

LED UNDERGROUND LIGHT

Installation & Connection

Safety warning: To make proper and safe application, please read below contents carefully before installation and connection!!!

A. Assortment of LED Underground Light:

Standard Underground Light consist of steel cover, tempered glass, aluminium body and embedded frame. Usually they can be assorted as below.:

Fixture Shape: Round, Square, Linear

Input Volt: LV(12V/24V DC), HV(120V/240V AC)

Function: Static, RGB, DMX



Round-shaped



Square-shaped



Linear-shaped

* Standard LV are of CV (Constant Voltage) mode usually.

Complete design of whole system firstly, including consideration and calculation of power, signal(if any), quantity and position...every components in the system, before starting to real work. Make layout of whole system out in paper, which to be as guide at site.

B. Installation

B-1. Positioning

Position the fixture, cable pipe, on the ground, including driver or controller space if any.

B-2. Installation of cable pipe before construction

Use professional underground PVC pipe for extension and connecting cables.

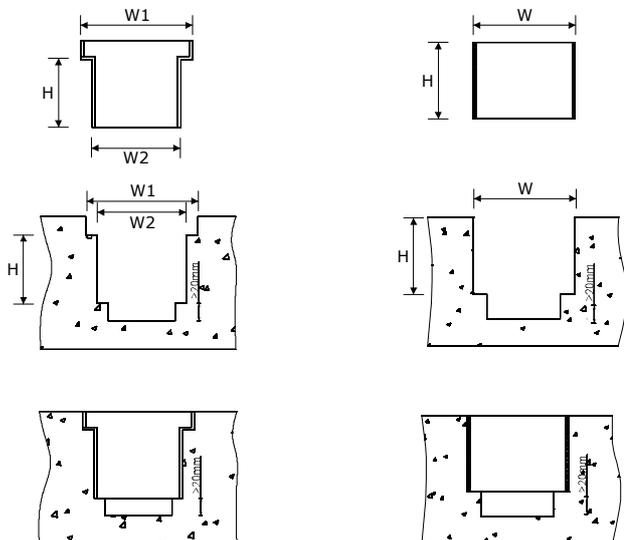
- * Make sure the pipe be not broken in the middle.
- * Make sure the diameter of pipe is big enough to let cables or connectors go through.
- * Prevent the pipe being filled with clay or concrete.

B-3. Installation of Round-shaped and Square-shaped embedded frame

Measure, or check the size of embedded frame carefully.

Make sure frame be tightly and rigidly fixed underground.

- * Leave enough free space below frame (> 20mm).
- * Ensure the embedded cable pipe in the central of frame.
- * Use concrete to seal and hold the frame tightly; For some models, fasten with screw is necessary.
- * Make sure the frame will not be filled by anything and be placed in the same level as ground.

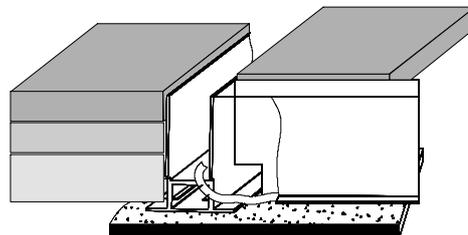
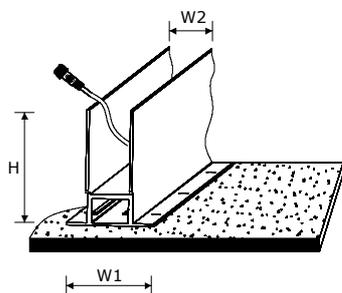


