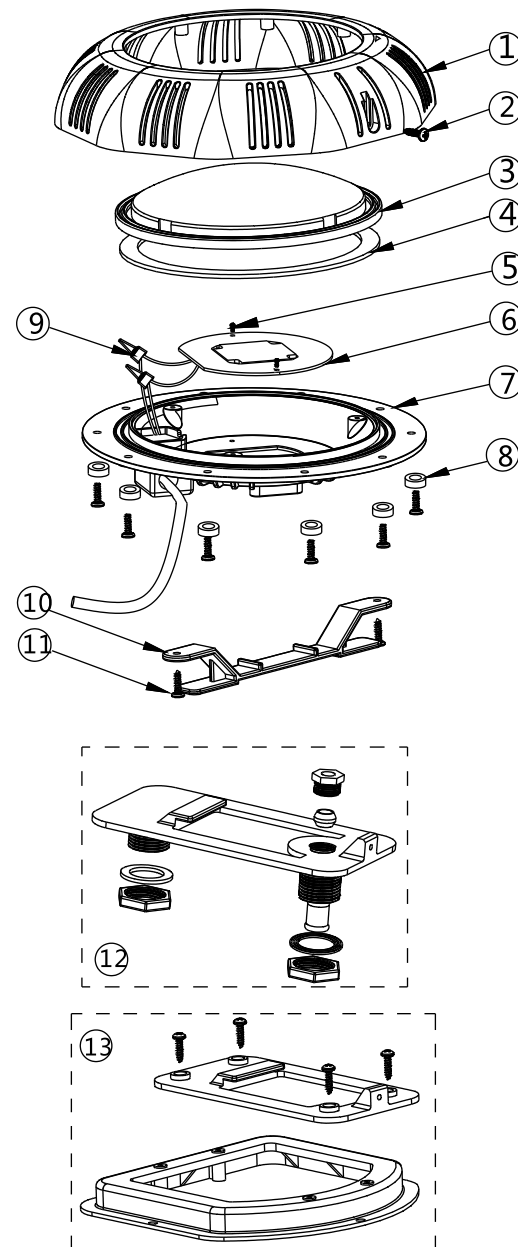## Maintenance of the Lights 水下灯的保养与维护

- Do not leave the lights "on" above water for longer than 10 sec.(水下灯不可以在没有水的情况下点亮超过10秒)

- Do not leave the lights directly under sunlight. Fill the pool with fresh water as soon as possible after the lights are installed.(水灯装好到泳池内，应尽快将泳池内注满水，水下灯不可以长时间在太阳光下曝晒)

- Before switching on the lights, check whether the lights are fully submerged underwater and the circuit boxes are running properly.(装好水下灯点亮前，要检查水灯否完全浸在水中，电箱和电路是否正常)

- 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.(此产品不需要任何维修，如果不正常工作，请联系你购买此产品Emaux授权的经销商)

- Warranty will be voided if the Emaux Underwater Light was dismantled by unauthorized personnel.(如果Emaux水下灯被未经授权人拆卸则保修视为无效)

