

Ultra flat Pool & Spa LED light

OWNER'S MANUAL

Moonlight



Spectravision 

Ultra flat shape
2 wire 12VAC
ON/OFF control
NoAir™
PAR56 Retrofit

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Technical specifications

| Reference | Description | Color | Light output | Power | Nominal CCT |
|--------------------|-----------------------------|----------------|--------------------|--------------|----------------|
| PLS300 PLS300B | Bulb + housing Bulb only | RGB RGB | 575 lm 575 lm | 15W 15W | n.a. n.a. |
| PLW300 PLW300B | Bulb + housing Bulb only | White White | 1250 lm 1250 lm | 16 W 16 W | 9000K 9000K |
| PLS700 PLS700B | Bulb + housing Bulb only | RGB RGB | 1450 lm 1450 lm | 25W 25W | n.a. n.a. |
| PLW700 PLW700B | Bulb + housing Bulb only | White White | 2100 lm 2100 lm | 28W 28W | 9000K 9000K |
| PLS400B PLW400B | Bulb only Bulb only | RGB White | 925 lm 1850 lm | 21W 19W | n.a. 9000K |
| PLW600 PLW600B | Bulb + housing Bulb only | White White | 2100 lm 2100 lm | 29W 29W | 9000K 9000K |
| PLS600 PLS600B | Bulb + housing Bulb only | RGB RGB | 1240 lm 1240 lm | 26W 26W | n.a. n.a. |

| | |
|-----------------------|------------|
| Beam Angle | 120° |
| Diameter Optic | 170 mm |
| Nominal input Voltage | 12 VAC |
| Life time hrs | > 25.000 h |
| Power factor | > 0,73 |



For operation only with a safety isolation transformer

General specifications

4m non detachable rubber cable included

Maximum water temperature

+35°C

(Lamps have to be kept out of ice zones)

Ingress Protection Rate

IP68

(measured at 1m)



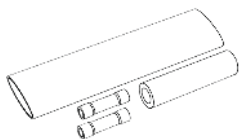
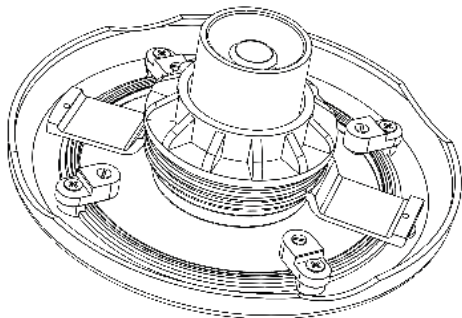
Moonlight Pool lamps must be completely submerged into water during operation. Not doing so, will void warranty.

Optional: Stainless steel faceplate PZM170-RV-SS

Box contents

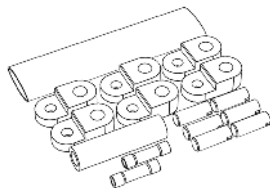
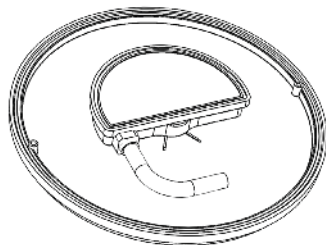
Moonlight complete types:

- PLS300
- PLW300
- PLS700
- PLW700
- PLW600
- PLS600



Moonlight Bulb only types:

