

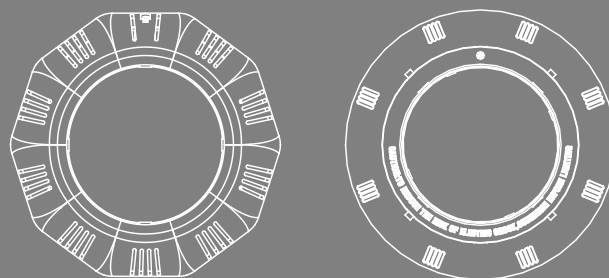


UNDERWATER LIGHT SERIES

UL-P100 LED-P100 UL-TP100 LED-TP100

UL-CP100 LED-CP100 UL-NS75/150

Installation and Operation manual



USER MANUAL

IP 68



RoHS
COMPLIANT
2002/95/EC

SAA

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1. IMPORTANT SAFETY AND INSTALLATION INSTRUCTIONS

Please read the manual carefully before commencing installation. This manual contains important information about the correct installation and operation of lights.

1. Only qualified electrician is allowed to carry out the installation of this product.
2. Avoid direct contact with electrical power.
3. Respect all regulations in effect for preventing accidents.
4. All units are required to be disconnected from the main electricity before any operation of maintenance.
5. For safe and proper installation, ensure that those parts supplied with the produce are used.
6. Never handle with wet hands and feet.
7. This unit is design for use only when fully submerged in fresh water, connecting with a safety transformer
8. This product should be installed according to your local electrical installation ordinances and regulations.
9. Due to the corrosive nature of unbalanced pool chemicals, please keep you pool water is acid-base balanced prior to installation, and ensure the longevity of these lights.
10. 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 a hazard.
11. Check that there is enough cable behind light to allow for servicing above water, preferably at ground-level pool-side.
12. Never operate this Underwater Light for more than 1 minute unless it is totally submerged in water.
13. You lights require cleaning at any time, be sure to a mild detergent or other ways that don't damage to the lights.
14. Be sure power is off before installing or removing light. Allow light to cool before replacing.
15. Maximum Depth for Light installation at 1.2 meter.
16. Maximum Water Temperature Range for light operation 0-25°C

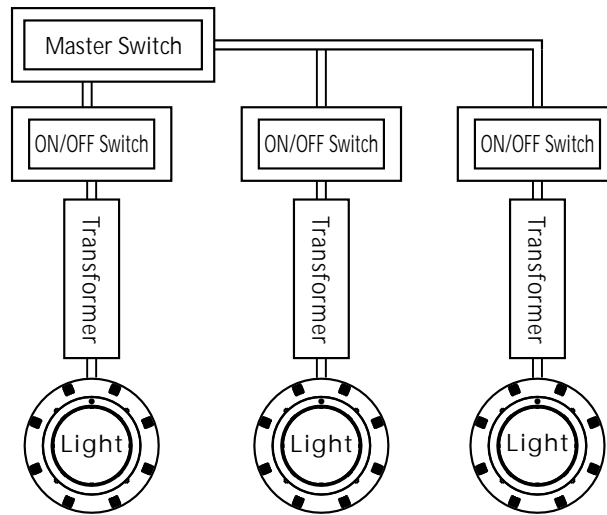
For non replacable lightsources: "The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced".

For operation only with safety isolating transformer conforming with AS/NZS 61558 series.

2. PRODUCT INTRODUCTION

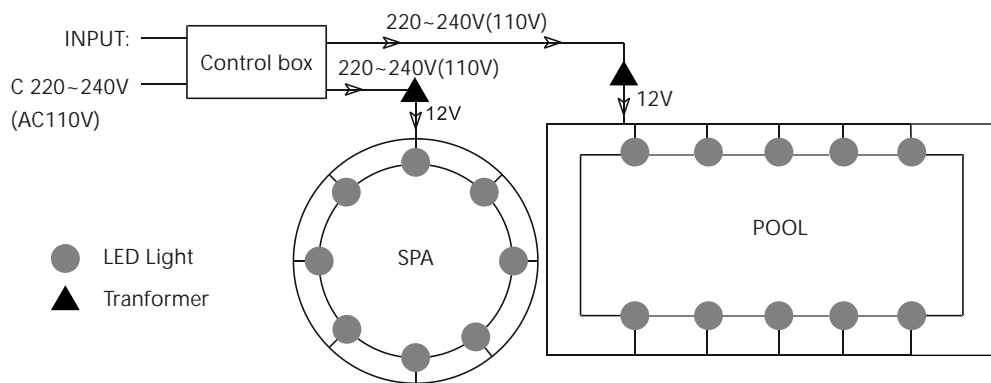
2.1 TRANSFORMER+LIGHTS

When the light is connected to the transformer directly, to on /off the main switch to controls the color changes. For LED-P100/TP100/CP100 RGB, When it's different colors, turn off the lights, wait 3-5S and turn on the lights, it's the same colors.



