Only use the product as specified in this manual.

### 1.1. Used symbols


 **Warning!** A warning indicates severe damage to the user and/or product may occur when a procedure is not carried out as described.


 **Caution!** A caution sign indicates problems may occur if a procedure is not carried out as described. It may also serve as a reminder to the user.

 **Note:** A note gives additional information, e.g. for a procedure.


 This symbol indicates that the reflector and lamp can reach very high temperatures (>85° Celsius / >185° Fahrenheit). Mind a cool down period before performing maintenance.

 With this symbol Gavita declares that this product complies with legal European requirements.

 The symbol on the material, accessories or packaging indicates that this product may not be discarded as household waste. Dispose of the equipment through a recycling centre that handles electronics and electrical appliances within the EU and in other European countries which use separate collection systems for used electronics and electrical appliances. By disposing of the equipment in the proper way, you will be helping to prevent possible risks to the environment and public health, which might otherwise be caused by improper handling of the discarded equipment. Recycling of materials contributes to the conservation of natural resources. Therefore, please do not dispose of your old electronics and electrical appliances via household waste.

 This symbol is an internationally recognized symbol used to designate recyclable materials.

 This symbol shows that a product has been independently tested and certified to meet recognized standards for safety.

 This symbol indicates the minimum distance (B) between the fixture type (A) and the lit surface.

## 2. Product description

The Gavita HortiStar 1000 DE EU/US is a remote reflector. It can only be used when connected to a ballast. The product can be used to drive a double ended high pressure sodium lamp, suitable for 750W or 1000W lamps. Only use lamps suitable for open reflectors.

The Gavita HortiStar 1000 DE EU/US is intended to be used in climate rooms.

In this manual, the Gavita HortiStar 1000 DE EU/US will be referred to as: "the remote reflector".

### 3. Product information and specifications

#### 3.1. General product information

Product name	Gavita HortiStar 1000 DE EU		Gavita HortiStar 1000 DE US
Manufacturer	Gavita International bv		Gavita International bv
Version	EU	RST	XR
EAN Code	8718403053050	8718403053074	8718403053067
Part number	31.30.20.01	31.30.20.11	31.30.20.20
Plug type	No lamp cord	Wieland RST20i3	XR601/XM01

#### 3.2. Technical specifications

Product name	Gavita HortiStar 1000 DE EU	Gavita HortiStar 1000 DE US
Product weight	2,2 kg	4.4 lbs
Dimensions (L*W*H) (height excl. mounting hooks)	520*250*190 mm	20.1*9.6*7.6 in.
Temperature ambient	0 -35 °Celsius	32-95 °Fahrenheit
Input voltage (max.)	330 V	330 V
Input wattage	1150 W	1150 W
Input current	5 A	5 A
Certification	CE	CSa
Insulation	Class 1 - requires an earth connection	Class 1 - requires an earth connection
Power inlet	4 m lamp cord with Wieland RST20i3 connector	13 ft lamp cord with XM01 connector
Earth leakage current:	≤ 1 A	

#### 3.3. Compatible products and accessories

##### EU

	Product name	Gavita part number
Replacement reflector	Gavita HR96 DE	30.46.13.00
	Gavita M 110 DE SR	30.27.13.00
	Gavita W 150 DE	31.26.13.00
Compatible lamp cords	Lamp cord with RST20i3 connector 4m	62.22.22.22
	Lamp cord with IEC C14 connector 4m	62.22.22.24

##### US

	Product name	Gavita part number
Replacement reflector	Gavita HR96 DE	30.46.13.00
	Gavita M 110 DE SR	30.27.13.00
	Gavita W 150 DE	31.26.13.00
Compatible lamp cord	Lamp cord with XM01 connector 13 ft	44.30.40.05

Compatible lamps are ballast dependent and need to be suitable for open reflectors.

#### 3.4. Environment

The product is meant for use in climate rooms. The product may be used in damp environments. The product may not be used in wet environments or outdoors. The lamps function optimal when the ambient temperature is between 20 ~ 30 °Celsius / 68 ~ 86 °Fahrenheit.

#### 3.5. Legal

CE LVD approval according to: EN 60598-1: 2008 + A11: 2009.

CSa approved according to: CSA C22.2 No. 250.0-08(R2013).

