

OELO LIGHTING INSTALLATION MANUAL



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How to use this manual ...

- 1 Familiarize yourself with the components PAGE 4-5
- 2 Hang/wire the Control Box PAGE 6-7
- 3 Hang the Cover components PAGE 8-9
- 4 Wire the system PAGE 10-13
- 5 Apply the finishing touches PAGE 14
- 6 Compare your structure to these samples PAGE 15-16

SAMPLE LIGHTING SCENARIOS

50-Foot System –60 Lights (2 Light Strands)

150-Foot System –180 Lights (4 Light Strands)

HOW TO ORDER: (A) WIRE CABLES For complete "Jumper Cable" instructions, see Page X.

100-Foot System –120 Lights (3 Light Strands)

200-Foot System –240 Lights (6 Light Strands)

HOW TO ORDER: (A) WIRE CABLES For 300+ light homes or non-linear structures, we recommend consulting Oelo also see Page X for Booster Box details.

Consult Oelo for structures that require 150+ linear feet of lighting **970-212-3670**

Below are key installation components you may want to familiarize yourself with before installing.

Control Unit Components



CONTROL UNIT: The Control Unit provides power for up to 300 lights and regulates Oelo's lighting functions (up to 6,000 lights).

SMALL STRAIN RELIEF: Located on the bottom of the Control Unit box, this Strain Reducer feeds power into the Control Unit from a standard outlet.

LARGE STRAIN RELIEF: Also located on the bottom of the Control Unit box, this larger reducer feeds the 3-Core Cable from the Control Unit to the LED Lights.

SCREWS AND ANCHORS: The supplied screws and anchors attach the Control Unit Box to an interior drywall. Note: For exteriors, use 1" wood screws.

Cover Components

ALUMINUM COVER: Oelo's LED Covers provide weather-resistant housing for the lighting components. Covers come in 7.5' lengths (90"); they can be cut down to size with a metal-appropriate saw or hand shears.



Wiring Components



Control Box Cord



3-Core Cable



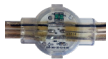
Conductors



Pink Butt Connector



Blue Butt Connector



Light String



Booster Box

CONTROL BOX CORD: Provides power to the Control Box.

3-CORE CABLE: Provides the system with three-gauge wires for positive (+VCC), ground (GND) and signal (S) wiring, used for connecting the Control Box to the light string and jumping sections of light.

CONDUCTORS: Provide a terminal inside the Control Unit Box for the 3-Core Cable positive and ground connections and for the Power Supply Cord. The conductor ports snap open and close.

BUTT CONNECTORS: Provides a waterproof connection for multiple wires via crimping and heat shrinking.

PINK BUTT CONNECTORS: Used for "S" Signal wires; wires can be inserted into each of this narrow butt connector.

BLUE BUTT CONNECTORS: Used for +VCC and GND wires; each wire inserted into each end of this wide butt connector.

LIGHT STRINGS: Each Light String is made up of 40 LED lights and equates to roughly 30' linear feet in the system. Light strings can be spliced together using supplied (or purchased separately) crimp-style butt connectors.

BOOSTER BOX: Provides additional power to systems with more than 300 lights.

STEP 1

Hanging the Control Unit

Control Unit Closed

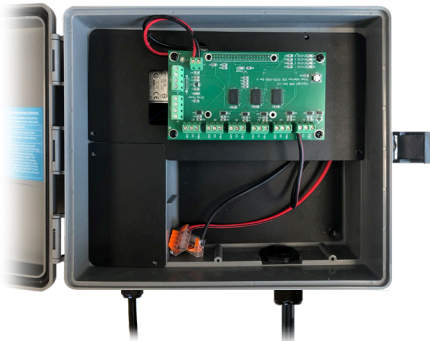


Small Strain Relief Large Strain Relief



Screws and Anchors

Control Unit Upon Arrival



- A. First, choose the Control Unit location.** The Control Unit can be hung indoors or outdoors but should be placed:
- i. Near a power source (a standard 110V outlet).
 - ii. Near the start of the lighting Cover.
 - iii. Within range of the property's WiFi (If WiFi is unavailable, the system can be connected to the Internet via an Ethernet connection.)
- B. Open the Control Unit.** The Key Latch will come pre-installed.



