

- 2) 对于用钢箍圈收紧面盖的水下灯: (a) 把未拉紧的钢箍圈松开, 安放在面盖的扁钩之间。钢箍圈末端的U形凹处向外。确保钢箍圈位于每一个扁钩之间, 见图2。(b) 握住钢箍圈的末端并夹紧, 嵌入螺丝, 用螺丝刀拧紧, 直到钢箍圈的末端距离达到0.6cm或更小。见图3
F) Replace the light assembly into the niche and tighten the special pilot screw.
把水下灯放回原先的位置, 拧紧定位螺丝。

WARNING 警告

Use only the special pilot screw provided with this underwater light. This screw mounts and electrically grounds the housing securely to the mounting ring and wet niche. Failure to use the screw provided could create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock.

只能使用水下灯所供给的专用不锈钢端位螺丝钉。水下灯外壳必须用此螺丝且确保接地良好。不按照说明使用, 可能会引起触电导致泳池使用者或安装人员严重伤害甚至死亡。

G) Fill pool until the underwater light is completely submerged in water before operating the light for more than 10 seconds. Turn on main switch or circuit breaker, as well as the switch which specifically operates the underwater light, to check for proper operation.

操作水下灯超过10秒之前, 必须确定水下灯已完全浸在池水下。检查水下灯操作时, 开启总开关或断路器和水下灯操作开关。

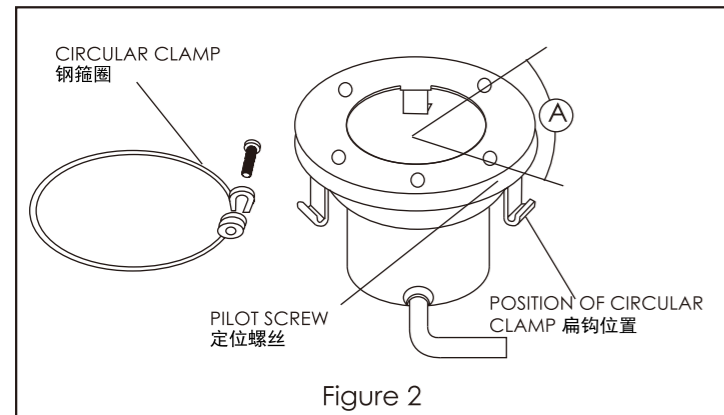


Figure 2

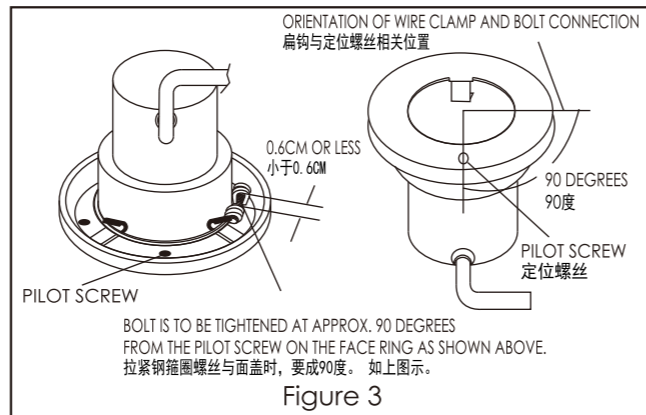
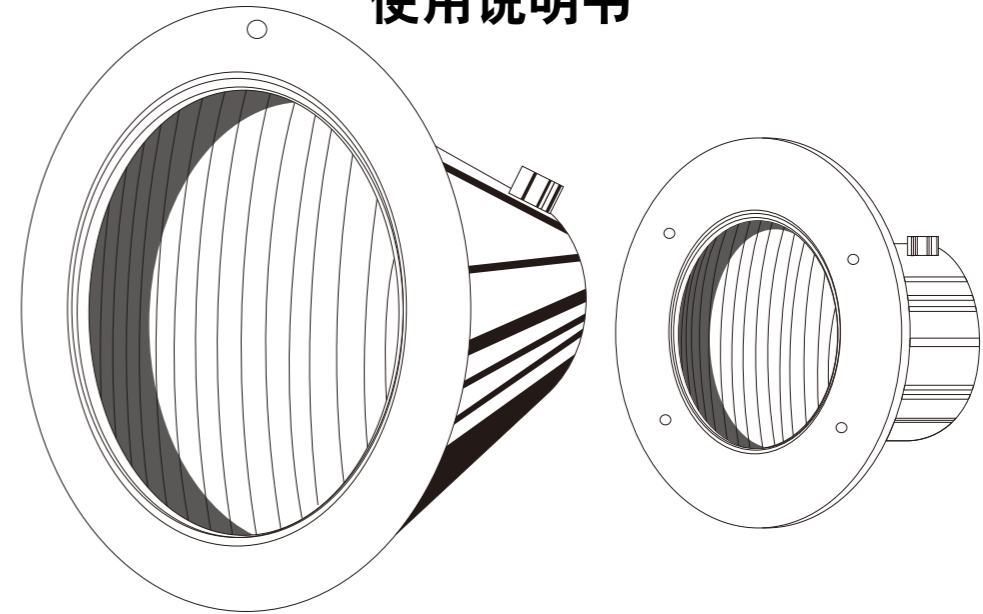