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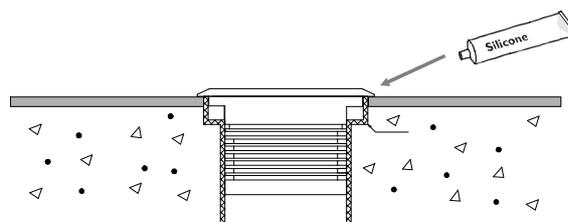
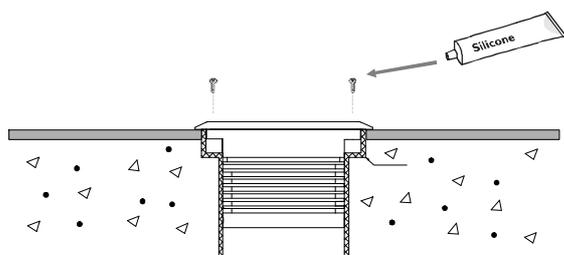
B-4. Installation of continual linear fixtures

In typical installation of continual linear fixture, the frame can be regarded as cable pipe.



B-5. Installation of light fixture

After marble or concrete floor cover the frame well, make the connection and fix the light body into frame by fastening stainless screw. Glueing the screw tip and gap between fixture cover and ground surface is strongly suggested.



B-6. Installation of driver or controller (if any)

Strongly recommend to install the driver or controller (if any) in one place and indoor, so as to manage and maintain them conveniently.

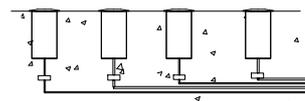
C. Connection

Warning: Do not plug whole system into power before completion of whole connection!!! Carefully inspections on every connection, waterproof, installation are required, and make sure there was safety switch protection in the main power control box.

C-1. Connection between fixtures:

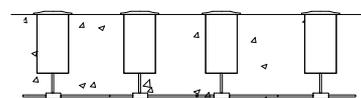
1T1: One cable one fixture

* Max. length of the cable MUST BE carefully calculated, upon power of fixture and cable specification.



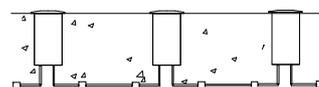
T-shaped: T-shaped connection to each fixture

* Make sure there was enough space for T-shaped connection underground.
* Max .loading quantity and length of the cable MUST BE carefully calculated, upon power of fixture and cable specification.



Connective: Input and output from each fixture

* Make sure there was enough space for connection underground.
* Max .loading quantity and length of the cable MUST BE carefully calculated, upon power of fixture and cable specification.

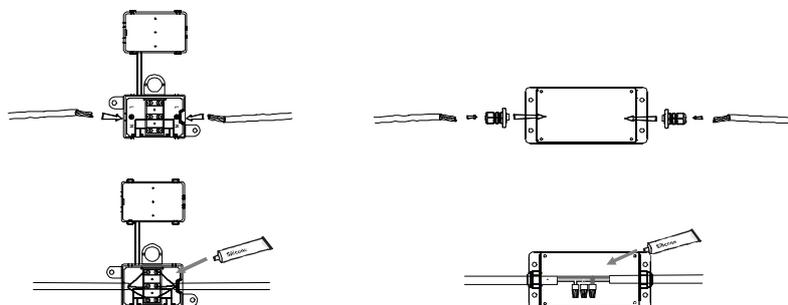


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C-2. Connection between cables

Naked wire: Use professional waterproof junction box to make the connection of embedded cable and fixture input cable. And glue the connection points well.



- * Strongly recommend to glue the junction box well, for serious application.
- * Make sure there was enough space for junction box.
- * Choose correct junction and connection terminals according to fixture characters.

Connector: Use professional waterproof connector as connection.



- * Strongly recommend to use IP68 connectors.
- * Choose the correct pins according to fixture characters.
- * Fasten the screw of connectors well for guarantee on waterproof.
- * Make sure the connector can go through the cable pile, and there is enough space for connectors in embedded frame.

