![illuminfx logo]

# SLIM**FLEX** LED Tape Lighting   **Installation Guide**

BEFORE YOU BEGIN, READ INSTALLATION INSTRUCTIONS THOROUGHLY

- Install in accordance with the National Electric Code and local regulations
- This product is intended to be installed and serviced by a qualified, licensed electrician.
- DO NOT connect SlimFlex directly to 120VAC power
- DO NOT power SlimFlex while still in the plastic spool or tightly coiled. Excess heat may cause damage to spool or SlimFlex.
- DO NOT submerse wet location SlimFlex in liquids. DO NOT install near chemically treated water or salt water.

- Ensure applicable wire is installed between driver, fixture, and any controls in between. When choosing wire, factor in voltage drop, amperage rating, and type.
- SlimFlex must be handled with care. Excessive handling, bending, and pressure may damage the product, voiding the warranty.
- Each SlimFlex product has a different power consumption and run length that must be individually wired to a compatible driver, low voltage (PWM) control, Magnetic Dimmable Driver (MD Series), or Color Controller.
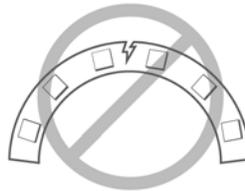
TAPE LIGHT HANDLING
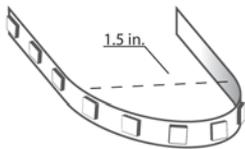
Do not bend LED tape light to a diameter less than 1.5 inches.
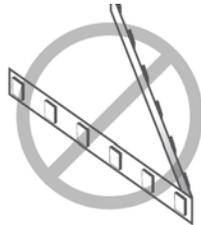
Do not fold or crease LED tape light.

Do not bend LED tape light on a horizontal plane.

Do not put excessive pressure on surface of tape light (e.g. glass/acrylic panes etc.).

INSTALLATION

Prior to installation, ensure all components of the system are compatible. Configure and pre-test you LED system prior to permanent installation to ensure all components are operating correctly.

1. Turn power OFF at the main breaker before servicing or installing SlimFlex.
2. If using a stand-alone LED power supply (such as illuminFx's CV or MD series) - Determine a well-ventilated, accessible location. Ensure applicable wire is installed between driver, fixture and any controls in between.
3. If using a provided illuminFx control box (RIO Spectrum Select, Color Select or Color Select PLUS control centers) - Determine a well-ventilated, accessible location. Ensure applicable wire is installed between driver, fixture and any controls in between.
4. Cut tape in between copper terminals on SlimFlex and seal all exposed sections of tape with silicone sealant and end caps. See 'CONNECTIONS' on page 2.

5. Mount tape to desired surface. Attach additional wiring and accessories to tape leads using provided connectors.
6. Harness all wires with plastic cable ties/staples, starting 2-4 inches from SlimFlex and every 4 feet afterwards to ensure connections do not detach from SlimFlex from excess pressure.
7. Connect compatible drivers and lighting controls. See 'COMPONENT INSTALLATION GUIDES' for detailed wiring connections.
8. Review the entire system. Ensure all polarities are correct and the connectors are secure and water tight.
9. Turn power ON at the main breaker. If system is not functioning properly, turn power OFF and see 'TROUBLESHOOTING'
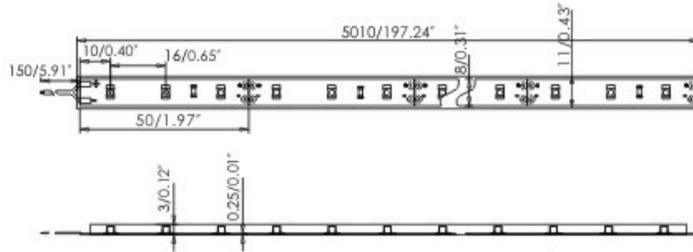
CUTTING

