



12v LED In Rail Lighting Installation Guide



1a. Install Transformer

Refer and adhere to manufacturer's installation guide included in transformer packaging.



1b. Run 18/2 Wire

Plan 12v LED installation for a single / one wire run from transformer to end of 12v LED installation. Run 18/2 wire from transformer through posts, creating a loop where 12v LED Connector Boxes will be installed, and continue on until end of 12v LED run.



2. Install Connector Box

Remove 12v LED Connector Box wiring cover by applying pressure on grooved arrow.

* When installing 12v LED Light Connector Box we suggest adding 1" to Post Sleeve height to house 12v LED Light Connector Box.



3. Wire Connector Box

Use 18 gauge (18/2) low voltage outdoor wire (not included). Cut loop of 18 gauge (18/2) wire at top of post. Strip ends of 18/2 wire and insert 18 gauge (18/2) into each side of 12v LED Connector Box.



4. Replace cover

Install wiring cover.



5. Secure wire in post sleeve corner riblet



6. Drill 11/32" hole directly above bracket



7. Measure distance between baluster connectors, mark directly in between connectors along witness line on sub-rail



8. Drill 11/32" Hole for inserting LED Flush Pin

12v LED In Rail Lighting

Installation Guide (continued)



9. Remove grommet and slide wires through sub-rail



10. Slide grommet over connectors



11. Slide grommet over LED Flush Pin shaft



12. Rotate grommet to fully seat grommet against sub-rail



13. Run "male" end of LED Flush Pin wiring through hole above bracket into post sleeve



14. Insert LED Flush Pin "male" connector end into Connector Box



15. Repeat steps 7 through 12, connect "female" end of LED Flush Pin with "male" end of next LED Flush Pin



16. On last LED Flush pin on sub-rail run "female" end of LED Flush Pin through hole above bracket into post sleeve



17. Connect "female" end of LED Flush Pin to "male" connector end of Carriage Light LED Post Cap and install Carriage Light LED Post Cap*

12v LED 1 - 3 Connector Cable Installation Guide

Connects 3 - 12v LED components into 1 female connector

1. Although the 1 to 3 splitter adds no wattage itself, **be sure not to exceed the maximum wattage (15w) of the connector box** in line with the components being connected to it.
2. Plug the male end of the 1 to 3 splitter into the female end of the last component installed (ex. 12v LED Light Flush Pin).
3. Plug male ends of desired components (Flush Pin, Carriage Light, Post Sconce, etc.) into female ends of 1 to 3 splitter.



12v LED Wattage Calculator Worksheet

Average Deck Light Package

Project Qty (enter Qty needed)	Product Description	Power per Device (Watts)	Total Power Demand (Watts)
	LED Light - Flush Pin 12V • 12" Male & Female Lead	0.30	
	LED Light - Strip 12V - 24" strip • 24" Lead	1.58	
	LED Light - Post Sconce 12V • 34" Lead	0.53	
	LED Light - 4" Carriage Post Cap 12V • 7.5" Lead	1.65	
	LED Light - 5-1/4" Carriage Post Cap 12V • 7.5" Lead	1.65	
	LED Light - In-Deck Light 12V • 18" Male & Female Lead	0.26	
	LED Light - 36" Extension Cable 12V	0.00	
	LED Light - 108" (9') Extension Cable 12V	0.00	
	LED Light - 1 to 3 Connector Cable	0.00	
	Minimum Connector Boxes Required for This Project		
	Minimum Transformer Output Required for This Project		
	LED Light - Connector Box 12V - 15W Capacity	0.00	
	LED Light - 88 Watt Mechanical Transformer 12V	88.00	
	LED Light - Digital Timer/Photo Control 12V	100.00	

Package Total:

12v LED Post Sconce (0.53w) • Installation Guide

1. When installing the Post Sconce (0.53w) be sure not to exceed the maximum wattage (15w) of the connector box in line.
2. The Post Sleeve must be prepared in advance to accommodate installation of the Sconce Light.
3. **If Post Trim is used, install it over the wood post before installing the Post Sleeve. You will not be able to install Post Trim after Post Sleeve and Sconce Light are in place.**

