

# Thank you for your Interest in our Premium Quality DIY Landscape Lighting

This guide is provided to help you along the process of installing your low voltage landscape lighting system, however should you need any additional help, please feel free to email: <u>Support@LightingDoctor.ca</u> or Call 1-888-471-0008

### How to Install Your DIY Landscape Lighting System

### Step 1: Assembling & Testing Your Lights

Your Kit should include a number of different premium grade landscape lighting fixtures and materials from companies like Fx Luminaire, Kichler, King Innovation among others. We are constantly sourcing new materials and want to ensure you are always using the best materials at the best price. We only offer items that we personally use Day to Day!

Please ensure that all materials that you ordered are present in your kit and if anything is missing, please let us know and we will make it right. Just email: <u>Support@LightingDoctor.ca</u>

 Find your <u>King Innovation Insta-Light</u> and 8 x AA Batteries. This is a free tool found in every one of our kits to help you test out your lights and make sure you find the best positioning possible for them. For more information on how to use the Insta-Light you can go to Youtube and search "<u>King Innovation Insta Light</u>" or click the previous link. If you ordered any specialized bulbs, filters etc for your kit you may have to replace the existing bulbs or ad your specialized bulb or filter to your light by following the steps below.

- 2. Remove Lighting Fixtures from packaging box
- 3. Remove Specialized LED Bulbs from Packaging
- 4. Remove Glass light covering from base of fixtures
- 5. Insert 2 prong LED Bulb into sockets



You Can Watch this Short Video for More Detail or Go to Youtube and Search <u>"How to</u> <u>Retrofit Your Existing System to LED"</u>

### Step 2: Placing the Light

 Select desired location for lighting placement based on either your Free Online Consultation or Ideas from using your "King Innovation Insta-Light" – For more ideas for Landscape Lighting design please go to Youtube and Search <u>"Lighting Doctor</u> <u>Design Consultation Series"</u> or request your own Free Consultation by Sending pictures to <u>Cal@LightingDoctor.ca</u>

- Packaged with each of your lighting fixtures you would have also found a Durable Ground Stake, please remove from packaging. (If you have ordered a special mounting bracket please refer to instructions inside packaging.)
- Screw the Ground Stake onto the base of the Lighting fixtures (Tip: Ground Stakes and Light bases are <sup>1</sup>/<sub>2</sub>" threads so if you need to modify your mounting brackets or stakes look for materials with <sup>1</sup>/<sub>2</sub>" threads)
- Place the lights in the ground in their desired locations At this stage you can either gently push into the ground or remove from lighting fixture and hammer into ground with Rubber mallet (All our DIY Kits Included a Free Rubber Mallet)
- 5. Do not bury the wire or ground stakes at this point (Tip: I recommend seeing how the lights look at night and then making adjustments while dark outside before you permanently bury any wire of fixtures).



For some additional tips for placing your lighting fixtures securely please go to Youtube and Search <u>*"Lighting Doctor Simple Tips for Making your Light Last"*</u>

#### Step 3: Locate the GFCI Receptacle



- Start at the outlet and place the transformer nearby, but **don't plug it in** until the lights are all assembled.
- If your outside GFCI receptacle doesn't have a waterproof cover, I would recommend adding one. You can find these at any Home Improvement store or Search Online "GFCI Waterproof Plastic Cover"
- The transformer can be attached to a post or to the house itself. (Tip: Mounting it on a 4x4 post with a nice copper cap is a nice look)

### Step 4: Layout & Planning of Wire

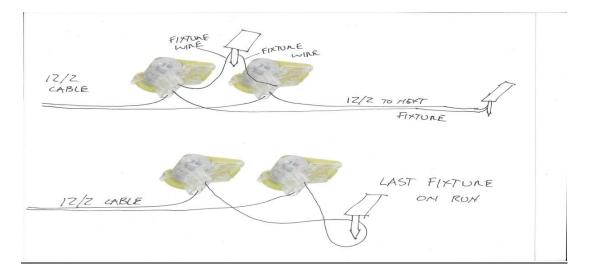
- 1. Layout all your wire above ground starting from your transformer to each light and all the way to your last light to ensure you have enough cable for the project
- 2. Be sure to loop a little excess (approx 2ft) wire at each fixture to leave for some play later, and ensure you have enough wire
- 3. General rule of thumb is a spool of 250ft wire will easily be enough for 12-16 lights on a regular size property



