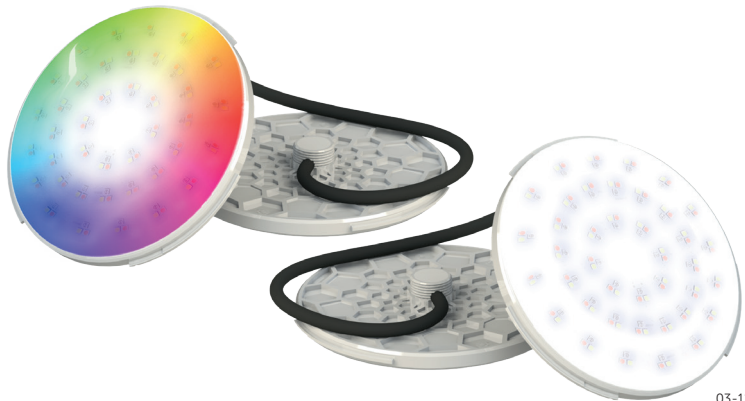


Manual

PLW170-B
PLS170-B



03-12-20

VISION Moonlight

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Technical specifications

Lamp Type	Description	Voltage	Power	Color temp	Luminous flux*
PLW170B	Day white 170mm	10-14 VAC	18 W	5000K	1450 lm
PLS170B	RGB color 170mm	10-14 VAC	13,5W	n.a.	1050 lm

(*) Propulsion systems remains a tolerance of +/- 10% on luminous flux measurements @ 25°C ; 12VAC



For operation only with a safety isolation transformer

Minimum input voltage: **10 VAC 50 Hz**
(at lamp terminals)

Nominal input voltage: **12 VAC 50 Hz**
(at lamp terminals)

Maximum input voltage: **14 VAC 50 Hz**
(at lamp terminals)



IEC Protection Class III

Operation on DC voltages is NOT allowed

Maximum water temperature: **+40°C**
Lamps have to be kept out of ice zones

Ingress protection rate: **IP68**
measured at 3m max depth = 3m

Remarks

Water conditions

Prevent damage to your pool lamps and wires due to unstable water conditions. Your local government may have enacted guidelines for your pool water conditions to apply by. If not we strongly advise the following parameter specifications to be applied:

pH level	6,8 - 7,6
Free Chlorine	max. 3ppm
Combined chlorine	max. 1 ppm
Water temperature	max +40°C and lamps need to be kept out of ice zones

Always adhere to the instructions provided by your chemical brand/supplier for the correct use and application of pool chemicals.

Salt water pools, or pools fitted with a salt water chlorine generator contain salt in the pool water. Salt is a corrosive material. Overdosage and/or consistent levels of salt increase the possibility of deterioration of your pool lamps and cables. As a rule of thumb, a concentration of 35gr/l salt can be accepted when pH values are between 7,2-7,4.

In any case, we urge proper use, care and maintenance of your installation, in order to minimize the effect of corrosion and deterioration.

Please be aware that pool lamps and cables with defects caused due to abnormalities in the water condition are not covered by our factory warranty.

Installation/maintenance

The luminaire is maintenance free

If the luminaire needs to be replaced, it needs to be completely removed from the water

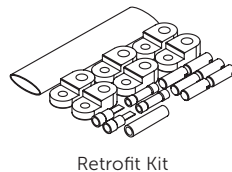
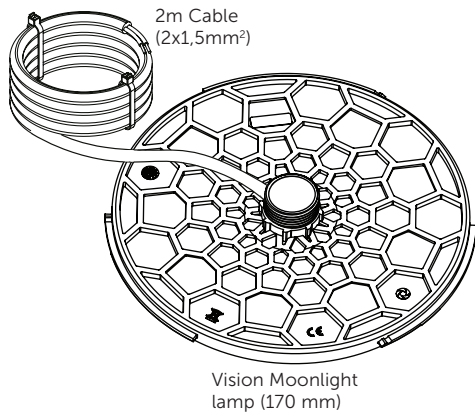


If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid hazard



Vision Spectra Pool lamps must be completely submerged into water during operation. Fixing the lamps with adhesives or silicone kit into a niche is not allowed. Not following these instructions, will void warranty.

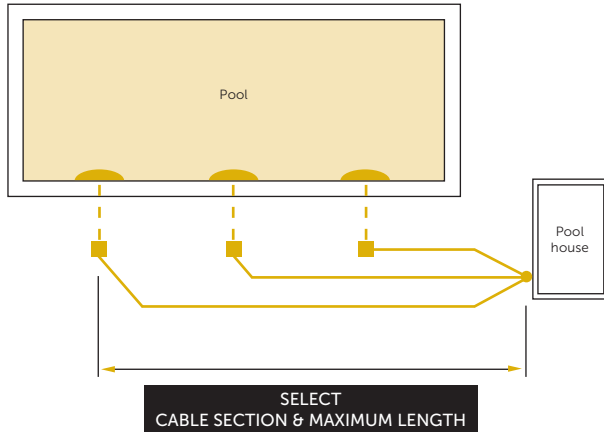
Box contents



Wiring instructions Setup 1

For new installations

Each lamp is connected to the transformer by a separate cable




- 2m cable included in lamp package
- Separate cable (not included)



