

## INSTALLATION INSTRUCTIONS | Performance LED Tapelight: TLT Series

### 12V TAPELIGHT SERIES POWER SUPPLY/DISTANCE AND OPTIMIZED LIGHT OUTPUT

<b>TLP12V 12V POWER SUPPLY INPUT: 12V DC</b>	<b>TLT12V1 STANDARD OUTPUT (SO) 0.7W/FT</b>		<b>TLT12V2 HIGH OUTPUT (HO) 1.4W/FT</b>		<b>TLT12V3 SUPER HIGH OUTPUT (SHO) 3.2W/FT</b>		<b>TLT12V1RGB RGB<sup>1</sup> OUTPUT 3.9W/FT</b>		<b>TLS12V1 STD. OUTPUT (SO) SIDE EMITTING 0.65W/FT</b>		<b>TLS12V2 HIGH OUTPUT (HO) SIDE EMITTING 1.4W/FT</b>	
WATTAGE	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT
20W	14 FT	14 FT	10 FT	10 FT	5 FT	5 FT	5 FT	5 FT	30 FT	30 FT	14 FT	14 FT
24W	17 FT	17 FT	12 FT	12 FT	6 FT	6 FT	5.5 FT	5.5 FT	32 FT	34 FT	17 FT	17 FT
36W	22 FT	26 FT	17 FT	17 FT	10 FT	10 FT	7 FT	9 FT	32 FT	50 FT	22 FT	26 FT
50W	22 FT	32 FT	17 FT	23 FT	12 FT	13 FT	7 FT	10 FT	32 FT	66 FT	22 FT	34 FT
60W	22 FT	36 FT	17 FT	28 FT	12 FT	16 FT	7 FT	10 FT	32 FT	78 FT	22 FT	40 FT

<b>TLP012V 12V POWER SUPPLY INPUT: 12V DC</b>	<b>TLT012V2 STATIC WHITE WET OUTDOOR 1.8W/FT</b>	
WATTAGE	MAX RUN	MAX SPLIT
36W	16.4 FT	20 FT
50W	16.4 FT	27 FT
60W	16.4 FT	32.8 FT

1. RGB Tapelight is at full power (all four LEDs are illuminated). Power consumption may vary based on color changing program.

A. Max split can be split more than once, without exceeding the max single run in each leg.

B. Max Run refers to the total single run of tapelight that can go on a power supply. Max Split refers to the total amount of tapelight that can go on a driver if it were separated into two runs.

C. Max Run lengths are calculated with 12V or 24V DC at the start of the tape run. Voltage drop may occur if not using proper wire gauge. Please refer to the Voltage Drop and Wire Length Distance chart.

D. Max Run lengths above are calculated with no more than 30% light loss from the start of the tape run to the end of the tape run for optimal light consistency. If run lengths are extended beyond the recommended lengths noted above, there will be inconsistent light output and voltage drop.

E. Overall distance of LED tape under load (illuminated sections). If exceeded damage to the power supply and LED tape may result.

### 12V TAPELIGHT SERIES

#### VOLTAGE DROP AND WIRE LENGTH DISTANCE; 3% VOLTAGE DROP\*

Wire Gauge	20W	24W	36W	50W	60W
22 AWG	6 FT	5 FT	4 FT	2 FT	2 FT
20 AWG	10 FT	9 FT	6 FT	4 FT	3 FT
18 AWG	17 FT	14 FT	9 FT	6 FT	5 FT
16 AWG	27 FT	22 FT	15 FT	11 FT	9 FT
14 AWG	43 FT	35 FT	24 FT	17 FT	14 FT
12 AWG	68 FT	56 FT	38 FT	27 FT	23 FT
10 AWG	108 FT	90 FT	60 FT	43 FT	36 FT

\*The Voltage Drop and Wire Length Distance Charts provide general guidelines for determining wire gauge based on total load and distance from the LED driver to the beginning of the tapelight run. Always consult a qualified electrician or technician before wiring. Install in accordance with local electrical codes and National Electrical Code.

All specifications subject to change without notice. For ConTech's limited product warranty, go to [www.contechlighting.com](http://www.contechlighting.com). For a printed copy of the warranty, call 1-847-559-5500.