- C. Unscrew the Interior Metal Plate, followed by the Power Cord Plate** to expose the inside back of the box and the corner screw holes.

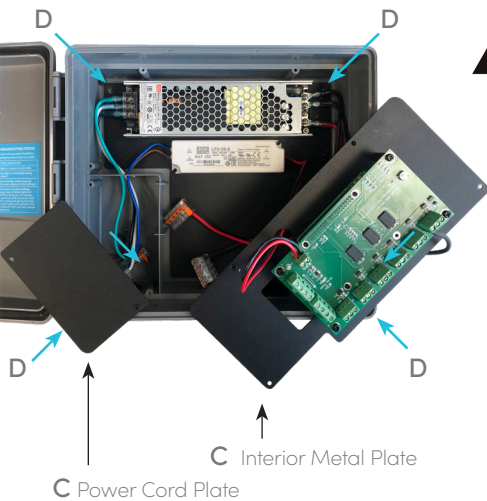
- D. Screw the box to the wall, using:**

- i. The supplied screws/anchors (in the bubble-wrap bag) for interior drywall
- ii. Or 1" wood screws for exteriors (or applicable screws).
- iii. Once the box is hung, fasten the Interior Plates back into place.



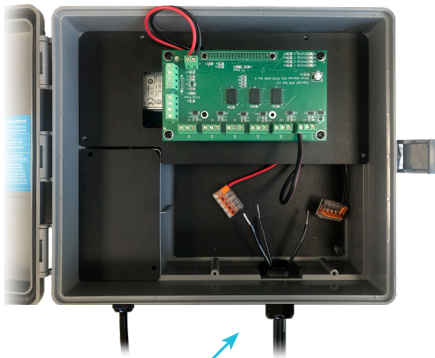
WARNING: Do NOT plug in the system until ALL wiring is complete.

Wiring while the system is live will void warranty.



STEP 2

Feeding/Wiring the 3-Core Cable/Control Unit



A Feed the 3-Core Cable into the Large Strain Relief

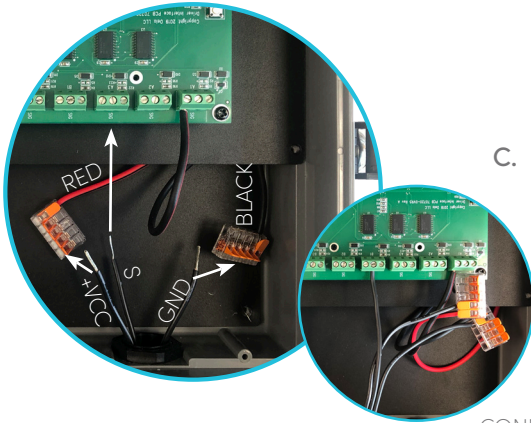
A. Feed the 3-Core Cable into the Large Strain Relief.

- i. The 3-Core Cable powers up to 300 lights.
- ii. Any system with more than 300 lights will require an additional Booster Box; see Step 9.

B. Connect the 3-Core Cable wires, inserting the:

- i. +VCC WIRE into the RED CONDUCTOR (wire is labeled +VCC); close conductor port.
- ii. GND WIRE into the BLACK CONDUCTOR (wire is labeled GND); close conductor port.
- iii. S (Signal) WIRE into any "S" Port on the green board; tighten screw.

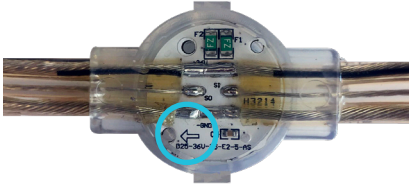
C. Run the wires up to the fascia where the lighting Cover will start. Hold off for further wiring instructions (Steps 6-8).



CONNECTED

STEP 3

Inserting the Light Strand into the Cover



This arrow **MUST** point away from Control Unit.

