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FANTOMLED™
 SINGLE COLOR LED TAPE LIGHT

INSTALL GUIDE

WARNING



DO NOT CONNECT DIRECTLY TO HIGH VOLTAGE POWER

Read warnings carefully and follow all installation instructions.

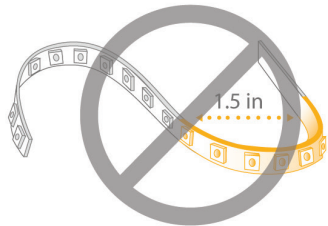
- Follow national and local electrical code regulations during installation.
- This product must be powered with a compatible Class 2 DC constant voltage LED driver (power supply).
- DO NOT power tape light while attached to coiled spool. This creates excess heat and may damage the fixture.
- DO NOT install in a location where LEDs are exposed to direct sunlight.
- Only wet-location tape light models are rated for outdoor and wet locations.
- Connectors have a Class 2 amp limit unless otherwise noted.
- Ensure applicable wire is installed between driver, fixture, and controls. When choosing wire, factor in voltage drop, amperage rating, and type (in-wall rated, wet-location rated, etc.). Incorrect wire installation could overheat wires and cause a fire.
- Tape light, attached wire leads, and additional extension cables, etc., are not rated for in-wall installation unless otherwise noted. Use wires rated for at least 176°F (80°C) and certified for use with external connection of electrical equipment.
- Each tape light has a different power consumption rating and maximum run length that must be individually wired to a compatible low voltage (PWM) control or LED driver. Refer to tape light package label or spec sheet for more information.
- Tape light must be handled with care. Excessive handling, bending, or pressure may damage the product and void the warranty.

QUICK SPECS

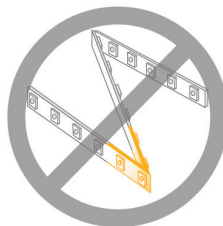
Input Voltage	See package label
Power Consumption	
Maximum Run	
Included Models	D-12V D-24V
Ambient Temperature	-4°F -122°F (-20° - 50°C)
Environment	Dry/wet locations (model dependant)

Do not install product in an environment outside the listed ambient temperature. Ensure adequate airflow and heatsinking during installation.

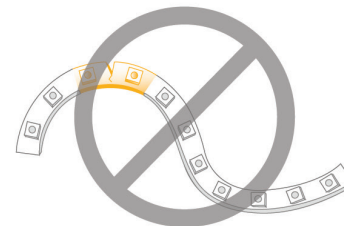
TAPE LIGHT HANDLING INSTRUCTIONS



Do not bend LED strip light to a diameter less than 1.5 inches.



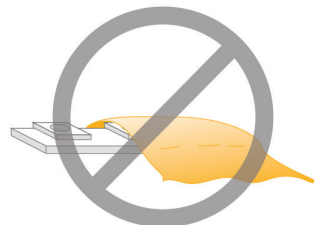
Do not fold or crease LED strip light.



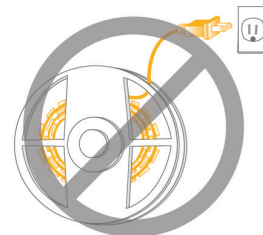
Do not bend LED strip light horizontally.



Do not put excessive pressure on surface of strip light (e.g., glass panes).



Do not cover strip light with any materials.

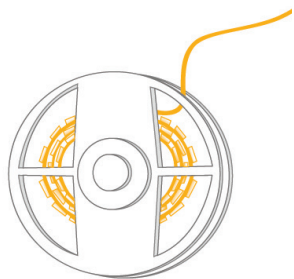


Do not power strip light while tightly coiled.

FANTOM LED

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SINGLE COLOR LED TAPE LIGHT

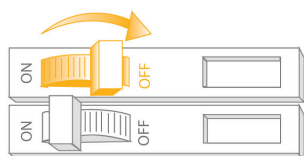
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INSTALLATION

Prior to installation, verify all components are compatible. Configure and pretest your LED system prior to permanent installation to ensure all components are operating correctly. Follow national and local electrical codes.

