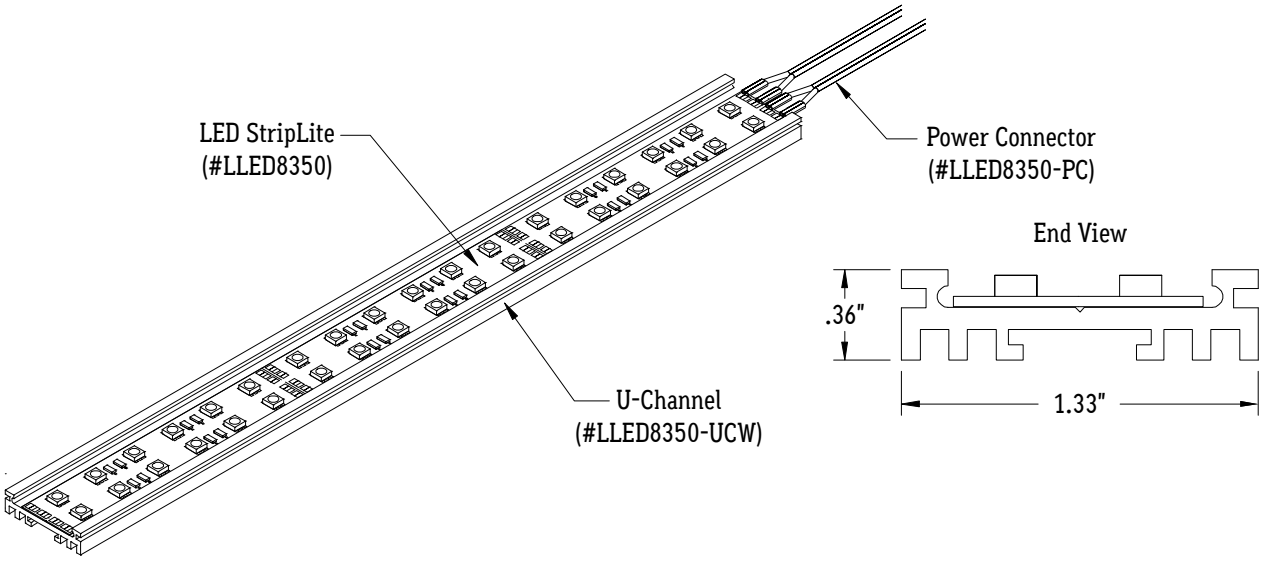
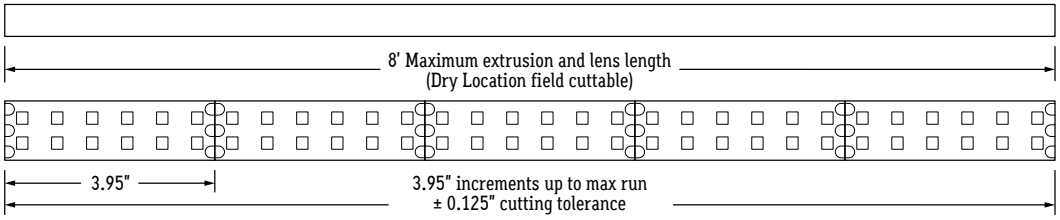
*lip*LEDs™

Installation Instructions

LLED**8350-UCW**

Overview





IMPORTANT VERIFY CORRECT LUMINAIRE WAS RECEIVED WITH CORRECT COLOR TEMPERATURE AND VOLTAGE BEFORE CUTTING OR INSTALLING. **CALI** WILL NOT BE RESPONSIBLE IF INCORRECT LUMINAIRE IS INSTALLED.

PRODUCT INFORMATION

- For accent, cove, edge, under cabinet lighting
- 24 volts DC for easy and safe installation
- Long life, energy efficient LEDs
- Maximum run based on 5 Amps:
  15' (8W)
  Maximum run based on 4 Amps:
  11' (8W)
- Can be ordered to specific lengths for easier installation when exact dimensions are known (Example: 10 x 10'6")
- Plug and light system
- Lead wires are typically 33" long and exit on one end

INSTALLATION RECOMMENDATIONS

- LipLEDs LED tape must be mechanically attached directly to mounting surface using mounting clips or channels
- Conduit raceway should be sleeved at one end for low voltage wires going to *trans*FORMER