Always use a toroidal transformer

SELECT CABLE SECTION & MAXIMUM LENGTH

LAMP TYPE	1,5mm ²	2,5mm ²	4,0mm ²	6,0mm ²	10mm ²	VA TRANSFORMER (12VAC)*
						
						
						
 PLW170B	40m	70m	110m	170m	250m	24 VA
 PLS170B	55m	95m	150m	220m	350m	18 VA

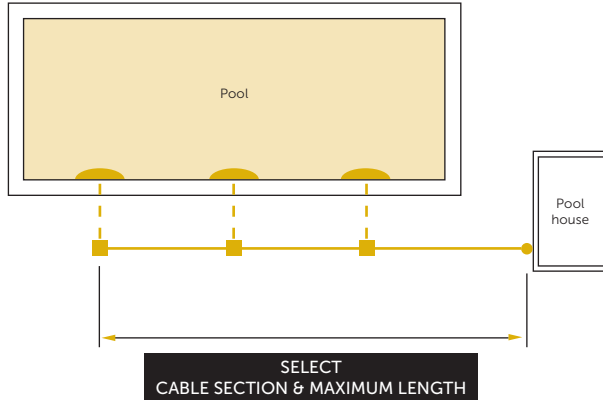
STABLE OPERATION OF THE POOL LIGHTS IS ONLY GUARANTEED WHEN THE INSTALLED CABLE CROSS SECTION MATCHES OR EXCEEDS THE ADVISED VALUES IN THE ABOVE TABLE

* 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

For existing or other installations

All lamps are connected to the transformer via 1 cable














- - - - 2m cable included in lamp package
- — — Separate cable (not included)



Always use a toroidal transformer

SELECT
CABLE SECTION & MAXIMUM LENGTH

LAMP TYPE	QTY	2,5mm ²	4,0mm ²	6,0mm ²	10mm ²	VA TRANSFORMER (12VAC)	
							
							
							
							
							
							
							
							
							
	PLW170B	1 2 3 4	70m 35m 23m 18m	110m 55m 37m 28m	170m 85m 57m 43m	250m 125m 83m 63m	24 48 72 96
	PLS170B	1 2 3 4	95m 48m 32m 24m	150m 75m 50m 38m	220m 110m 73m 55m	350m 175m 117m 88m	18 36 54 72

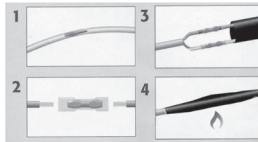
STABLE OPERATION OF THE POOL LIGHTS IS ONLY GUARANTEED WHEN THE INSTALLED CABLE CROSS SECTION MATCHES OR EXCEEDS THE ADVISED VALUES IN THE ABOVE TABLE

Retrofit in PAR56 niche (only Vision Spectra 170mm)

1

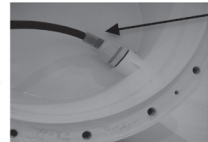


2



If old cable is re-used

OR



Silicone tube

If new (thinner) cable is used

3



Color programs



RGB LAMPS

- | | | |
|----|----------------|------------------------|
| 1 | CANDLE LIGHT | <2000K very warm white |
| 2 | WARM WHITE | 3000K warm white |
| 3 | NEUTRAL WHITE | 5000K neutral white |
| 4 | COLD WHITE | 9500K cold white |
| 5 | CARIBEAN BLUE | cyan |
| 6 | BLUE | blue |
| 7 | GREEN | green |
| 8 | RED | red |
| 9 | PURPLE | purple |
| 10 | YELLOW DYNAMIC | slow animation yellow |
| 11 | BLUE DYNAMIC | fast animation blue |

Synchronizing & color changing (for RGB lamps only)

Manual synchronization

1. Switch ON the 12 VAC line voltage and make sure that all lamps light up.
2. Switch OFF the 12 VAC line voltage and wait for at least 20 sec *(max 60 sec)*
3. Switch ON and switch OFF *(max 3 sec ON and max 3 sec OFF)*
4. Switch ON and switch OFF *(max 3 sec ON and max 3 sec OFF)*
5. Switch ON
6. The lamps should now all be on color program 6: Blue

Changing colors

Quickly turn the lamps OFF and back ON
The lamp will jump to the next color program

Memorizing the actual color

Turn the lamp OFF for MINIMUM 20 seconds
The last chosen color has now been memorized

Troubleshooting

PROBLEM

- The pool light is flickering

SOLUTION

- 1. Switch the lamps ON and select Cold white color program
- 2. Measure the voltage as close to the lamp as possible (while the lamp is still ON)
- 3. The voltage at the lamp should be at least 10VAC 50Hz.
If the measured line voltage is below 10VAC:
 - A. Check the output voltage at the transformer terminals.
This voltage should be between 12VAC and 14VAC.
Verify that the used transformer VA rating is sufficient for powering all connected lamps
 - B. If the transformer output voltage is ok, then install a thicker cable between the transformer and the lamp. (wiring instructions p. 8-11)

-
- 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 as explained on p.13

EC Declarations of Conformity

We, the undersigned,

Manufacturer:
Address, City:
Country:

Propulsion Systems bvba
Dooren 72, Merchtrem BE-1785
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, PLS170B, PLW170B

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.

CE

Name: Marc Lamberts
Position: GM
Place: Brussegem, Belgium
Date: 10/02/2020



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DURAVISION



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