- A. **IMPORTANT:** Locate the small arrow on the back of the Light Strand. The Oelo lighting system has directional input/output, and this arrow MUST be pointing AWAY from the start of the system/Control Unit.
- B. Place the Light Strand into the Cover.
- C. Insert the First Light at the beginning of the Cover. At an angle, slip the light into the opening, then rotate the light for a secure lock.
- D. Continue Inserting Lights into the Cover until the Cover is full. Once the Cover is full, hang that Cover (Step 5). Continue to insert lights and hang the Covers as you go.



1.



2.

STEP 4

Locate the 3-Core Cable near the beginning of the Cover

- A. Place the 3-Core Cable into the first Cover: This cable will supply power and signal up to 300 lights (~250 linear feet of lights). Systems more than 300 lights will require a Booster Box; see Step 9.)

STEP 5

Hanging/Cutting the Cover Components

- A. The Cover can hang facing Downward (Wall Wash) or Outward (Traditional).
 - i. Hang Covers flush for a seamless appearance.
 - ii. The Cover should be mounted as follows:



Downward



Outward

STEP 5

Hanging/Cutting the Cover Components

B. Using the supplied screws, hang the Cover, locating the holes at the top.

- i. Holes in the Cover for screws will be 24" apart.
- ii. Hang the Covers flush together to create a seamless appearance.
- iii. Additional holes may be added using an appropriate drill bit and screws.

C. **Once the run reaches a corner or transition**, the Covers can be cut for a flush connection. The Light Strand can run outside of the Cover, or a Jumper Wire can be added to connect Light Strands together for longer distances from one Cover to the next. (See Step 8 for Jumper Wiring.)

D. **Cutting the Cover for Corners and Peaks is different for both orientation:**

If the Cover is facing Downward (Wall Wash):

And is a Corner | Cut Cover at a 45° front-facing angle

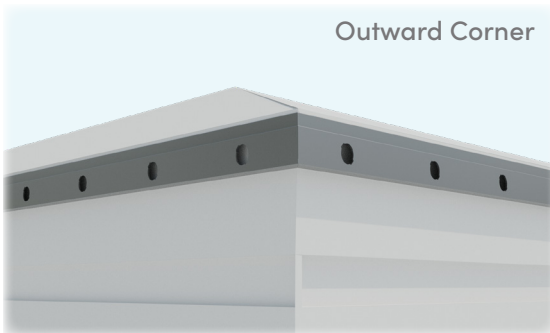
And is a Peak | Cut Cover at a -45° top-facing angle



If the Cover is facing Outward (Traditional):

And is a Corner | Cut Cover at a 45° top-facing angle

And is a Peak | Cut Cover at a 45° front-facing angle



IMPORTANT: Use a metal appropriate saw blade or hand shears and eye protection when cutting the Covers.

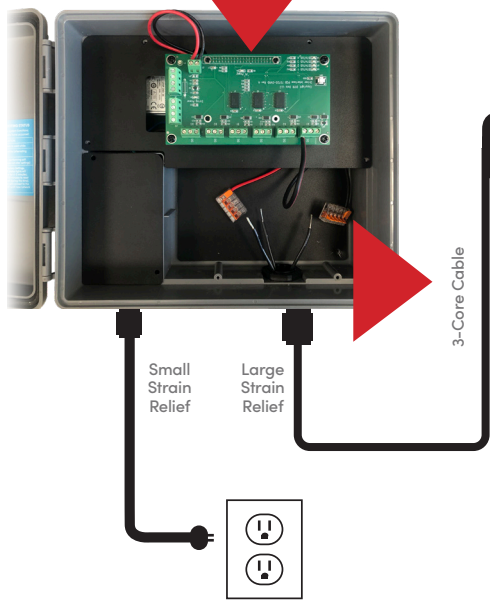
IMPORTANT: It is recommended to insert the Light Strand and hang the Covers one at a time.

Pro Tips:

Additional 3-Core Cables can be used to connect upper levels. Insert addition cables into the Large Strain Relief, following Step 2 to connect the conductors and control board

Note: The Control Unit can only power 300 lights (for all levels), otherwise a Boost Box will be needed. See Step 9.