Figure 3

Item	Part No. (S/S 304)	Part No. (S/S 316, For LED-S100)	中文	产品资料说明	数量
1	03011058	03011336	平头螺丝 φ3/16×9/8" 机丝	φ3/16×9/8" Pilot Screw	1
2	03017010	03017108	UL-S100不锈钢灯面盖(套)	Face Ring Assembly for UL-S100 Lights	1
3	03017012	03017101	UL-S100不锈钢灯钢箍圈	Wire With Nut for UL-S100 Lights	1
4	03011133	03011337	外六角十字头螺丝M6*40	M6*40 Bolt for Wire	1
5	87012003	87012003	玻璃罩	Lens for UL-S100 Lights	1
6	02021016	02021016	防水胶圈	Waterproof washer for UL-S100 Lights	1
7	04011021	04011021	LED灯泡(E27/18粒:12V/1W 白光)	LED lamp (White Colour Only) 12V/1W LED	1
	04011017	04011017	LED灯泡(E27/18粒:12V/1W 七彩)	LED lamp (Automatic Colour-changing) 12V/1W LED	
	04011050	04011050	LED灯泡(E27/72粒:12V/5W 七彩)	LED lamp (Automatic Colour-changing) 12V/5W LED	
	04011053	04011053	LED灯泡(E27/72粒:12V/5W 白光)	LED lamp (White Colour Only) 12V/5W LED	
	04011054	04011054	LED灯泡(E27/72粒:12V/5W 黄光)	LED lamp (Yellow Colour Only) 12V/5W LED	
8	89040702	89040702	UL-S100灯内壳连电缆线	Light Encasing with 2.5m cable for UL-S100 Lights	1
9	88043602	88043302	UL-S100不锈钢外壳(套)	UL-S100 Stainless Steel Lights Niche	1
10	88043502	88043502	UL-S100塑胶外壳(套)	UL-S100 Stainless Steel Lights Plastic Niche	1
11	03017021		UL-S300不锈钢灯面盖(套)	Face Ring Assembly for UL-S300 Lights	1
12	03017018		钢箍圈	Wire With Nut for UL-S300 Lights	1
13	03011134		M6X50 外六角十字头螺丝	M6X50 Bolt for Wire	1
14	87012004		玻璃罩	Lens for UL-S300 Lights	1
15	02021019		防水胶圈	Waterproof washer for UL-S300 Lights	1
16	04011035		LED灯泡(E27/252粒:12V/16W 白光)	E27 (252 Bulbs) LED 12V/16W (Automatic Colour Change)	1
	04011046		LED灯泡(E27/252粒:12V/16W 七彩)	E27 (252 Bulbs) LED 12V/16W (White-Colour)	
17	89040701		UL-S300灯内壳连电缆线	Light Encasing with 2.5m cable for UL-S300 Lights	1
18	88043605		UL-S300灯不锈钢外壳(套)	UL-S300 Stainless Steel Lights Niche	1

**LED-S100 and LED-S300
Stainless Steel Underwater Light
Operating Instruction**

**不锈钢水下灯
使用说明书**



**READ AND FOLLOW ALL INSTRUCTIONS
请您在使用前阅读及遵照说明书所有的指示**

DANGER 危险
RISK OF ELECTRICAL SHOCK OR ELECTROCUTION
防范电击或触电危险

This underwater light must be installed by a licensed or certified electrician in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electrical hazard which could result in death or serious injury to pool users, installer, or others due to electrical shock, and may also cause damage to property. Read and follow the specific instructions below.