ELECTRICAL

- LipLEDs products require a 24 volt DC remote *trans*FORMER
- To calculate transformers size find watts per foot (Example: 9W per foot)
- Determine length in feet (Example: 5')
- Calculate Load: Multiply Watts per Foot x Length in Feet (Example: 9W x 5'= 45W)
- Choose *trans*FORMER from catalog (Example: TRA60)
- Determine maximum distance using Maximum Wire Length Table (Example: 45 watts is between 40W and 80W. Using #14 wire, maximum distance is 37' from *trans*FORMER to first LED)

INSTALLATION TOOLS REQUIRED

- Electric compound miter saw
- 14.4 to 28 volt cordless drill
- Drill bits - concrete or wood
- Electrical cords
- Safety glasses
- Marker
- Electric hammer drill (optional)
- Phillips bits - sufficient quantity
- Electrical three ways
- Measuring tape
- Chalk line
- Sharp scissors
- Soldering iron with kit

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FEATURES	
APPLICATIONS	Accent, Decorative Lighting
VOLTAGE	24VDC
LAMP TYPE	Color Tuning LEDs
DIMMING	DMX-512
LENGTH	Built to Order
MOUNTING	Mounting Clips or Mounting Channel
VIEWING ANGLE	120 Degrees
L70 LED LIFE	60,000 hrs.
MAXIMUM RUN* (Based on 5 amps)	15' (8W)
LISTING	Dry Location UL2108, CSA C22.2#9 UL8750, CSA250

*Maximum run is based on 5 Amps: 15' (8W)
Maximum run based on 4 Amps: 11' (8W)

WARNING

When using lipLEDs for any application, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury. lipLEDs must be installed in accordance with the NEC or CEC as applicable.

- Do not exceed maximum length per circuit. Each maximum run requires additional power feed from the transformer
- Do not cover lipLEDs as the covering may cause it to overheat, melt, or ignite.
- Do not install lipLEDs in hazardous locations or closer than 6 inches from any curtain or similar combustible material.
- Do not use lipLEDs if damaged, such as broken outer jacket, loose connections, or frayed wire insulation. Inspect periodically.
- Do not submerge lipLEDs in liquid.
- Do not mount lipLEDs with staples, nails, or like means that might damage the insulation. Mount with double-sided tape and mounting clips.
- Do not install lipLEDs in places where it is subject to continuous flexing.
- Do not mount lipLEDs inside tanks or enclosures of any kind without sufficient ventilation.
- Ground Fault Circuit Interrupter (GFCI) protections are required on circuits or outlets.
- Surge protector must be set up for electrical power system to avoid damaging lipLEDs lighting system.
- Do not install in an environment where excessive heat may exist. Ambient temperature -40°F - 122°F (-20°C - 50°C).
- Only wet location models are intended for outdoors. See package label for environmental details.
- Do not install wet location model in areas where water will collect.

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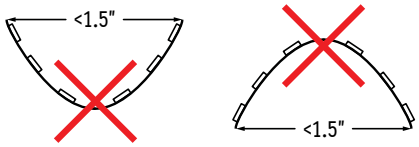
Installation Instructions

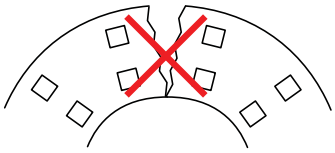
LLED8350-UCW

Product Care

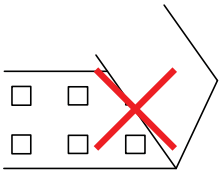
Do not bend lightstrip to a diameter of less than 1.5"



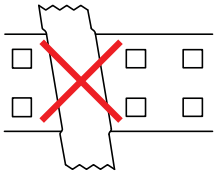
Do not bend lightstrip along a horizontal plane



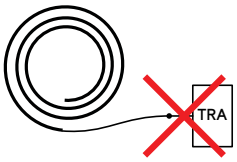
Do not fold, crease, or twist lightstrip



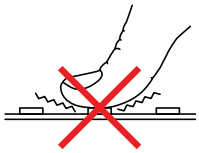
Do not cover lightstrip with any material



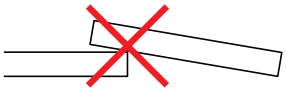
Do not connect lightstrip to power source while spooled or coiled



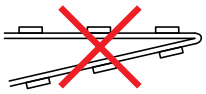
Do not apply excessive pressure to surface of lightstrip or LEDs