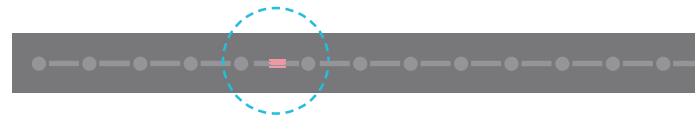
As you hang your Cover, you can wire along the way to reduce the number of times you go up and down a ladder.



WARNING:

Do NOT plug in the system until ALL wiring is complete. Wiring while the system is live will void Oelo's 5-year warranty.

UPPER LEVEL



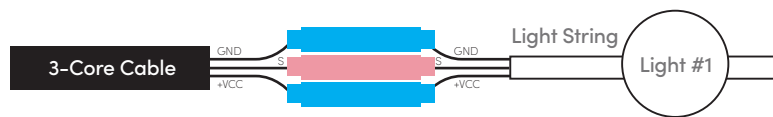
STEP 7 END OF 40-LIGHT STRAND

See Step 7 to connect more lights.

40 LIGHTS (~30 LINEAR FEET)



STEP 6



Connecting the 3-Core Cable to Light String 1

- A. Take note that all wires are labeled with GND, S or +VCC.
- B. Strip, feed, crimp and shrink the following:
 - i. Insert the 3-Core Cable's and Light Strand's GND wire into separate ends of a BLUE Butt Connector.
 - ii. Insert the 3-Core Cable's and Light Strand's S wire into separate ends of a PINK Butt Connector.
 - iii. Insert the 3-Core Cable's and Light Strand's +VCC wire into separate ends of a BLUE Butt Connector.

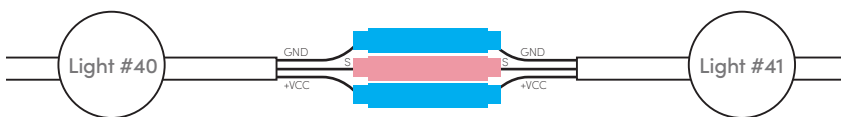
STEP 8



Adding "Jumpers" to connect distant or upper lights

- Strip, feed, crimp and shrink the Light Strand's GND, S and +VCC wires to a Jumper 3-Core Cable's respective GND, S and +VCC wires.
- Strip, feed, crimp and shrink the Jumper 3-Core Cable's GND, S and +VCC wires to the next strand of light's respective GND, S and +VCC wires.

STEP 7



Connecting Light Strings together (every 40 lights)

- Each light string is made up of 40 LED lights and equates to roughly 30 linear feet in the system. Light strings can be spliced together for up to 300 lights. Once you reach the end of a light string, strip, feed, crimp and shrink the end of the strand to a new strand with a BLUE or PINK Butt Connector (shown in diagram above), matching the respective wires:
 - The end of the light strand's GND wire to the new strand's GND wire.
 - The end of the light strand's S wire to the new strand's S wire.
 - The end of the light strand's +VCC wire to the new strand's +VCC wire.

STEP 9

Note: We recommend consulting Oelo on Booster Box strategies for any light systems with more than 300 lights and non-linear structures.



WARNING

Do NOT leave copper wiring exposed.



