



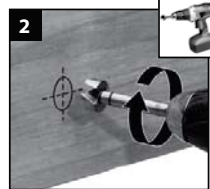
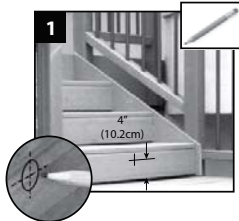
How to install DEKOR® Deck Lighting / CONTINUED

Installing Stair/Recessed Lights

NOTE: Recessed lights should be installed after stairs and risers have been installed.

1. Mark location for light, typically 4" (10.2cm), above tread. Be sure to check local codes for lighting requirements.

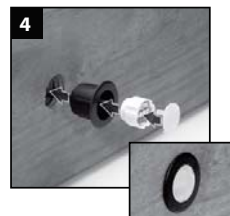
NOTE: Avoid locations over stringers when possible because it will be more difficult to drill holes.



2. Drill a .9" (23mm) diameter hole at least 1" (2.5 cm) deep into riser. If riser material is thicker than 1" (2.5 cm), use a 3/8" (8.25mm) drill bit to create a hole for wires that goes all the way through riser.

3. Thread wires through hole.

4. Press light housing into hole, then insert light and lens. Make connections behind stairs. Male lead wire from recessed light into female connection on splitter. Also attach male-to-male connection wires in between each splitter. Continue until all wiring from lights are attached to splitters and connector wires are attached in between splitters. (See Making Connections section for details.)



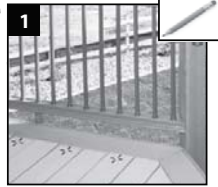
NOTE: DO NOT install Riser Light or Deck Rail Light into top or bottom rails or balusters.

Installing Recessed DEK-DOTS™ Deck Lights

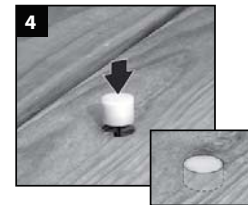
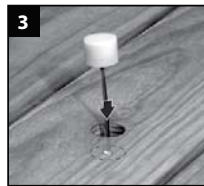
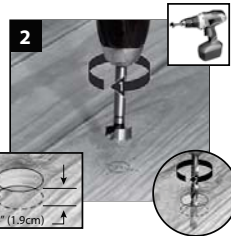
NOTE: Install recessed DEK-DOTS™ deck lights after installing decking.

1. Mark location for DEK-DOTS™ on deck boards.

NOTE: Avoid locations over joists when possible because it will be more difficult to drill holes.

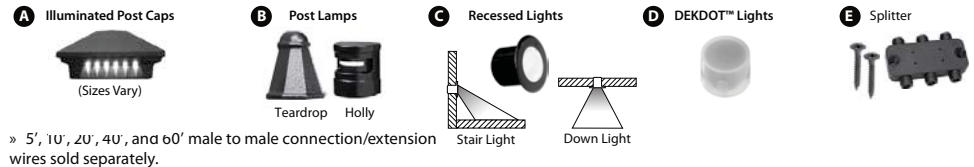


2. Drill a .9" (23mm) diameter hole 3/4" (1.9 cm) deep into deck board. Make sure hole does not go all the way through deckboard or light will fall through. Drill a 3/8" (8.25mm) diameter hole in base of the first hole through deck board making sure drill bit is perpendicular to board.



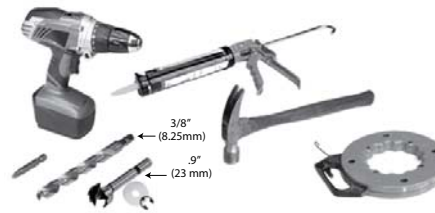
3. Thread wires through hole. DO NOT pull DEK-DOT™ into hole by pulling on wires. This may damage wires or DEK-DOT™.
4. Press DEK-DOT™ into hole until flush with surface. Make connections under deck. Male lead wire from riser light into female connection on splitter. Also attach male-to-male connection wires in between each splitter. Continue until all wiring from lights are attached to splitters and connector wires are attached in between splitters. (See Making Connections section for details.)