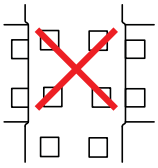
Do not overlap extrusions in any way



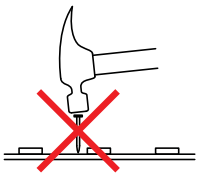
Do not install lightstrip in a zig-zag fashion



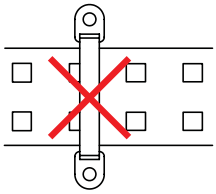
Do not overlap lightstrips at any location



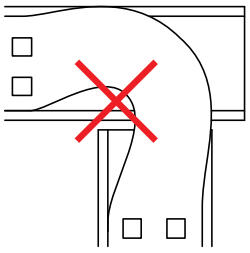
Do not penetrate lightstrip with any foreign object



Do not install mounting clip over LED diode



Do not cross extrusions and twist lightstrip to overlap



Do not install connectors in wet locations

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Installation Instructions

LLED8350-UCW

Setup & Operation of Controller

1. Mount an electrical box inside the wall (not included).

NOTE: THE S.T.I.C.K. controller can be installed in a standard 60mm electrical black box.

2. Connect the wires using the green connector block.

DMX: Connect the DMX cable to the lighting receivers (for XLR: 1 = ground, 2 = DMX -, and 3 = DMX +)

POWER: Connect the AC/DC adapter. Do not invert the + and ground.

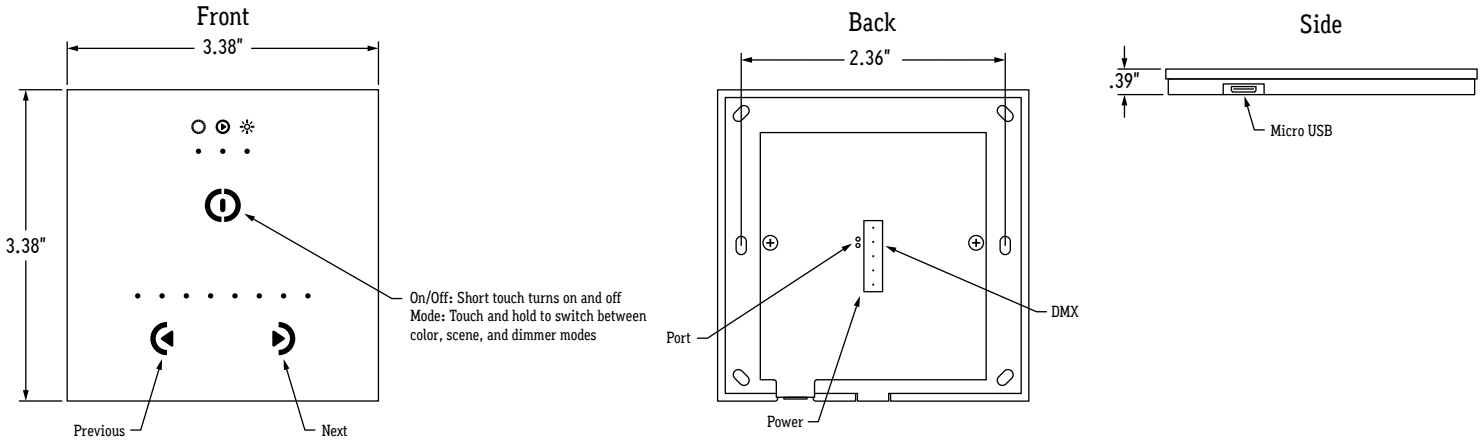
3. Mount the interface on a wall.

NOTE: First, plug in the green connector block. Mount the back side of the interface to the wall with at least 2 screws. Close the unit by clipping the front panel onto the back plate. Wait 30 seconds for the touch sensitivity to adjust.

4. Use TOOLS.EXE to set parameters and ESA2 (PC and Mac) to make lighting programs.

CONTROLLER

- DMX Standalone Controller with glass face (128 channels)
- 3 touch-sensitive buttons (on/off/miode, previous, next)
- Up to 24 dynamic or static scenes (8 first visualized by an LED)
- Live intensity and color settings
- Programmable through included USB cable and control software
- Compatible with any DMX fixture or DMX LED driver
- Ready to use (pre-loaded with 8 scenes and 42 RGB fixtures)
- Latest ARM CPU technology
- Customized design for OEM, wall mountable
- One dry contact trigger port on PCB