REPLACEMENT PARTS

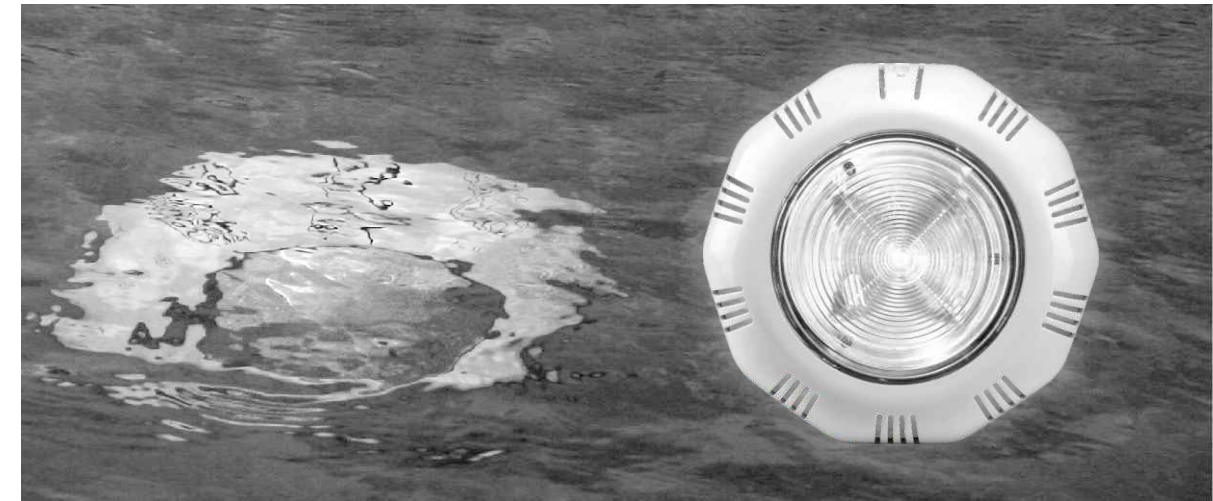| 项目	部件编号	中文	產品資料/說明	數量
Key No.	Part No.	Chinese	Product Description	Qty
1	01051057	面盖(内含铜螺母)	TP100 Lights Face Plate	1
2	03011307	M4*16圆头平底自攻螺丝	M4*16 Screw	1
3	01040201	透明罩	TP100 Lights Lens	1
4	02021055	面盖防水胶圈Φ162XΦ138X3	Gasket for Face Plate	1
5	03011199	M3*6圆头机丝	M3*6 Screw	2
6	04011072	RGB灯盘 12V/24W	RGB Plate 12V/24W	1
7	89040601	RGB-TP100铝底壳(含电缆线)	RGB-TP100 Body with Cable	1
8	89040602	M4*12扁头机丝连垫片	M4*12 Screw With Washer	8
9	04014016	压线帽 CE-2X	Cable end-cap CE-2X	2
10	01012005	支架	TP100 Lights Bracket	1
11	03011332	M4*16扁头机丝	M4*16 Screw	2
12	89040401	胶膜池配件(1套)	TP100 Lights Vinyl pool Fitting	1
13	89040501	水泥池配件(1套)	TP100 Lights Concrete pool Fitting	1

EMAUX® Water Technology
www.emaux.com.au

RGB-TP100
UNDERWATER LIGHT OPERATING MANUAL
RGB-TP100大功水灯说明书
Keep this manual for future reference
请保留此份说明书以备用

- Using integrated high-power LED diode which is low in power consumption, long life span and able in multi-colour change.(采用的是大功率集成灯珠，具有耗电量少，寿命长，颜色变化多等优点)
- Excellent heat sink to extend the product life span.(灯底壳具有很好的散热功能，从而更有效的延长水灯使用寿命)
- Special coating at the back plate which enhance anti-corrosion effect.(底壳的表面涂层具有良好的耐腐蚀效果)
- Frosted surface makes the lights warmer.(表面有磨砂效果，使灯光不那么刺眼，看起来光源更柔和)
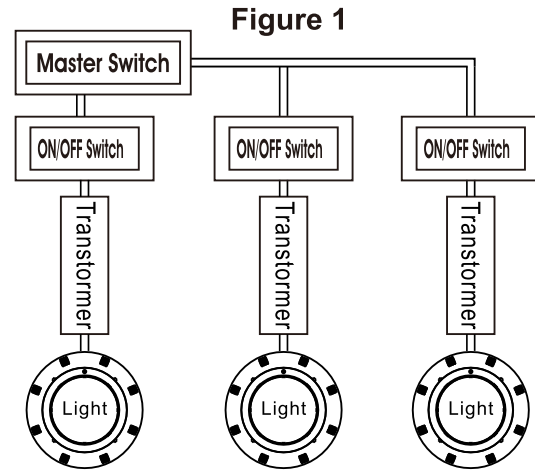