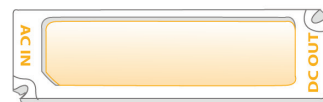
STEP 1

WARNING Turn power off at circuit breaker. Failure to do so may result in injury or death due to shock hazard.

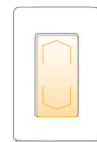


STEP 2

Determine locations to install three main components. Refer to page 4, System Diagrams.



1) Driver



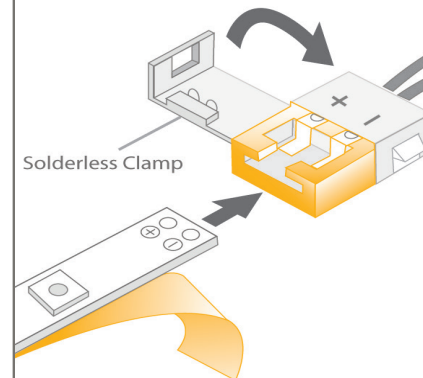
2) Control



3) Fixture

STEP 3

Prior to cutting tape light, refer to page 3, CLICKLOCK™ connectors.



SYSTEM NOT WORKING?
Turn OFF main power at breaker and verify all connections. Review the sections on Wiring Connections and System Diagrams, as well as dimming control installation guides.

STEP 4

Mount tape to desired surface. (Refer to Step 5 for wet-location strip installations.) Cut the tape at the line indicated below.



Locate a finished, smooth surface, away from direct sunlight, for mounting. Clean surface and let dry. Remove adhesive paper from the tape light to expose 3M™ adhesive.



Ensure ambient temp is minimum 50°F (10°C), or tape will not stick properly. Adhere tape to surface, working one end to the other to prevent air pockets and raised sections. Use a clean rag between skin and tape to resist oil transfer from skin to LEDs.

STEP 5 (wet locations only)

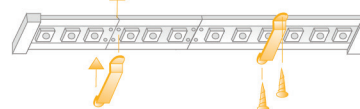
Utilize female and male wet-location connectors to attach cut sections of wet-location tape in series.



All cut points must be sealed with silicone adhesive (not included) and finished with wet-location end caps.



Attach with mounting clips and screws. Silicone may also be used to mount tape light.



STEP 6

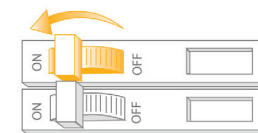
Attach control and driver. Only use copper wiring. Verify a compatible constant driver is installed.

STEP 7

Review full system. Ensure polarities are correct and connections are secure.

STEP 8

Install additional components. Verify connections and turn power breaker ON.



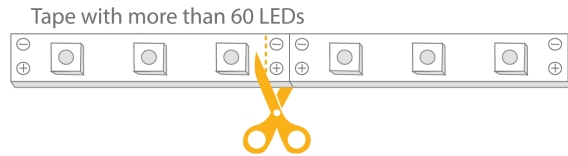
HOW TO FASTEN CLICKLOCK™ CONNECTORS

Cutting Tape Light

CLICKLOCK™ connectors require specific cutting instructions for a proper connection with high-density single-color tape light. See options A or B (does not apply to RGB tape light). Never cut tape attached to a live circuit. DO NOT solder CLICKLOCK™ connectors to tape light.

OPTION A

To cut tape light densities more than 60 LEDs per meter:
Cut the tape along the outside edge of the LED chip closest to the scissors icon, so that four contact/solder points remain intact to the tape. This will ensure the latch of the CLICKLOCK™ connector closes properly.



or

OPTION B

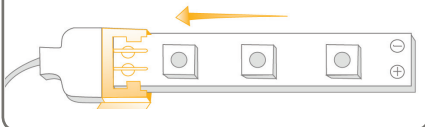
To cut tape light densities with 60 LEDs per meter or fewer: Cut the tape at the cut line indicated by the scissors icon.