## 4. Safety recommendations and warnings

### ⚠ Warning! Carefully read the warnings below before using or working with the product!

- Always adhere to the local rules and regulations when installing or using the remote reflector.
- When used in combination with an electronic ballast, this product may cause interference to radio equipment. It should not be installed near maritime safety communications equipment or other critical navigation or communication equipment operating between 0.45 - 30 MHz.
- Do not use the remote reflector when the lamp cord is damaged. Replace the lamp cord only with original certified cords.
- Replace the lamp only with lamps specified by Gavita. The use of other lamps may damage the product and lamp and will void the warranty.
- Do not expose the remote reflector to:
  - condensing humidity, heavy mist, fog or direct spray;
  - [ambient] temperatures outside the specified range;
  - dust and contamination;
  - direct sunlight during use or artificial light that could heat up the ballast.
- Always disconnect the product from mains before performing any maintenance.
- Always allow for a cool down period of at least 30 minutes before touching the lamp or reflector. Touching the lamp or the reflector when the lamp is lit or immediately afterwards will result in severe burns!
- Never touch the lamp with bare hands as this will cause damage to the lamp.
- Do not use the remote reflector above flammable, explosive or reactive substances. The lamp and the reflector of the remote reflector reach temperatures of >85 °Celsius / >185° Fahrenheit.
- Do not use sulfur vaporizers or water misters. Sulfur and calcium deposits on your reflector will decrease its efficiency.
- The installation and use of the remote reflector is the responsibility of the end user. Incorrect use or installation can lead to failure and damage to the remote reflector. Damage to the remote reflector and electronic circuitry as a result of incorrect installation and use revokes the warranty.

## 5. Contents (1)

### A. Gavita HortiStar 1000 DE EU/US

1. Connector box
2. Reflector bracket
3. Lever to unlatch reflector
4. Lamp socket
5. Reflector Gavita HR96 DE\*

\*The reflector is delivery dependent, it may differ from the image

6. Mounting points

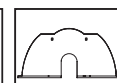
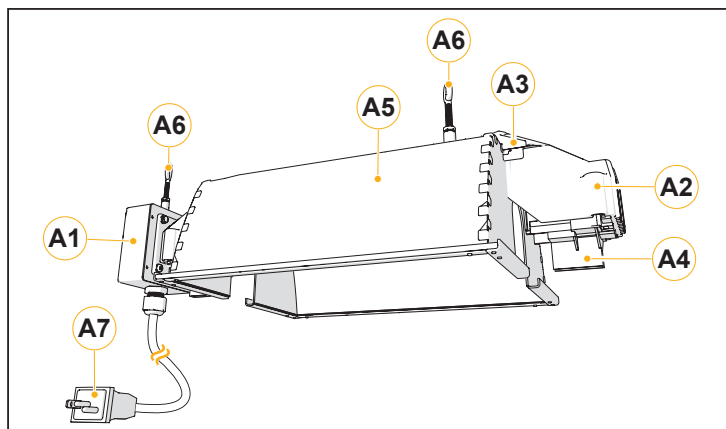
### 7. US:

Lamp cord with XM01 connector 13 ft

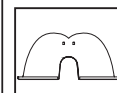
\*EU:

Lamp cord with Wieland RST20i3 connector 4m

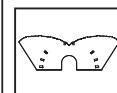
(\*For EU models a lamp cord is delivery dependent)



Gavita HR96 DE



Gavita M 110 DE SR

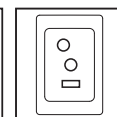
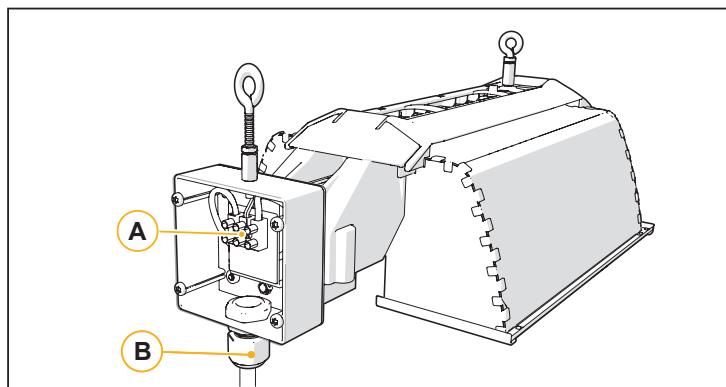


Gavita W 150 DE

## 6. Controls, connections and indications (2)

### A. Connection terminal

### B. Cable gland



XR601 / XM01



Wieland RST20i3

2.