水下灯装置必须由合格的电工或合格的维修人员安装, 并按照合乎当地官方许可的法规安装。不适当的安装, 会引起触电导致泳池使用者或安装人员财产损失, 严重伤害甚至死亡。保养维修水下灯之前必须把连结水下灯与断路器的电源切断。没依从做到上述指示, 可能导致严重伤害甚至死亡。请您在使用前阅读及遵照下列说明书所有的指示。

WARNING 警告

Before installing this underwater light, read and follow all warning notices and instructions accompanying this light. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. 安装水下灯前, 应该先阅读及遵照说明书所有的注意事项。不依从上述指示, 可能导致严重受伤甚至死亡。

Important Notice 重要通知

Attention Installer. 安装人员注意

This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

本说明书包含重要的安装, 操作与安全使用指导。本说明书必须由该装置用户/操作员持有。

I. Installing light fixture during new pool construction.

新建泳池之水下灯挂墙架安装

A) The electrician must complete preparatory steps before light fixture is installed; see Figure 1.
安装水下灯前，电工必需完成的准备步骤。见图1

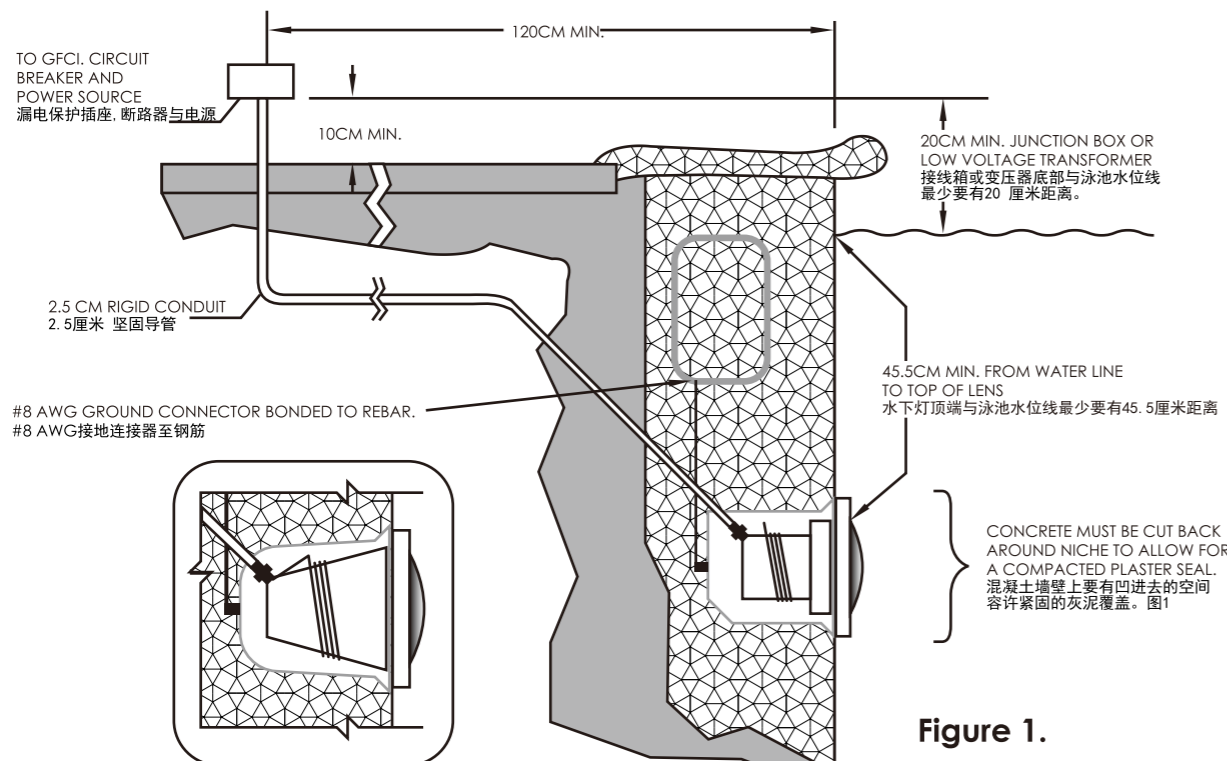


Figure 1.