Never cut tape attached to a live circuit.

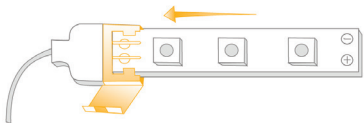
STEP 1

Open the CLICKLOCK™ latch and note the +/- polarity markings.



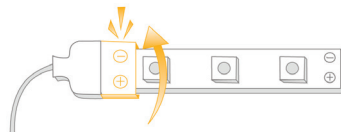
STEP 2

Firmly insert the tape light into the connector tray with the 3M™ adhesive backing still on the tape. Ensure contact/solder points of the tape are directly underneath the metal placement tabs of the connector.



STEP 3

Close the CLICKLOCK™ latch to ensure connection.



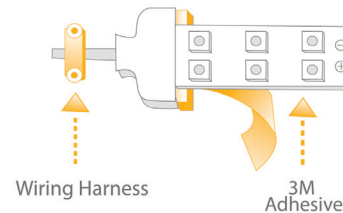
QUICK TIP:

If connection is not secure, pull tape out from the CLICKLOCK™ connector and trim any excess tape so the outer edges of contact/solder points are flush with the end of the tape. Insert trimmed end back into connector with the 3M™ adhesive backing still intact.



STEP 4

When ready for mounting, peel 3M™ adhesive backing from tape and tear off along the connector tray edge. Mount tape light and utilize a wiring harness to secure lead wires.



NOTE: CLASS 2

All tape light connector accessories have a Class 2 amperage limit: 60W/5A @ 12VDC, 95W/4A @ 24VDC. See Troubleshooting for tape light connector issues.

TO FASTEN DOUBLE ROW LED STRIP CONNECTORS

These instructions apply only to double LED tray connectors.

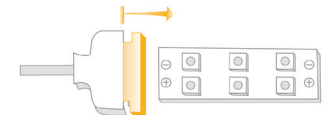
STEP 1

Cut the tape at the cut line indicated by the scissors icon.



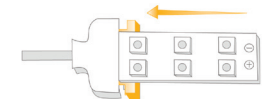
STEP 2

Gently pull out the black tab 1-2mm. Note the +/- polarity markings on tape.



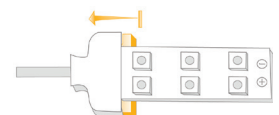
STEP 3

Firmly insert the tape light into the connector tray with the 3M™ adhesive backing still on the tape. Ensure contact/solder points of the tape are directly underneath the metal placement tabs of the connector.



STEP 4

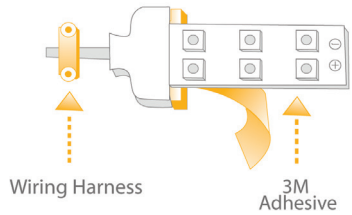
Squeeze the connector tray firmly with fingers or pliers to ensure connection.



(Cont'd) TO FASTEN DOUBLE ROW LED CONNECTORS

STEP 5

When ready for mounting, peel 3M™ adhesive backing from tape and tear off along the connector tray edge. Mount tape light and use a wiring harness to secure lead wires.



NOTE: CLASS 2

All tape light connector accessories have a Class 2 amperage limit: 60W/5A @ 12VDC, 95W/4A @ 24VDC. See Troubleshooting for tape light connector issues.