- PLS300B
- PLW300B
- PLS700B
- PLW700B
- PLS400B
- PLW400B
- PLW600B
- PLS600B

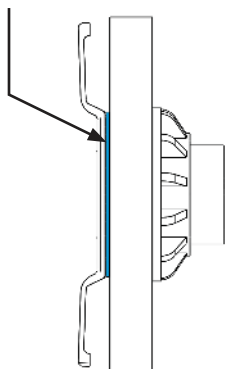


Installation instructions

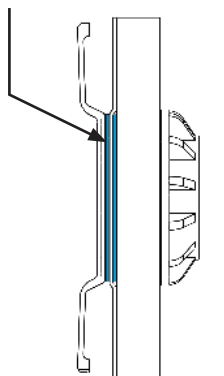
No liner: Use 1 gasket

With liner: Use 2 gaskets

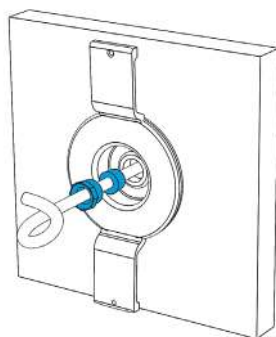
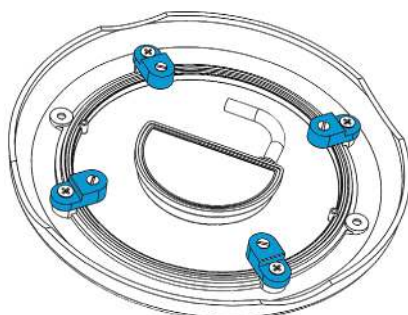
1



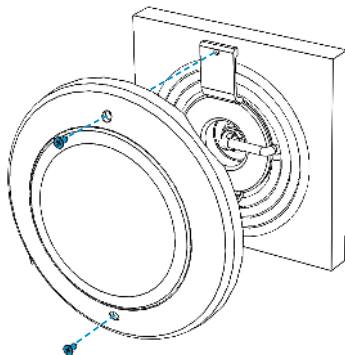
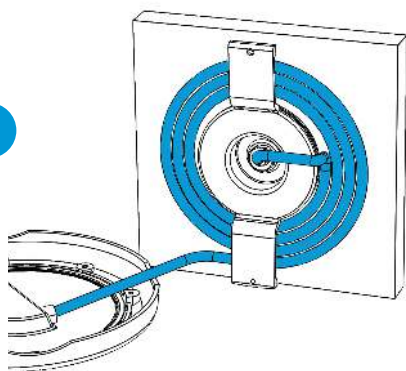
OR



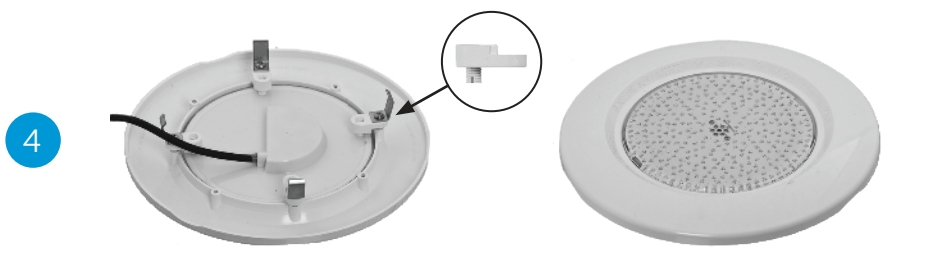
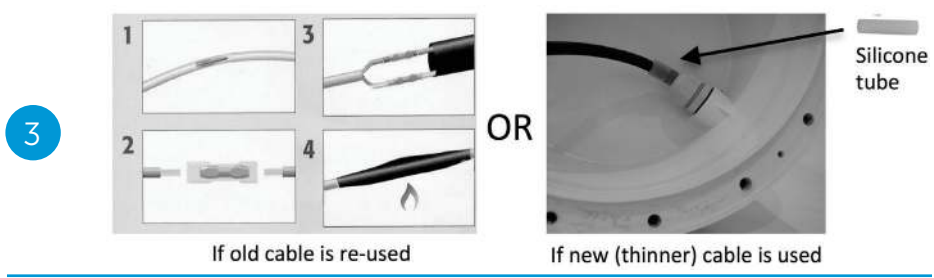
2



3



Retrofit with PAR56 niche



16 Color programs (only for RGB lamps)

| | | |
|---|-----------------|--------------------------------------|
| ① | SUN WHITE | warm white |
| ② | RED | fixed color red |
| ③ | GREEN | fixed color green |
| ④ | BLUE | fixed color blue |
| ⑤ | GREEN-BLUE | fixed color green-blue |
| ⑥ | RED-GREEN | fixed color red-green |
| ⑦ | BLUE-RED | fixed color blue-red |
| ⑧ | EVENING SEA | slow animation red-blue |
| ⑨ | EVENING RIVER | slow animation red-green |
| ⑩ | RIVIERA | slow animation green-blue |
| ⑪ | NEUTRAL WHITE | cold white |
| ⑫ | RAINBOW | slow animation blue-red-green |
| ⑬ | RIVER OF COLORS | program 12, followed by program 15 |
| ⑭ | DISCO | fast animation |
| ⑮ | FOUR SEASONS | slow animation red-blue-green-violet |
| ⑯ | PARTY | fast animation |