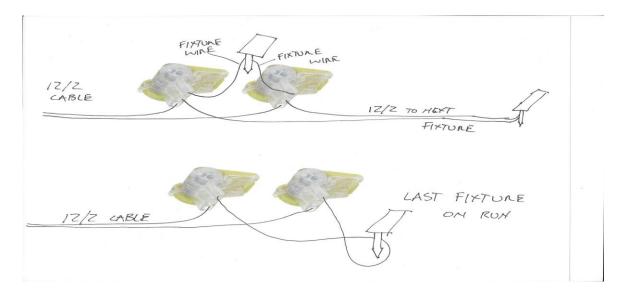
For some simple tips for laying out your wire please go to Youtube and Search <u>"Lighting</u> <u>Doctor Running & Planning Your Wiring Layout"</u>

### Step 5: Making your Waterproof Wiring Connections

- After laying out all your wire at each fixture you should have left approx a 2ft loop at each light. Grab your loop and cut both strands of your wire with your wire cutters (Wire strippers are provided free in all our kits)
- Strip approx. 1" of wire jacket off each end of your low voltage cable you just cut along with approx. 1" of each end of wire coming from the fixture
- At each fixture you will use 2 of the provided <u>BVS2 Waterproof SnapLock Connectors</u> (See Diagram Below)



- 4. Take one of the strands of your low voltage cable and place into the larger port of the connector, take one of the wires from your lighting fixture and place it in the smaller port of the connector.
- 5. If it is the last light on the line repeat this process with the remaining wire from the fixture and your low voltage cable.
- If another light is added on after this light you will also place the 2 strands of low voltage cable going to your other light into the remaining ports of your connector (see Diagram)



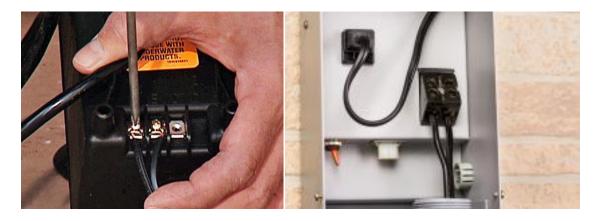
- 7. BVS2 Connectors Must be Open in order to get wire into ports
- 8. Once all wires have been placed into the connector, snap it closed until you here the click

For Complete Instructional Wiring Video go to Youtube and Search <u>"Lighting Doctor How</u> to Wire Low Voltage Landscape Lighting Wiring Diagram"

Tip: to avoid some common wiring mistakes go to Youtube and Search <u>"Lighting Doctor</u> <u>Avoid Common Wiring Mistakes"</u>

### Step 6: Connecting the Transformer

 Once all your lights are wired, go back to the transformer and connect your wires to the voltage terminal taps located either in the back or inside the transformer (depending on model of transformer. (One wire in Each Tap)



2. Mount the transformer either directly on the wall close to GFCI receptacle or on a separate 4x4 wood post



- 3. Plug in your Transformer to your GFCI receptacle and Turn in "ON" Position.
- 4. Double check that all your lights are working and lit.

### Step 7: Adjusting the Lights

- Now that all your lights are working, it is best to come back at night and check that all the lights are placed and positioned the way you would like (Tip: sometimes a few inches can make a big difference, try aiming the lights at slightly more of an upright angle than you would think)
- 2. Most Landscape Lighting Fixtures can be adjusted by loosening screws at base of each fixture.



You can watch this short video on Youtube by Searching <u>"Lighting Doctor Testing &</u> <u>Adjusting Lights"</u>

#### Step 8: Burying The Wire

- 1. Once you are happy with the positioning of each light it is time to bury the wire
- 2. Start by creating a small Trench using a small flat ended shovel or trowel



The CAST Trenching Tool (CWTT) cuts a narrow 8" deep trench ideal for laying wire.



Pushing the tool back and forth widens the trench and creates a channel for the wire.