2.2 CONTROL BOX + TRANSFORMER + LIGHTS

It need to cooperate with RGB Control Box to change color. Put the "RESET" buton when it's different colors.



3. LIGHT SPECIFICATION

3.1 ELECTRICAL

- (1) Operation Voltage Range: AC12V (COS Φ : 0.8)
- (2) Light Color: LED: RGB, Warm White, Cool White
Halogen Lamp: Warm White
- (3) Operation Frequency: 50/60Hz
- (4) Max Power Rating: 75W(UL-P100/TP100/CP100,UL-NS75), 150W(UL-NS150) , 6W/8W(LED-P100/TP100/CP100)
- (5) Installation Types: Concrete Pool/Vinyl Pool

3.2 COLOR MODE

Colour change options(For RGB version only)

Attention: When turn off the lights

Wait less than 2s and turn on, change color

wait 3-5S and turn on, reset the first mode(Automatic)

wait over 10S and turn on, Memory the mode before turning off

1	Automatic	9	Mode B: Green+Gradual Red
2	White	10	Mode C: Blue+Gradual Green
3	Green	11	Mode D: Blue+Gradual Red
4	Blue	12	Mode E: RGB Colour Sequence: Red>Green>Blue
5	Green+Blue	13	Auto Colour Change
6	Red+Green	14	Mode F: Four Colour Sequence: Red>Green>Blue>Purple
7	Red+Blue	15	Rapid Auto Colour Change
8	Mode A: Blue+ Gradual Red		

In case of replacement of an old LED-CP100 / TP100 / P100 Auto-Color light by a new LED-CP100 / TP100 / P100 RGB model (15 preset programs), please note:

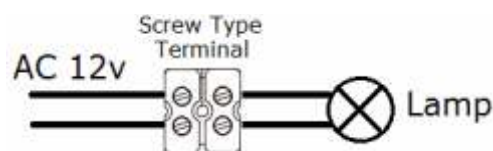
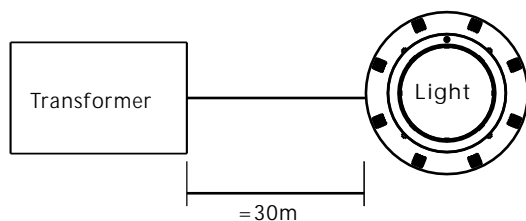
1) All the lights can be synchronized in "Automatic color change" mode that is pre-installed on the new LED-CP100 / TP100 / P100 RGB lights as a Program 1.

Synchronization instructions: Turn off / turn on the light every 2 seconds to select a Program 1 on the LED-CP100 / TP100 / P100 RGB. It stays on. It takes 10 seconds to get fixed the Program (color). From then on, all the lights will be synchronized, and the color will be changed automatically.

2) To use all 15 preset programs, all the old LED-CP100 / TP100 / P100 Auto-Color lights must be replaced with new LED-CP100 / TP100 / P100 RGB version.