D. Comparison

	Installation	Connection	Cost	Remark
1T1 Mode	Many cables in pipe	Long distance between driver and fixture	high cost on cables	Interior space of embedded pipe for cables to be considered; Big connection points to driver.
T-shaped	More space in frame	Simple connection to the driver or controller. Limited distance and qty.	Normal	Quantity of fixture, extension distance to be calculated according to power, driver and cable spec.
Connective	Space for double connection	Simple connection to the driver or controller. Limited distance and qty.	Normal	Quantity of fixture, extension distance to be calculated according to power, driver and cable spec. Not available for small fixture
Naked wire	Space for junction box	Terminals connection manually	Normal	Waterproof of junction box to be guaranteed totally. Connection should be reliable. Enough space for junction box in frame.
Connector	Space for connectors	Easy, standard	High cost on connectors	Enough space of interior embedded pipe and space of frame for connectors

E. Attention & Warning

E-1. Do not immerse the fixture or cables in water.

E-2. All cables should be prevent from being damaged during all operation.

* Damaged cables under ground might lead to short-circuit or failure on waterproof.

E-3. Overload might cause dangerous situation .

E-4. To remove the water, sufficient drainage facilities should be provided when installing the frame.

E-5. Modification to the ready-made fixtures, cables and connectors are not permitted.

E-6. Cables not built in fixtures(including extension cable, T-shape cable/with connectors), junction box, driver or controllers are not included in standard sales of fixtures, which need to be ordered separately.

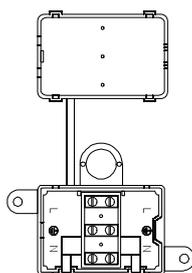
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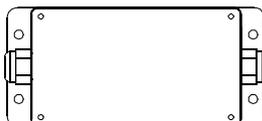
- E-7. The fixture cannot be used for highway, and max. load applied should not exceed 1.0T.
- E-8. Never expose any cable connection without protection.

F. Accessories for option

F-1. Junction box



JB-A23
L46XW30XH15mm

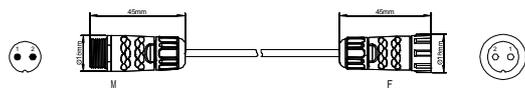


JB-B23
L95XW65XH55mm

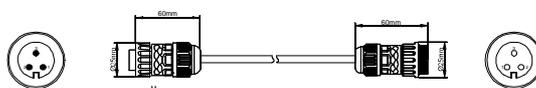


JB-B33
L95XW65XH55mm

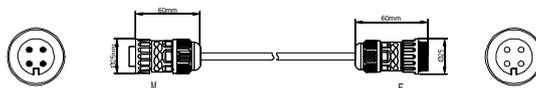
F-2. Cables with connectors(IP68)



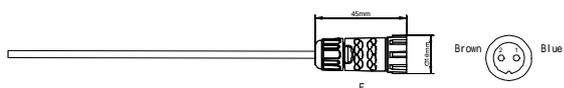
Extension cable-2W
1031-2



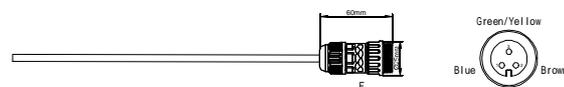
Extension cable-3W
2032-3



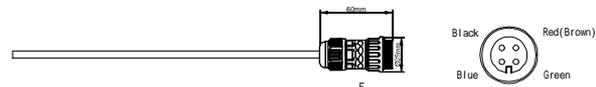
Extension cable-4W
2032-4



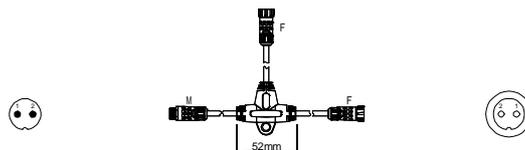
Output cable-2W
1031-2



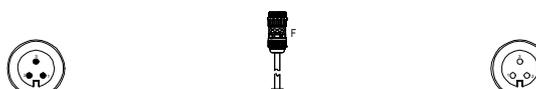
Output cable-3W
2032-3



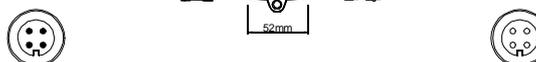
Output cable-4W
2032-4



T cable-2W
1031-2



T cable-3W
2032-3



T cable-4W
2032-4