CONTECH LIGHTING | 725 LANDWEHR ROAD | NORTHBROOK, ILLINOIS 60062 | PHONE 847.559.5500 | [www.contechlighting.com](http://www.contechlighting.com)

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## INSTALLATION INSTRUCTIONS | Performance LED Tapelight: TLT Series

### 24V TAPELIGHT SERIES POWER SUPPLY/DISTANCE AND OPTIMIZED LIGHT OUTPUT

TLP24V 24V POWER SUPPLY INPUT: 24V DC	TLT24V0 LOW OUTPUT (LO) LONG RUN 1.3W/FT		TLT24V1 STANDARD OUTPUT (SO) 2.1W/FT		TLT24V2 HIGH OUTPUT (HO) 3.8W/FT		TLT24V3 SUPER HIGH OUTPUT (SHO) 5.5W/FT	
WATTAGE	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT
20W	15 FT	18 FT	7 FT	9 FT	5 FT	6 FT	5 FT	7 FT
36W	24 FT	32 FT	11 FT	16 FT	7 FT	9 FT	7 FT	10 FT
60W	39 FT	53 FT	18 FT	26 FT	12 FT	15 FT	12 FT	18 FT
90W	61 FT	81 FT	28 FT	40 FT	18 FT	22 FT	18 FT	26 FT
96W	70 FT	92 FT	32 FT	45 FT	20 FT	25 FT	20 FT	30 FT

TLP24V 24V POWER SUPPLY INPUT: 24V DC	TLT24V1RGB RGB <sup>1</sup> OUTPUT 3.9W/FT		TLT24V1RGBW RGBW <sup>1</sup> OUTPUT 4.8W/FT		TLT24VTW TUNABLE WHITE <sup>2</sup> 4.3W/FT	
WATTAGE	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT	MAX RUN	MAX SPLIT
20W	7 FT	9 FT	4 FT	4 FT	4 FT	5 FT
36W	12 FT	13 FT	7 FT	7 FT	8 FT	9 FT
60W	22 FT	24 FT	12 FT	12 FT	14 FT	15 FT
90W	26 FT	34 FT	14 FT	16 FT	25 FT	40 FT
96W	30 FT	40 FT	16 FT	20 FT	27 FT	45 FT

1. RGB & RGBW Are at full power (all four LEDs are illuminated). Power consumption may vary based on color changing program.

2. Tunable White is at full power (both LEDs are illuminated). Power consumption may vary based on color temperature combinations.

- Max split can be split more than once, without exceeding the max single run in each leg.
- Max Run refers to the total single run of tapelight that can go on a power supply. Max Split refers to the total amount of tapelight that can go on a driver if it were separated into two runs.
- Max Run lengths are calculated with 12V or 24V DC at the start of the tape run. Voltage drop may occur if not using proper wire gauge. Please refer to the Voltage Drop and Wire Length Distance chart.
- Max Run lengths above are calculated with no more than 30% light loss from the start of the tape run to the end of the tape run for optimal light consistency. If run lengths are extended beyond the recommended lengths noted above, there will be inconsistent light output and voltage drop.
- Overall distance of LED tape under load (illuminated sections). If exceeded damage to the power supply and LED tape may result.

### 24V TAPELIGHT SERIES

#### VOLTAGE DROP AND WIRE LENGTH DISTANCE; 3% VOLTAGE DROP\*

Wire Gauge	20W	30W	36W	60W	96W
22 AWG	27 FT	18 FT	15 FT	9 FT	5 FT
20 AWG	43 FT	28 FT	24 FT	14 FT	9 FT
18 AWG	68 FT	45 FT	38 FT	23 FT	14 FT
16 AWG	109 FT	72 FT	60 FT	36 FT	23 FT
14 AWG	174 FT	115 FT	95 FT	57 FT	36 FT
12 AWG	272 FT	181 FT	151 FT	90 FT	57 FT
10 AWG	432 FT	288 FT	240 FT	144 FT	90 FT

\*The Voltage Drop and Wire Length Distance Charts provide general guidelines for determining wire gauge based on total load and distance from the LED driver to the beginning of the tapelight run. Always consult a qualified electrician or technician before wiring. Install in accordance with local electrical codes and National Electrical Code.