- 1) Ensure that the pool meets the requirements of the current National Electrical Code and all local codes and ordinances. A licensed or certified electrician must install the electrical system to meet or exceed those requirements before the underwater light is installed. Some of the requirements of the National Electrical Code which the Pool's electrical system must meet are as follows.
 - a) The lighting circuit must have a Ground Fault Circuit Interrupter (GFCI), and must have an appropriately rated circuit breaker
 - b) The Junction Box (or, for 12 volt models, the low voltage transformer) must be located at least 20CM above water level, at least 10CM above ground level, and at least 120CM from the edge of the pool; see Figure 1.
 - c) The light fixture and all metal items within 152CM of the pool must be properly electrically bonded.
 - d) The wet niche must be properly installed so that the top edge of the underwater light's lens is at least 45.5 below the surface of the water in the pool; see Figure 1.
 - e) The wet niche must be properly electrically bonded and grounded via the No.8 AWG ground connector located at the rear of the niche; see Figure 1.

NOTE: The pool or spa electrical system can be verified with a pool and Spa Electrical Qualification Test kit. The electrical system inspection using this kit must be performed by trained and certified personnel.

2) To be certain that pool's electrical system meets all applicable requirements, the electrician should also consult the local building department.

1) 确保游泳池的电气系统合乎国家电工法要求。安装水下灯之前，电气系统必须由有官方许可的电工或合格的电工安装。一些国家电工法要求如下：

- a) 水下灯电路要有漏电保护插座与断路器。
- b) 接线箱或12伏特低电压变压器与泳池水位线最少要有20厘米高距离，离地20厘米高，离水池边缘最少要有120厘米距离。见图1
- c) 水池范围150厘米之内，电灯组件与其他金属件应当用导线接好，且接地良好。
- d) 水下灯外壳必须适当地安装好，水下灯顶端与泳池水位线最少要有45.5厘米距离。见图1
- e) 水下灯外壳后面必须用8 AWG导线接好，且接地良好。见图1

注意：游泳池或按摩池的电气系统，可以用验证装备测试。只有接受过训练与持有执照的人员可使用这个验证装备。
2. 咨询地方政府建筑部门确定泳池电气系统达标。

B) Steps to perform after the electrical system requirements are met.
确定泳池电气系统达标后，才可进行下列各项操作

- 1) Feed cord through conduit to Junction Box, leaving at least 120CM of cord at the light fixture to coil around the light; see Figure 1. This 120CM of cord around the light allows the light to be serviced after the pool is filled with water.
- 2) Cut the cord at the Junction BOX, leaving at least 15CM of cord to make connections.
- 3) Strip 15CM of the outer cord jacket to expose the three insulated wires. Be careful not to damage the insulation on the three (3) inner wires.

4) Connect all three (3) wires to the corresponding circuit wires in the Junction Box, and secure the Junction Box cover in place.

1) 在水下灯后边缠绕最少120厘米电线。这120厘米电线，使水下灯得以在泳池充满水后，可以方便保养维修。

注意：为方便拆卸，请预留2至3圈松弛的电线。余下的电线应从导管通往接线盒。

2) 在接线盒位置 预留最少15厘米长的电线，用作连接电路。

3) 剥去15厘米长的电线外皮，使内部绝缘线外露。小心不要损害这三条内部的绝缘线。

4) 在接线盒内把这三条电线 接到相应的位置后， 关好接线盒盖。

WARNING 警告

Never operate this Underwater Light for more than 10 seconds unless it is totally submerged in water. Without total submersion, the light assembly will get extremely hot, which may result in serious injury to pool users, installers, or bystanders, or in damage to property.