SlimFlex LED tape light can be cut in the field to allow for easy installation. Each type of SlimFlex has a different cutting interval, so double check your cutting point before proceeding. In all cases, look for sets of copper terminals and cut in between them on the line (figure 1)
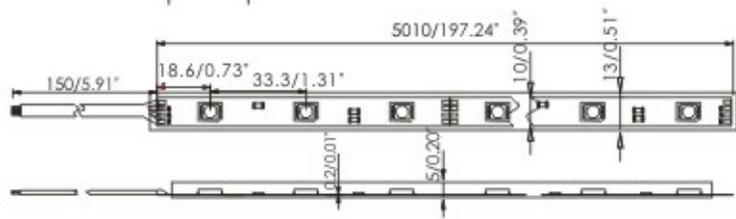
SINGLE COLOR - cuttable every ~2" (3 LEDs)

Figure 1

RGB - cuttable every ~4" (3 LEDs)

CONNECTIONS

Both the SINGLE COLOR and RGB SlimFlex comes in 5m (16.7ft) rolls. Each end is terminated with a quick connect plugs (to quickly and easily connect two rolls together) and each roll comes with opposite plugs to be connected directly to the rest of the system.

SlimFlex includes clip on connectors (diagram 1) and end caps. Utilize the male and female connectors to string up to 2 full runs of SlimFlex together (DO NOT exceed this length). Use provided end caps and silicone to seal any cut points.
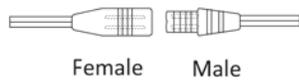
Female   Male

Utilize female and male wet location connectors to attach cut sections of wet location tape in series.
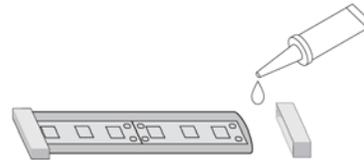
All cut points must be sealed with silicone adhesive and wet location end caps.

note : SINGLE COLOR SlimFlex using 2 wire connectors (as shown) RGB SlimFlex uses 4 wire (Red, Green, Blue, Black) connectors. But the process for using Clip Connectors is the same.
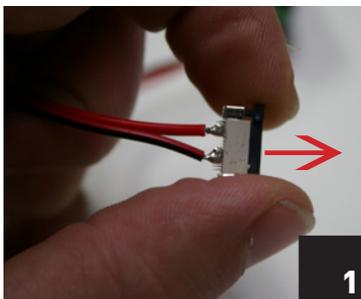

diagram 1
Carefully slide black portion of connector away from housing

Carefully pull SlimFlex out of silicon sleeve, slide clip connector on (white face up), and slide black portion back towards housing.
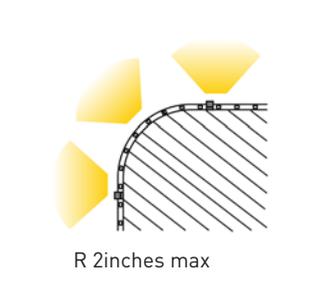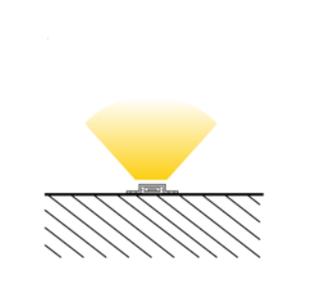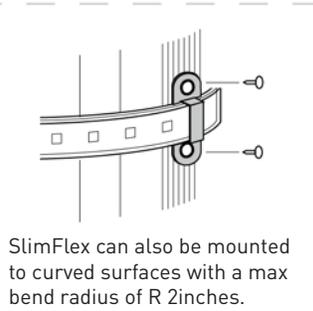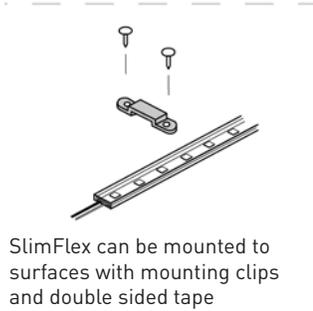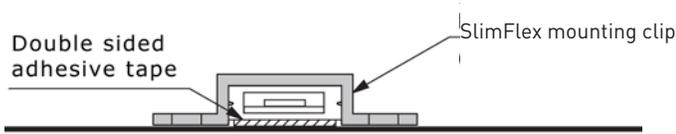
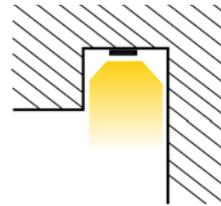Slide on a provided end cap with holes down over wires and fill void with proided silicon glue. Allow 24 hours to fully cure.

