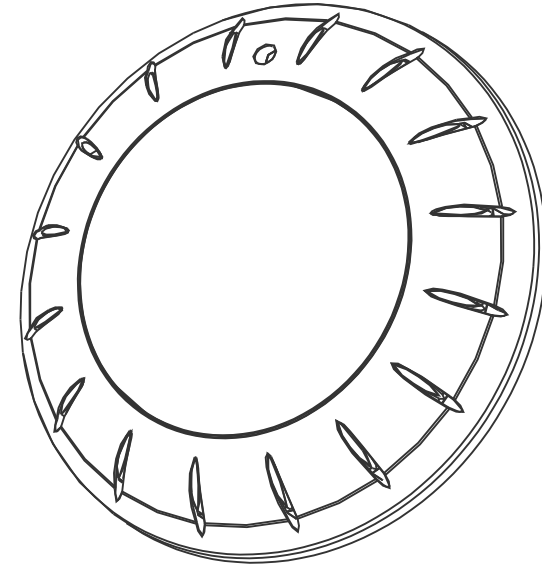
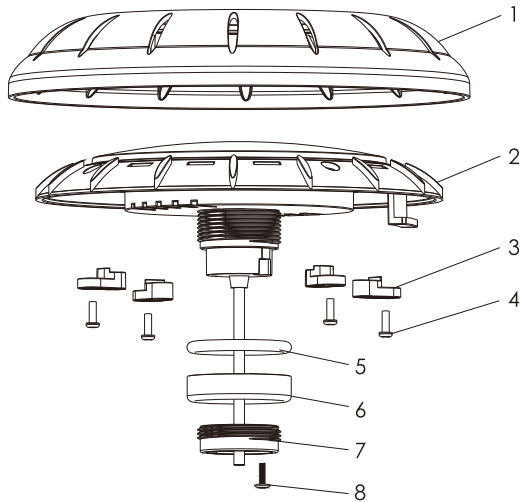


## QUARTZ(EM)

Item No. 项目	Part No. 部件编号	Description 英文描述	Description Chinese 中文描述	Qty 数量
1	440256797	White face ring	白色胶面盖	1
	440256797	Grey face ring	灰色胶面盖	1
	440256797	Blue face ring	蓝色胶面盖	1
	440256797	Transparent face ring	磨砂透明面盖	1
	440536797	Stainless face ring	不锈钢面盖	1
2	E042601	20 LEDs Panel 25W Color QUARTZ(EM)	彩光(20颗灯珠, 25W)灯盘	1
3	440526797	Fastener	压紧件	4
4	3011364	M4*12 Flat head self-tapping screw	M4*12扁头平底自攻螺丝	4
5	111040072	O-Ring (vinyl pool/concrete pool)	胶圈	1
6	111040073	Rubber Mat(concrete pool)	橡胶垫	1
7	440650004	Fitting(concrete pool)	水泥池配件	1
8	112010112	Screw M3X12(concrete pool)	M3X12螺丝	1



# E-Lumen X

QUARTZ & QUARTZ(EM) Installation and Operation manual

INSTRUCTION MANUAL

使用说明书

# CONTENTS

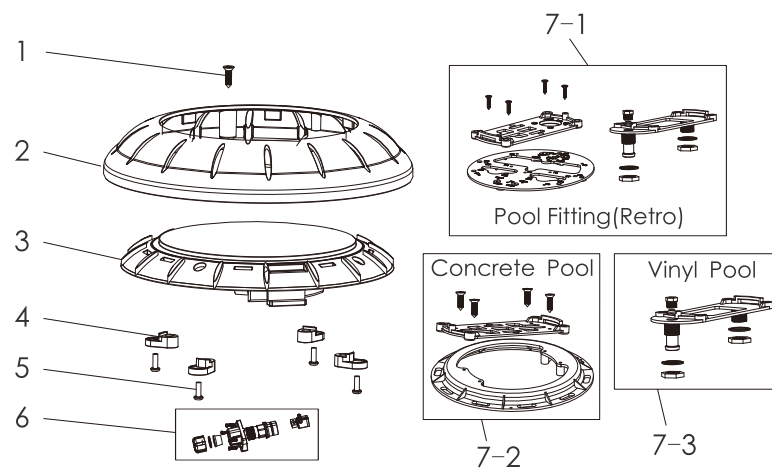
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# REPLACEMENT PARTS 零部件清单