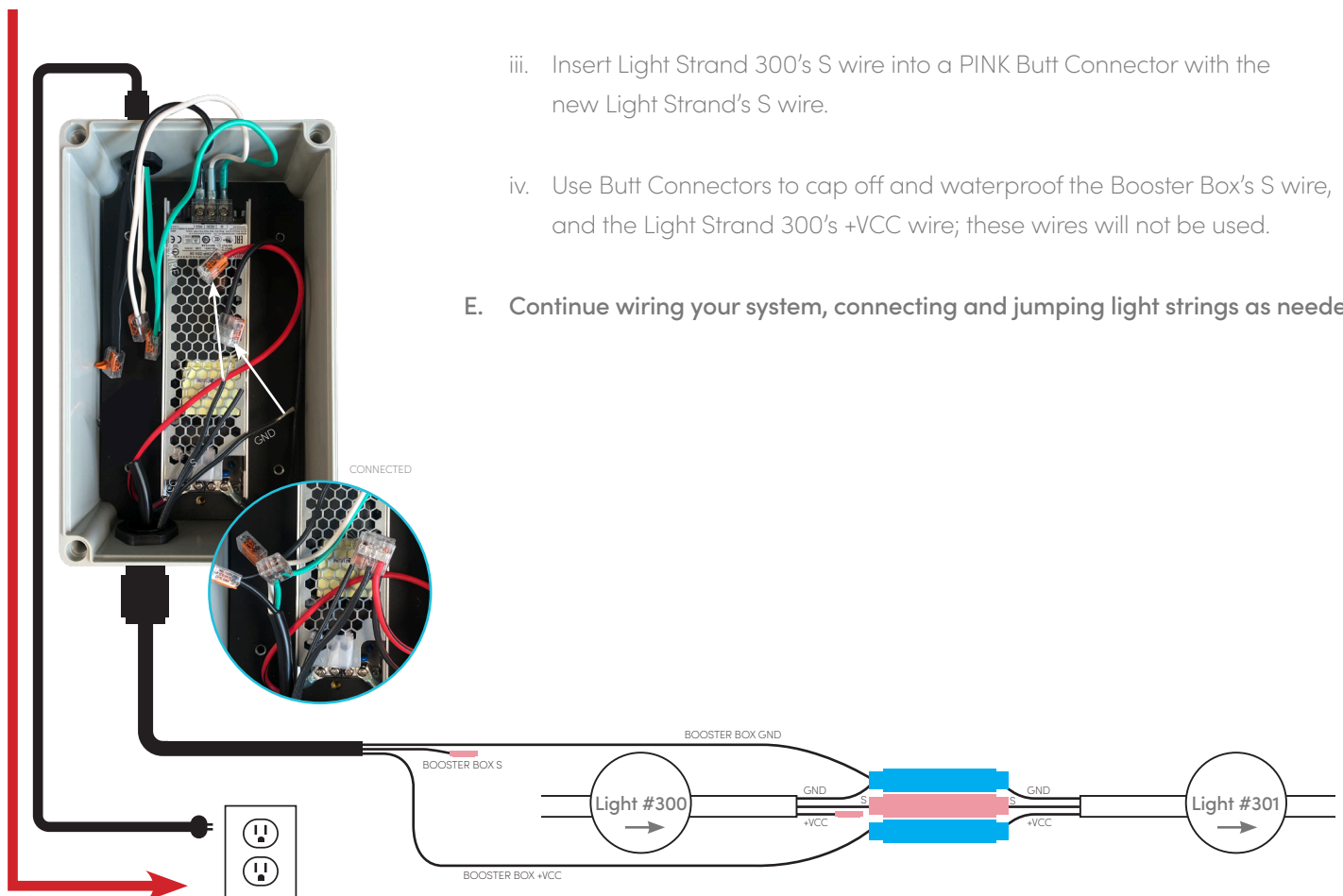
WARNING:

Do NOT plug in the system until ALL wiring is complete. Wiring while the system is live will void Oelo's 5-year warranty.

Adding a Booster Box

The Control Unit can only power 300 lights. If the system is linear (ran in a straight line), you can add a Booster Box after Light #300. This Booster Box can also be added anywhere in the run to help offset non-linear systems. To add:

- A. Hang the box near a nearby power source (a standard 110V outlet).
- B. Insert the 3-Core Cable into the Large Strain Relief.
- C. Connect the 3-Core Cable wires, inserting the:
 - i. +VCC WIRE into the RED CONDUCTOR; close conductor port.
 - ii. GND WIRE into the BLACK CONDUCTOR; close conductor port.
 - iii. The S (Signal) WIRE will not be used inside the box.
- D. Run the 3-Core Cable up to Light #301 and strip, feed, crimp and shrink:
 - i. The Booster Box Cable's GND wire AND Light Strand 300's GND wire TOGETHER in a BLUE Butt Connector; insert the next Light Strand's GND into the other side of the Butt Connector.
 - ii. Insert the Booster Box Cable's +VCC wire in a PINK Butt Connector; insert the next Light Strand's GND into the other side of the Butt Connector.
 - iii. Insert Light Strand 300's S wire into a PINK Butt Connector with the new Light Strand's S wire.
 - iv. Use Butt Connectors to cap off and waterproof the Booster Box's S wire, and the Light Strand 300's +VCC wire; these wires will not be used.
- E. Continue wiring your system, connecting and jumping light strings as needed.