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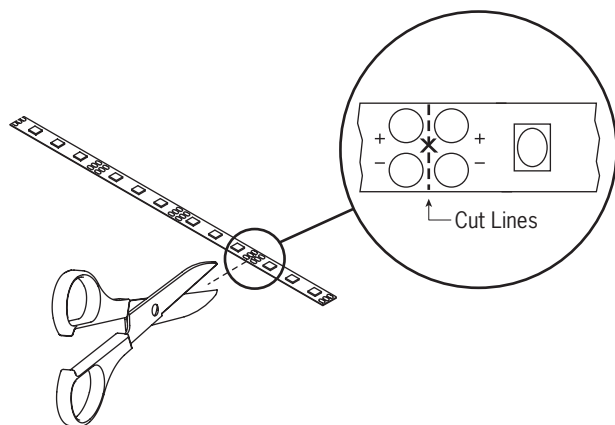
**Note:** Before attempting installation please refer to your local electrical code.

### INSTALLATION PROCEDURES:

- Please read all instructions prior to installation.
- Product should be installed by a qualified electrician.
- Prior to installation, please test all tapelight components to ensure no damage has occurred during shipment and layout materials to check bill of material.
- In hardwire applications, ensure power is off at fuse box to prevent electrical shock.

### FIGURE 1

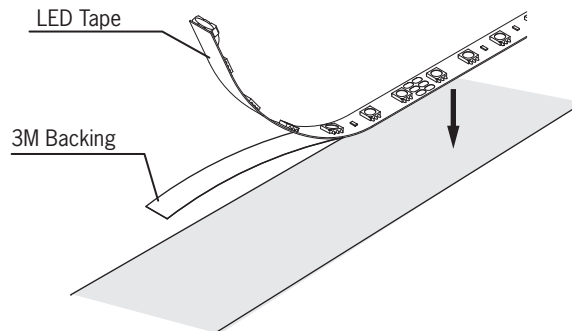
When cutting tapelight, cut only on the cut lines provided.



### FIGURE 2

Remove adhesive backing, then gently press down the tape onto the surface. Avoid contact with LEDs.

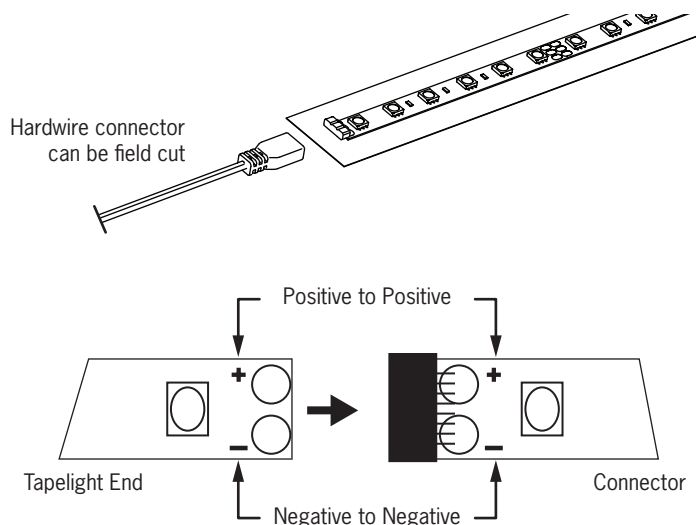
**NOTE: DO NOT BEND OR PINCH TAPE ON A HARD ANGLE.**



### FIGURE 3

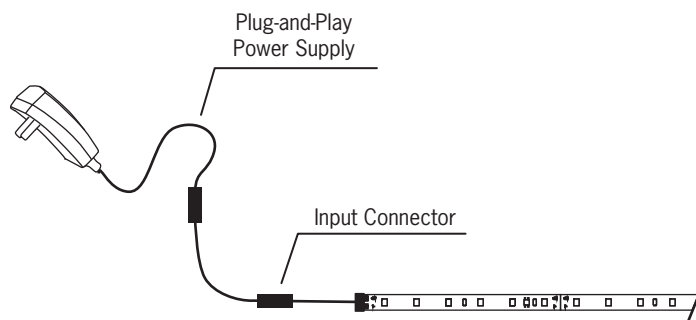
Add input connector by plugging the input connector into the beginning of the tape.