## QUARTZ

Item No. 项目	Part No. 部件编号	Description 英文描述	Description Chinese 中文描述	Qty 数量
1	112322651	Screw M5*25	平头自攻螺丝M5*25	1
2	440256797	White face ring	白色胶面盖	1
		Grey face ring	灰色胶面盖	1
		Blue face ring	蓝色胶面盖	1
		Transparent face ring	磨砂透明面盖	1
	440536797	Stainless face ring	不锈钢面盖	1
3	E042601	20 LEDs Panel 25W Color	彩光(20颗灯珠, 25W)灯盘	1
4	440526797	Fastener	压紧件	4
5	3011364	M4*12 Flat head self-tapping screw	M4*12扁头平底自攻螺丝	4
6	E042602	Retrofit connector	EL防水接头套件Retrofit	1
6	E042604	Connector (cable version, No cable)	EL防水接头套件(带线专用, 不含线)	1
	105107163	Cable	电缆线2.5m	1
7-1	E042603	Retro Pool Fitting	Retro水灯泳池配件	1
7-2	89040203	Fitting for concrete pool	水泥池配件	1
7-3	89045517	Pool Fitting for vinyl pool	纤维池配件	1



- 1) 水下灯不可以在没有水的情况下点亮超过1分钟。
- 2) 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。
- 3) 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。
- 4) 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。
- 5) 如果Emaux水下灯被未经授权人拆卸则保修视为无效。

Trouble 故障	Possible Solution 可能的解决办法
The light is dim 水灯很暗	Check voltage of transformer. Check brightness control of remote if it connects, ColorTouch control box. 检查变压器的电压。 如果接了ColorTouch控制箱, 检查遥控器亮度调节。
The light is not work 水灯不工作	Check connected locations of the cable. Check fuses at switchboard. Replace light panel. Contact qualified electrician to test. 检查电缆线连接处; 检查开关保险丝; 替换灯盘; 联系专业电工去测试。
After power on, Light up and not lit a few seconds 刚开始亮灯, 随后熄灭	Check transformer. Contact qualified electrician to test. 检查变压器; 联系专业电工去测试。

## **WARNING 警告**

Please read the manual carefully before commencing installation. This manual contains important information about the correct installation and operation of E-Lumen X lights. 开始使用前请认真阅读本手册。手册里包含关于正确安装及操作E-Lumen X水灯的重要信息。

### — Before

- Only qualified electrician is allowed to carry out the installation of this product.
- Avoid direct contact with electrical power.
- Respect all regulations in effect for preventing accidents.
- All units are required to be disconnected from the main electricity before any operation of maintenance.
- For safe and proper installation, ensure that those parts supplied with the produce are used.
- Never handle with wet hands and feet.
- This unit is design for use only when fully submerged in fresh water, connecting with a safety transformer.
- This product should be installed according to your local electrical installation ordinances and regulations.
- Due to the corrosive nature of unbalanced pool chemicals, please keep your pool water is acid-base balanced prior to installation, and ensure the longevity of these lights.
- 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.

### ---- 之前

- 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。
- 避免与电源直接接触。
- 遵循所有规则防止引起事故。
- 在维修和安装水灯前, 要断开总电源。
- 为了安全、正确地安装确保使用与产品配套的部件。
- 不能够用湿的手脚操作。
- 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驱动器)
- 应遵守当地用电安装条例和规则安装此产品。
- 由于泳池化学品的腐蚀性, 请在安装前保持泳池水的酸碱平衡, 以确保泳池灯的使用寿命。
- 如果灯具的外部电缆线被损坏, 应由制造商或其他服务代理商或类似合格的人员替换。

### — Use

- Check that there is enough cable behind light to allow for servicing above water, preferably at ground-level pool-side.
- Never operate this Underwater Light for more than 1 minute unless it is totally submerged in water.
- You lights require cleaning at any time, be sure to a mild detergent or other ways that don't damage to the lights.
- Be sure power is off before installing or removing LED plate. Allow LED plate to cool before replacing.
- Maximum depth for Light installation at 1.2 meter.
- Maximum water temperature range for light operation 0-25°C

- Fortype X attachments

If the external flexible cable or cord of this luminaire is damaged, it shall be replaced by a special cord or cord exclusively available from the manufacturer or his service agent.