⚠ SAFETY WARNINGS 安全警告

- Only qualified electrician is allowed to carry out the installation of this product.(必须由持牌或经过核证的电工或专业的泳池安装人员才能进行安装)
- Avoid direct contact with electrical power.(避免与电源直接触)
- Respect all regulations in effect for preventing accidents.(遵循所有规则防止引起事故)
- All units are required to be disconnected from the main electricity before any operation of maintenance.(在维修和安装水灯前，要断开总电源)
- Never handle with wet hands and feet.(不能够用湿的手脚操作)
- This unit is design for use only when fully submerged in fresh water, connecting with a approved safety isolated LED driver or transformer.(此产品是设计完全用于完全浸泡于清洁的水中，连接认可的安全隔离LED区动器)
- after installation with LED driver, the product should comply with safety requirement of end product (EN 60598).(安装LED区动器后，此产品应符合EN60598的安全要求)
- Never operate this Underwater Light for more than 1 minute unless it is totally submerged in water.(不要超过1分钟操作，除非完全浸泡于水中)
- Be sure power is off before installing or removing LED plate. Allow LED plate to cool before replacing.(在安拆灯盘之前确保电源已关掉，灯盘降温后才允许更换)
- This product should be installed according to your local electrical installation ordinances and regulations.(应遵守当地用电安装条例和规则安装此产品)
- luminaires which are completely removed from the water for replacement of lamps.(更换灯件是完全离开水)
- Maximum Depth for Light installation at 1 meter(水灯安装离水面最深为1m)
- Maximum Water Temperature Range for light operation 0 - 30°C(水温度范围0-30°C)
- SPECIFICATION 规格
- A.Electrical Specification : 1) Voltage : AC12V   2) Frequency : 50Hz   3) Power : 24W.(水灯参数：电压：AC 12V   频率：50Hz 功率：24W.)
- B.Colour Options :(水灯的颜色变化功能)

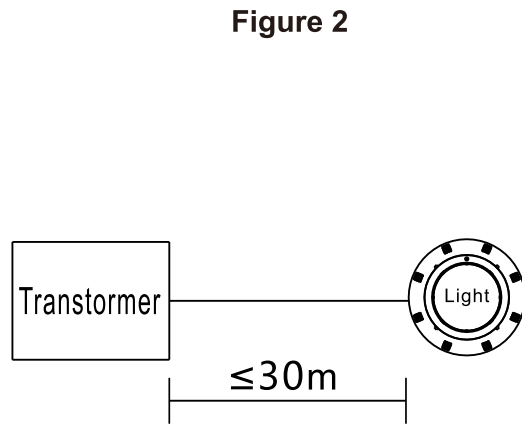|	
1	White(白色)
2	Blue(蓝色)
3	Green(绿色)
4	Light Green(青色)
5	Purple(紫色)
6	Yellow(黄色)
7	RGB Colour changing sequence : Red -> Green -> Blue (RGB跳变<红，绿，蓝>)
8	Rainbow colour changing sequence : White -> Red -> Yellow -> Blue -> Green -> Light Green -> Purple (七跳渐变<白，红，黄，蓝，绿，青，紫>)
9	Rainbow colour gradual changing sequence : White -> Red -> Yellow -> Blue -> Green -> Light Green -> Purple (Lapse time: 10sec) (七彩渐变<白，红，黄，蓝，绿，青，紫；周期：10秒>)
10	Rainbow colour gradual changing sequence : White -> Red -> Yellow -> Blue -> Green -> Light Green -> Purple (Lapse time: 22sec) (七彩渐变<白，红，黄，蓝，绿，青，紫；周期：22秒>)

EMLI12041621

C. Control 控制说明

1. When the light is connected to the transformer directly, the on/off switch controls the colour changes (Associating a light with a transformer and an on/off switch is recommended; If you want all the lights to change colour at the same time, install a master switch, Figure 1).(水灯直接接变压器，根据开关来实现以上颜色变化。(我们建议一个水灯配一个变压器，装一个开关；如果想所有的灯同时变化颜色，就在所有开关的前面装一个总电源开关。(如图1)

2. If applicable, when the light is connected to the transformer and the transformer to the optional control box, the control panel on the control box and its remote control controls the colour changes (See the Control Box Manual for details).(变压器接控制箱，水灯再接变压器，根据控制箱的按键和遥控器来实现以上颜色变化。(详情请见控制箱说明书)

Figure 1

INSTALLATION NOTES 水灯安装注意事项

1. Each cable is 2.5m long. You should follow the procedures closely when installing the light.(水下灯的电缆线有2.5米长，在安装水灯时应该严格按照水灯操作说明进行)

2. It is recommended to install a light every 20m², the approximate exposure area of each unit.(水灯的照射面积约20平方米，即在20平方米的水面要装一个水灯)

3. The lights should be installed in the direction that they will not shine directly into the house.(为了防灯光刺眼，水灯必须装在与房子相反的方向)

4. For training or competition pools, the lights must be installed on the sides in order to prevent swimmers from seeing any glare.(如果是比赛或训练用游泳池，水灯必须用在游泳池的两侧为了防止游泳者看到产生眩光)