PARTS

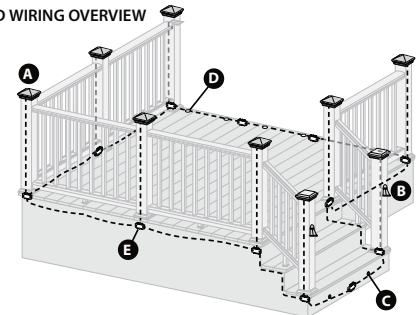


» 5', 10', 20', 40', and 60' male to male connection/extension wires sold separately.

TOOLS NEEDED



LIGHTING AND WIRING OVERVIEW



NOTE: All wiring and splitters are mounted to inside of framing, picture is just representation of where to place these in general.
NOTE: Avoid railing brackets and locations for deck rail lights when running wires up posts.
NOTE: It is recommended to install wiring and splitters before decking and railing have been installed. **DO NOT** run wires between joists and deck boards.

HELPFUL TIPS

- » Leave wire slack to make fixture terminations.
- » Recessed lights work best when spaced 4' (1.22m) to 6' (1.83m) on center around perimeter of deck.
- » Post lights should be at level changes on a deck—at the top or the bottom of the stairs, or used in conjunction with post cap lights.
- » Consider local codes when using Recessed lights. If codes do not available determine number of lights and placement, in darkness, prior to drilling.
- » Carefully drill holes perpendicular to surface to avoid producing an enlarged hole. Light fixture will have a loose fit if hole is enlarged. Use a semi-permanent flexible outdoor adhesive (silicone caulk) to anchor light in place if this happens.
- » DEKDOT™ light holes should be drilled to a depth of 3/4" (1.9 cm) Recessed and post lights holes can be through holes. Silicone caulk will be required to anchor light in place in over-drilled recessed light holes.
- » It is best to use splitters at each post that has lights and depending on spacing in between each DEKDOT™ and recessed light.
- » Unused female connections need to be capped. Use provided caps or a weather resistant silicone to prevent corrosion or water damage.
- » There is no specified plug for lights versus lead wires on the splitter because the splitter is cross linked.
- » Each light has a lead attached with an approx. 5' to 6' (1.5 m to 1.8 m) length and have male terminals that plug into splitter.
- » It is recommended to use a separate dimmer control for each light type for maximum control.
- » To ensure all components are in working condition it is recommended to have power source attached when installing lights.



How to install DEKOR® Deck Lighting / CONTINUED

General Information

- » ALWAYS check local codes before beginning your project.
- » USE DEKOR® TRANSFORMERS ONLY. Using any other type of transformer voids the warranty.

TRANSFORMER CAPACITY BY TYPE		
Type of Light	5A Transformer EZ Max Transformer	2.5A Transformer EZ Transformer
DEK-DOT™	52	31
Recessed	52	31
Post Cap*	15	9
Post Light	52	31

The list above is for maximum number of each individual types of lights. If mixing and matching lighting, contact DEKOR to determine if more than one transformer is needed. *Post Light quantity is based on all 4 sides with lights. Reference the transformer calculator at dekorlighting.com for other variations.

Planning

NOTE: Prior to installing, plan locations of lights, power supply, timer, and dimmer. These need to be accessible for service. It is required to install a GFI to help prevent damage to lights caused by electrical surges.

1. Dimmer remote works in a 30' (9 m) radius of the unit.
2. Install dimmer in a dry location.
3. You must install timer vertically with receptacle facing down. Timer must be at least 1' (.305 m) from ground level when installed as per federal safety code height regulations. To use the dusk/dawn feature the timer must be in view of the sun.

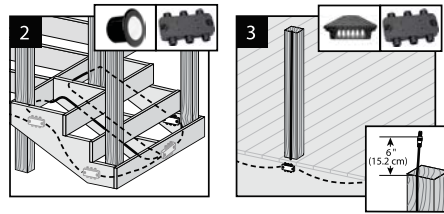
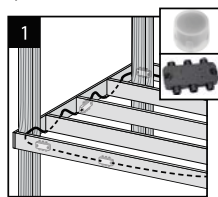


Installing Wiring

NOTE: It is best to install wiring and splitters before railing and decking have been installed.