For hardwire applications, an electrician can add any additional wire needed to run back to the power supply.



### FIGURE 4

For plug-and-play applications, simply plug power supply into a wall outlet.



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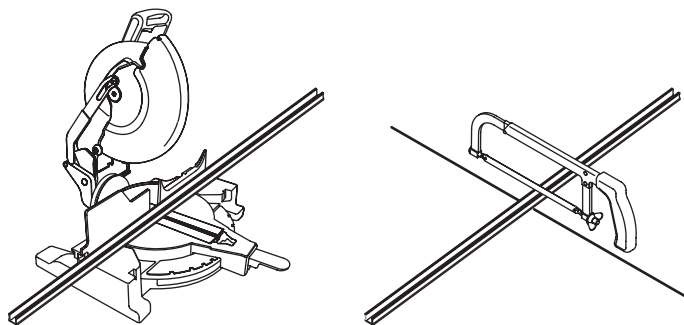
**Note:** Before attempting installation please refer to your local electrical code.

### MOUNTING CHANNEL CUTTING AND INSTALLATION

**ALWAYS WEAR SAFETY GLASSES WHEN CUTTING ALUMINUM CHANNELS**

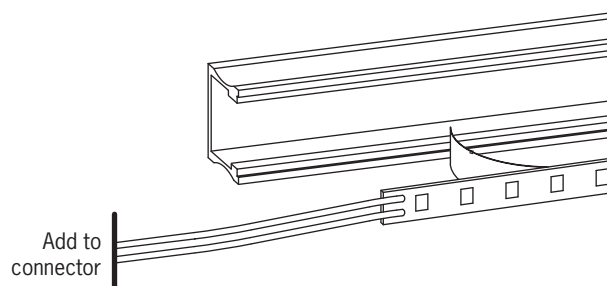
#### FIGURE 1

Cut mounting channel with hacksaw or miter saw with the appropriate blade for cutting aluminum.



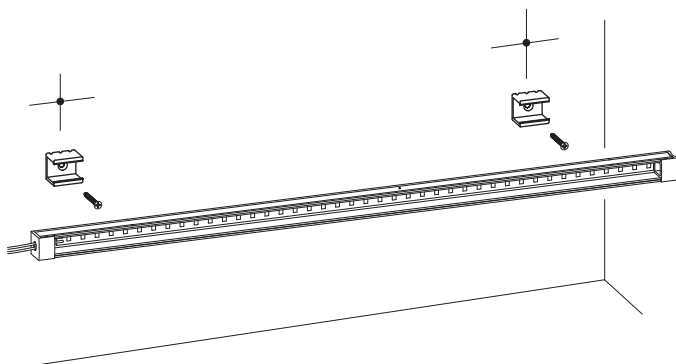
#### FIGURE 2

Remove the adhesive backing from the tapelight and place into mounting channel. Gently press tapelight down into the channel. Avoid pressure on the LEDs.



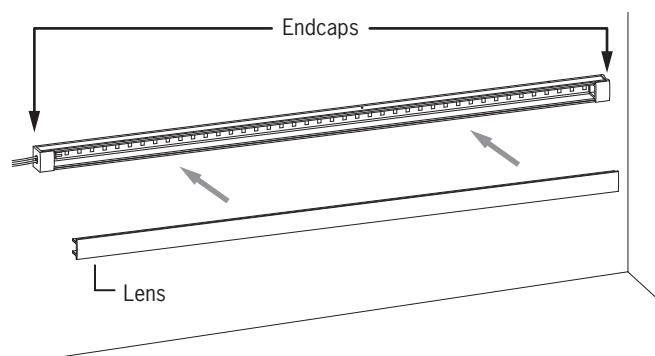
#### FIGURE 3

Mark mounting clip locations. Use screws provided for installation. Recommended max distance between clips is 24".