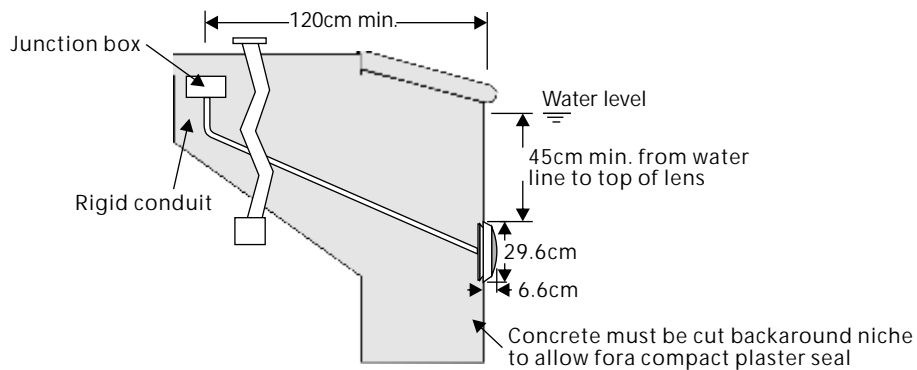
4. INSTALLATION NOTES

1. It is recommended to install a light every 20m², the approximate exposure area of each unit.
2. The lights should be installed in the direction that they will not shine directly into the house.
3. For training or competition pools, the lights must be installed on the sides in order to prevent swimmers from seeing any glare.
4. Nothing should be placed on the pool side directly above the lights for ease of future maintenance.
5. The cables connecting the lights and the transformers must be at least 6mm² and the distance between them must not exceed 30m; otherwise the lights will not function properly.
6. Terminal blocks must meet the IEC60988-2-1 standard having the rated connecting capacity of 4,0mm² use of screw-type terminal at least 25A current rating, mounted on junction boxes inside.



5. LAMP INSTALLATION

5.1 Preparing to Install

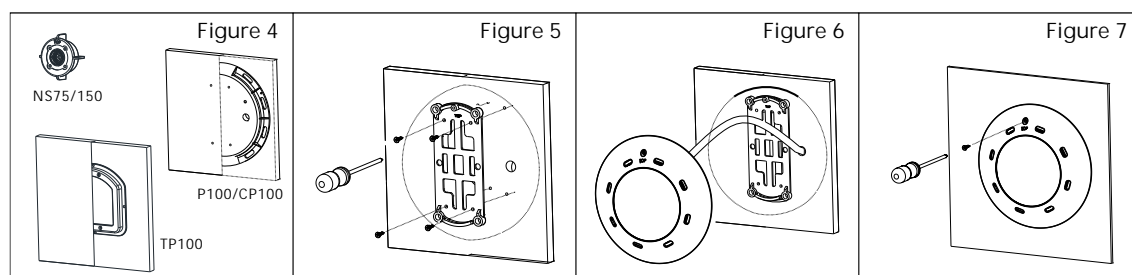
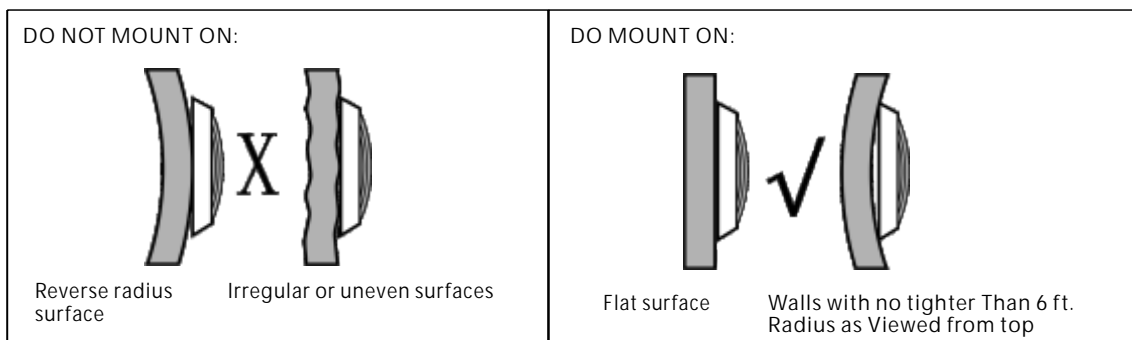


- 1) The circuit system must comply with local laws and regulations and must be carried out by suitably qualified installers.
- 2) Make sure the voltage is 12V and the terminal box is at least 120cm from the poolside .
- 3) Upon installation, top of the light must be at least 45cm from water surface.