- » Connect to each required splitter using Male-to-Male connection wire (lengths vary).

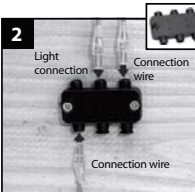
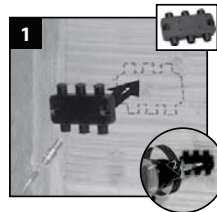
1. You must be run wiring under decking structure and behind stringers. DO NOT run wires between joists and deck boards. Use cable staples at least 1/4" (0.6 cm) wide to staple to frame. DO NOT crush wire insulation with staple.



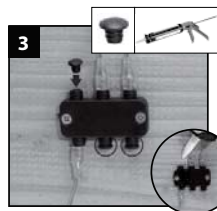
2. Wiring can be run under deck and behind risers. Use cable staples at least 1/4" (0.6 cm) wide to staple wire to frame. DO NOT crush wire insulation with staple.
3. Remove 5' (1.52 m) lead wire that is connected to post cap. Attach wire to post with male connection at top of post (female connection at bottom of post to connect with male-to-male extension to connect into splitter). Avoid running wire on side of post where railing brackets or deck rail lights will be installed. Leave approximately 6" (15.2 cm) of lead at top to make connections. Staple to frame and posts with cable staples at least 1/4" (0.6 cm) wide. DO NOT crush wire insulation with staple.

Making Connections

1. Using hardware provided install splitters to inside of framing. Install at every post base where lighting is present and depending on spacing in between each riser and recessed light.



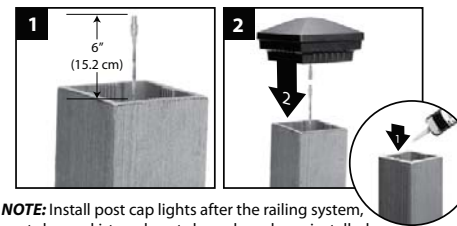
2. Attach male lead from lights to female connections on splitter. Attach male-to-male connection wires in between each splitter. Continue until all wiring from lights are attached to splitters and connector wires are attached in between splitters.



3. Cap off all unused female connections on splitters using caps provided or weather-resistant silicone.

How to install DEKOR® Deck Lighting / CONTINUED

Installing Post Cap Lights



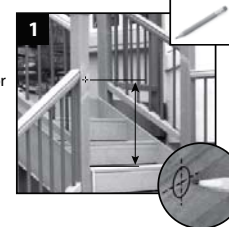
NOTE: Install post cap lights after the railing system, post sleeve skirt, and post sleeve have been installed.

1. Connect male lead from wiring to female connector from cap. Attach male-to-male connection wires in between each splitter. Continue until all wiring from lights are attached to splitters as well as connector wires are attached in between splitters. (See Making Connections section for details.)
2. Attach cap to top of post with silicone caulk after verifying wiring is correct by turning lights on.

Installing Post Lights

NOTE: Instructions shown below are for new deck installation and are shown BEFORE railing system has been installed.

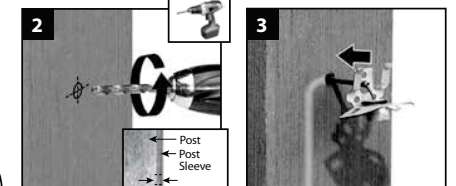
1. Place post sleeve over pressure-treated post and mark desired height, centered on post sleeve for deck rail light location.



NOTE: If deck boards are not installed yet place an appropriate deck width spacer board to ensure post sleeve is at correct height.

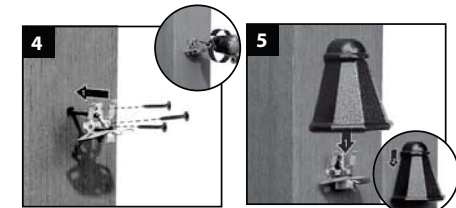
Timer Operation Instructions

1. Select the mode of operation:
 - » Dusk to Dawn
 - » 1 - 8 hours
 - » Always "On"
 - » "Off"
 Program repeats daily. When power is flowing to lights, green light above POWER is on.