SPECIFICATIONS	
PACKAGE	Controller, CD-ROM, USB cable, connector block
OS REQUIREMENTS	Mac OS X 10.6/10.7/10.8, Windows XP/Vista/7/8 32/64 bit, and USB 2.0
SOFTWARE	Easy Stand Alone, ESA2 (PC & Mac)
VERSIONS	Black or white glass design
CONNECTIONS	Power (2 pins), DMX, (3 pins), Port (2 pins), Micro USB
POWER	5.5V to 12VDC (AC/DC adapter in option). Max 5.5V with USB
CERTIFICATIONS	EC, EMC, ROHS, ETL, UL
KEYPAD	86x76x10mm, 110g
PACKAGE	140x135x50, 365g
USE	Environment IP20. Temperature 0°C to 50°C

AVAILABLE MEMORY	
CHANNELS	**STEPS**
8	1691
16	1011
32	557
48	383
64	291
80	233
96	195
112	166
128	145

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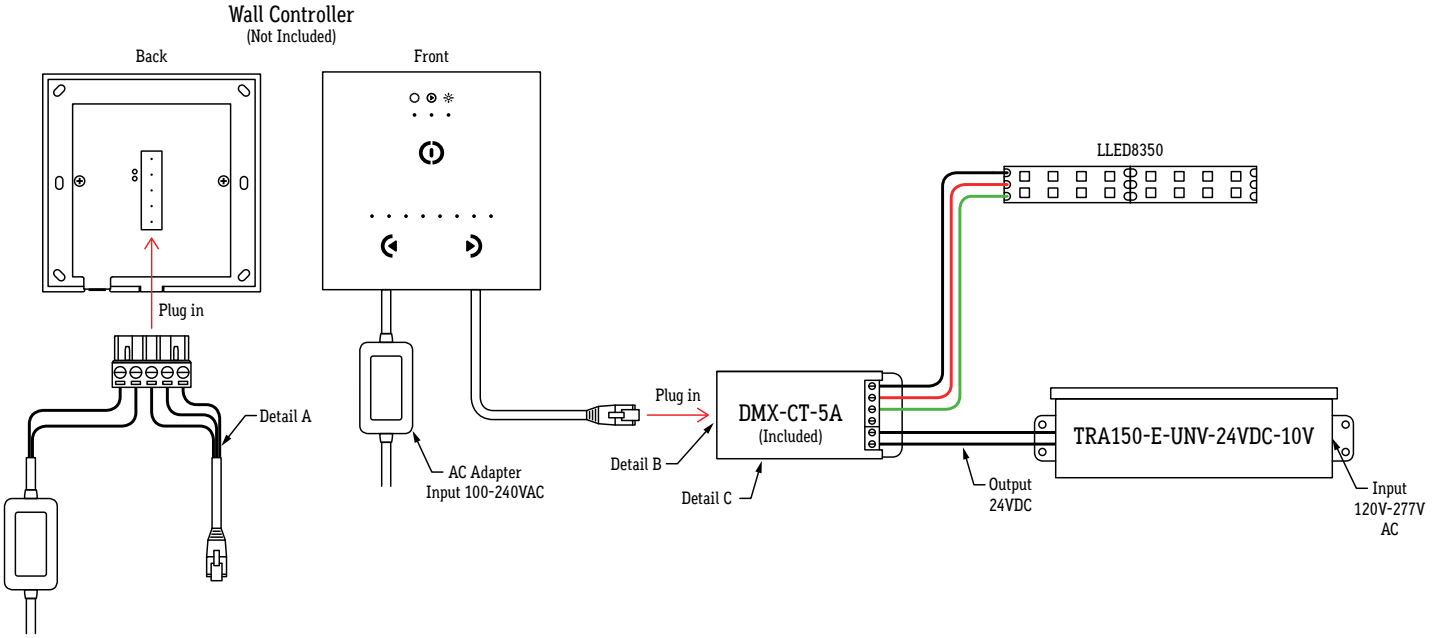
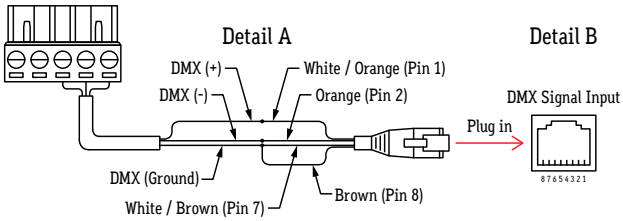
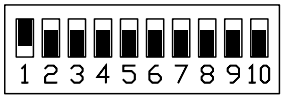
lipLEDs™ LLED8350-UCW