5. Nothing should be placed on the poolside directly above the lights for ease of future maintenance.(为了方便灯具维护，灯具上面的游泳边上必须空出一块地方)

6. If the wires are connected inside the lights, you must seal the connections with leak-proof tapes or products with the same function.(如果水下灯的接线处在水灯中时，你必须用防水胶带或用其它胶将接线处密封好)

7. The cables connecting the lights and the transformers must be at least 6mm² and the distance between them must not exceed 30m (Figure 2); otherwise the lights will not function properly.(水灯到变压器之间的电缆线不可于少于6mm²,安装距离不可以超过30米。(如图2)；因电缆线规格小或安装距离太长，线路会有损耗，电压就达不到12V,我们的水下灯就不可以完全点亮)

Figure 2

≤30m

INSATALLATION OF THE UNDERWATER LIGHT 水下灯的安装

A. Preparing to Install 安装准备

1. Before installation, a circuit system diagram must be designed by a certified engineer.(在安装水下灯前，要有专业设计人员来完成整个游泳池的水下灯电路系统图)

2. The circuit system must comply with local laws and regulations and must be carried out by qualified electricians.(保证电路系统符合当地法规的要求；必须要有一个合格的水电工程师才能安装水下灯)

3. Make sure the voltage is 12V and the terminal box is at least 120cm from the poolside (Figure 3).(确保连接水灯的电压为12V；接线盒位置安装距离池边最少120厘米。(如图3)

4. Upon installation, top of the light must be at least 45cm from water surface (Figure 3).(入墙牌要安装在指定位置上，以便挂上灯后，灯的顶部最少距离水面45厘米。(如图3)
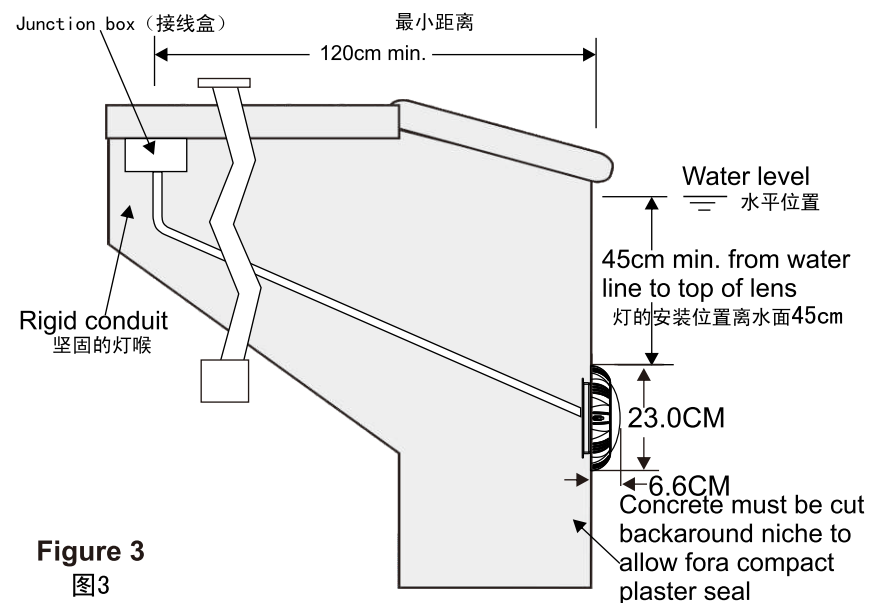

Junction box（接线盒）
最小距离
120cm min.
Water level 水平位置
45cm min. from water line to top of lens 灯的安装位置离水面45cm
23.0CM
6.6CM
Rigid conduit 坚固的灯喉
Concrete must be cut backaround niche to allow fora compact plaster seal

Figure 3
图3

B. Installing in Concrete 水泥池安装

1. Embed the Wall Mount into the concrete wall, making sure that it is parallel to the side of the pool(Figure 5).(将入墙牌镶入泳池壁内，入墙牌的表面要与泳池完成面相平。(如图5)

2. Place the Mounting Plate on the concrete wall and tighten it with 4 screws. The cable hole must be next to the Mounting Plate (Figure 6).(拧紧4颗螺丝，将挂墙牌固定到入墙牌的泳池面上；穿线孔的位置必须在入墙牌和挂墙牌两边的空隙内。(如图6)