4. Prepare the Post Sleeve by:
 - a. Cut Post sleeve to desired length
 - b. Determine the height at which the Sconce Light will be mounted
 - c. Mark the location of the wire hole and the mounting screw holes using the template provided (**Fig. 1**)
 - d. Pre-drill a 5/16" hole for the wire and pre-drill two 5/64" holes for mounting screws (**Fig. 2**)

5. Remove Sconce Light cover from Sconce Light back plate by rotating counter clockwise (**Fig. 3**)

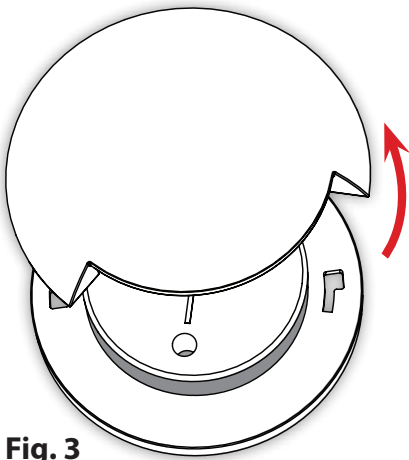


Fig. 3

6. Route the Sconce Light wire through the wire hole and out of the top of the Post Sleeve. **Fig. 4**

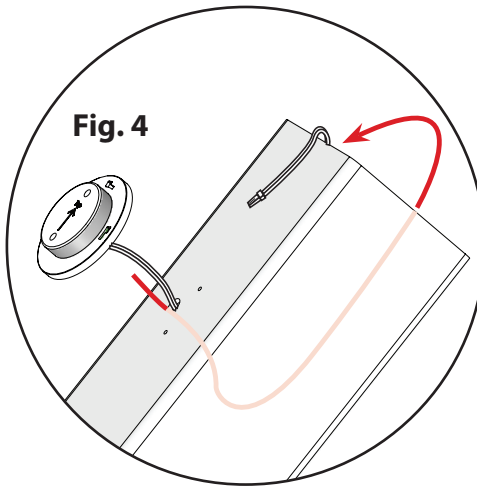


Fig. 4

7. Hold the Sconce Light loosely in position and slide the Post Sleeve over the structural post and into the Post Trim. **Fig. 5**

8. Attach the Sconce Light back plate to the post using two #8 x 1.5" screws provided (take extra precaution to avoid wire when inserting screws). **Fig. 6**