5.2 UL-P100 LED-P100 UL-CP100 LED-CP100 UL-NS75/150 INSTALLATION

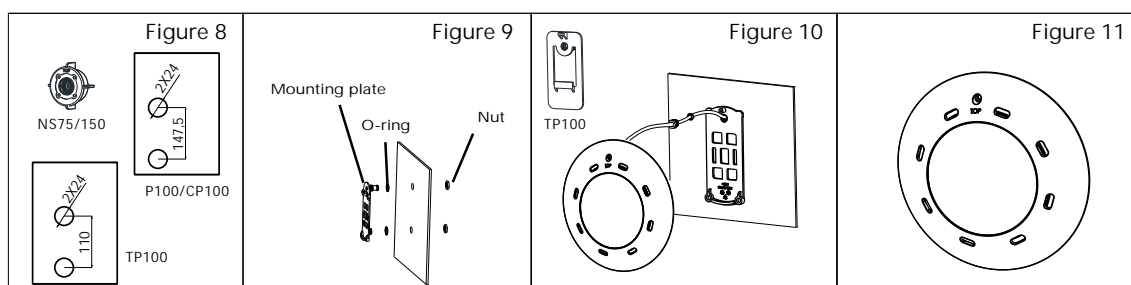
A) Concrete Pools Installation

- 1) Embed the Wall Mount into the concrete wall, making sure that it is parallel to the side of the pool.(Figure 4).
- 2) Place the Mounting Plate on the concrete wall and tighten it with 4 screws. The Conduit must be next to the Mounting Plate (Figure 5).
- 3) Note that the light must only be installed on a flat or concave surface.
- 4) Wrap extra cables behind the light to make sure it could be taken to the pool surface for future maintenance (Figure 6).
- 5) Hang the light onto the Mounting Plate and tighten the screws (Figure 7).
- 6) The wire connections inside the terminal box must be sealed by leak-proof tapes to prevent water from leaking into the terminal box through the cables.



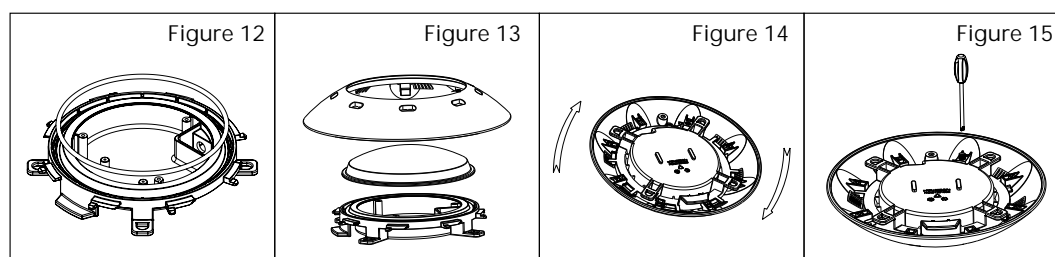
B) Fiberglass Pools / Vinyl Pools Installation

- 1) Refer to section "Preparing to Install".
- 2) Make 2 holes on the pool wall (Figure 8).
- 3) Place the o-rings between the Mounting Plate and the pool wall and tighten it with the Nut on the other side of the pool wall (Figure 9).
- 4) Put the cable sequentially through the sealing Nut, the sealing O-ring and the cable hole on the mounting plate; then tighten the Nut (Figure 10).
- 5) Wrap extra cables behind the light to make sure it could be taken to the pool surface for future maintenance. Then, hang the light onto the Mounting Plate and tighten the screws (Figure 11).



C) Assembly for CP100

- 1) Clean the O-ring installation position and put the O-ring. (Figure 12)
- 2) After install the O-ring. Put the transparency lid and then put the cover. (Figure 13)
- 3) While install the cover with the base, please to note that the sign of "TOP" from the base should meet with the sign of "TOP" for the cover. (Figure 14)
- 4) Rotate to the station position and then to use screw driver that to tighten. (Figure 15)
- 5) For Unassembled, please to reverse the sequence.

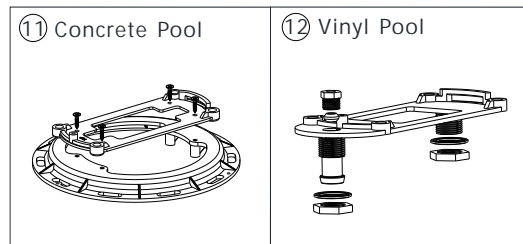
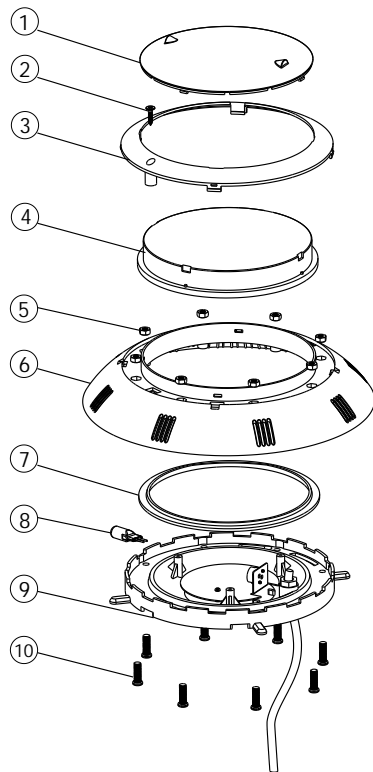


6. MAINTENANCE OF THE LIGHTS

1. Do not leave the lights "on" above water for longer than 1 minute.
2. Before switching on the lights, check whether the lights are fully submerged underwater and the circuit boxes are running properly.
3. This unit does not need any kind of maintenance. If it is not working properly, please contact EMAUX authorized dealer where you purchase the unit from.
4. Warranty will be voided if the Emaux Underwater Light was dismantled by unauthorized personnel.