Installation Instructions

Wiring Diagram







Switch 1 must be facing down

Install Nicolaudie Easy Standalone Software
https://www.nicolaudie.com/en/esa.htm
Program DMX-RGB-128C Scene Setup

Scene number	Red	Blue	Green	Color temperature program
Scene-0	162	182	255	White

Set Dimming Options:
- Select loop option
- Select fade option
- Set values at fade time 00m01500
- Set values at hold time 00m01500
- Set value dimmer 100

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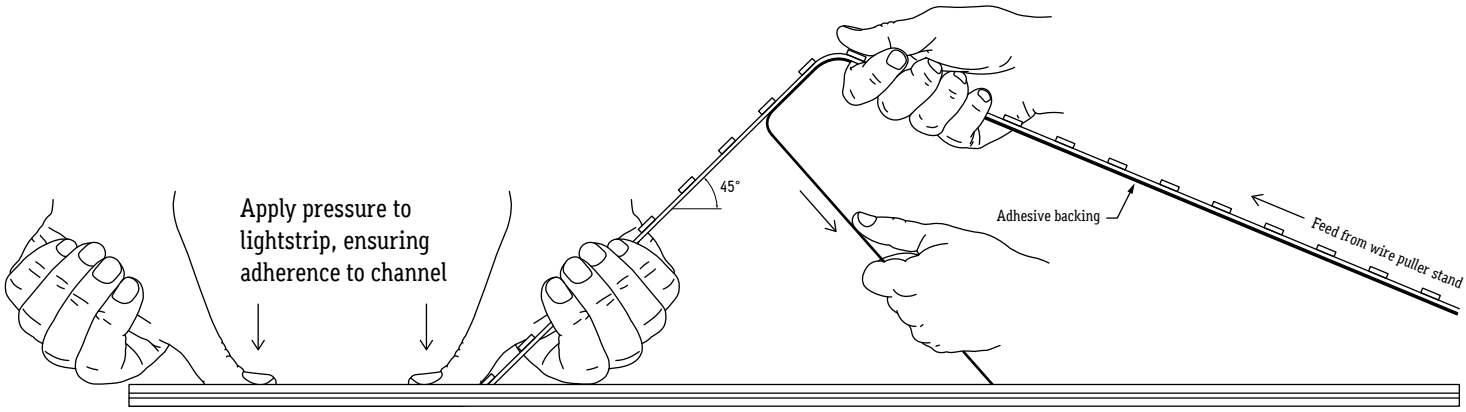
LLED8350-UCW REQUIRES A TEAM EFFORT TO ENSURE SECURE AND CORRECT INSTALLATION



One person on one end applies pressure to LLED8350, securing it to surface

Another person unreels LLED8350 from spool, holding lightstrip at 45° angle

IMPORTANT NOTE TO AVOID COLOR SHIFT:

- Do not paint on or over fixture lens or LEDs. Paint or any other substance on lens or LEDs will cause a shift in color temperature.
- Soffit must be painted evenly with a neutral white to avoid color shift.

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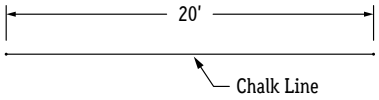
lipLEDs™ LLED8350-UCW

Installation Instructions

Mounting Clips

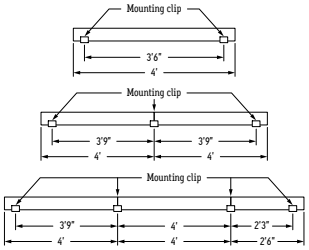
1. Measure area where LLED8350-UCW will be installed.

RECOMMENDATION: Use chalk line to ensure a straight installation.



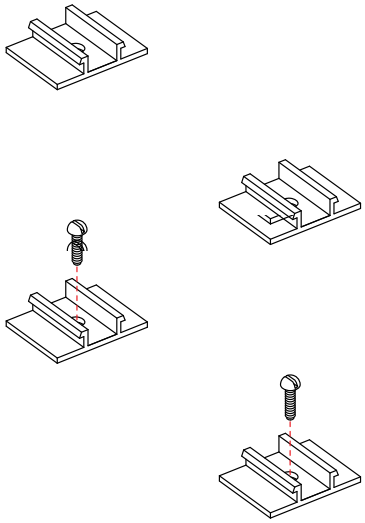
2. Mark location where mounting clips will be installed.