3. Place the wire inside the trench and close up turf or mulch over the trench



Wires are pushed firmly into the trench.



For more detail on burying wire in grass go to Youtube and Search <u>"Lighting Doctor</u> <u>How to Bury Wire"</u>

For more detail on burying wire in garden beds go to Youtube and Search <u>"Lighting"</u> <u>Doctor Burying Wire in your Garden Beds</u>"

Go to Youtube and Search <u>"Lighting Doctor How to Tunnel Under Sidewalk"</u>

### Step 9: Connecting the Transformer to Wi-Fi

 Once the Transformer is mounted, instead of plugging it directly into the GFCI receptacle you can plug it into your Wion Outdoor Timer and then plug the Wion Timer into the GFCI Receptacle.



2. Download the "Wion" app from your app store and follow the 3 simple steps to connect your Timer to Wi-Fi



 Once your timer is connected to Wi-Fi you Can Leave the transformer in the "On" Position and then control your lighting system via your Wion app



4. Lastly Choose your desired Timer setting and program your lights and you are all set

For a more detailed video go to Youtube and search "Lighting Doctor How to Make Wi-Fi"

For Complete Access to Our Video Library Search on Youtube for <u>"Lighting Doctor"</u> or Visit <u>https://www.youtube.com/LightingDoctor</u>

If you have any questions about your DIY Landscape Lighting Kit, Please call us at

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# <u>Transforming your Home & Garden with Outdoor Low Voltage</u> <u>Landscape Lighting</u>

In this Free Special Bonus Report we will be covering the following topics to help you transform your Home & Garden. Still Have Questions, <u>email me Cal@LightingDoctor.ca</u>

- Benefits & Advantages of Landscape Lighting
- Low Voltage Lighting What to look for (Pros & Cons)
- Save money on Low Voltage and Budget Friendly Landscape Lighting
- Landscape Lighting Effects Learning the Language

### **Benefits & Advantages of Landscape Lighting**

Every homeowner dreams of making their home and the exterior surrounding more visually appealing. One of the best ways to beautify ones home is with the use of landscape lighting. Adding some landscape lighting to the garden or yard provides a touch of style and elegance which vastly improves the overall look of your home, especially at night. Aside from the obvious reason that lighting improves the visual appeal, there are other benefits that landscape lighting can provide.

#### **Expands the Living Space**

At nighttime, the living space is limited to the interior of the house. However, with the proper landscape lighting, the living space can extend outside to the yard or garden. The lighting not only illuminate a specific area, it also acts as a boundary that can show the end of the property line or features.

#### **Enhanced Appeal**

Lighting can greatly influence the senses of the viewer and adds more drama to the beautiful landscaping. The sophisticated design of the landscape becomes a brilliant centerpiece with the correct positioning of the lights. Often creating increased home value and curb appeal.

#### Increase the Functionality of Outdoor Spaces

With the right landscape lighting, the functionality of the outdoor spaces is increased. The yard or garden can be used for a romantic dinner or just a late night get together with friends. The patio area can be used by the family even at night.

#### **Boost Home Security**

Lighting the exterior spaces around the house is a very good deterrent for burglars. Homes that are well illuminated are being avoided by criminals simply because there are very few hiding spots and they cannot break in unnoticed. Lighting the driveway, porch, patio, doorway and windows can help in improving home security.

Expanding the nighttime living space, increasing the functionality of outdoor space, enhancing the visual appeal of the house and boosting home security are just some of the advantages that landscape lighting can offer. During the planning stage, clients have to specify certain needs, requirements and desires in order for the landscape designer to know where to focus and how arrange the lighting fixtures. If everything is done perfectly, the result can be both captivating and functional.

### Low Voltage Lighting – What to look for (Pros & Cons)

Low-voltage landscape lighting is an afterthought for most homeowners, but professional landscapers consider it one of the most important elements in the landscape. We use lighting for three purposes, To create atmosphere, provide safety by repelling burglars or vandals, and to light the way on paths, patios, and other places we spend time in the landscape

Up until 2010, the majority of landscape contractors were using halogen lights, which provide a warm glow and great quality of light. Yet with the recent advances in LED lighting, most contractors have converted their operations to energy-efficient LEDs. Solar lights, by contrast, aren't currently recommended by professionals. Solar lights have a limited lighting effect in the landscape and the durability is often quite poor. Watch this short video on youtube comparing the two: <a href="https://www.youtube.com/watch?v=Q9YY30acnlU">https://www.youtube.com/watch?v=Q9YY30acnlU</a>

#### Halogen lighting

#### Pros:

Halogen lighting has a warm, amber glow that makes everything look good and until recently, we were primarily using halogen and incandescent lighting because of the light quality.