#### FIGURE 4

Snap the clear or frosted lens into place. Add mounting channel end caps to finish off the run.



#### IMPORTANT SAFETY INSTRUCTIONS:

- Read all the instructions before installation. Save instructions for later use.
- Turn off power at fuse or circuit breaker box before installation or before doing any maintenance work.
- Product must be grounded to avoid potential electric shock and any other potential hazards.
- Product must be mounted in locations and at heights and in a manner consistent with its intended use, and in compliance with National Electrical Code and local codes. Use of accessory equipment is not recommended.
- Installing contrary to instructions may cause unsafe conditions.
- Do not block light from the trim aperture, in whole or in part, as this may cause unsafe conditions.
- **WARNING: RISK OF FIRE**  
Most dwellings built before 1985 have supply wire rated at 60°C. Consult a qualified electrician before installation.
- Avoid hazards to children: account for all parts and properly dispose of all packing materials.
- Call the Technical Support department at ConTech Lighting with any installation questions: 847.559.5500.

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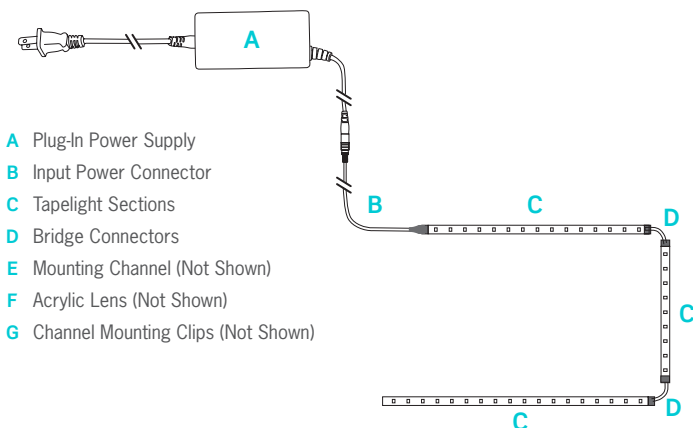
## SINGLE RUN PLUG-IN POWER SUPPLY LAYOUTS

Single run plug-in power supply layouts are simple examples for applications requiring illuminated tapelight runs up to 32 feet\* where the power supply is located at the beginning of the tape run and plugging into an AC outlet is desired for powering the system.

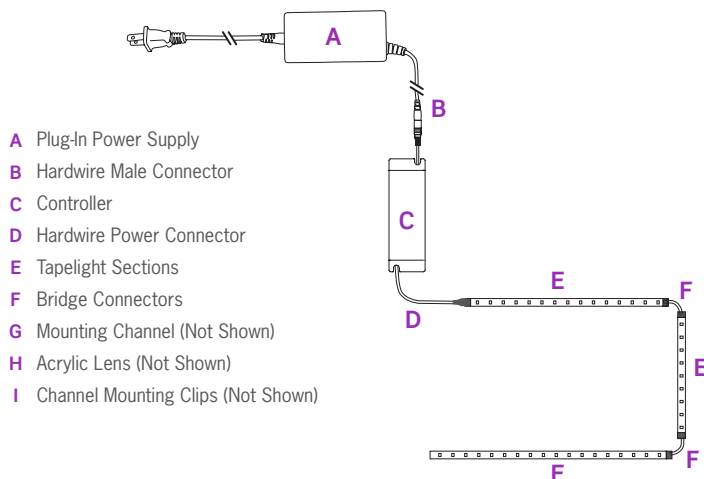
For more assistance with other tapelight layout options such as extended runs, multiple runs, dimming, etc., contact ConTech's Tapelight Concierge Service Team.