---- 使用

- 检查灯后面是否有足够的电缆线，以便在水上进行维修，最好在泳池边。
- 不要超过 1 分钟操作，除非完全浸泡于水中。
- 灯需要清洗时候，确保使用中性清洗剂或其它对水灯无损坏的方式。
- 在安拆灯盘之前确保电源已关掉，灯盘降温后才允许更换。
- 水灯安装离水面最深为1.2m。
- 水温度范围 0-25°C 。

- 对于种类 X 水灯

如果外部电缆线损坏，则由专业人员更换对应的电缆线。

**PRODUCT DESCRIPTION 产品描述**

— **SPECIFICATION 规格**

Electrical Specification :

- 1) Standard Voltage : AC12-32V(COSΦ:0.8 ,2.1A)
- 2) Frequency : 50/60Hz
- 3) Power : 25W
- 4) Mode of operation : ON/OFF Mode or ColorTouch control box.

水灯参数：

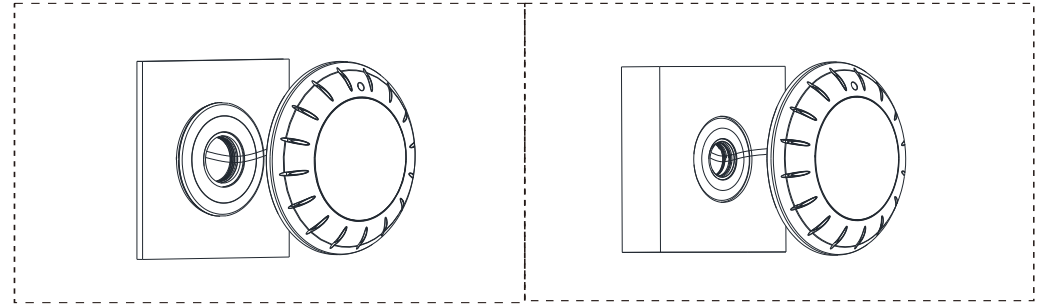
- 1) 标准电压： AC12-32V
- 2) 频率： 50/60Hz
- 3) 功率： 25W
- 4) 操作模式： 开关模式或彩色触摸控制

— **COLOR CHANGE 颜色变化模式**

NO.	Mode	模式	NO.	Mode	模式
1	Cool White	冷白色	9	Mode C: Blue+ Gradual Green	渐变模式C:蓝色长亮+绿色渐变
2	Green	绿色	10	Mode D: RGB Color Sequence	渐变模式D:红绿蓝渐变
3	Blue	蓝色	11	Mode E: RGB Color Sequence	渐变模式E:红绿蓝渐变
4	Green+Blue	绿色+蓝色	12	Mode F: Auto Color Change	渐变模式F:自由变化
5	Red+Green	红色+绿色	13	Mode G: RGB Color Sequence	渐变模式G:红绿蓝渐变
6	Red+Green+Blue	红色+绿色+蓝色	14	Mode H:Rapid Auto Color Change	快速跳变
7	Mode A: Blue+ Gradual Red	渐变模式A:蓝色长亮+红色渐变	15	Warm White	暖白
8	Mode B: Green +Gradual Red	渐变模式B:绿色长亮+红色渐变			

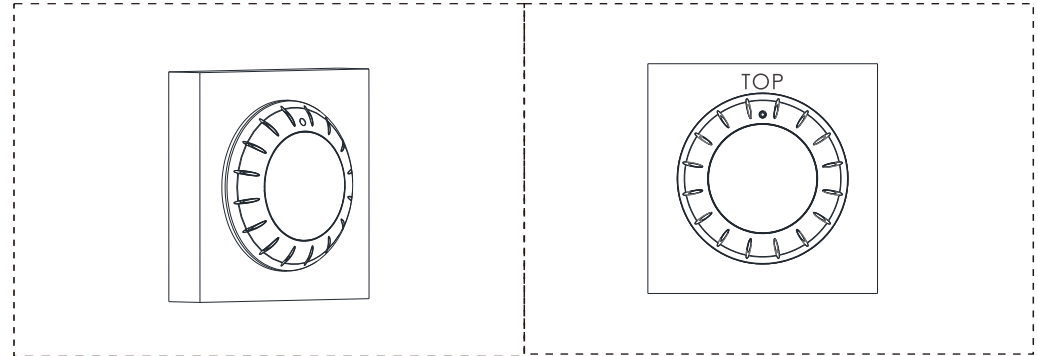
3. The cable through the fitting.

