

In-Ground Pathway Light

IMPORTANT SAFETY INSTRUCTIONS

**READ ALL INSTRUCTIONS BEFORE INSTALLING FIXTURES.
SAVE THESE INSTRUCTIONS.**

WARNING: Make sure the power is **OFF** from the electrical panel before starting installation or attempting any maintenance.

Safety:

For your safety, this device must be wired in accordance to local electrical codes and ordinances. All work should be done by a qualified electrician.

Failure to install and wire this light in accordance with the National Electrical Codes (NEC), all applicable Federal, State, and Local electrical codes, as well as specific UL safety standards for the intended working environment (location/application), may cause serious personal injury or property damage. Knowledge and expertise of electrical systems is required for installing this product. *When in doubt, contact a certified electrician.*

If you have any questions during your installation, please contact our Customer Support team at support@aspectled.com or give us a call at **888.503.1317**



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More About
This Light



TOOLS YOU'LL NEED

Measuring Tape



Wire Stripper



Shovel



PRODUCTS YOU'LL NEED



In-Ground Pathway Light

AL-IG-PW
IP65 | 3 LEDs | SMD LED Chip

- **Power Supply**
- **Controller** (for color changing variations)
- **Potting compound** (for daisy chain wiring method)
- **Conduit non-metallic and fittings** (for concrete installation)

BEFORE YOU BEGIN



Product Warnings

Carefully read all instructions before installing.

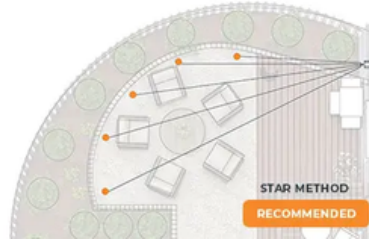
- Always consult your System Design and physical equipment to confirm that your Pathway light voltage and the power source voltage match.
- **Call Before You Dig:** Before you begin, contact your local utility or "call before you dig" hotline. This is a crucial step to ensure that you avoid hitting any underground utilities, such as gas lines, water pipes, or electrical cables. It's both a safety measure and often a legal requirement.
- **Plan and Layout Your Lighting System:** Carefully layout your lighting system, determining exactly where each light fixture will go. Consider the spacing and placement to achieve optimal illumination. Mark the locations for each light, and decide the route your wires will take to connect to the power supply.

WIRING CONSIDERATIONS

Proper wiring is essential to prevent moisture infiltration, which can damage connections. During installation, all wire connections must be protected from moisture as temperature fluctuations can draw moisture into the fixture. There are two primary wiring methods to choose from: the star method and the daisy chain method.



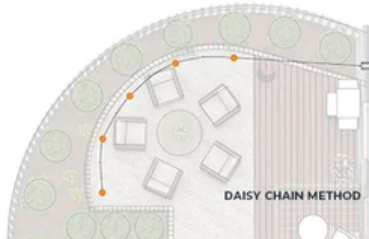
The Star Wiring Method



The star method is preferred because it simplifies troubleshooting and eliminates the need for below-ground connections, reducing the need for potting. Additionally, each light has its own wire back to the power supply, making it easy to isolate and fix any issues. This method requires longer lead wires, which may increase upfront costs, but it's less labor-intensive and can eliminate the need for voltage drop calculations.



The Daisy Chain Wiring Method



The daisy chain method is more traditional but less efficient. In this method, lights are wired together, forming a chain. While this may seem like a straightforward approach, it introduces several disadvantages. Troubleshooting becomes more complicated because each individual fixture depends on the fixtures that are wired together. If one fixture fails, it can affect the entire system. Additionally, you'll need to calculate voltage drop and use larger wires to accommodate the load, and all connections will need to be sealed using a potting compound, adding labor and cost.

Although the daisy chain method may initially seem like a simpler solution, the star method is ultimately more reliable and requires less effort in the long run.

All below-ground connections must be sealed with potting compound.

FOR IN-GROUND INSTALLATION

STAR WIRING METHOD (DIRECT BURY)



Dig Your Trenches

Once your layout is finalized, begin by digging trenches for your wires. The depth of the trenches will depend on your local building codes and environmental factors, but typically aim for a depth that will protect the wires from damage. Ensure the trench is wide enough to allow for easy placement of both the wires and any protective conduits if needed.



Position the Light Fixtures and Lay Wires

Place your light fixtures in their predetermined locations and lay the wires in the trenches, making sure the wiring follows the star method (each light having its own direct line back to the power supply). Take care to avoid kinks or damage to the wires. For additional protection, consider using conduit to safeguard the wires from external elements.



Connect the Lights to the Power Supply

Be sure to disconnect the input power to the power supply and then carefully connect each light fixture to the output of the power supply. Ensure that all wiring connections are secure and waterproof using appropriate connectors and sealants, such as waterproof connectors and heat-shrink tubing. This will protect the electrical system from moisture infiltration and ensure longevity in outdoor conditions.