*\*Run length is dependent on chosen tapelight series and power supply wattage*

### WHITE AND STATIC COLOR



### RGB/RGBW/TW



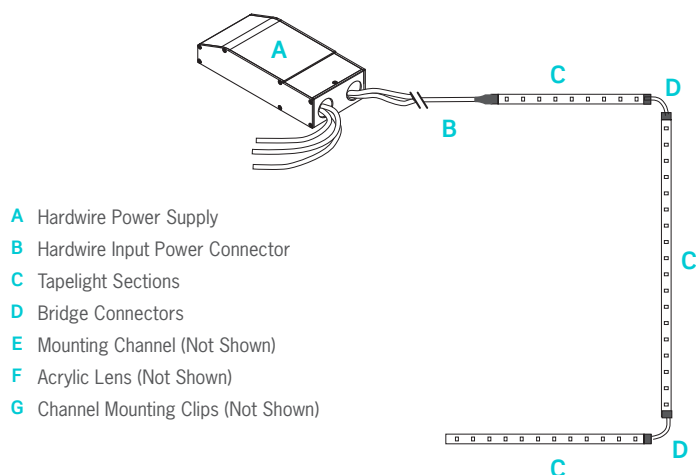
## SINGLE RUN HARDWIRE POWER SUPPLY LAYOUTS

Single run hardwire power supply layouts are simple examples for applications requiring illuminated tapelight runs up to 32 feet\* where the power supply is located at the beginning of the tape run and direct hardwired connection to AC power is desired for powering the system.

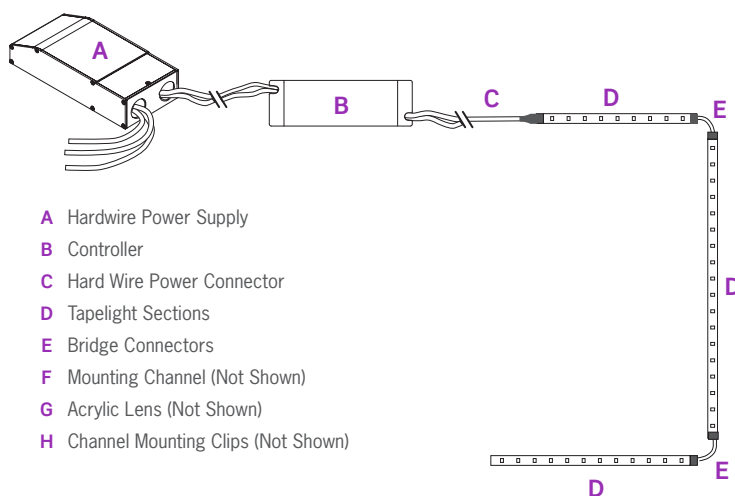
For more assistance with other tapelight layout options such as extended runs, multiple runs, dimming, etc., contact ConTech's concierge tapelight service team.

*\*Run length is dependent on chosen tapelight series and power supply wattage*

### WHITE AND STATIC COLOR



### RGB/RGBW/TW



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## SPLIT RUN PLUG-IN POWER SUPPLY LAYOUTS

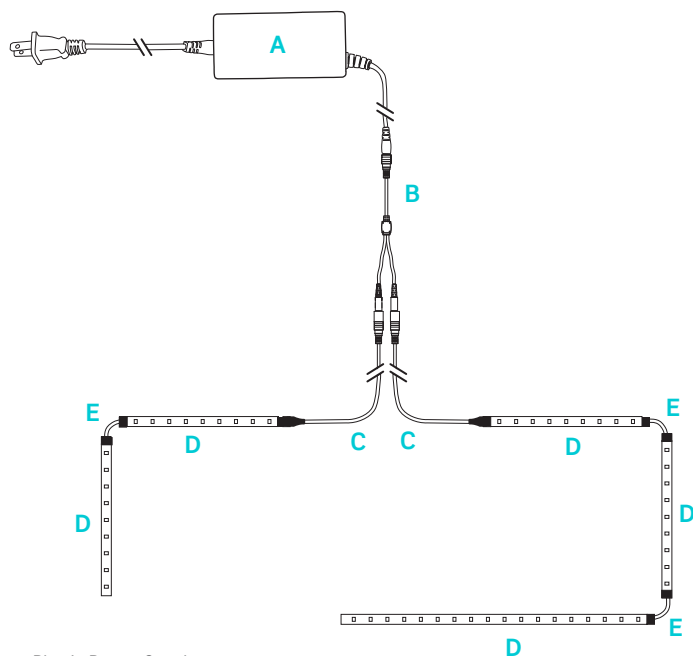
Split run plug-in power supply layouts are simple examples for applications requiring illuminated tapelight runs up to 45 feet\* (depending on selected tapelight series) where the power supply is in the middle of the tape run and plugging into an AC outlet is desired for powering the system. To optimize performance, it is recommended to locate the power supply in the center of your tapelight design.