电缆线穿过配件



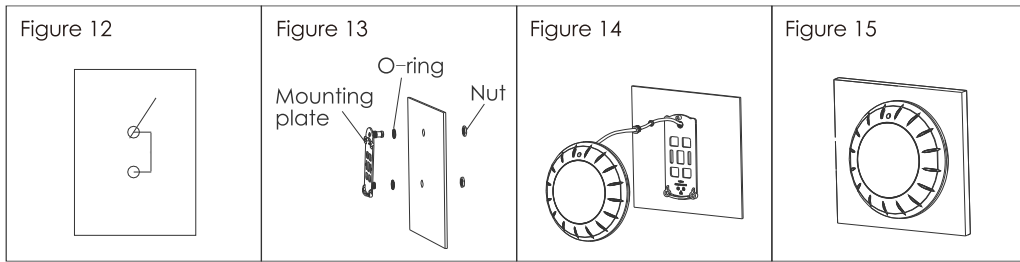
4. Screw light. Adjust the tightness by O-Ring, and "Screw hole" upwards.

上紧水灯，通过胶圈调节紧固度，使螺丝孔位朝上



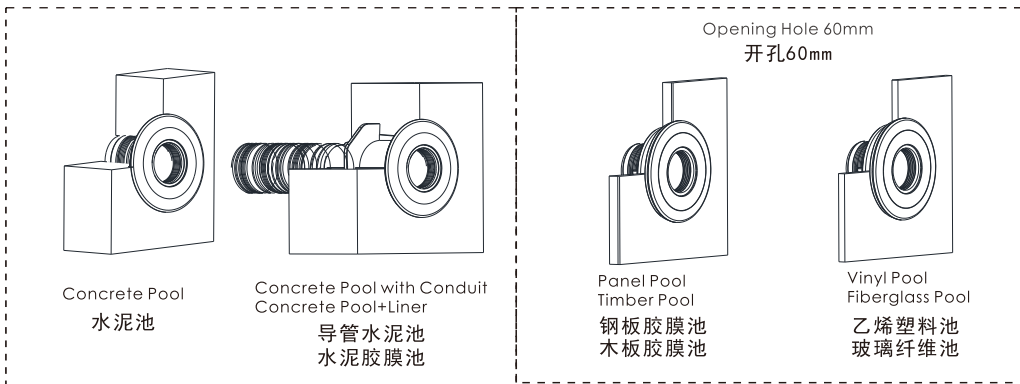
**MAINTENANCE AND TROUBLE SHOOTING 维护与故障排查**

- 1) Do not leave the lights "on" above water for longer than 1 minute.
- 2) Do not leave the lights directly under sunlight. Fill the pool with fresh water as soon as possible after the lights are installed.
- 3) Before switching on the lights, check whether the lights are fully submerged underwater and the circuit boxes are running properly.
- 4) 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.
- 5) Warranty will be voided if the Emaux Underwater Light was dismantled by unauthorized personnel.

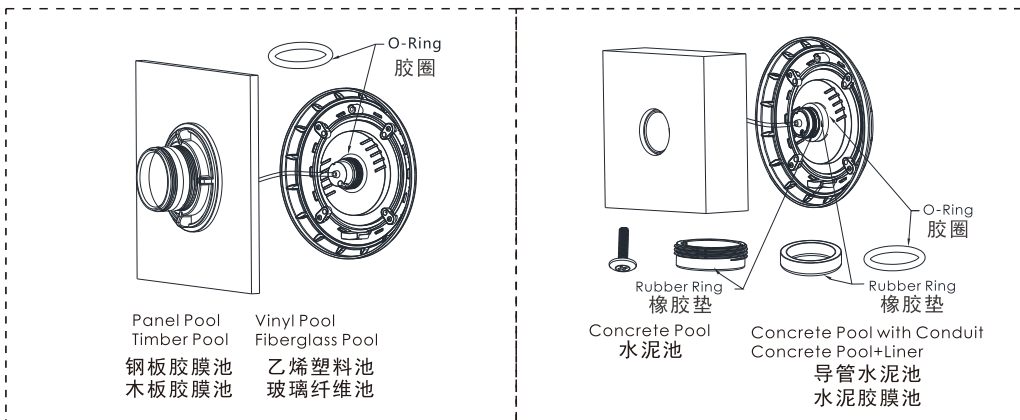


E) QUARTZ(EM) Installation Step:  
安装步骤

1. Install EM2836/EM2831/EM2841 fitting.  
EM2836/EM2831/EM2841 配件安装



2. Check the O-Ring on screwthread.  
检查螺纹上的胶圈



**CONTROL 控制说明**

- 1) When the light is connected to the transformer directly, the on/off switch controls the color changes (Associating a light with a transformer and an on/off switch is recommended; If you want all the lights to change color at the same time, install a master switch, Figure 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 color changes (See the Control Box Manual for details).