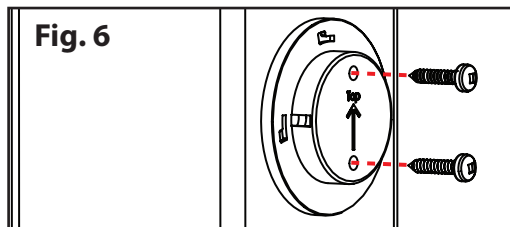


Fig. 6

9. Re-install Sconce Light Cover.

10. Plug male end of Sconce Light wire into connector box or female end of LED extension. **Fig. 7**

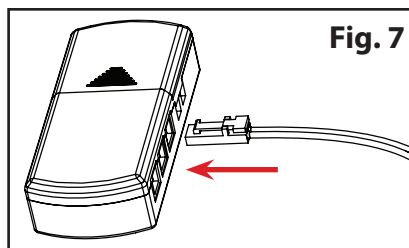


Fig. 7

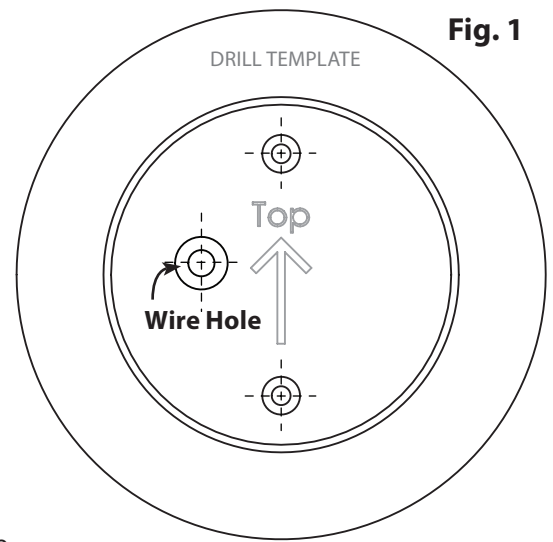


Fig. 1

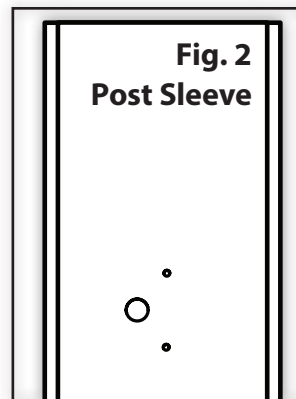


Fig. 2
Post Sleeve

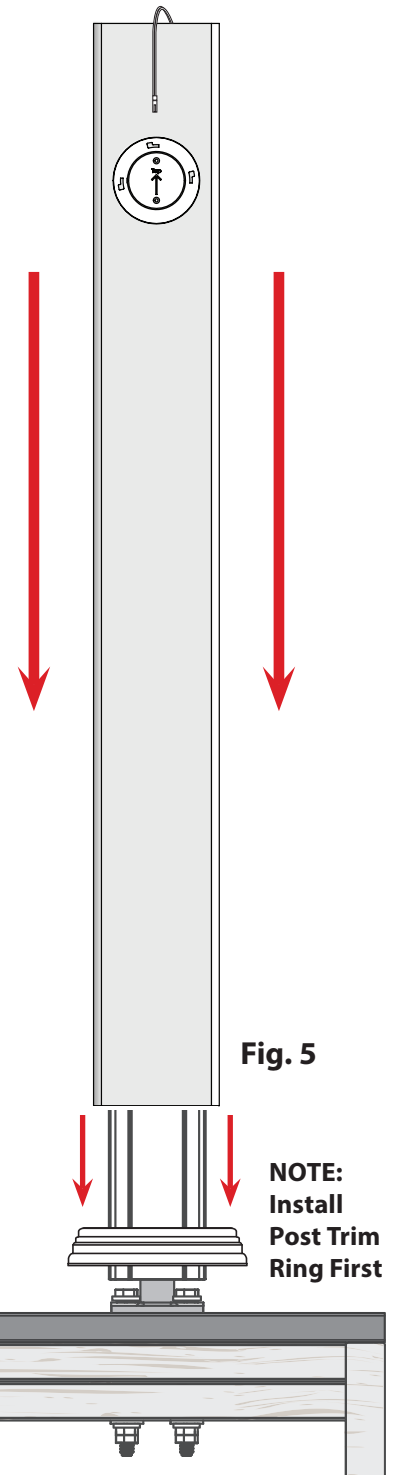


Fig. 5

NOTE:
Install
Post Trim
Ring First

12v LED 1 - 3 Connector Cable Installation Guide

Connects 3 - 12v LED components into 1 female connector

1. Although the 1 to 3 splitter adds no wattage itself, **be sure not to exceed the maximum wattage (15w) of the connector box** in line with the components being connected to it.
2. Plug the male end of the 1 to 3 splitter into the female end of the last component installed (ex. 12v LED Light Flush Pin).
3. Plug male ends of desired components (Flush Pin, Carriage Light, Post Sconce, etc.) into female ends of 1 to 3 splitter.