2. Drill a 3/8" (8.25mm) hole through post sleeve. Be sure to stop drill before cutting into post.
3. Remove the post sleeve from the post and fish wire from deck rail light through hole and down to female connector on splitter. Attach male-to-male connection wires in between each splitter. Continue until all wiring from lights are attached to splitters as well as connector wires are attached in between splitters. (See Making Connections section for details.)

IMPORTANT NOTE: Before attaching deck rail light to the post/post sleeve make sure decking has been installed along with skirt over the post sleeve.



4. Replace post sleeve over pressure-treated post and align holes for screws vertically and attach fixture base to post with provided screws.
5. Line up and slip on Post Light housing.

NOTE: If railing has already been installed, lead wires will need to be fished through the post sleeve to reach the desired location for the deck rail light. In some cases if the provided lead wire does not fit (due to connector size), the wire connectors can be cut off and wire nuts can be used. Test lights with the power on and if lights do not function that are wired with this method, switch the connector wires.



OUTDOOR RECESSED LIGHT KIT INSTALLATION INSTRUCTIONS

www.DE-KOR.com

Apply to:
 DOWN LIGHTS: RDLKITOUTXX
 STAR LIGHTS: RSLKITOUTXX



Usage:

These waterproof, weatherproof, salt air resistant LED recessed lights are perfect for decks, steps, stairs, patios, dock lights and marine lighting. You can even embed them in concrete walkways or steps --wherever accent lighting is desired.



Outdoor Recessed Light kit contains:

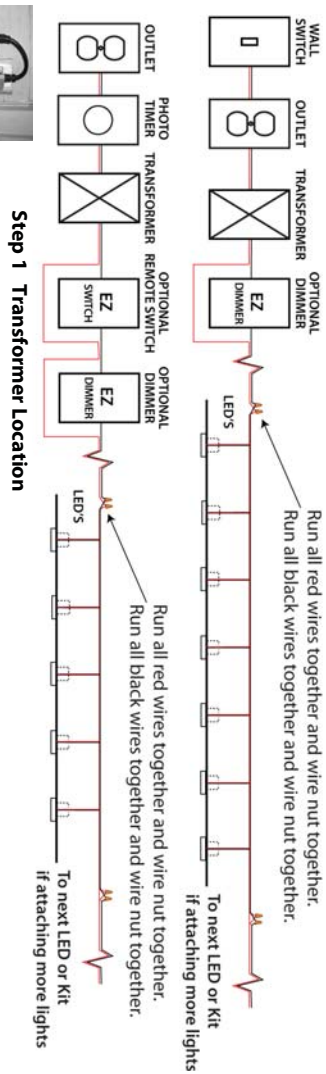
- (8) Recessed LED lights w/ 6 pigtails
- (1) Custom sized (.900) diameter Forstner Bit
- (1) Waterproof 12V DC Power Supply
- (16) Outdoor UL approved Gel Filled Wire Nuts
- (8) Diffuser Discs with adhesive back
- (1) Photo Timer
- (1) Installation Instructions!

Additional Tools or Items Required:
 Outdoor UL approved Wire (18 gauge)*
 Power Drill
 Measuring Tape

Optional Add-Ons
 Remote Controlled Dimmer
 32 more recessed LED Lights**

* No wire is supplied in kit but can be purchased through our website
 ** Power supply supports 40 Down or Stair LED light elements available for purchase in handy 4 packs. Please consult our online calculator for usage with other DEKOR lights.

PLAN YOUR INSTALLATION
 Sample Wiring Diagram for Recessed Lights



Step 1 Transformer Location

Determine where you will plug in your transformer / power supply. Locate transformer in a location that is accessible in the unlikely event of servicing.

You can have the transformer hooked up to a wall outlet that is switched or hard wire the transformer directly to a switched circuit as long as you leave access to the transformer per electrical code.

Step 2 Wire Requirements and Connections

We recommend using 18 gauge stranded outdoor wire (available at www.de-kor.com) for our products where the total wire run is less than 100'. If wire run will exceed 100' increase wire gage size to 16 or 14 gage. For making the connections use our gel filled UL approved wire nuts.