Attention: It is the light with ON/OFF mode and control mode of ColorTouch. The light auto detect ColorTouch control box. When light is connected to ColorTouch Control Box, you can choose a particular color and adjust light brightness by ColorTouch remote.

- 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) 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)

注意: 水灯具有开关模式和ColorTouch控制箱模式。水灯会自动检测ColorTouch控制箱。当灯连上ColorTouch控制箱, 你可以通过遥控器选择特定的颜色和调节水灯亮度。

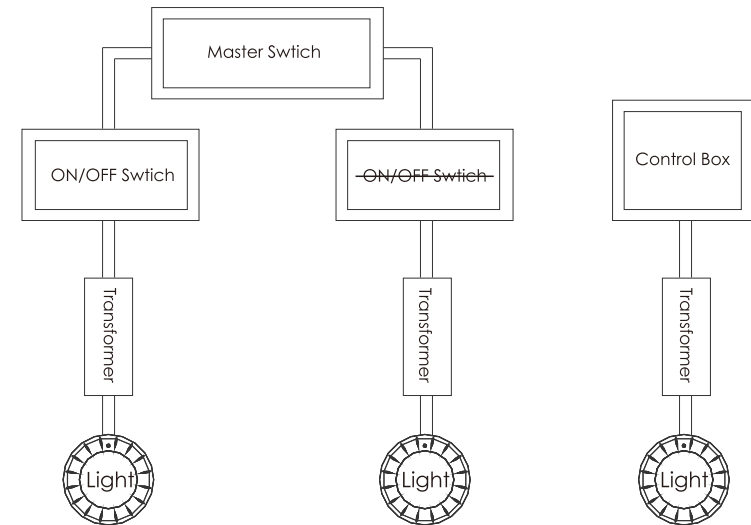


Figure 1

## INSTALLATION NOTES 水灯安装注意事项

- 1) The light have retrofit. You should follow the procedures closely when installing the light.
- 2) It is recommended to install a light every 20m<sup>2</sup>, the approximate exposure area of each unit.
- 3) The lights should be installed in the direction that they will not shine directly into the house.
- 4) For training or competition pools, the lights must be installed on the sides in order to prevent swimmers from seeing any glare.
- 5) Nothing should be placed on the poolside directly above the lights for ease of future maintenance.
- 6) If the wires are connected inside the lights, you must seal the connections with leak-proof tapes or products with the same function.
- 7) The cables connecting the lights and the transformers must be at least 6mm<sup>2</sup> and the distance between them must not exceed 30m (Figure 2); other wise the lights will not function properly.
- 8) Terminal blocks must meet the IEC60988-2-1 standard having the rated connecting capacity of 4,0mm<sup>2</sup> use of screw-type terminal at least 25A rated current, mounted on junction boxes inside. See Figure 2-1.

- 1) 水下灯的电缆线有不同长度, 或者该灯有在安装水灯时应严格按照水灯操作说明进行。
- 2) 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) 为了防灯光刺眼, 水灯必须装在与房子相反的方向)
- 4) 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) 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) 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) 水灯到变压器的之间的电缆线不可少于6mm<sup>2</sup>, 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, 我们的水下灯就不可以完全点亮。
- 8) 接线端子必须符合IEC60988-2-1标准, 使用螺丝型接线端子能连接4mm<sup>2</sup>线, 额定电流至少25A, 并安装在接线盒内, 如图2-1。

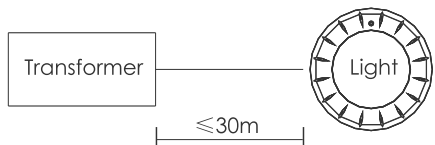


Figure 2

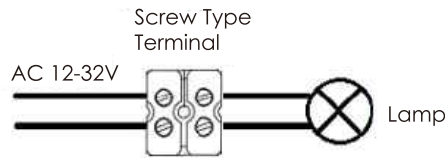
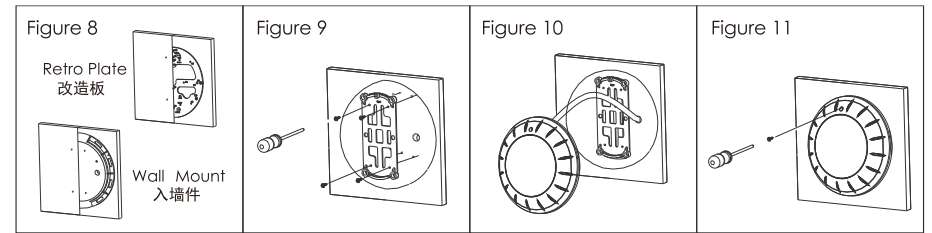