STEP 10

The finishing touches

- A. **Plug in the Control Unit and additional Booster Boxes and test the system.**
(Follow the instructions on Control Panel Door to test or troubleshoot the lights.
For instructions on how to operate the Oelo app, please see the Oelo app instructions.)
- B. **Admire your stunning work!**



Tag us in your photos and videos please!



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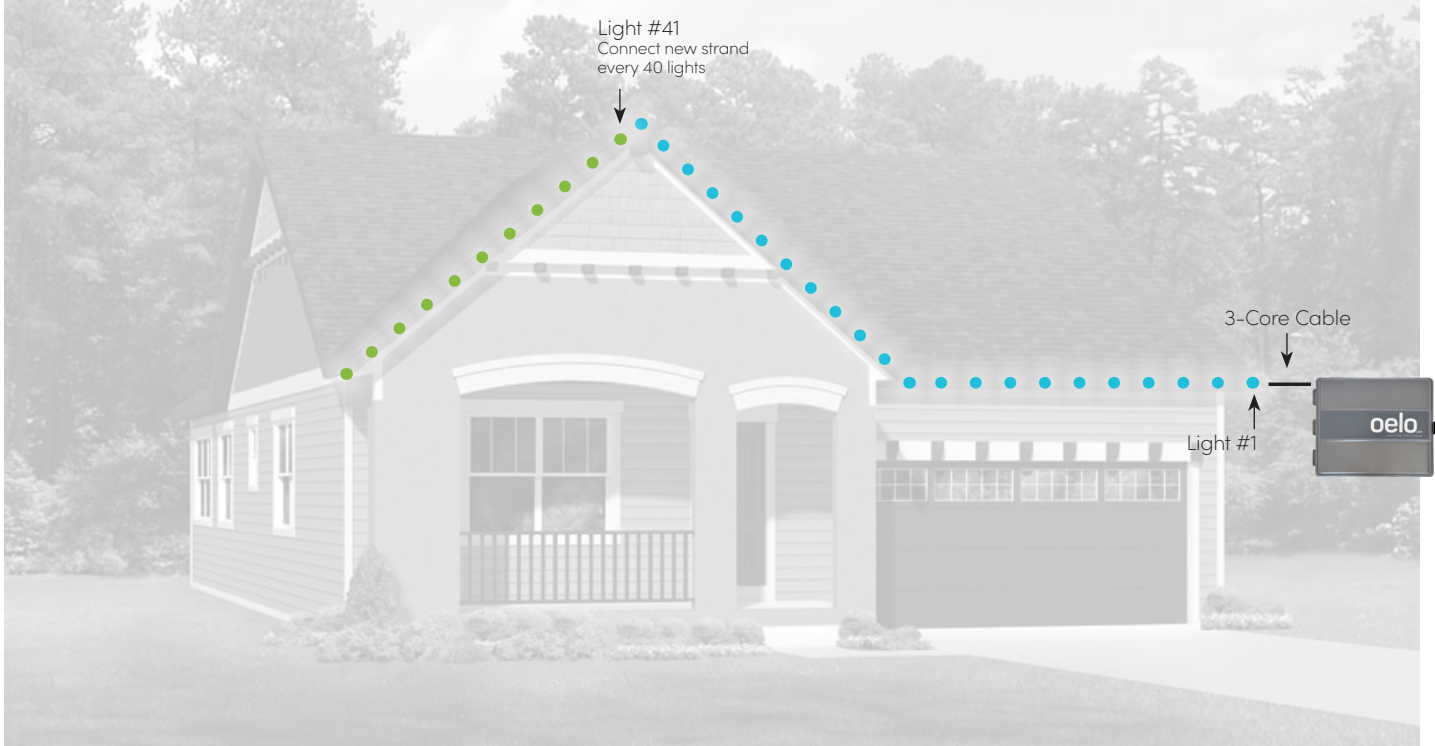