Step 3 Location and Orientation of Lights

Choose the location of where the light will be installed.

The best way to determine the location that works for you is to wire and power up one light and under dark conditions try the light at different heights and spacing until the desired affect is achieved.

For stair risers general rule of thumb is 3-5" above the tread and spaced at 18-24" apart.

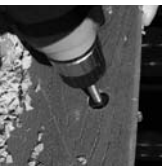
INSTALLATION AND WIRING



Step 4 Drilling

Drill hole for light using kit Forstner Bit to a minimum depth of 1".

In the case of material thicker than 1" a secondary smaller (1/4-3/8") though hole is required for passage of wires (see photo right).



- continued on other side-



OUTDOOR RECESSED LIGHT KIT INSTALLATION INSTRUCTIONS

Step 5 Assemble lights & light cups

Thread 6' wire pigtail attached to LED light through hole in the bottom of the light cup while gently pushing led into cup.



Step 6 Insert light cups into holes

Thread wires into through hole, using your thumb or a soft-ended tool push assembled light and light cup into hole.



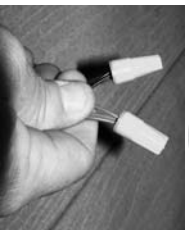
Step 7 STAIR LIGHTS ONLY: Set light angle

To determine orientation of recessed stair lights look at face of LED. The resistor should be up to signify angled down direction of led light beam. Something nifty about the lights is they can be rotated within the hole to give you even further directional capability.



Step 8 Combine pigtail wires and additional wire if needed

Run all red wires together and wire nut together. Run all black wires and wire nut together. Use the 6' pigtail to your advantage by combining as many wires as you can into one wire nut.



Step 9 Connect Wires to Transformer and Power Up

Connect main bus wires to transformer maintaining polarity in circuit. In other words (+) to all the red LED wires and (-) to all the black wires. Finally, plug your transformer in and lights should light up. If they do not, the problem will be most likely in the wiring.



TROUBLE SHOOTING TIPS:

1. Verify that there is power coming from the transformer. No power no light.
2. If you have power make sure the polarity is correct. Red wires (+) to positive, black wires (-) to negative on transformer.
3. If one of your lights will not light and the others do and you have verified the wiring, take one of the other lighted lights and try it at the same location. If it still doesn't light then contact customer service at DEKOR.



Step 10 Optional Diffuser Discs

Once Led's are wired and on, determine whether to use diffuser discs or not. If you chose to do so there are some surface preparations you have to make in order for it to stick properly and stay in place over time.

- Clean the contact surface of the light with a damp cloth or alcohol wipe and allow it to dry (a wet surface will not allow a proper bond).
- Peel the carrier paper back and place over LED and press firmly around the perimeter contact edges only.

• Caution: If you do not locate the disc properly on your first try and try to peel the disc away and reapply, the disc will lose its bond strength and fail.

Care and Maintenance: Do not use a pressure washer to clean recessed lights, as the pressure will de-bond the disc or severely degrade the bond. Use a non abrasive cleaner (damp cloth) on the disc surface.

Each and every project is unique. These instructions are given as know approaches and general guidelines to installing our product. Your project may dictate an entirely different installation approach, which makes your installation unique. If you have questions regarding your installation please contact Customer Support 1-800-258-0344 or your local electrical contractor.

TECHNICAL INFORMATION

Transformer:
 3amp 12V DC constant current
 Light capacity 40-recess or Dek-Dot lights
 Thermal and voltage overload circuits
 Physical size 1 3/4" tall x 1 7/8" wide x 7" long
 Works with US and European voltages
 Waterproof design IP66 rated
 UL and CUL approved

LED's:

No thermal/heat output
 3500 Kelvin Color (warm white)
 Waterproof and can be submerged in water
 Highest grade LED and high lumen output

ORDERING INFORMATION:

Model Number	Description
WIRE-18/2LV100	Outdoor-UL approved Wire
WIRENUT5MGF	Wire nut gel filled.
EZREMDIM1	Remote Controlled Dimmer
EZSWITCH	Remote Controlled Switch
RD14xxx	Recessed Down Light 4 Pack
RS1.4xx	Recessed Stair Light 4 Pack

Colors: Hammered White 01, Antique Metal Black 05, Oil Rubbed Bronze 07 and Dark Copper Vein 10.