## 7. Installation

- ⚠ **Warning!** Avoid coiled cords. Coiled cords may lead to electromagnetic interference or overheating.
- ⚠ **Warning!** Always install the lamp before connecting the remote reflector to the ballast.
- ⚠ **Warning!** Ensure the local cabling can support the voltage and current requirements of the product.

### 7.1. (Re)placing the lamp cord

- ⚠ **Warning!** Do not use the remote reflector when lamp cord is damaged. Replace the lamp cord only with original certified cords. Modifications to the cords can lead to unwanted electromagnetic effects, which makes the product not comply with legal requirements.

- Switch off mains power.
- Unplug the lamp cord from the ballast.
- Unscrew the four screws from the connection box using a phillips screwdriver and remove the metal cap (3).
- ⚠ **Note:** One of the screws has a tooth lock washer to make sure that the housing and the metal cap are electrically connected.
- Loosen the grey cable gland (4-1).
- Unscrew the screws from the metal strain relief using a phillips screwdriver (4-2).
- Loosen the three lower screws of the connection terminal using a slotted screwdriver (5-1,2,3).
- Remove the cable (5-4).
- Strip the new cable according to the original cable by using a cable stripper and wire stripper.

- ⚠ **Note:** Always use cable end sleeves when connecting the wires to the connection terminal.

- Attach conductor sleeves to the stripped wires. This prevents the wire strands from being damaged in the connection terminal, which could cause overheating, internal melting and possible damage to your ballast.
- Insert the new stripped cable into the connection box through the cable gland (6-1).
- Insert the wires into the correct terminals:

#### 'Normal' ballast (7)

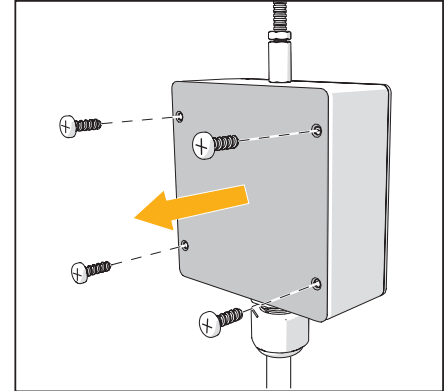
- Middle terminal = ground wire (green or yellow/green)
- Left terminal 2 = L
- Right terminal 1 = N

#### Electronic ballast

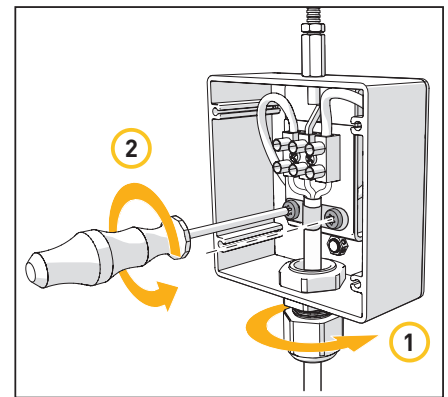
- Middle terminal = ground wire (green or yellow/green)
- Left and right terminal = L or N (there is no preferred connection)

- Fasten the three lower screws of the connection terminal using a slotted screwdriver (6-2,3,4).

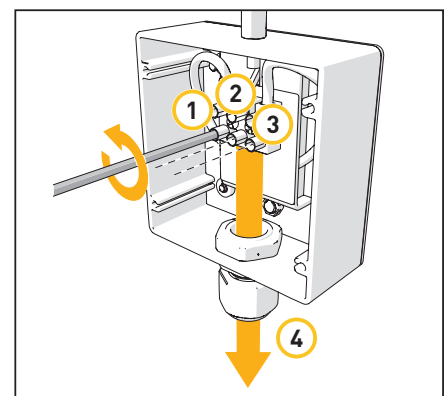
- ⚠ **Caution!** Make sure the wires are connected and fastened. If not, the remote reflector will not be able to function correctly or could damage the ballast.
- Fasten the metal strain relief using a phillips screwdriver.
- Fasten the grey cable gland as tight as possible.
- Place the metal cap onto the connection box and fasten the four screws using a phillips screwdriver (8).
- Plug the lamp cord into the ballast.
- Switch on mains power.