Operation

Synchronizing multiple lamps:

1. All lamps need to be connected to the same transformer
2. Turn the lamps ON for a few seconds
3. Turn them OFF for MINIMUM 12 seconds, then switch back ON
4. Change the color 2 times. Now they are synchronized

Changing colors:

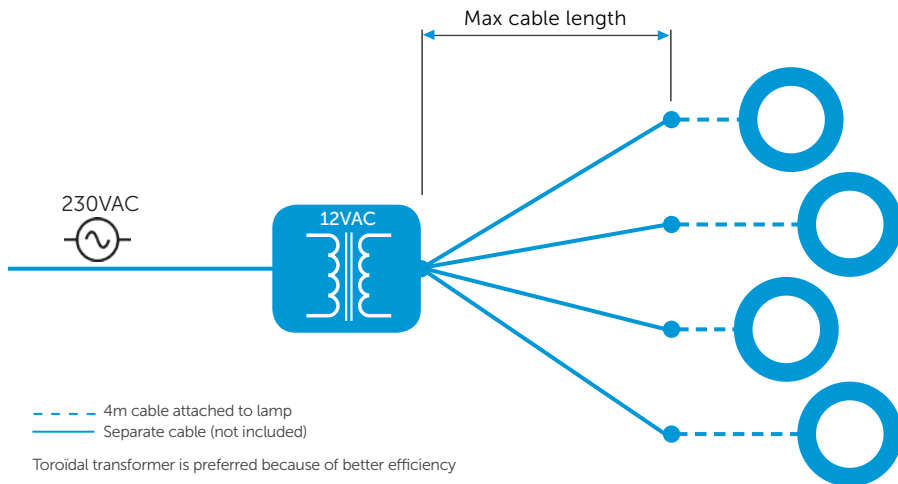
Turn the lamps OFF and quickly back ON (max 10 sec OFF)
Or use our optional remote controllers PL-REM(-60, -200).

Memorizing the last color:

1. Select the desired color
2. Turn the lamps OFF for MINIMUM 12 seconds
3. The chosen color has now been memorized

Wiring instructions Setup 1

Each lamp is connected to the transformer by a separate cable (Preferred for new installations)



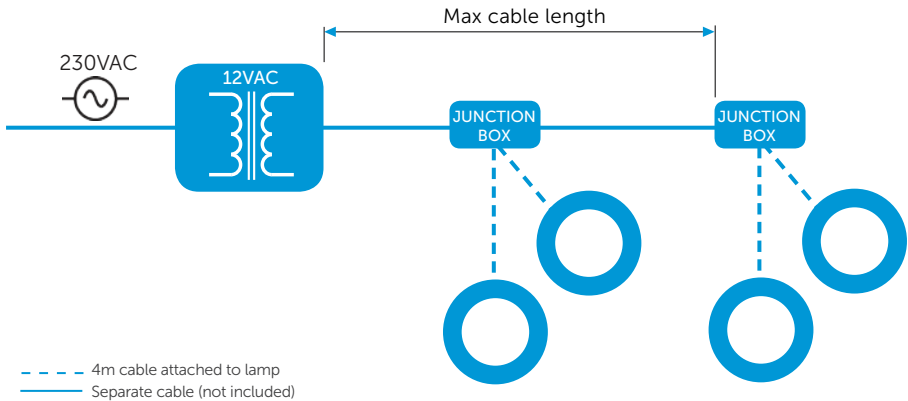
| LAMP TYPE | MAX CABLE LENGTH BY CABLE SECTION | | | | VA TRANSFORMER (12VAC) * |
|------------------------|-----------------------------------|---------------------|---------------------|---------------------|--------------------------|
| | 1,5 mm ² | 2,5 mm ² | 4,0 mm ² | 6,0 mm ² | |
| PLS300(B) | 70m | 120m | 180m | 200m | 16 |
| PLS400(B) | 70m | 120m | 180m | 200m | 22 |
| PLS600(B) PLS700(B) | 60m | 100m | 160m | 200m | 25 |
| PLW300(B) | 90m | 150m | 200m | 200m | 18 |
| PLW400(B) | 60m | 100m | 160m | 200m | 26 |
| PLW600(B) PLW700(B) | 50m | 85m | 140m | 200m | 30 |

* The transformer VA rating must be greater or equal to the sum of VA ratings of all connected lamps. These cable lengths are calculated with worst case voltage drops in the electrical wiring.