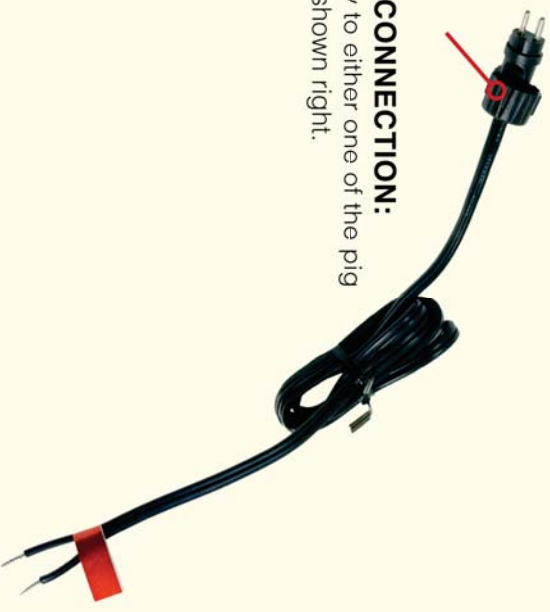


EZ DIMMER INSTRUCTIONS

INPUT CONNECTION:
Connects directly to the
EZINDOORPOWERDRIVER, EZ, and EZMAX Transformers



OUTPUT CONNECTION:
Connects directly to either one of the pig
tails shown right.



MODE BUTTON:
This will dim the lights in four
steps with a final step turning
the lights off. Pressing the button
after that will loop the lights back
to full intensity.

UP ARROW BUTTON:
Press and hold to increase
the lights intensity to the
desired amount.

DOWN ARROW BUTTON:
Press and hold to decrease
the lights intensity to the
desired amount.

Note:
Dimmer stores last light
setting in memory even
when no longer powered.

REMOTE FOR EZ WATERPROOF DIMMER

POWER BUTTON:
On/Off function

UP ARROW BUTTON:
Press and hold to increase the lights
intensity to the desired amount.

DOWN ARROW BUTTON:
Press and hold to decrease the lights
intensity to the desired amount.

MODE BUTTON:
This will dim the lights in four steps with
a final step that will shut the lights off.
Pressing the button after that will loop
the lights back on to full intensity.



The remote is already paired to the dimmer. In the event
the remote is damaged or lost, a new one can be ordered.

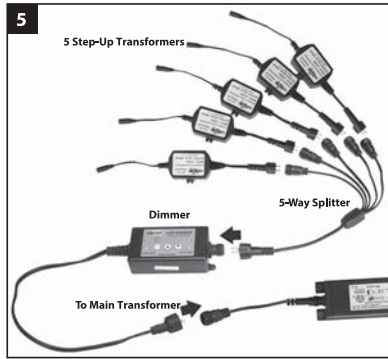
WATERPROOF LED DIMMER AND REMOTE
MODEL: EZDIMMERWP

DEKOR® LANDSCAPE LIGHTING
Installation Instructions



DEKOR® LANDSCAPE LIGHTING
Installation Instructions

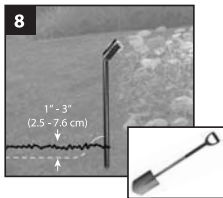
How to install DEKOR® Landscape Lighting / CONTINUED



- If using an optional dimmer (recommended), simply place the dimmer between the 5-way splitter and main transformer.
- Test lights to ensure power supply, connections, and light fixtures all work properly and placement is appropriate.
- Ensure that all unused connections on 5-way splitter are covered using weather resistant silicone.



- Ensure that lights are all working with all wiring attached prior to burying any wire. No more than 1"-3" (2.5 cm - 7.6 cm) is required.



PARTS



TOOLS NEEDED



WARNING:
BEFORE ANY DEKOR® LANDSCAPE LIGHTING IS INSTALLED, IT IS THE INSTALLERS RESPONSIBILITY TO ENSURE THAT ALL UNDERGROUND UTILITIES/LINES ARE LOCATED (GAS LINES, ELECTRICAL LINES, DATA LINES, WATER LINES, ETC.) PRIOR TO ANY WORK BEING DONE.