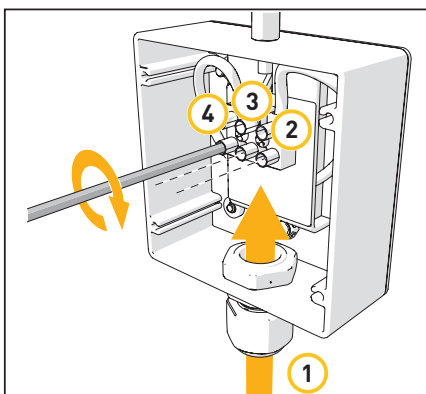
3.



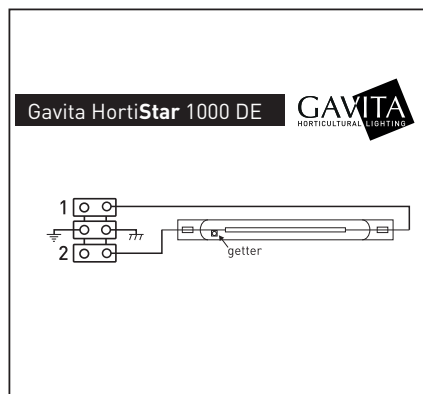
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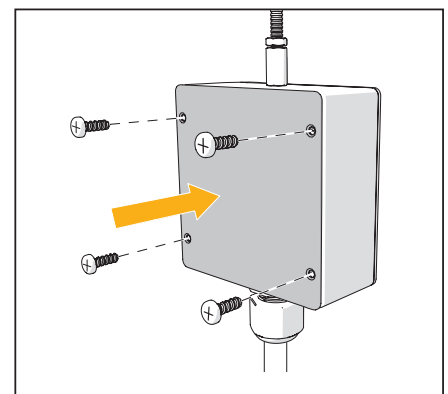
5.



6.



7.



8.

### 7.2. Preparing the remote reflector for use

- ⚠ **Caution!** Do not touch the inside of the reflector during installation.
- Switch off mains power.
- Install the lamp in the remote reflector (see paragraph 9.1).
- Hang the remote reflector by its two mounting points (9). The two mounting points are spaced 347 mm / 13.66 inches apart.

### 7.3. Connecting the remote reflector to a ballast

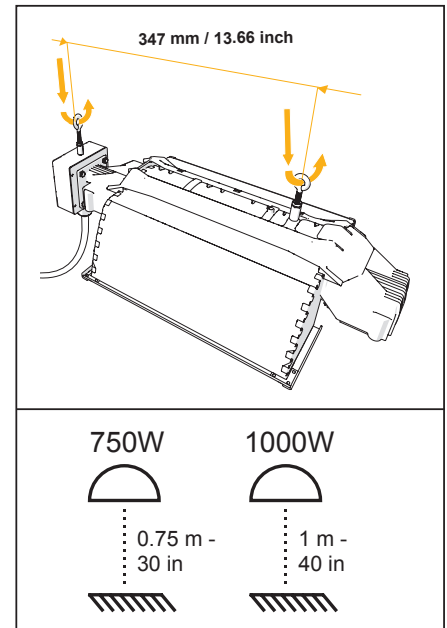
- ⚠ **Warning!** Ensure the cord is not coiled and does not touch any hot surfaces.
- ⚠ **Warning!** Make sure mains power is switched off.
- Plug the lamp cord into the ballast (10).
- Connect the ballast to mains.
- Switch on mains power.

## 8. Product use

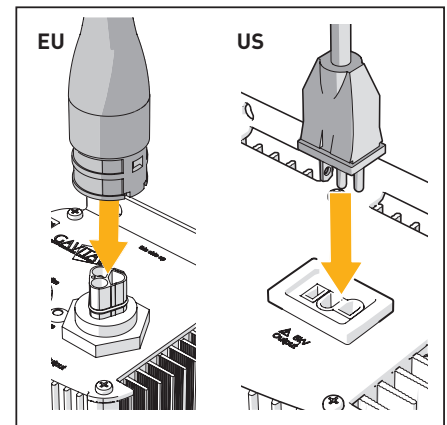
- ⚠ **Warning!** Never use the remote reflector without a lamp or reflector!