Figure 2-1

### C) 水泥池安装及改造安装

- 1) 如果是Retrofit水灯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。或者将入墙牌安装到其他牌子上, 用来替换其他水灯。如果是带线的水灯, 将入墙件预埋到水泥池。(如图8)
- 2) 收紧2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9)
- 3) 灯要安装在平滑表或在内弯表面, 墙壁不规则或不平的表面不可以安装。
- 4) 缠绕一部分的电缆电在灯的后面; 要保证电缆电足够长, 可以将灯拿出水面维修。(如图10)
- 5) 将灯挂到挂墙牌上, 收紧上面的螺丝。(如图11)
- 6) 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。



### D) Fiberglass Pools / Vinyl Pools Installation

- 1) Refer to section "Preparing to Install".
- 2) Make 2 holes on the pool wall (Figure 12).
- 3) Place the O-rings between the Mounting Plate and the pool wall and tighten it with the Nut on the otherside of the pool wall (Figure 13).
- 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 14).
- 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 15).

### D) 纤维池及胶袋池安装

- 1) 参照安装准备部份, 定好要装水灯的位置。
- 2) 按图12要求开2个孔。
- 3) 在安装板与池壁之间放置胶圈, 然后在池壁的另一边用螺母固定。(如图13)
- 4) 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, 然后将牙头收紧。(如图14)
- 5) 缠绕一部分的电缆电在灯的后面, 将灯挂到挂墙牌上, 收紧上面的螺丝。(如图15)

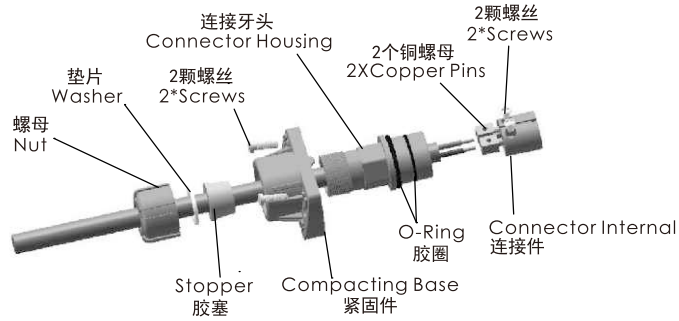


Figure 5

- 5) Insert Four screws to screw holes of Pressing Base. Figure 6
- 6) Plug the connector into the light connection interface tight and tight the four screws. Figure 7
- 5) 将丝颗螺丝插入到紧固件的孔位中。如图6
- 6) 将防水接头插入到水灯的连接口并拧紧螺丝。如图7



Figure 6



Figure 7

### C) Vinyl Pool Installation and Retro-Installation

- 1) If it is one Retrofit light, Retro plate into the concrete wall or install on other part, making sure that it is parallel to the side of the pool. Or retro plate install on other types plate, and relpace other lights. If it is one light with cable, embed the Wall Mount into the concrete wall. (Figure 8).
- 2) Place the mounting plate on the concrete wall and tighten it with 2 screws. The conduit must be next to the mounting plate (Figure 9).
- 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 10).
- 5) Hang the light onto the mounting plate and tighten the screws (Figure 11).
- 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.

## INSATALLATION 安装

### A) Preparing to Install

- 1) Before installation, a circuit system diagram must be designed by a certified engineer.
- 2) The circuit system must comply with local laws and regulations and must be carried out by qualified electricians.
- 3) Make sure the voltage is 12-32V and the terminal box is at least 120cm from the poolside (Figure 3).
- 4) Upon installation, top of the light must be at least 45cm from water surface (Figure 3).
- 5) Switch off the Pool lighting system power.