7. SPARE PART LIST

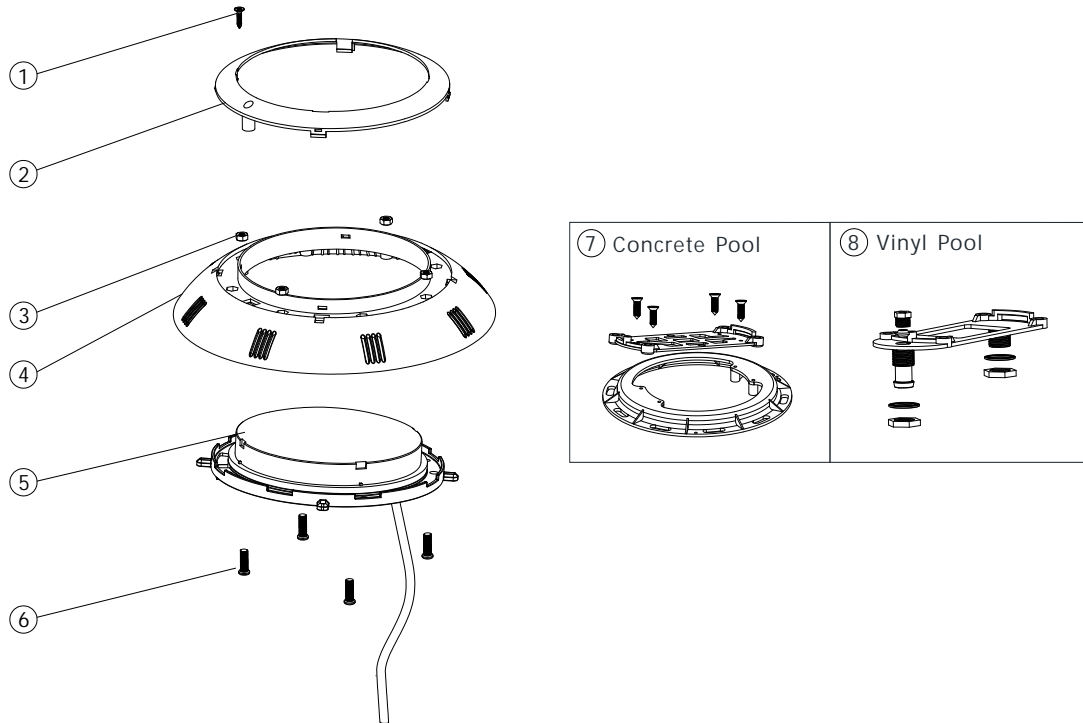
UL-P100



Key No.	Part No.	Description	Qty
1*	01221002	Colour lens (Red+Green+Blue) for P100	1
2	03011321	M5*20 Screw (316#)	1
3	01051059	Face Ring	1
4	01041021	P100 Lights Lens	1
5	03021018	M6 Brass Nut	8
6	01051058	P100 Lights Face plate	1
7	02021004	O-ring	1
8	E040205	Halogen light bulb (Yellow Light)	1
9	89040201	P100 Lights Body set (with 2.5M cable and socket)	1
10	03011320	M6*20 Screw (316#)	8
11	89040203	Concrete Pool Fitting for P100	1
12	89044501	Vinyl Pool Fitting for P100	1