## 9. Inspection, maintenance and repair

- ⚠ **Warning!** Disconnect the product from mains before performing any maintenance or repairs.
- ⚠ **Warning!** Do not disassemble the remote reflector, this will void the warranty.
- ⚠ **Warning!** Always allow for a cool down period of at least 30 minutes before touching the lamp or reflector.
- ⚠ **Caution!** Do not clean the remote reflector with detergents, abrasives or other aggressive substances.
- ⚠ **Caution!** Do not touch the inside of the reflector during installation and do not use water, abrasives or detergents to clean it. This will damage the reflective surface.
- ⚠ **Caution!** Ensure the exterior of the remote reflector is dry after cleaning it.
- Regularly check the remote reflector for dust or dirt buildup. Clean if necessary. Contamination may cause overheating and decreased performance.
  - Clean the inside of the reflector only with a soft, dry cloth;
  - Clean the outside of the remote reflector using a dry or damp cloth.
- Check the lamp monthly for discolorations or black markings. Always replace a damaged lamp.
- ⓘ **Note:** Before initial use, the lamp could have black markings. This will disappear when the lamp runs on full power. If not, replace the lamp.
- Regularly check the wiring of the product to ensure it is undamaged.



9.



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### 9.1. Placement and replacement of the lamp

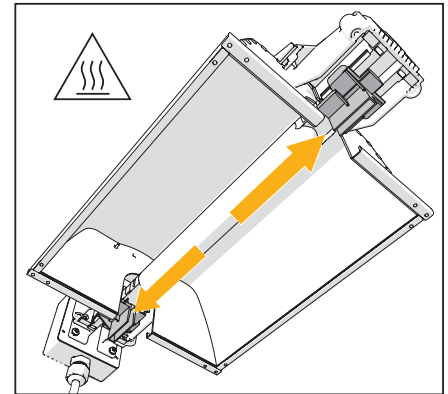
⚠ **Warning!** Always allow for a cool down period of at least 30 minutes before touching the lamp or reflector.

⚠ **Caution!** Do not touch the lamp with bare hands as this will damage the lamp. Always use a fabric glove to handle the lamp.

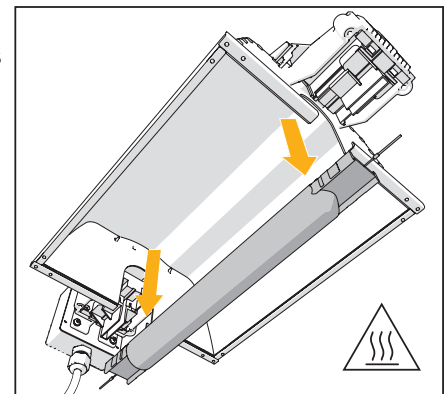
⚠ **Caution!** Only use lamps specified by Gavita (see paragraph 3.3).

ⓘ **Note:** The lamp must be replaced every year or after 5000 lighting hours, whichever one comes first.

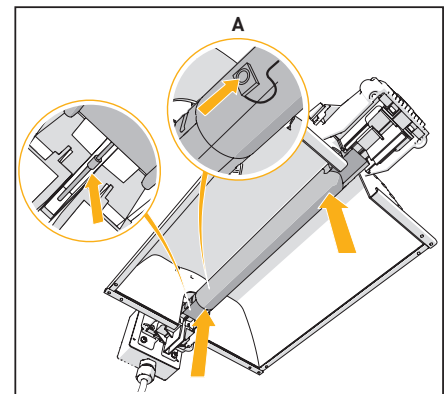
- Switch off mains power.
- Hold the lamp with a fabric glove to prevent it from falling. Use a protective glove if the lamp is damaged.
- Open the lamp holders by sliding them outwards (11).
- Carefully take the lamp out of the fixture (12).
- Install the new lamp with the getter (A) near the ballast (13), with the glass vacuum seal pointed downwards (Philips lamp) or sideways (Gavita lamps).
- Use a fabric glove to carefully press the lamp in the fitting until the metal springs hold the lamp.
- Close the lamp holders by sliding them inwards (14).
- Switch on mains power.



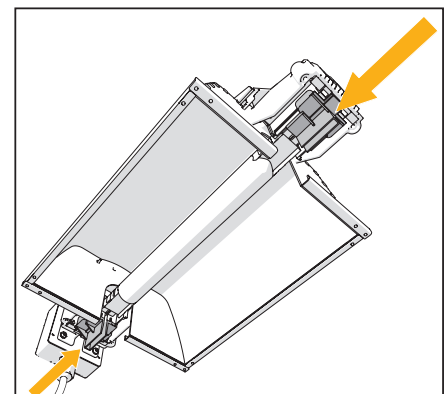
11.



12.



13.



14.