### A) 安装准备

- 1) 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) 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) 确保连接水灯的压为12-32V,接线合位置安装距离池边最少120厘米。(如图3)。
- 4) 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)
- 5) 关掉泳池灯系统电源。

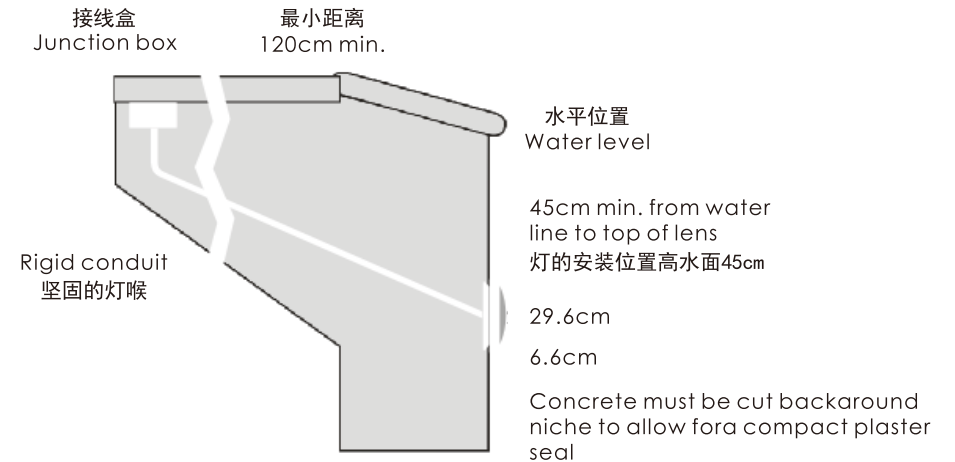
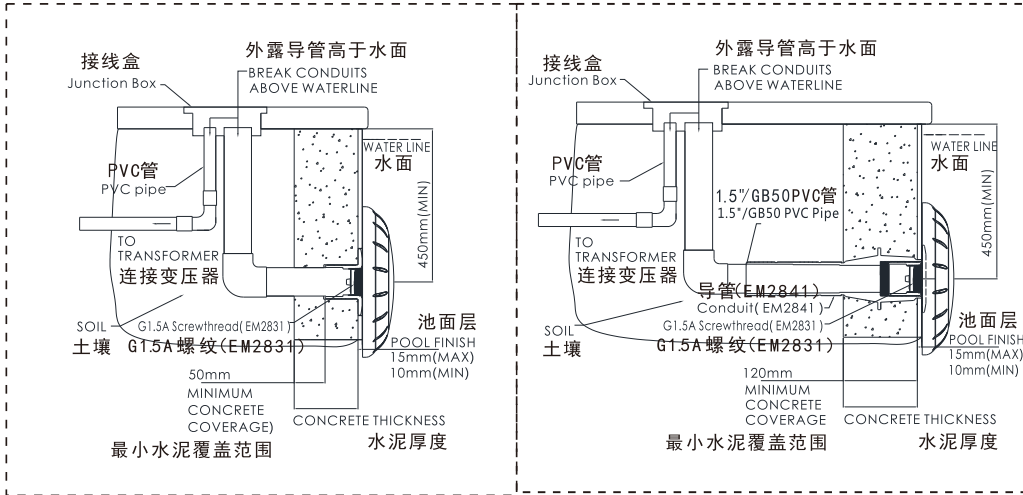