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SAMPLE LIGHTING SCENARIOS

Light Strand #1 = ● ● ●

Light Strand #2 = ● ● ●



50-Foot System ~60 Lights (2 Light Strands)



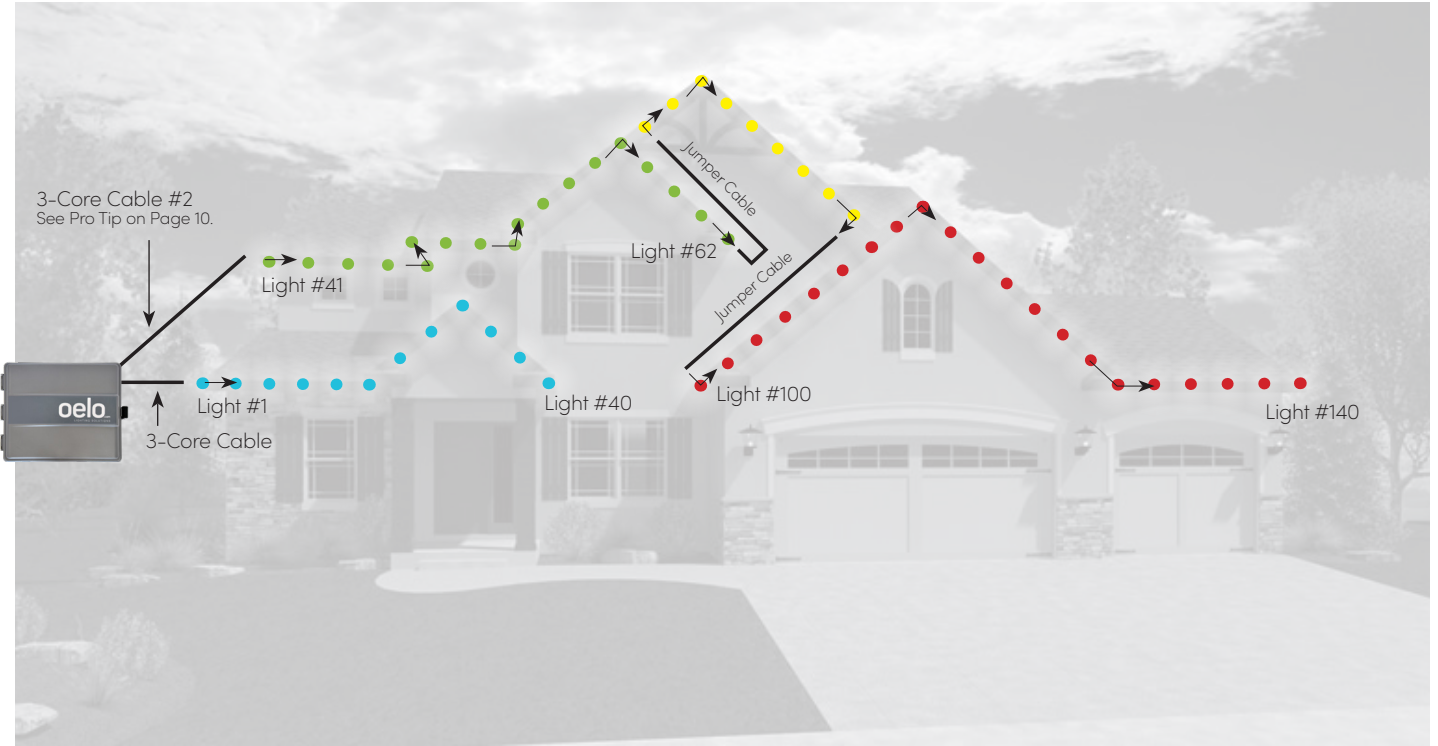
100-Foot System ~120 Lights (3 Light Strands)