HELPFUL TIPS

- Follow the appropriate building and electrical codes when installing all DEKOR® lighting products.
- It is up to the individual customer as to where lighting components are placed. Different length lead wires can be purchased depending on the distances between lights.
- Leave wire slack to make fixture terminations. Remember slack will be required to properly bury wire.
- DEKOR® Landscape wires are approved for underground use. Wire is made from silver coated copper.
- All DEKOR® landscape lights have male connectors. DEKOR® Spotlight will require the use of a female-to-female adapter to connect light to male connector wire (this adapter is sold with DEKOR® Spotlight but is also sold separately if needed for other areas).
- DEKOR® Spotlights require different wiring configurations; refer to detailed instructions on following pages for specifics.
- Additional length can be added to all DEKOR® Landscape lights with the use of male-to-male connector wires, sold in lengths of 5', 10', 20', 40', and 60'.
- All lights (except Spotlight) can be wired together on one circuit. To make installation easier optional 6-way splitters are available (sold separately).
- Use only a standard household AC GFCI protected outlet to help prevent damage from power surges or lightning.
- When using timer, ensure it is in full view of the sun when using the dusk/dawn feature. Timer must be installed with plugs facing downward only, timer is rain proof.
- To ensure all components are in working condition it is recommended to have power source attached when installing lights.
- When burying wire in live sod use spade shovel to make a slit in the soil. Bury the wire 1"-3" (2.5 cm - 7.6 cm) deep and tamp down the soil. Water heavily to allow the soil to resettle and minimize impact on the installation site.

CAUTION:

When making a connection between a Plug N Play connector or a splitter; observe the polarity key to make the proper connection. The male and female connectors have a flat side that **MUST MATCH UP. DO NOT** force the connectors together.

DEKOR® LANDSCAPE LIGHTING Installation Instructions



DEKOR® LANDSCAPE LIGHTING Installation Instructions

How to install DEKOR® Landscape Lighting / CONTINUED (Radiance, Empress, Ginny, and Puck Lights)

- » ALWAYS check local codes before beginning your project.
- » USE DEKOR® TRANSFORMERS ONLY. Using any other type of transformer voids the warranty.

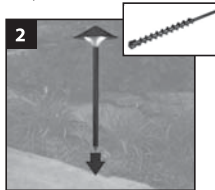
TRANSFORMER CAPACITY BY TYPE		
Type of Light	5A Transformer EZ Max Transformer	2.5A Transformer EZ Transformer
Radiance	31	16
Empress	16	8
Ginny	31	16
PuckLight	46	23

Above listing is for maximum number of each individual types of lights. If mixing and matching lighting, contact DEKORLIGHTING.com to determine if more than one transformer is required.

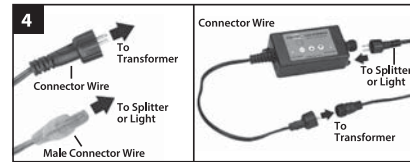


1. Locate placement of lights and lead wiring. If you choose to bury wire, under concrete or other permanent structures, plan accordingly.

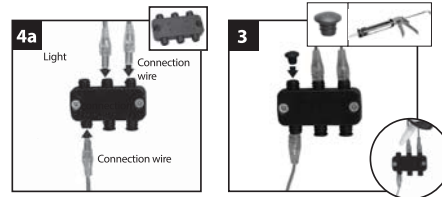
2. Place all lights in desired location. If necessary use 3/4" (1.9 cm) auger with optional extension in a drill to penetrate the surface enough to ensure the fixture is firmly implanted (see warning on Page 1).



3. Run all wires from the power source locations to the lights on top of the soil, remember to leave slack. If using separate circuits with independent dimmers, we recommend grouping lights by light type.



4. Connect all lights. Wire the optional dimmer (recommended) between the main 20' (6.1 m) transformer to male lead and the transformer for each circuit. Make sure connections, fixtures, and power sources (including splitters) are all working.