#### Cons:

Unfortunately, halogen lighting costs more to run than LED. Choosing LEDs over halogen will save you 60-70% of your energy costs each month. Halogen lights also require more maintenance. Halogen bulbs need replacing every 2-3 years, depending on how long the system runs each day. Compare that to LEDs which have a 10-year bulb life, and LEDs look like a set-it-and-forget-it solution. Halogen lights can also run hot, which means lights must be placed carefully so plants are not brushed up against the fixture or bulb.

#### **LED** lighting

#### Pros:

Most professionals use LEDs almost exclusively now. The obvious benefits are those of cost and maintenance savings over time. LED bulbs generally have a 10-year warranty so you rarely need to replace them, and the monthly cost to run is much less than halogen. They're more eco-friendly.

But there are other benefits, too. LED bulbs have a very crisp light that really brings out the features of a home or landscape. LED bulbs are also now available in warm white and omit the same warmth as traditional halogen bulbs.

Because of the energy efficiency, LEDs can be easier for you or your lighting designer to install. You can use more lights on a run, or even use a smaller transformer which saves money. It takes a lot less wiring and labor time to install LEDs compared to halogen.

LED bulbs also stay cool, which means you can nestle a plant next to your LED fixture without worrying about burning the foliage.

#### Cons:

Most of the cons of LED lighting are in the past. LEDs have come leaps and bounds in the last couple of years in terms of quality of light and fixtures. While the LED bulbs of the past were a cold bluish-white, now the bulbs are available in warmer tones that feel more welcoming in the landscape. In addition, manufacturers have begun offering well-designed, professional-grade fixtures that last well in the landscape.

The price of bulbs is another consideration. "LED bulbs can run \$20-40 each while halogen bulbs are only about \$6. Yet the ease of installing LEDs means that the higher cost often balances out in labor savings.

### Save money on Low Voltage and Budget Friendly Landscape Lighting

#### Placement in the landscape

Placement of Landscape Lights in the Landscape is one of the easiest ways to save money. Many home owners and beginner lighting designer will try and light as many objects and features as possible.. We have all seen the house with 20 Solar Lights lining the driveway, and unless you are trying to land a plane this is a bad idea. Often fewer quality light sin the right positions on the right features is the best option to go with. In a new landscape, once you have a written landscaping plan or even in an already established landscape it's easy for a professional to recommend some high-impact locations for lighting.

While landscape lighting is one of the first things to get thrown out when the budget is tight, we would strongly urge you to reconsider because as the sun goes down, you can have barbecues, night-time parties, or just sit quietly outside enjoying the landscape. Good lighting lets you actually use your landscape. If the budget doesn't allow for a full lighting installation, you can either break the project into two stages, or just choose a few key locations to light.

If you can't afford lighting right now, at least pre-wire it so if you install it later, you won't have to dig up your sod and beautiful landscape. It takes very little effort to run wiring throughout the landscape. Once you lay sod and your shrubs have filled in, digging up the landscape to add wire takes a lot more time and money. I would 100% encourage people to pre-wire; it saves so much money for them in the end.

If you'd like to install lighting right now but need to keep it minimal, there are a few areas to consider first.

- **Pathways and patios** The functional areas always come first. This lets you actually spend time in your landscape after dark.
- **Architectural features** Put the focus on your home. Pillars, stone and veneer make beautiful shadows and cast indirect light into the landscape.
- **Focal areas** Every landscape will have its own unique features. Old twisting trees, waterfalls, or spiky plants are all dramatic candidates for lighting.