For more assistance with other tapelight layout options such as extended runs, multiple runs, dimming, etc., contact ConTech's Tapelight Concierge Service Team.

*\*Run length is dependent on chosen tapelight series and power supply wattage*

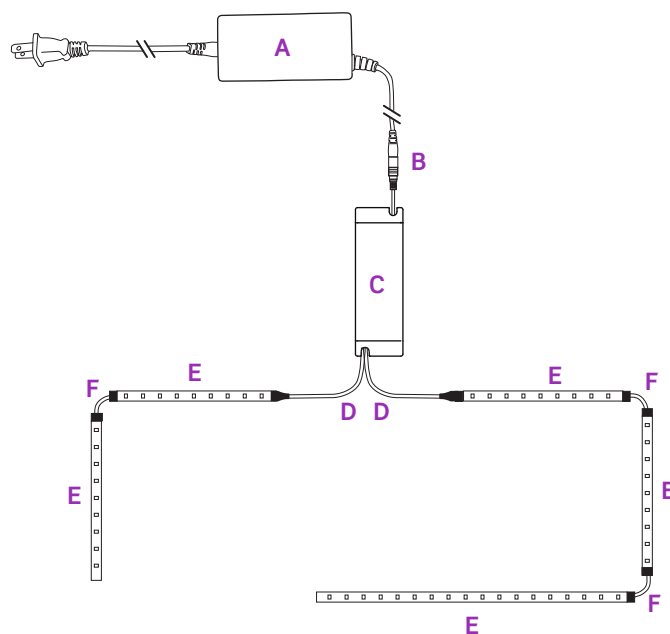
*To optimize performance, it is recommended to locate the power supply in the center of your tapelight design.*

### WHITE AND STATIC COLOR



- A Plug-In Power Supply
- B Two-Way Splitter
- C Input Power Connector
- D Tapelight Sections
- E Bridge Connectors
- F Mounting Channel (Not Shown)
- G Acrylic Lens (Not Shown)
- H Channel Mounting Clips (Not Shown)

### RGB/RGBW/TW



- A Plug-In Power Supply
- B Hardwire Male Connector
- C Controller
- D (2) Hardwire Power Connectors
- E Tapelight Sections
- F Bridge Connectors
- G Mounting Channel (Not Shown)
- H Acrylic Lens (Not Shown)
- I Channel Mounting Clips (Not Shown)

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## SPLIT RUN HARDWIRE POWER SUPPLY LAYOUTS

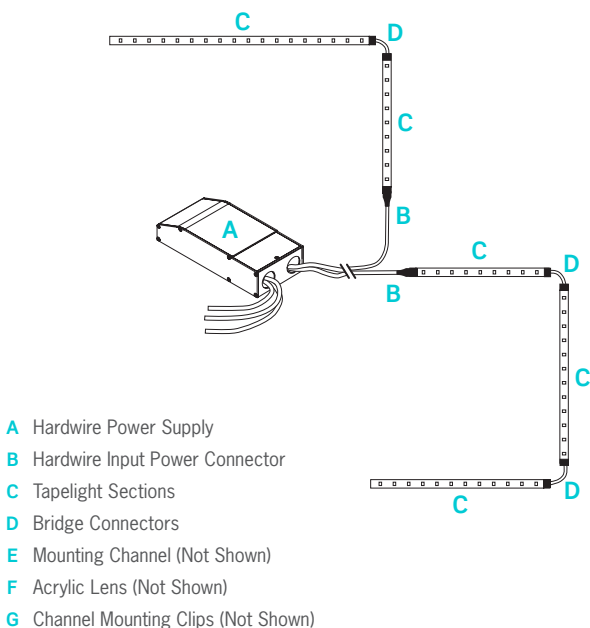
Split run hardwire power supply layouts are simple examples for applications requiring illuminated tapelight runs up to 45 feet\* where the power supply is in the middle of the tape run and direct hardwired connection to AC power is desired for powering the system. To optimize performance, it is recommended to locate the power supply in the center of your tapelight design.