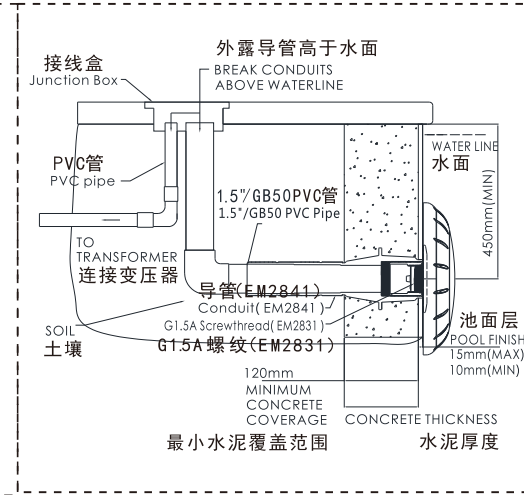
Figure 3

## QUARTZ(EM)

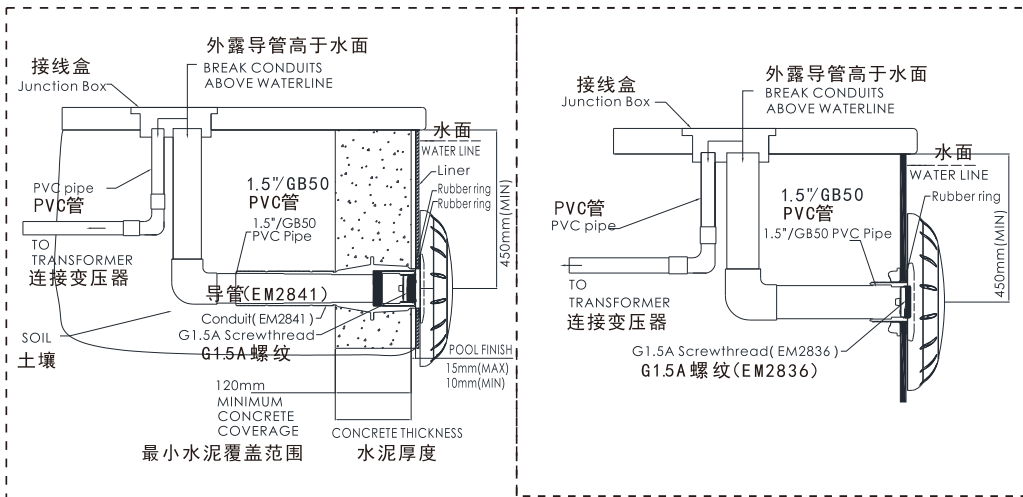
### 1) QUARTZ(EM) (Concrete Pool) 水泥池



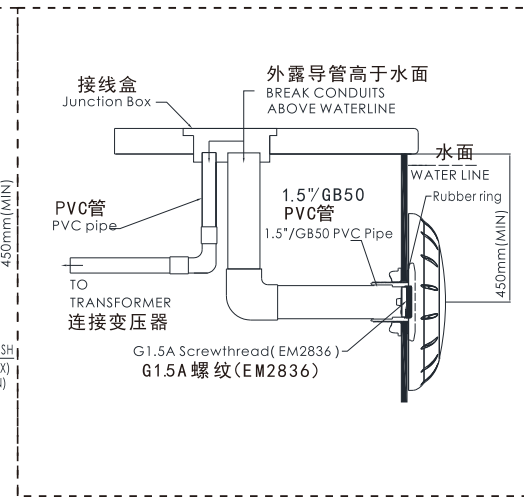
### 2) QUARTZ(EM) (Concrete Pool with Conduit) 导管水泥池



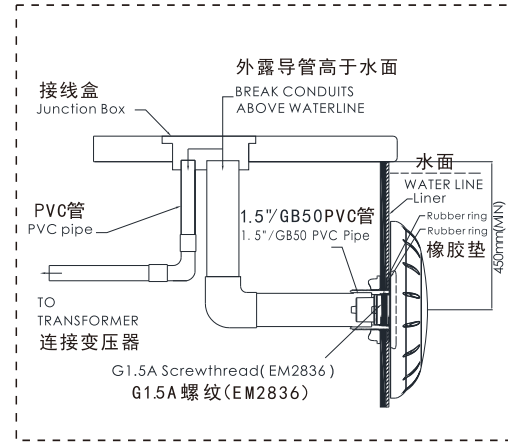
### 3) QUARTZ(EM) (Concrete Pool+Liner) 水泥胶膜池



### 4) QUARTZ(EM) (Vinyl Pool/Fiberglass Pool) 乙烯塑料池/玻璃纤维池



### 5) QUARTZ(EM) (Panel Pool/Timber Pool) 钢板胶膜池/木板胶膜池



### B) Installation Guide of Retrofit connector

- 1) Unscrew the existing light and pull out from the pool.
- 2) The existing cable as close to the light as possible to reserve enough length for replacement light.
- 3) Remove the power cable coating recommended length. Figure 4

### B) 接头安装引导

- 1) 拧开现有水灯并从水池中取下。
- 2) 现有电缆线尽可能靠近水灯, 以便有足够长度来更换水灯。
- 3) 去掉建议长度的电缆线外皮, 如图4。



Figure 4

- 4) Assemble Retrofit connector. First, the cable thru Nut, Washer, Pressing Base in order (Attention: there are five sized stoppers), Connector Housing. Put Two sized O-Ring to Connector Housing. And insert two Copper Pins to Connector Internal, the power cable is thru Copper Pins and hold it tight by the screws. Pull the cable back and Tighten Nut, the front face is kept the flush for Connector Housing and Connector Internal. Figure 5

- 4) 组装防水接头。首先, 将电缆线依次穿过螺母, 垫片, 胶塞, 紧固件, 连接牙头(有5种规格的胶塞)。两个规格的O型胶圈套在连接牙头上, 两个铜螺母插到连接件里, 电缆线插到铜螺母里然后拧紧螺丝。将电缆线往回拉下并拧紧螺母, 使连接牙头和连接件的前端保持齐平。如图5