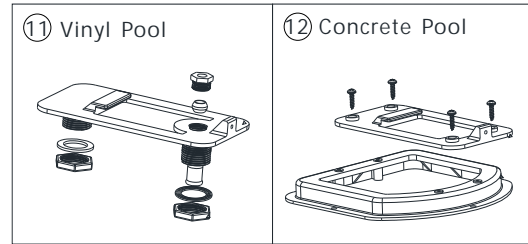
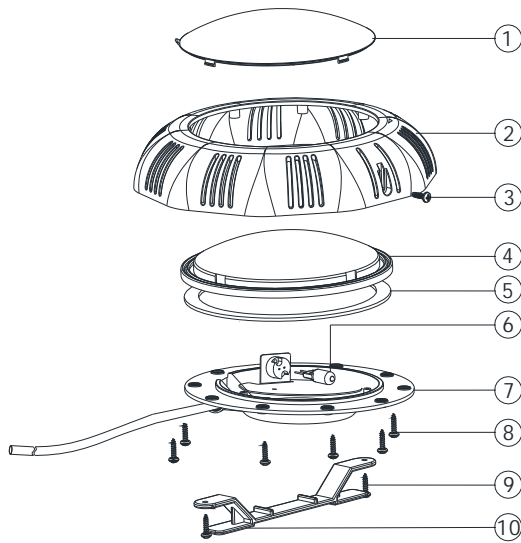
Notes: 1* 01221001 is UL-P100 Light Colour Lens 1 set with (Red+Green+Blue)

LED-P100



Key No.	Part No.	Description	Qty
1	03011321	M5*20 Screw (316#)	1
2	01051059	Face Ring	1
3	03021018	M6 Brass Nut	4
4	01051058	P100 Lights Face plate	1
5	04011111	Bulb plate 12V/8W LED (Cool White Color)	1
	04011115	Bulb plate 12V/8W LED (Blue Color)	
	04011112	Bulb plate 12V/8W LED (Auto Color changing)	
	4405470016	Bulb plate 12V/16W LED (Cool White Color)	
	4405470017	Bulb plate 12V/16W LED (Auto Color changing)	
6	03011320	M6*20 Screw(316#)	4
7	89040203	Concrete pool Fitting for P100	1
8	89044501	Vinyl pool Fitting for P100	1

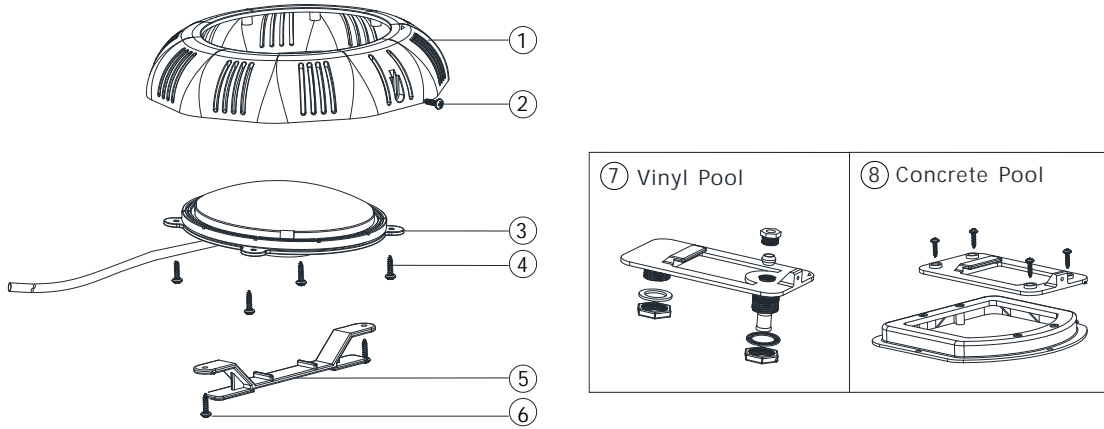
UL-TP100



Key No.	Part No.	Description	Qty
1*	01221003	Colour lens (Red+Green+Blue) for P100, DP100	1
2	01051259	Face Plate for TP100	1
3	03011307	M4*12 Screw	1
4	01040211	Lights Lens	1
5	02021055	O-Ring for TP100	1
6	E040205	Halogen high Bulb (Yellow Light)	1
7	89040402	UL-TP100 Lights Body Set (with 2.5M cable and socket)	1
8	03011331	M4*12 Screw	8
9	03011332	M4*16 Screw	2
10	01012005	TP100 Lights Bracket	1
11	89040401	TP100 Lights Vinyl Pool Fitting	1
12	89040501	TP100 Lights Concrete Pool Fitting	1