3. Note that the light must only be installed on a flat or concave surface.(灯要安装在平滑表生或内弯表面，墙壁不规则或不平的表面不可以安装)

4. Wrap extra cables behind the light to make sure it could be taken to the pool surface for future maintenance (Figure 7).(缠绕一部分的电缆线在灯的后面；要保证电缆线足够长，可以将灯拿出水面维修。(如图7)

5. Hang the light onto the Mounting Plate and tighten the screws (Figure 8).(将灯挂到挂墙牌上，拧紧上面的螺丝。(如图8)

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.(泳池边接线盒内的接线处一定要用防水胶带密封好，防止水延电缆线内部渗入水灯内)
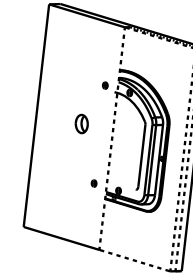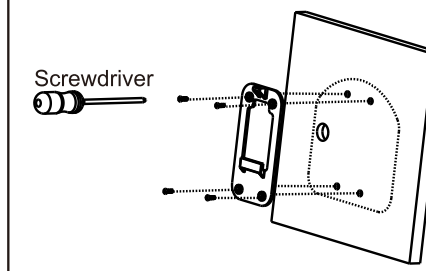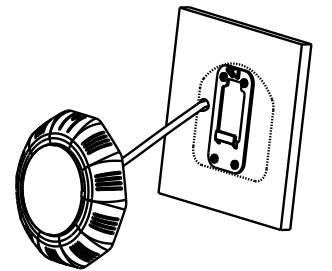
Figure 4 图4

Figure 5

Screwdriver

Figure 6

Figure 7
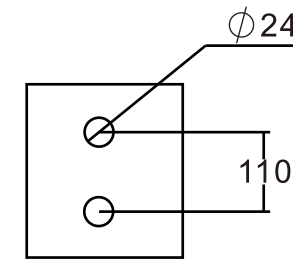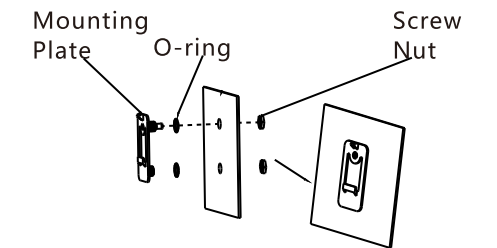

Ø24

110

Figure 8

Mounting Plate
O-ring
Screw Nut

C. Installing on Fiber Pools & Vinyl Pools 纤维池及胶袋池安装

1. Refer to section "Preparing to Install".(参照安装准备部份。定好要装水灯的位置)

2. Make 5 holes on the pool wall (Figure 9).(按图9要求开5个孔)

3. Secure the Mounting Plate onto the wall (Figure 10). (定好要装水灯的位置。(如图10)

4. Put the cable sequentially through the sealing nut, the sealing rubber ring and the cable hole in the mounting plate; then tighten the screw nut (Figure 11).(将牙头和电缆胶圈依次穿到电缆线上，再穿过挂墙牌的线孔，然后牙头拧紧。(如图11)

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 12).(缠绕一部分的电缆线在灯的后面，将灯挂到挂墙牌上，拧紧上面的螺丝。(如图12)
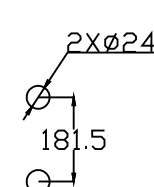
Figure 9

2XØ24
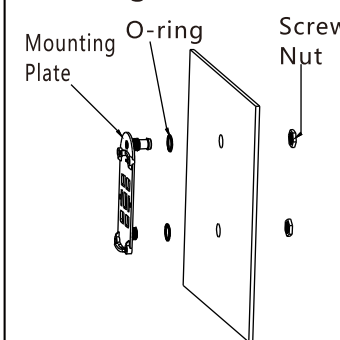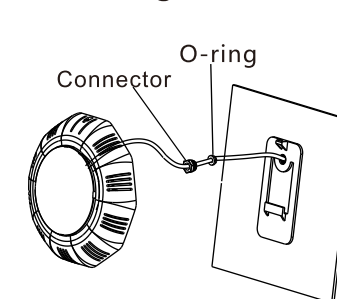
181.5

Figure 10

Mounting Plate
O-ring
Screw Nut

Figure 11

Connector
O-ring

Figure 12