RECOMMENDATION: Quantity of mounting clips = quantity of fixture +1.
Use a mounting clip at the joint between two fixtures.

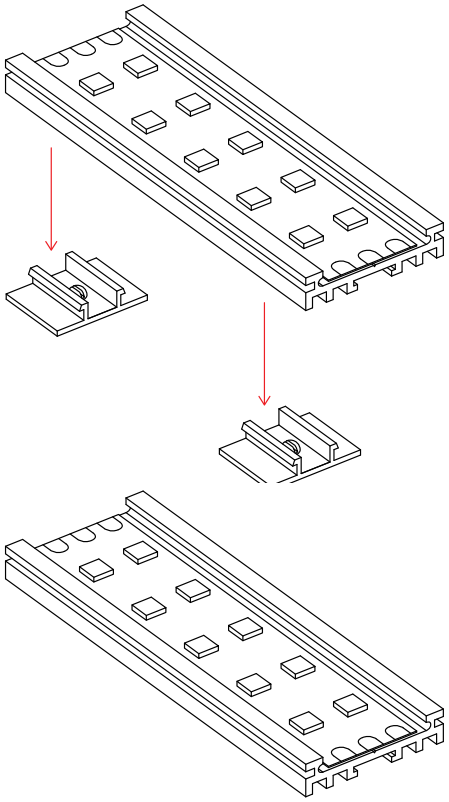


3. Lay mounting clips and pre-drill using proper drill bit for surface and screw size.

RECOMMENDATION: 8/32 X 1" screw



4. Screw mounting clip to surface, then snap extrusion into mounting clips.



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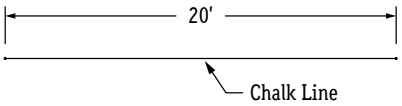
lipLEDs™ LLED8350-UCW

Installation Instructions

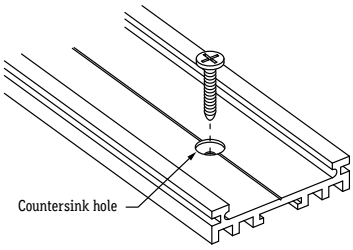
Mounting Channel (Dry Location)

1. Measure area where LLED8350-UCW will be installed.

RECOMMENDATION: Use chalk line to ensure a straight installation.

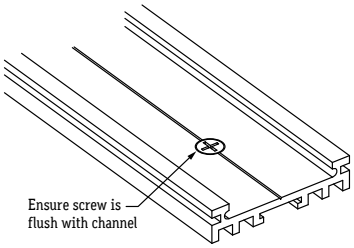


2. Drill holes as needed with drill bit and countersink.

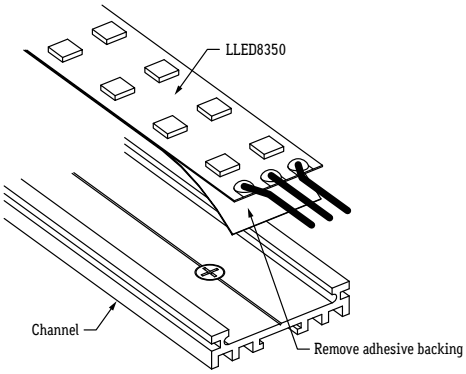


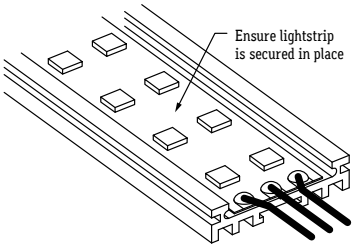
3. Screw channel into desired surface using countersink holes.

NOTE: Surface must be flat.

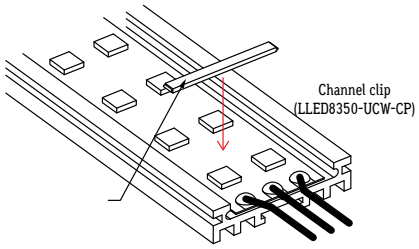


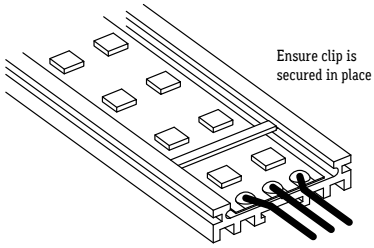
4. Remove adhesive backing from lightstrip, then install into channel.