水下灯不能在完全没有浸水下操作超过10秒。水下灯没有完全浸水时操作，装置温度会变得非常热，可能导致泳池使用者、安装人员、旁人严重受伤，及财物损失。

5) Replace the light assembly into niche and tighten special pilot screw. 把水下灯放置在壁内 然后收紧定位螺丝。

WARNING 警告

Use only the special stainless steel pilot screw provided with Underwater Light. Failure to use the screw provided could create an electrical hazard which could result in death or serious injury to pool users, installers or others due to electrical shock. 只能使用水下灯所供给之专用不锈钢定位螺丝钉。不按照说明使用，可能会引起触电导致泳池使用者或安装人员严重伤害甚至死亡。

6) Fill the pool until the underwater light is completely submerged in water before operating the light for more than 10 seconds. Turn on main switch or circuit breaker, as well as the switch which operates the underwater light itself, to check for proper operation.

操作水下灯超过10秒之前，必须确定水下灯已完全浸在池水下。检查水下灯操作时，开启总开关或断路器，并水下灯操作开关。

II. Replacing a lamp only: 更换灯泡

DANGER 危险

Always disconnect power to the pool light at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to installer, servicemen, pool users, or others due to electrical shock.

保养维修水下灯之前，必须把连接水下灯与断路器之电源切断。没依从做到上述指示，可能导致严重伤害甚至死亡。

A) Turn off main electrical switch or circuit breaker, as well as the switch which operates the underwater light itself.
关掉主电源或断路器，并水下灯的开关。

B) You will need the following items 你需要下列各项零件：

- 1) A new lens gasket. 新的防水垫圈
- 2) A lamp, refer to Table 1 for the correct type and wattage. 灯泡，参考照表1的种类及瓦数

WARNING 警告

Replace lamp with a similar type and wattage. Failure to replace lamp with the same type of lamp will damage the light assembly and may cause an electrical hazard resulting in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

更换同样的灯泡种类及瓦数。不依从做到上述指示，可能引起因触电导致泳池使用者或安装人员严重伤害甚至死亡，及财物损失。

C) To remove light assembly, remove the special pilot screw at top of face ring, remove light assembly from niche, and place assembly on deck. 将顶端位螺丝从水下灯顶部旋开，把水下灯在壁内取出，把水灯谨慎的放在平台上。

D) Disassemble light fixture and remove bulb. Remove and discard old gasket. 拆开水灯装置，取下灯泡，取下旧防水垫圈并将它丢弃。

E) Secure the face ring to the light fixture. Sealing screws must be tightened in the following manner to ensure a proper seal.

1) For lights with stainless face ring:

- a) Partly tighten the screw at the 3 o'clock position, and then partly tighten the screw at the 9 o'clock position. Partly tighten the screw at another 'opposite' position, and then partly tighten the screw directly across from it.
- b) Continue partly tightening all screws in the above sequence until all screws are evenly and securely tightened. Recommended 50CM pounds torque.

2) For lights with stainless steel face ring:

- a) With the bent ends of the circular unitension clamp pointing down spread the clamp and place it in the "U" recesses of the locking levers. Ensure that the bent ends of the clamp are located between the pair of locking levers as shown in Figure 2, location A Check to see that the clamp is properly engaged with all of the levers; see Figure 2.b. Hold the ends of the unitension clamp together. Insert the bolt through one end of the bend end and then insert the other end through the other bent end and thread the bolt into the nut. Using a #3 Phillips head screwdriver tighten the screw and nut until the distance between the ends of the clamp equals 0.6CM or less; see Figure 3.

1. 把水下灯面盖闭紧时，密封用螺丝必须按下述的方式收紧，才可以有彻底的密封效果。对于用螺丝收紧面盖的水下灯：

- (a) 分几个步骤拧紧螺丝，先旋上3时位的螺丝，然后旋上9时位的螺丝。再旋上对面另一个螺丝，然后再旋上正对面另一个螺丝。
- (b) 继续按上述的步骤，均匀地旋上所有的螺丝，最后用大约50磅力厘米的力矩拧紧所有螺。