12v LED Extension Cables

9' 12v LED Extension Cable



36" 12v LED Extension Cable

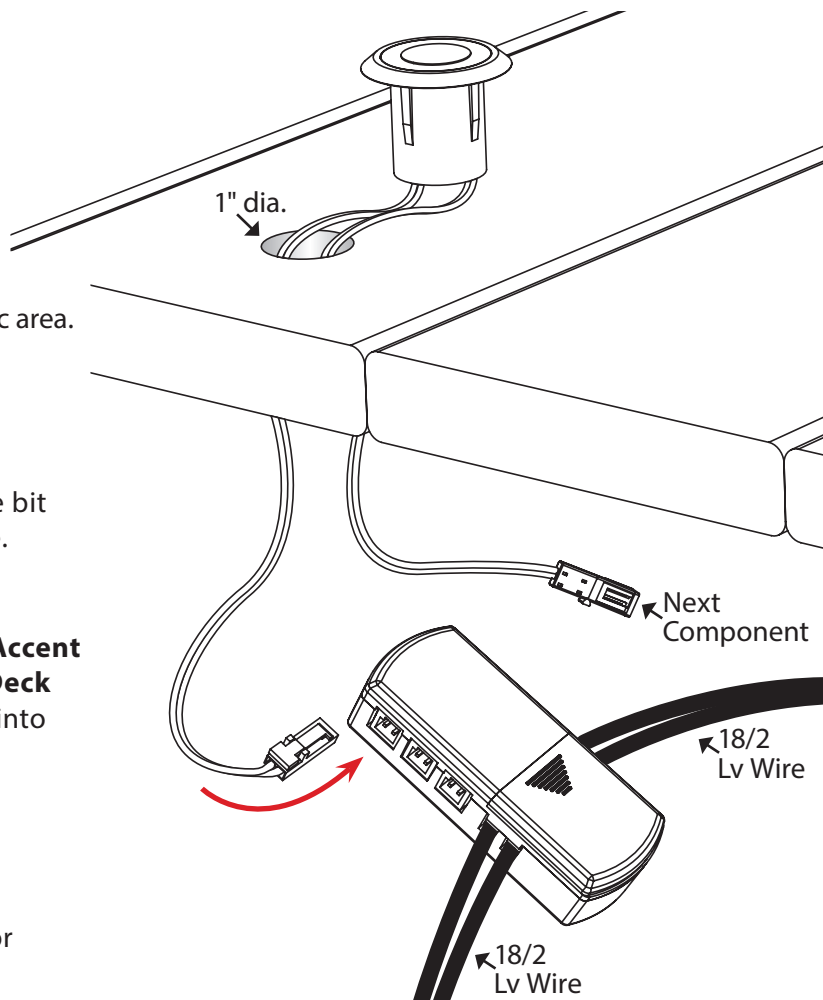


18/2 →
Lv Wire

12v LED In-Deck Light (0.26w)