TROUBLESHOOTING

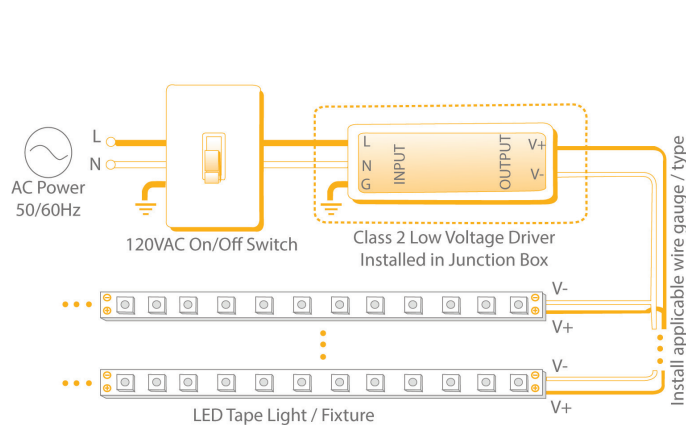
Before troubleshooting, make sure all items are compatible with the system and the main power is turned ON.

Shift in brightness and/or kelvin	<ul style="list-style-type: none"> Review maximum series run limits. Exceeding these limits will cause excess voltage drop, decreasing brightness and/or kelvin as the run is extended.
Some LEDs are not functional	<ul style="list-style-type: none"> Ensure all connections have been properly attached. Ensure fixture has not been bent excessively, which may cause components to detach from the circuit board.
Lights are flickering	<ul style="list-style-type: none"> Ensure a compatible driver is installed. Ensure the preset mode of the controller is not on a dynamic mode. Ensure Data +/- connections of DMX systems are not reversed. If lights continue to flicker, ensure tape light connectors are properly attached.
Lights are turning on/off repeatedly	<ul style="list-style-type: none"> Ensure driver is not overloaded. An overloaded driver will trip its internal auto-reset, turning the system on/off.
CLICKLOCK™ connector troubleshooting	<ul style="list-style-type: none"> Ensure compatible CLICKLOCK™ models are attached. Tape lights vary in width and require specific connectors. Contact your supplier for additional information. Tape light is polarity sensitive. Ensure the +/- markings of the CLICKLOCK™ connector are aligned with the +/- markings of the tape. If polarity is backwards, reverse the lead wire connection, or detach tape from CLICKLOCK™ connector and reattach opposing end of tape to connector.

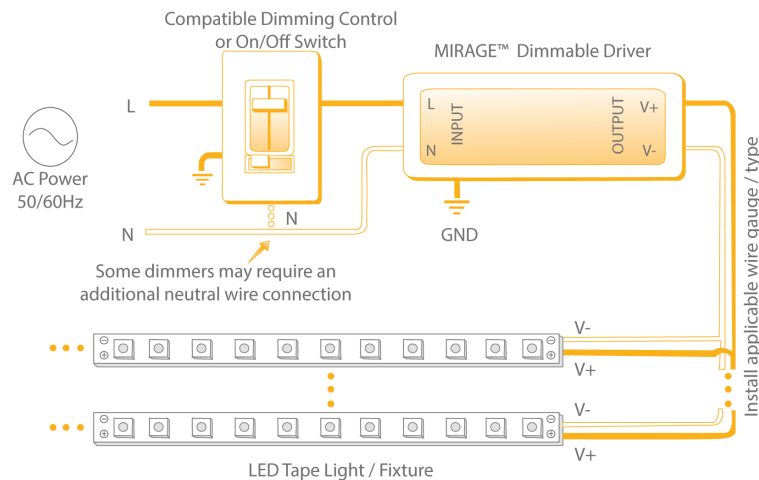
SYSTEM DIAGRAMS

These system diagrams are for basic installation. Contact our customer support team for assistance with designing more complex systems. Always follow national and local electrical code regulations during installation and be sure to review component installation guide instructions.

TRADITIONAL ON/OFF SYSTEM



MIRAGE™ ELECTRONIC DIMMABLE DRIVER SYSTEM



ADDITIONAL RESOURCES

For more installation and technical info, refer to these product specification sheets:

- FLAME™ 12V LED tape light**
- FLAME™ 24V LED tape light**
- FLAME™ 12V wet-location LED strip light**
- FLAME™ 24V wet-location LED strip light**
- VOLTAGE DROP CHARTS** (for specification of proper wire gauge during installation)

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