Wiring instructions Setup 2

All lamps are connected to the transformer via 1 cable



Toroidal transformer is preferred because of better efficiency

| LAMP TYPE | QTY LAMPS | MAX CABLE LENGTH BY CABLE SECTION | | | | VA TRANSFORMER (12VAC) * |
|-----------|-----------|-----------------------------------|---------------------|---------------------|----------------------|--------------------------|
| | | 2,5 mm ² | 4,0 mm ² | 6,0 mm ² | 10,0 mm ² | |
| PLS300(B) | 1 | 120m | 180m | 200m | 200m | 16 |
| | 2 | 60m | 90m | 140m | 200m | 32 |
| | 3 | 35m | 60m | 90m | 150m | 48 |
| | 4 | 25m | 40m | 65m | 110m | 64 |
| PLS700(B) | 1 | 100m | 160m | 200m | 200m | 25 |
| PLW400(B) | 2 | 50m | 80m | 120m | 200m | 50 |
| PLS600(B) | 3 | 30m | 50m | 80m | 130m | 75 |
| | 4 | 25m | 40m | 60m | 100m | 100 |
| PLW300(B) | 1 | 150m | 200m | 200m | 200m | 18 |
| | 2 | 75m | 120m | 180m | 200m | 36 |
| | 3 | 50m | 80m | 120m | 200m | 54 |
| | 4 | 35m | 60m | 90m | 150m | 72 |
| PLW700(B) | 1 | 85m | 140m | 200m | 200m | 30 |
| PLW600(B) | 2 | 40m | 70m | 100m | 170m | 60 |
| | 3 | 25m | 45m | 70m | 110m | 90 |
| | 4 | 20m | 35m | 50m | 85m | 120 |

* The transformer VA rating must be greater or equal to the sum of VA ratings of all connected lamps. These cable lengths are calculated with worst case voltage drops in the electrical wiring.

Troubleshooting

PROBLEM

The Pool light is flickering or or lights up faint

SOLUTION

- Check the output voltage at the transformer terminals. This voltage should be between 12VAC and 13VAC. Verify that the used transformer VA rating is sufficient for powering all connected lamps
- Verify if the cables that are used to connect the lamps to the transformer are correctly dimensioned (see tables p. 8-9)
- Check if there are no bad contacts or interruptions in the cables.

Several pool lights in the pool show different color programs

Make sure that all lamps are connected to the same 12VAC power line. Execute the synchronization procedure as explained on page 7.



EC Declarations of Conformity

We, the undersigned,

Manufacturer: **Propulsion Systems bvba**
Address, City: **Dooren 72, Merchtem BE-1785**
Country: **Belgium**

Declaration the following apparatus:

| | |
|---------------|--|
| Product name: | LED underwater Light |
| Model name: | Moonlight |
| Used as: | PLS300(B), PLS400(B), PLS700(B), PLW300(B), PLW400(B), PLW700(B) PLS600B, PLW600B |

Product description: White and color LED lightings for swimming pools and similar applications.

Conform with the essential requirements of the follow standards & directives:

CE directives

| | |
|--------------|-------------------------------------|
| EU 1194/2012 | ECO Design |
| EC 1907/2006 | REACH |
| 2011/65/EU | RoHS |
| 2004/108/EC | Electromagnetic Compatibility (EMC) |
| 2012/19/EU | WEEE waste electronic equipment |

Conformity with the following harmonised norms:

| | |
|---------------|--|
| EN60598-1 | General requirements and tests |
| EN60598-2-18 | Luminaire Part 2: Luminaires for swimming pools & similar applications |
| EN55015 | Emission |
| EN61457 | Immunity |
| EN61000-3-2/3 | Harmonics |
| EN50419 | WEEE marking |
| EN 50581:2012 | RoHS2 |

I hereby declare that the equipment above named has been designed to comply with the relevant sections of above referenced specifications. The unit complies with all applicable Essential Requirements of the Directives.



Name: Marc Lamberts
Position: GM
Place: Brussegem, Belgium
Date: 11/10/2013

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