Installation Guide

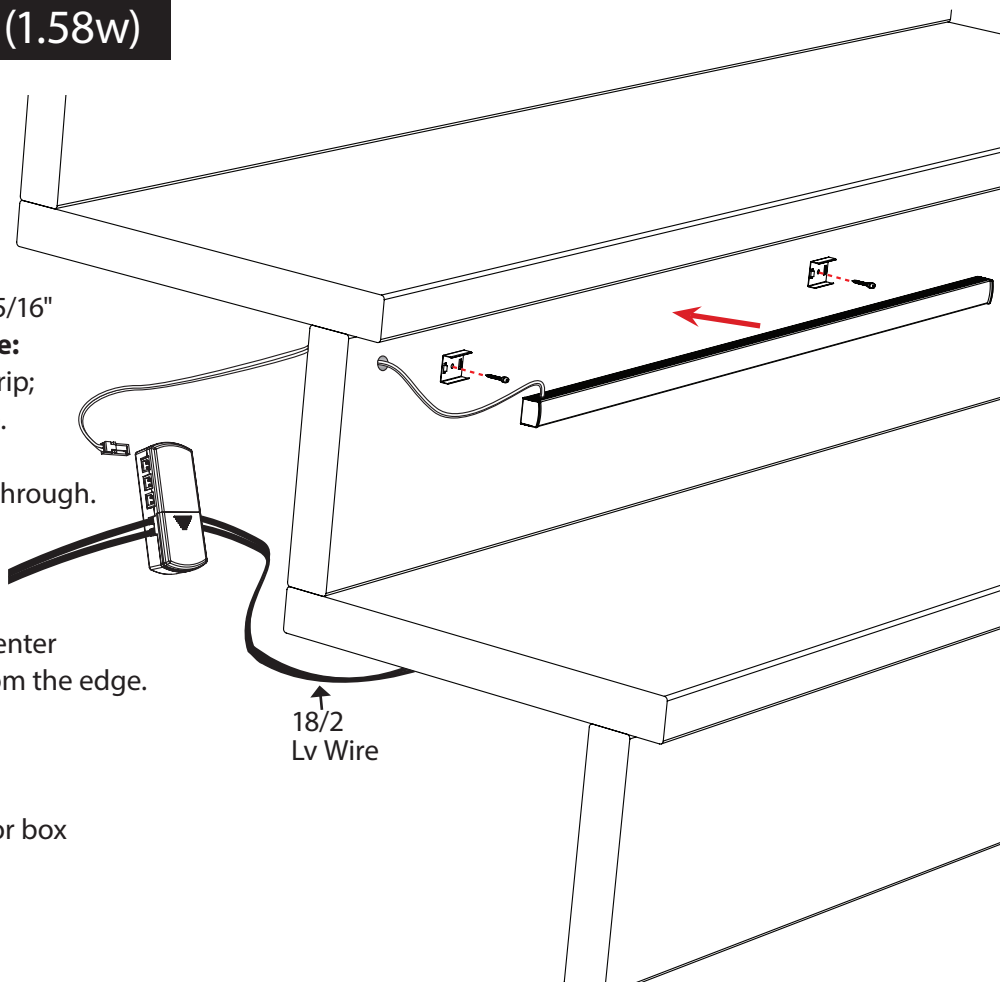
1. When installing the In-Deck Light (0.26w) be sure not to exceed the maximum wattage (15w) of the 12v LED Connector Box in line.
2. In-Deck Light should only be installed in a low foot traffic area.
3. Locate and mark the centerline of the deck board where the In-Deck Light will be mounted.
4. On the desired point of the center line, use a 1" spade bit (15/16" for hollow deck boards) to create a through hole. Be sure not to drill into the substructure.
5. **In-Deck Light includes 2 Accent Collars, 1 - Black Accent Collar, 1 Brushed Bronze Accent Collar. Remove In-Deck Light Accent Collar that will not be used.** Insert wire into hole and pull excess wire through.
6. Push the In-Deck Light into the through hole until the flange touches the surface of deck board.
7. Insert male end of In-Deck Light into connector box or the female end of the last component installed inline.



12v LED 24" LED Strip Light (1.58w)

Installation Guide

1. When installing the 24" LED Strip Light (1.58w) be sure not to exceed the maximum wattage (15w) of the connector box in line.
2. Select locations for light, mark and drill a 5/16" hole for the connector to pass through. **Note:** Wire for light is located on one end of the strip; install that end closest to your power source.
3. Insert wire into hole and pull excess wire through.
4. Install each bracket with included screws, center holes in bracket should be approx. 18" apart. Note: To install straight, be sure center hole in each bracket is the same distance from the edge.
5. Snap Strip Light into each bracket.
6. Plug male end of Strip Light into connector box (use 3' or 9' extension if necessary).



12v LED Flush Pin Light Installation Guide

1. When installing the 12v LED Flush Pin Light (0.30w) be sure not to exceed the maximum wattage (15w) of the connector box in line.



1. Install Transformer

Refer and adhere to manufacturer's installation guide included in transformer packaging.



2. Install Connector Box

Remove wiring cover by applying pressure on grooved arrow.



3. Wire Connector Box

Use 18 gauge low voltage outdoor wire (not included).



4. Replace cover

Install wiring cover.