Test the Lights

Before finalizing the installation, power on the system to test the lights. This is your opportunity to check that each fixture is working properly and is positioned correctly. Adjust the angle or placement if needed to achieve the desired lighting effect. Testing the system at this stage will save you from potential rework later.



Backfill the Trenches and Landscape

After ensuring the lights are working properly, turn off the power and backfill the trenches with soil. Compact the soil carefully, and landscape the area around the lights. Make sure the ground is graded to slope away from the light fixtures to prevent water from pooling around them, which could lead to damage or reduced performance over time.



Reconnect Power + Enjoy Your Outdoor Living

Finally, reconnect the power supply and enjoy your new lighting system!

DAISY CHAIN METHOD (DIRECT BURY)



Dig Your Trenches

Once the layout is established, dig trenches between each light fixture. Ensure the trenches are deep enough to protect the wires from potential damage, and wide enough to accommodate the larger gauge wire necessary for this method.



Position the Light Fixtures and Lay Wires

Place the light fixtures in the desired locations and begin laying out the wires in the trench. Ensure each wire runs between the fixtures in a "daisy chain" pattern, with each light connected to the next, rather than having individual lines for each light.



Run Larger Gauge Wire

Refer to a voltage drop chart to calculate the correct wire gauge based on the distance between fixtures and the total power requirements. If needed, run a larger gauge wire between each fixture to avoid voltage drop and ensure adequate power and consistent brightness across all lights. If you are unsure on how to proceed with your wiring, we recommend consulting with a certified licensed electrician to determine the wiring needs for your installation.



Seal the Base of Each Sleeve

Before making wire connections, tape the base of each protective sleeve closed to prevent moisture or debris from entering. This step ensures a cleaner and more durable installation.



Connect Lead Wires

Make the input and output wire connections on the light fixtures. Be sure to make these connections secure and waterproof to protect against environmental elements.



Test the Lights

Once all connections are made, before potting the connections and backfilling the trenches, power on the system and test the lights. To do this, be sure to disconnect the input power to the power supply and connect the series of lights to the output of the power supply. Next, power on the system and make sure all lights are working as intended and that there are no connectivity or brightness issues.



Apply Potting Compound to Connections

Once testing is complete, disconnect the power and follow the instructions on the potting compound for proper mixing and pouring methods. This ensures that all connections are sealed and protected from moisture. Be sure to allow the potting compound to cure for the recommended amount of time before proceeding with further steps.



Backfill the Trenches and Landscape

Once the potting compound has cured, fill in the trenches. Compact the soil and landscape around the lights. Ensure the area is graded so that water flows away from the fixtures to prevent potential water damage.



Reconnect the Power and Enjoy

Reconnect the power supply and enjoy your lighting system!

FOR CONCRETE INSTALLATION



Plan the Installation

There are two options for concrete installation: working with an existing concrete slab or preparing for a new pour.

Existing slab: When installing lights in an existing slab, prepare for core drilling to route wires and confirm that adequate drainage is in place underneath the concrete. Ensuring proper drainage will help prevent water buildup that can damage wiring. Plan to run conduit under the slab to protect wires and make future repairs easier.

New Pour: When installing lights in a new slab, before pouring concrete, lay out all the mounting sleeves for the lights and install the conduit. Double-check light placement since once the concrete is poured it's permanent. Avoid direct burial of wires by using conduit for future accessibility.



Choose the Wiring Method

We recommend the star wiring method to simplify future light replacements without disturbing the entire system. If using the daisy chain method, ensure conduit is run to protect the wiring and make troubleshooting easier.



Install Conduit

For both wiring methods, run conduits for all wires. Use flexible, non-metallic liquid-tight conduit to ensure durability. Avoid sharp bends in the conduit to make wire pulling easier.



Enlarge Holes for Conduit

Use a tapered bit to enlarge holes as needed to fit the larger conduit.



Pour the Concrete

(For a new pour) After the sleeves and conduit are in place, pour the concrete slab over the setup and allow the concrete to set.



Pull Wires Through Conduit

Apply wire pull lubricant and use a snake to guide the wires through the conduit smoothly.



Seal Wire Connections

Apply sealing putty to wire connections to keep them dry. If using the daisy chain method, follow instructions on potting compound packaging for applying potting compound to all below-grade connections.



Test the Lights and Enjoy!

Once all the wiring is complete, test the lights to ensure proper installation. If you experience issues, contact technical support at **888-503-1317** or **support@aspectled.com**.



Congratulations!

You've successfully completed the installation process, enjoy your new lighting setup!

Share Your Work!

Thank you for choosing us for your project—we're thrilled to be a part of it! Share your finished projects with us on social media for a chance to be featured!



f in @aspectLED

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