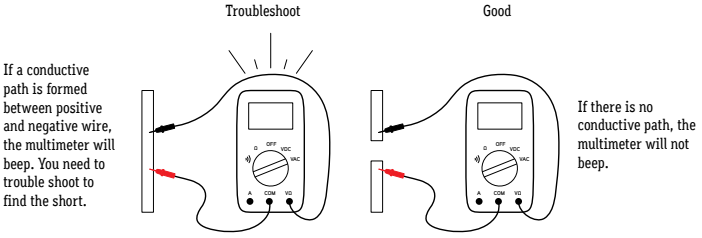


5. For downward facing applications, install channel clip every 6".



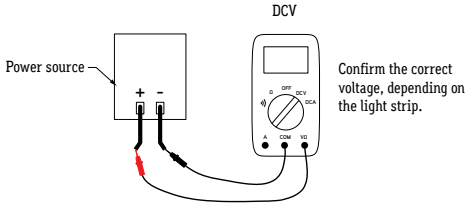


6. Conduct continuity test.



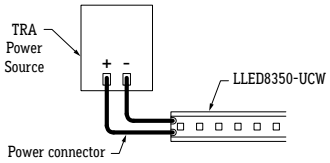
See page 10 for troubleshooting guide

7. Set voltmeter to DC voltage, then test power source before connecting.



8. Connect power source to power connector.

TIP: If LEDs do not turn on, flip polarity (+,-) or power source connection to power connector.



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lipLEDs™ LLED8350-UCW

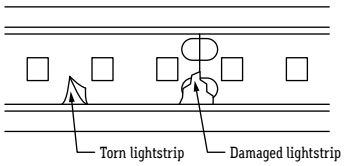
Installation Instructions

Troubleshooting

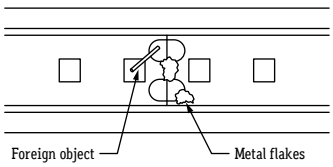
TROUBLESHOOTING TIPS

- Do not reset the breaker multiple times
- If the unit is overloaded, the breaker will trip, shutting off the transformer and lights
- If the breaker reset button has been held down by hand or any type of pressure, such as duct tape, or if the breaker has been reset multiple times without troubleshooting, the unit will:
  - Burn the transformer bobbin
  - Burn the thermal or magnetic breaker
  - Burn the primary or secondary wires due to high amperage caused by overload
  - Short circuit in line which will not allow the breaker to reset
  - Damage the lighting

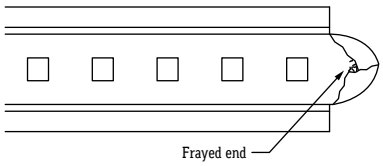
1. Turn off power before beginning. Check for any twisting or damage to the circuit in the LED lightstrip. If there is excessive damage and the circuit is broken, the lightstrip must be replaced.



2. Check for metal particles or other foreign objects causing the short.



3. Check to make sure cuts in the lightstrip are clean and not frayed, causing positive and negative copper pads to touch.



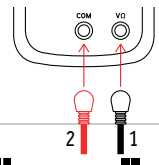
CONTINUITY TEST

A continuity test is performed to determine if electricity can pass through two points on an electrical circuit. This helps identify shorts or malfunctions in the line or fixture. Use a multimeter or continuity tester to perform the steps below.

- Always perform a continuity test before connecting lighting to power source.
- Malfunctions are not always as obvious as the lights not turning on.
- A short or malfunction in the line or fixture will cause damage over time, ultimately damaging the lighting and voiding warranty.

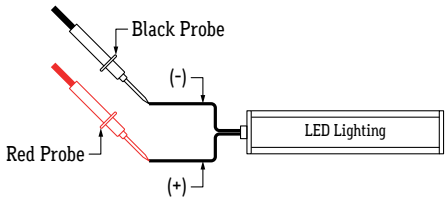
1. Turn power off before beginning. Verify power is turned off by using a non-contact circuit tester. Touch the probe of the tester to positive wire of the power source. The tester will light up if an electrical current is detected.

2. Setup your tester. First insert the black probe lead into the COM jack, then insert the red probe lead into the VΩ jack.

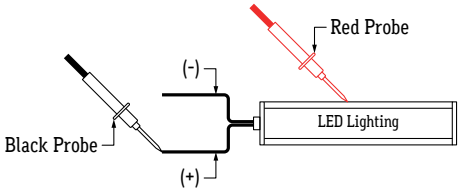


3. Verify that your tester is functional by touching probes together. The tester should light up, beep, or read 0Ω (ohms) of resistance.