MOUNTING > Clips
Each 5m roll of SlimFlex comes with (15) silicon mounting clips which can be used to mount the SlimFlex.
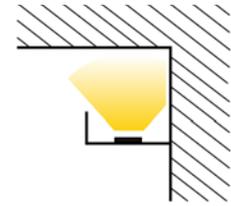
Installation

Double sided adhesive tape

SlimFlex mounting clip

SlimFlex can be mounted to surfaces with mounting clips and double sided tape

SlimFlex can also be mounted to curved surfaces with a max bend radius of R 2inches.

R 2inches max

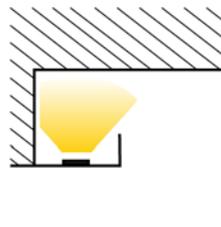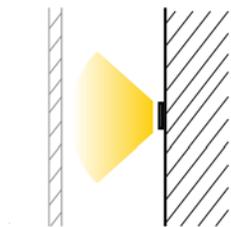**Example Mounting Options**

Cove lighting

Cornice lighting

Floating ceiling lighting

Back lighting

MOUNTING > Aluminum Profiles
illuminFx also offers a series of Aluminum Profiles for the SlimFlex line of products (see additional cutsheets for more info)

Installation

The length of the profile is restricted to the cutting increments of the LED SlimFlex

1. Secure the mounting clips with screws, making sure the gripping teeth face outward. It is recommended to use a minimum of 2 clips per track (2 are provided with every 1m section of track)
2. Apply silicon adhesive into the channel, and lay the LED SlimFlex into the track allowing glue to cure for 24-48 hours.
3. Snap on the aluminum track onto the teeth of the mounting track.
4. Fit the diffuser lens over the aluminum profile.
5. End caps are provided for the aluminum profile. Use the closed end caps for ends of runs and the end cap with a hole it to allow the wires to either connect back to the power supply or to another run of SlimFlex (NOTE: Holes can be cut into end caps if more are needed)
6. Snap on the end caps. It is recommended to use epoxy to fully close and keep the end caps in place.

NOTE : Aluminum profiles are IP20 rated. Water and dust may seep through, but this doesn't have any effect on the LED SlimFlex as it is IP65 rated. However, make sure that profiles are able to drain water, as standing water over time will damage SlimFlex.

Recommended Offset Distances

6"

2"

6"
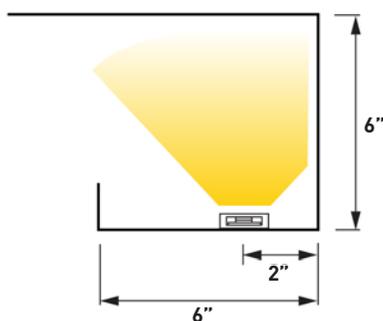
COVE LIGHTING
SlimFlex used to indirectly light to provide brilliant soft lighting

6"
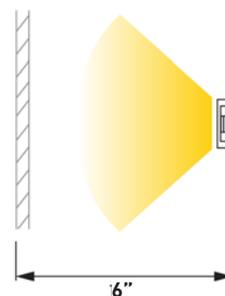
BACKLIGHT
SlimFlex used to provide the lightsource to backlight signing

POWER SUPPLY

SlimFlex LED tape light operates on either 12 or 24v DC; please check specific SlimFlex type for correct voltage. It is important to use a regulated DC power supply such as **illuminFx's CV and MD series power supplies**.
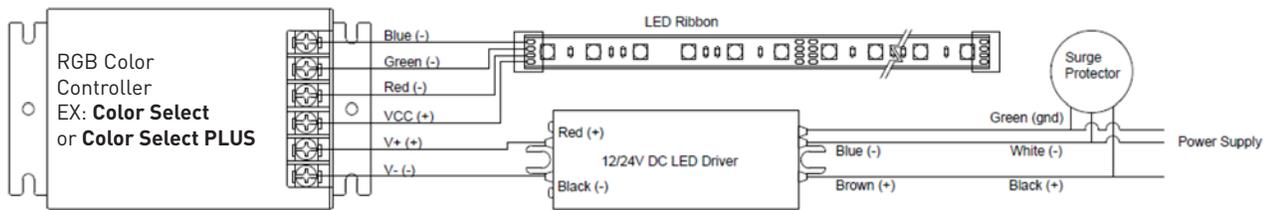
Please remember that this is a low voltage product and consult electrical codes when selecting appropriate wire. Power draw restricts the maximum length of SlimFlex (2 spools or 10m). **CAUTION : DO NOT** exceed maximum length. Doing so will result in SlimFlex failures.