Light Strand #3 = ● ● ●

Light Strand #4 = ● ● ●

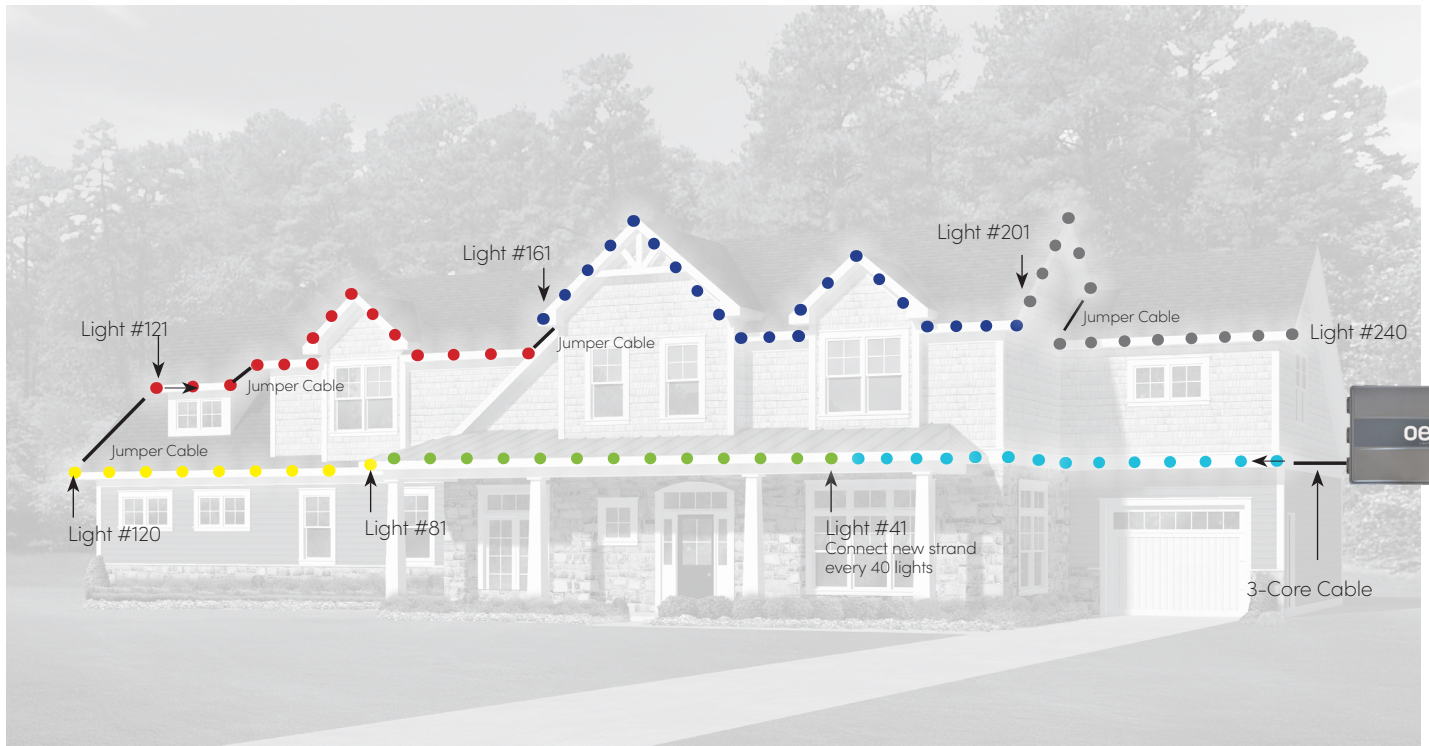
Light Strand #5 = ● ● ●

Light Strand #6 = ● ● ●



150-Foot System ~180 Lights (4 Light Strands)

HOW TO CREATE A JUMPER CABLE For complete "Jumper Cable" instructions, see Page 11.



200-Foot System ~240 Lights (6 Light Strands)

HOW TO INSTALL A BOOSTER BOX For 300+ light homes or non-linear structures, we recommend consulting Oelo; also see Page 12 for Booster Box details.

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LIGHTING SOLUTIONS

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