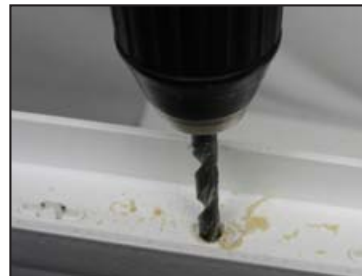
5. Secure wire in post sleeve corner riblet



6. Drill 11/32" hole directly above bracket



7. Measure distance between baluster connectors, mark directly in between connectors along witness line on sub-rail



8. Drill 11/32" Hole for inserting LED Flush Pin



9. Remove grommet and slide wires through sub-rail



10. Slide grommet over connectors



11. Slide grommet over LED Flush Pin shaft



12. Rotate grommet to fully seat grommet against sub-rail



13. Run "male" end of LED Flush Pin wiring through hole above bracket into post sleeve



14. Insert LED Flush Pin "male" connector end into Connector Box



15. Repeat steps 7 through 12, connect "female" end of LED Flush Pin with "male" end of next LED Flush Pin



16. On last LED Flush pin on sub-rail run "female" end of LED Flush Pin through hole above bracket into post sleeve

Carriage Light 12v LED Post Cap Frosted Lens Inserts

Installation Guide

1. Remove Post Cap Top by popping locking pins out of Post Cap assembly (Fig. 1).
2. Remove glass retaining ring and set it aside (Fig. 2).
3. Carefully slide clear lens inserts out (Fig. 2) and replace with frosted lens inserts (Fig. 3).
4. Reinsert glass retaining ring.
5. Attach Post Cap Top making sure to align locking pins.

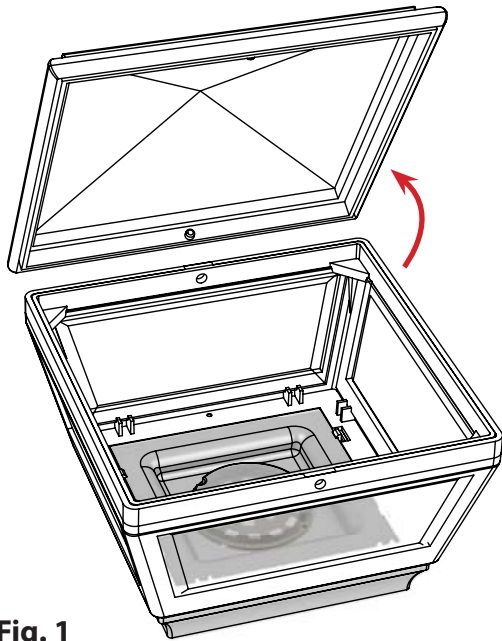


Fig. 1

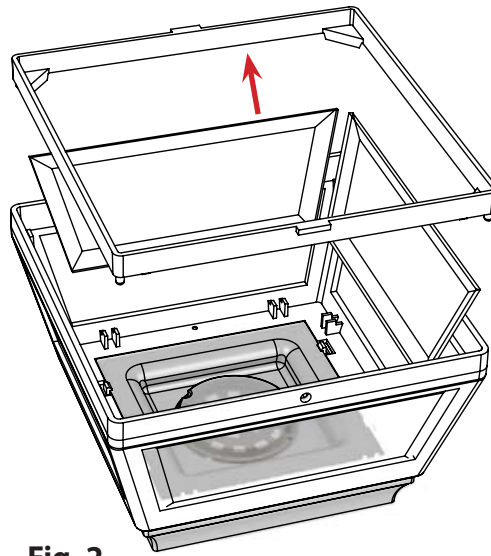


Fig. 2

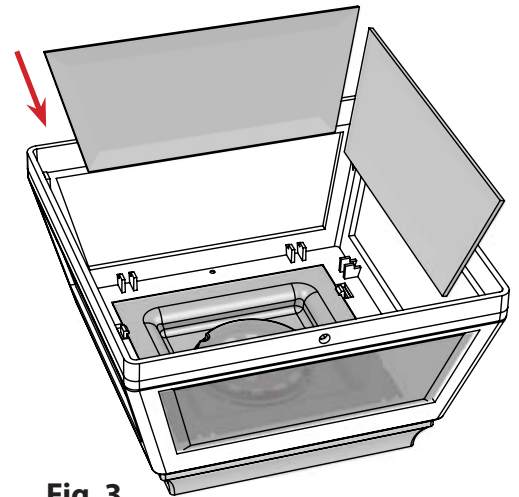


Fig. 3