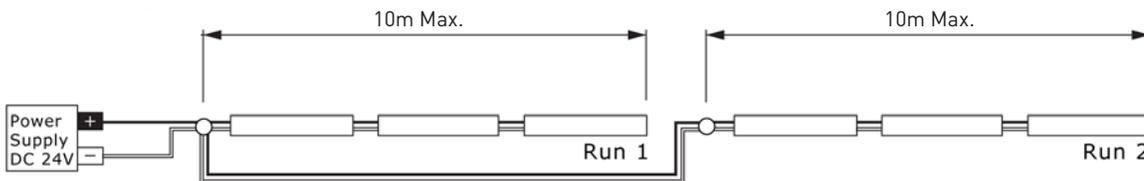## COMPONENT INSTALLATION GUIDES

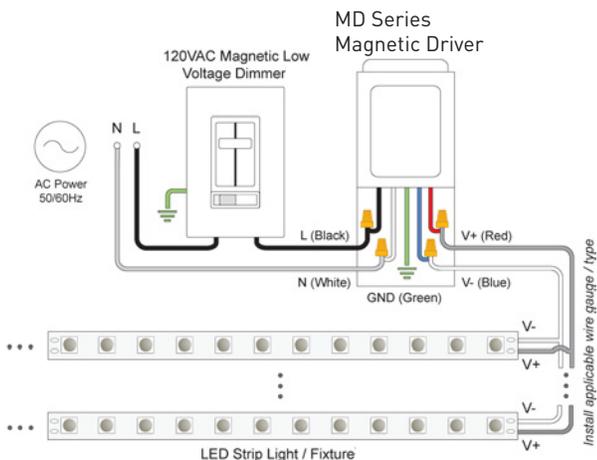### Single Color LED SlimFlex
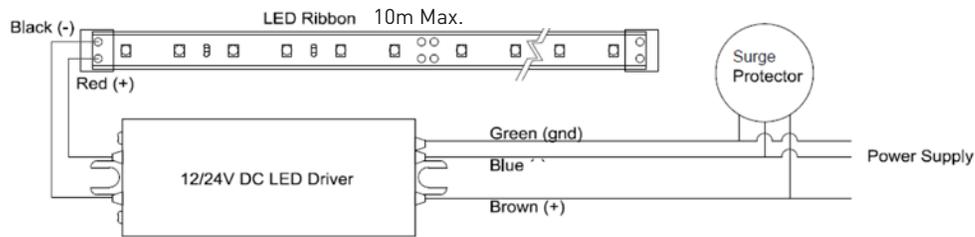
RGB SlimFlex

Single Color LED SlimFlex - Multiple Runs from Same Power Supply

Single Color LED SlimFlex - Magnetic Dimmable Power Supply (see additional MD series cut sheets)

TROUBLESHOOTING

Before troubleshooting, ensure all items are compatible and the main power is turned ON

Loss of brightness in a run
Review maximum series run limits. Exceeding these limits will cause excess voltage drop, decreasing brightness as the run is extended.

Some LEDs are not functioning
Ensure all connections have been properly attached. Ensure each run of SlimFlex has not been bent excessively, which may cause components such as solder joints to detach from the board.

Lights are flickering
If using a dimmable system with a MD series driver, check applicable cut sheets to ensure you are using a correct dimmer. If lighting continue to flicker, check for loose connections.

Lights are turning on/off repeatedly
Ensure the driver is not overloaded. An overloaded driver will trip the internal auto-reset repeatedly

RGB SlimFlex won't power on
RGB SlimFlex has 4 wires, all of which need to be going to the correct locations on the color controller. The black wire is the common wire, if it is not connected or loose, no power will make it to the LEDs.

RGB SlimFlex isn't showing a certain color or wrong color
Make sure you have the red wire going to the red input of the color controller. Same goes for blue, and green. If one isn't connected you will not get the color and if some are connected to the incorrect spot, you will get colors you weren't expecting.

FOR MORE INFORMATION

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