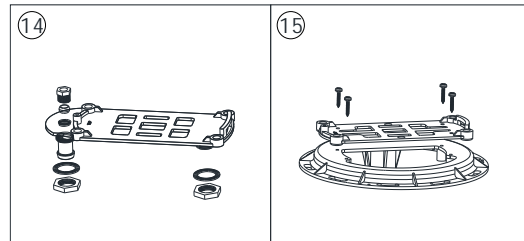
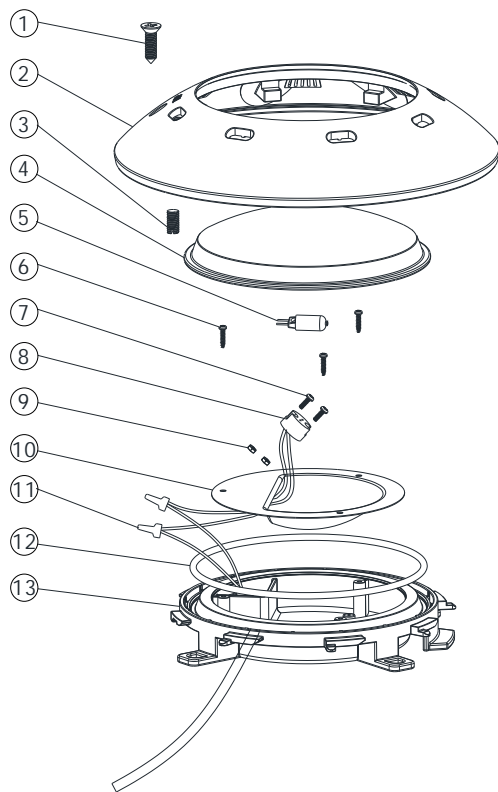
Note: * UL-TP100 Light Colour Lens 1 set (Red+Green+Blue)

LED-TP100



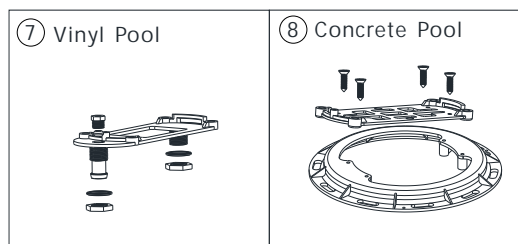
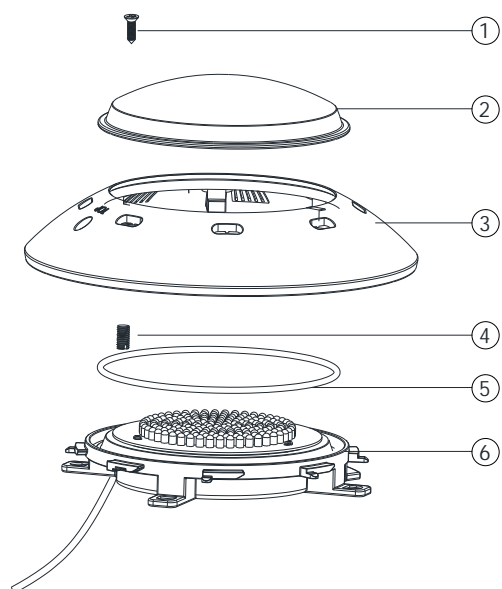
Key No.	Part No.	Description	Qty
1	01050119	Lights Face plate	1
2	03011364	M4*12 Screw	1
3	04011109	Bulb plate 12V/8W 198LEDs For White Colour	1
3	04011110	Bulb plate 12V/8W 198LEDs For Colour-changing	1
3	440546887	Bulb plate 12V/8W 198LEDs For Warm White Colour	1
3	04011113	Bulb plate 12V/8W 198LEDs For Blue Colour	1
4	03011364	M4*12 Screw	2
5	01012005	UL/LED-TP100 Lights Bracket	1
6	03011363	M4*16 Screw	2
7	89040401	UL/LED-TP100 Lights Vinyl pool Fitting	1
8	89040501	LED-TP100 Lights Concrete Pool Fitting	1