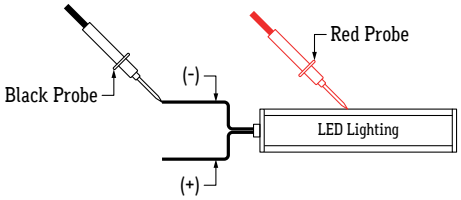
4. Touch the red probe to the positive (+) wire and the black probe to the negative (-) wire. If a conductive path is formed between the positive and negative wires, the multimeter will beep, flash, or read 0Ω (ohms). Troubleshoot to identify the malfunction in the line. If there is no conductive path, the multimeter will not show any feedback.



5. Touch the red probe to the fixture extrusion and the black probe to the positive (+) wire. If a conductive path is formed between the extrusion and the positive wire, the multimeter will beep, flash, or read 0Ω (ohms). Troubleshoot to identify the malfunction in the line. If there is no conductive path, the multimeter will not show any feedback.



6. Touch the red probe to the fixture extrusion and the black probe to the negative (-) wire. If a conductive path is formed between the extrusion and the negative wire, the multimeter will beep, flash, or read 0Ω (ohms). Troubleshoot to identify the malfunction in the line. If there is no conductive path, the multimeter will not show any feedback.



7. Set voltmeter to DC voltage and test power source. Confirm the correct voltage before connecting lighting to power source. If voltage reading is more than 1 volt higher than the marked output voltage, there is a problem with the power source or driver.

8. Connect power connector to power source. If LEDs do not turn on, flip polarity (+ -) or power source connection to power connector.

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WATTS (VA) PER CIRCUIT (Maximum wire length to prevent voltage drop)

WIRE SIZE	VOLTAGE	40 VA	80 VA	120 VA	160 VA	200 VA	240 VA	260 VA	280 VA	300 VA	320 VA
14GA	12V	37'	18'	12'	9'	7'	6'	6'	5'	5'	4'
14GA	24V	75'	37'	25'	19'	15'	12'	12'	11'	10'	9'
12GA	12V	59'	29'	20'	15'	12'	9'	9'	8'	8'	7'
12GA	24V	118'	59'	39'	30'	24'	18'	18'	17'	16'	15'
10GA	12V	94'	47'	31'	23'	19'	14'	14'	13'	12'	12'
10GA	24V	188'	94'	63'	47'	38'	29'	29'	27'	25'	24'
8GA	12V	149'	74'	50'	37'	30'	23'	23'	21'	20'	18'
8GA	24V	299'	149'	100'	75'	60'	46'	46'	43'	40'	37'

TRANSFORMER CARE

- Do not submerge transformer in any liquid
- Do not leave any exposed wires
- Do not cover transformer without proper ventilation
- Do not install damaged transformer

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CLEANING MATERIALS FOR LENSES AND EXTRUSIONS

The use of solvents and/or cleaners which are not compatible with polycarbonate will result in the softening, crazing, and/or cracking of the plastic part. This is especially true of polycarbonate lamps and mounting bases which may be under stress in their normal applications.

COMPATIBLE WITH POLYCARBONATE:

- Mild soap and water
- Mineral Spirits
- Isobutyl alcohol
- VM and P Naphtha
- Varsol No.2
- Mexane
- Freone TF and TE-35
- Ethanol
- Dirtex
- 2% Sol. Reg. Joy
- 10% Sol Bon Ami
- White Kerosene
- Methyl alcohol
- Heptane
- Petroleum Ether/65 degrees C
- Isopropyl alcohol
- Lacryl PCL-2035 polycarbonate cleaner

NOT COMPATIABLE WITH POLYCARBONATE:

- Trichlor
- Gasoline
- ll Liquid Detergents
- Acetone
- Carbon Tetrachloride
- Pink Lux (Phosphate free)
- Triclene
- Chlorinated Hydrocarbons
- #1 & #3 denatured alcohol
- Methyl Ethyl Keytone (MEK)
- Texize-8006, 8129, 8758
- MIBK
- Liquid Cleaner – 8211
- Toluol
- Agitene
- Benzol
- Ajax
- Kleenol Plastics
- Lysol
- Stanisol Naphtha
- Oils
- Lemon Joy (phosphate free)
- Diversol
- Lestoil

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