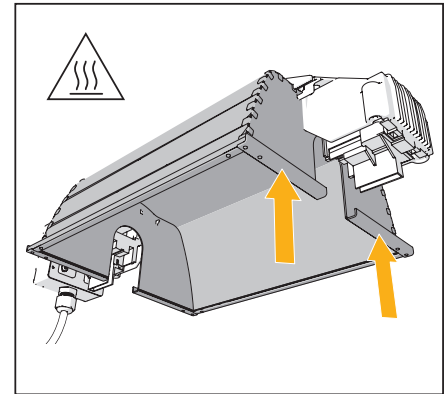
## 9.2. Placement and replacement of the reflector

**⚠ Warning!** Always allow for a cool down period of at least 30 minutes before touching the lamp or reflector.

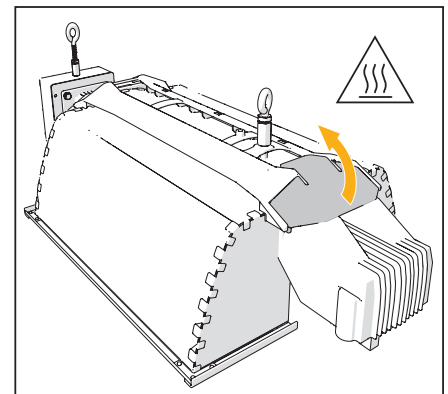
**! Note:** Gavita recommends replacing the reflector\* after 5000 lighting hours. Depending on the environment and contamination levels the reflector will degrade. The vega/Miro™ aluminum can not be cleaned without damage. Therefore we recommend to change the reflector once every year. Also replace the lamp when replacing the reflector.

\* The reflector is delivery dependent, it may differ from the image.

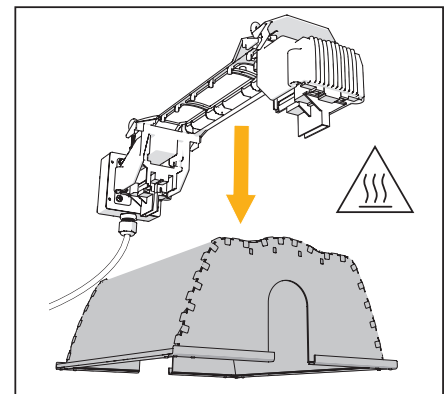
- Switch off mains power.
- Remove the lamp from the fixture (see paragraph 9.1).
- Support the reflector on the side of the reflector lever to prevent it from falling (11).
- Move the reflector lever up to retract the two pins holding the reflector in place (12).
- Remove the reflector (13).
- Place the new reflector. Ensure the reflector lever is in the opened position to allow the reflector to pass.
- Ensure the holes in the reflector are aligned with the pins in the fixture (14).
- Release the reflector lever so its two pins hold the reflector in place.
- Insert the lamp in the lamp holder (see paragraph 9.1).
- Switch on mains power.



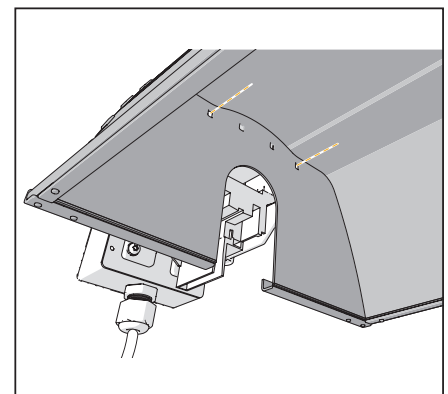
15.



16.



17.




18.

## 10. Storage and disposal

- Store the remote reflector in a dry and clean environment, with an environmental temperature of -20~55 °Celsius / -4~131 °Fahrenheit.
- The product must not be discarded as unsorted municipal waste, but must be collected separately for the purpose of treatment, recovery and environmentally sound disposal.

 **Caution!** The lamps are chemical hazardous waste and must be delivered to the designated authorities.

 **Caution!** The lamp contains mercury.

## 11. Warranty

Gavita International bv warrants the mechanical and electronic components of their product to be free of defects in material and workmanship if used under normal operating conditions for a period of three (3) years from the original date of purchase. If the product shows any defects within this period and that defect is not due to user error or improper use Gavita International bv shall, at its discretion, either replace or repair the product using suitable new or reconditioned products or parts. In case Gavita International bv decides to replace the entire product, this limited warranty shall apply to the replacement product for the remaining initial warranty period, i.e. three (3) years from the date of purchase of the original product. For service return the remote reflector to your shop with the original sales receipt.