UL-CP100



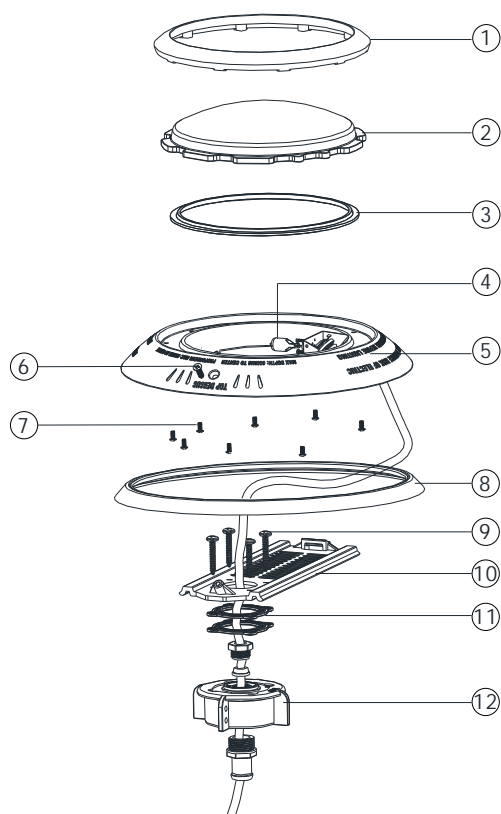
Key No.	Part No.	Description	Qty
1	03011321	M5*20 Screw (316#)	1
2	01050102	Face plate	1
3	01110027	Compression screw	1
4	01040212	Lights Lens	1
5	E041204	Bulb 12V/75W for ULH/ UL-NS	1
6	03011132	M4*8 Screw	3
7	03011150	Screw	2
8	04011031	Lamp Socket	1
9	03013039	But	2
10	03017118	Reflector Plate	1
11	04014016	Closed-End Wire Connector	2
12	02021084	O-Ring for UL-CP100	1
13	01231008	UL-CP100 Light Body Set (with 2.5M cable and socket)	1
14	89044501	Vinyl pool Fitting for P100	1
15	89040203	Fitting for Concrete Pool	1

LED-CP100



Key No.	Part No.	Description	Qty
1	03011321	M5X20 screws (316#)	1
2	01040212	Lights Lens	1
3	01012031	Face plate	1
4	01110027	Compression screw	1
5	02010237	O-ring	1
6	89045601	Bulb plate(White Colour),12V/8W 198LEDs	1
6	89045602	Bulb Plate(RGB) 12V/6W 102LEDs	1
6	89045603	Bulb Plate(RGB) 12V/8W 198LEDs	1
6	89045604	Bulb Plate(White Colour), 12V/6W 102LEDs	1
7	89044501	Lights Vinyl Pool Fitting for P100/ CP100	1
8	89040203	Lights Concrete Pool Fitting for P100/ CP100	1

UL-NS75/150



Key No.	Part No.	Description	Qty
1	01051169	Face Ring for UL-NS75	1
1	01051170	Face Ring for UL-NS150	1
2	01041037	Lens for UL-NS75	1
2	01040208	Lens for UL-NS150	1
3	02021027	Waterproof Washer for UL-NS75	1
3	02021062	Waterproof Washer for UL-NS150	1
4*	E041204	Bulb 12V/ 75W for ULH/ UL-NS	*
5	89043704	Stainless Steel Lights Face Plate for UL-NS75	1
5	89043703	Stainless Steel Lights Face Plate for UL-NS150	1
6	03011016	M5*15 Screw on Face Plate	1
7	03011127	M5*8 Screw for UL-NS75 & - NS150	*
8	02021036	O-Ring for Face Plate (UL-NS75)	1
8	02021028	O-Ring for Face Plate (UL-NS150)	1
9	03011149	M6*40 Mounting screw	4
10	01051171	Mounting Bracket for UL-NS75	1
10	01051172	Mounting Bracket for UL-NS150	1
11	02011158	Gasket	2
12	89043702	Wall Bracket	1

8. TERMS OF THE WARRANTY

As original purchaser of this equipment have purchased from Emaux Water Technology Co Ltd, through Authorized International Distributor or Dealer, warrants its products free from defects in materials and workmanship under normal use during warranty period. The warranty period begins on the day of purchase and extends only to the original purchaser. It is not transferable to anyone who subsequently purchases the product from you. It excludes all expendable parts.

During the warranty period, Emaux authorized reseller will repair or replace defective parts with new parts or, at the option of Emaux, serviceable used parts that are equivalent or superior to new parts in performance.

This Limited Warranty extends only to products purchased from Emaux authorized reseller. This Limited Warranty does not extend to any product that has been damaged or rendered defective

1. as a result of accident, misuse or abuse;
2. as a result of an act of God;
3. by operation outside the usage parameters stated herein;
4. by the use of parts not manufactured or sold by Emaux;
5. by modification of the product;
6. as a result of war or terrorist attack; or
7. as a result of service by anyone other than Emaux authorized reseller or authorized agent.

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