Once you have your lighting system installed there are minimal cost to running that system, especially when designed using high efficiency LED Landscape Lighting fixtures. Watch this short video on you tube explaining the costs associated with running an energy efficient LED Lighting system: <u>https://youtu.be/X-rBHvX1bIU</u>

### Landscape Lighting Effects – Learning the Language

If you think that outdoor lighting or night lighting is as simple as aiming a spotlight on objects, you are quite mistaken. In order to create beautiful lighting effects, there are several techniques that you should follow. You have to consider the lighting fixture and the placement to make the effect more dramatic. Here are some of the best lighting techniques for highlighting your outdoor structures, plants, trees, and walkway.

#### Spotlighting

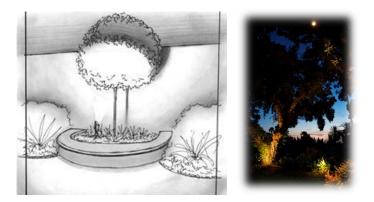
This is a very simple technique which involves one or two spotlights highlighting a focal feature in your yard or garden. Using LED lighting fixtures to highlight your favorite outdoor structures such as water fountains, statues, pillars, and flags.



Fx Luminaires LED Up & Spot lighting Fixtures

#### Up lighting

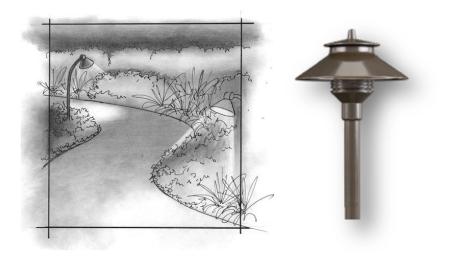
Uplighting creates a very dramatic effect for large trees in your yard. Place LED fixtures at the base of your favorite tree and light it up to show off the tree's magnificent shape and structure. The resulting light and shadow make the effect look more stunning.



Up-lighting is a great technique for highlighting a tree's leaves or branches.

#### Pathlighting

Path lighting is placing light fixtures along your outdoor pathways. This keeps the people safe as they walk around. The soft glowing lights can also bring a more romantic mood to your pathways. Just make sure to place your light fixtures safely where it won't be accidentally stepped on, kicked etc.



Path lights are essential for helping people find their way through the landscape at night. Fx Luminaire PL Path Light

#### Moonlighting

If you want to create the natural lighting effect of moonlight, then this lighting technique is for you. Just place the lighting fixtures high up in the trees and aimed downwards. The lighting effect can create interesting shadows on your patios, garden or lawn and it makes everyone feel as if it is always a moonlit night.



Moonlighting can be used to create interesting shadows on a patio or lawn.

#### Shadowing

The main purpose of this lighting technique is to play with light and darkness which creates an intriguing shadow on your walls or fences. The lighting fixtures can be placed at the base of a statue or tree and the lights are aimed upwards to make large shadows on the wall.



#### Downlighting

The downlighting technique can be used in so many ways. It can be used for illuminating doorways, patios, and pathways. Downlighting can also be used as a spotlight for plants or flowers that you want to highlight in your garden. You can also achieve a stylish downlighting effect by placing light fixtures beneath hardscapes such as benches, wall windows, and countertops.



#### **Underwater Lighting**

If you have a water fountain, pond or pool, you can create beautiful underwater lighting effect at night. With underwater lighting, the resulting light being casted from the water can dance and ripple along your walls or ceiling. Lighting up a pond creates magical sceneries with the fishes moving across the lights. Your pool or spa looks, even more, inviting at night if it has color changing LED lights.



#### Grazing

This lighting technique is perfect for highlighting beautiful stone works and walls. The light fixtures are placed right next to the wall and the beams are directly aimed upwards. The lighting angle will produce shadows that will capture the texture of the wall.



Outdoor stone work can be displayed at night using a lighting technique called grazing.

Try to discover the best lighting techniques that can highlight your lawn, patios and garden area. Be creative and always look for new ways to improve these techniques. Your professional Landscape Lighting Designer can also give you more tips and advice on how to play with lights and shadows.

### For More Great Landscape Lighting Design Ideas Go to Youtube and Search <u>"Lighting Doctor Design Consultation Playlist"</u>

## Here are some Examples of the Amazing Things you Can Do With Low Voltage Landscape Lighting!

















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