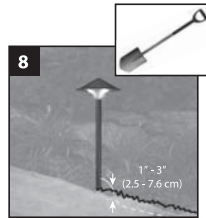


4a. Use male-to-male extension cables to make connections to splitters (all sold separately). Cap off all unused female connections on splitters using caps provided or weather resistant silicone.

5. You can mix and combine all lights except the spotlight on the same circuit but make sure you do not exceed the maximum number of lights per transformer. If running separate circuits with dimmers on each circuit, using a separate transformer for each circuit can simplify installation. However, use of a 5-way splitter will allow for separate circuits on the same transformer.

6. It is recommended the installer preview light placement in the dark to ensure desired effect is achieved.

7. Once the light, wire, and splitter placement is finalized, work from the light fixtures towards the power source to bury the wire to the desired depth. No more than 1"-3" (2.5 cm - 7.6 cm) is required.



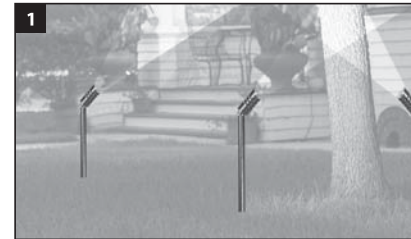
How to install DEKOR® Landscape Lighting / CONTINUED (DEKOR® Spotlight)

TRANSFORMER CAPACITY BY TYPE	
Type of Light	5A Transformer EZ Max Transformer
Spotlight	7

Above listing is for maximum number of each individual types of lights. If mixing and matching lighting, contact DEKOR® Lighting to determine if more than one transformer is required.

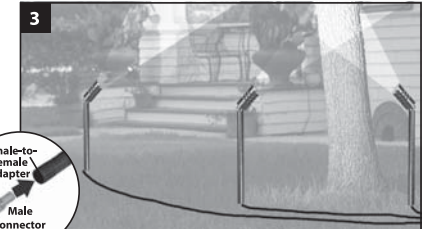
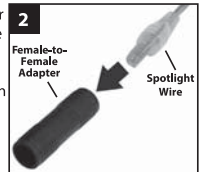
NOTES:

- » Each DEKOR® Spotlight requires use of a dedicated 36V Step-up Transformer (included).
- WARNING: Step-up Transformer DOES NOT** have fault protection, thus care must be taken if testing.
- » Spotlights must use a dedicated line running directly from the included 36V step-up transformer.
- Maximum** of seven spotlights are allowed per one 5-amp transformer. (Note: Must use two 5-way splitters if installing six or seven spotlights to single 5A transformer as 5-way splitter is designed for up to five spotlights.) Spotlights have a male lead and require the use of a female-to-female adapter to connect spotlight to connector wire. Determine the distance from the spotlight to the step up transformer. Select the appropriate male-to-male connector wire to make the distance (Make sure to account for slack to bury the cable)(Cables sold separately.). **Do not mix** any other lights on the spotlight circuit. Applying 36V to any other fixture types will result in very short diode life and will void warranty.
- » **DO NOT LOOK DIRECTLY INTO SPOTLIGHT WHEN ON, THIS LIGHT IS VERY STRONG.**

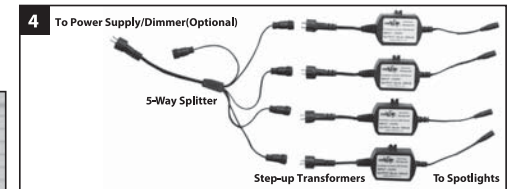


1. Locate placement of spotlights and lead wiring. Plan accordingly if you choose to bury wire under concrete or other permanent structures.

2. When adding male-to-male connector wire extension use a female-to-female adapter. Connect male lead from light to one end of the female-to-female adapter. Add male lead from extension to the other end of the adapter.



3. Connect opposite end of female adapter to male connector wire. Choose appropriate length wire based on your needs. Run all wire on the surface back to the location of the power supply.



4. Connect opposite end of male connector wire cable to female end on Step-up Transformer. If using more than one spotlight, use 5-way splitter on Step-up Transformer, making sure that each spotlight is utilizing its own 36V Step-up Transformer. Wire the Step-up Transformer or 5-way splitter to the 5A main transformer.