For more assistance with other tapelight layout options such as extended runs, multiple runs, dimming, etc., contact ConTech's Tapelight Concierge Service Team.

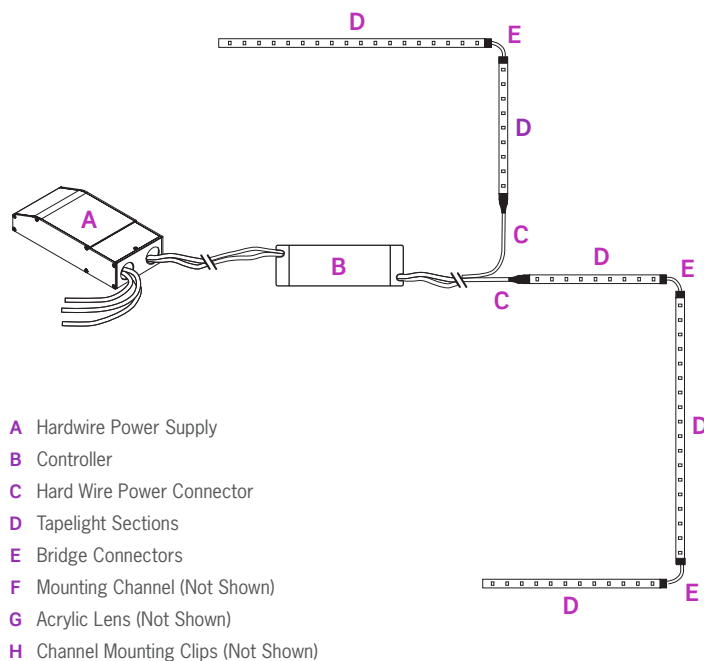
*\*Run length is dependent on chosen tapelight series and power supply wattage*

*To optimize performance, it is recommended to locate the power supply in the center of your tapelight design.*

### WHITE AND STATIC COLOR



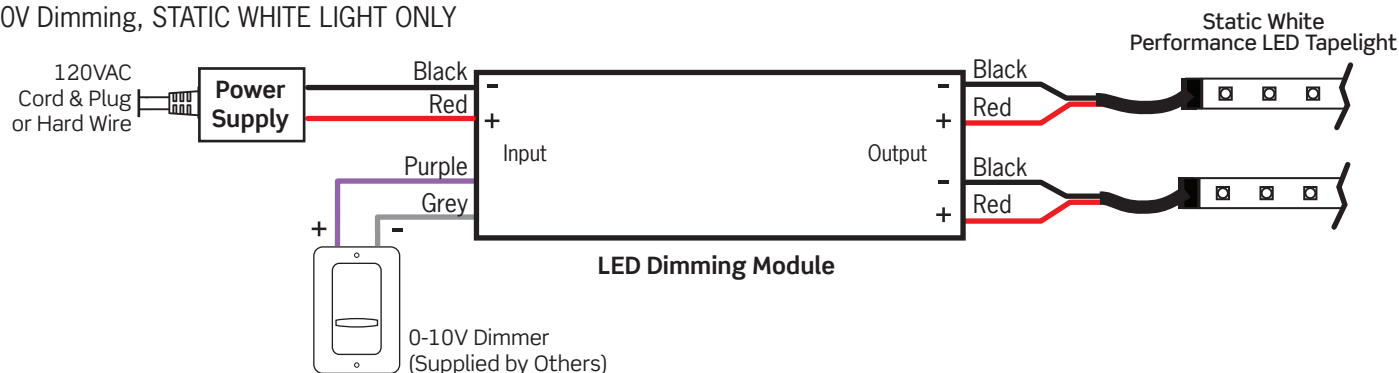
### RGB/RGBW/TW



## INSTALLATION INSTRUCTIONS | Performance LED Tapelight Wiring Diagrams

### DIMMING MODULE WIRING DIAGRAM

0-10V Dimming, STATIC WHITE LIGHT ONLY

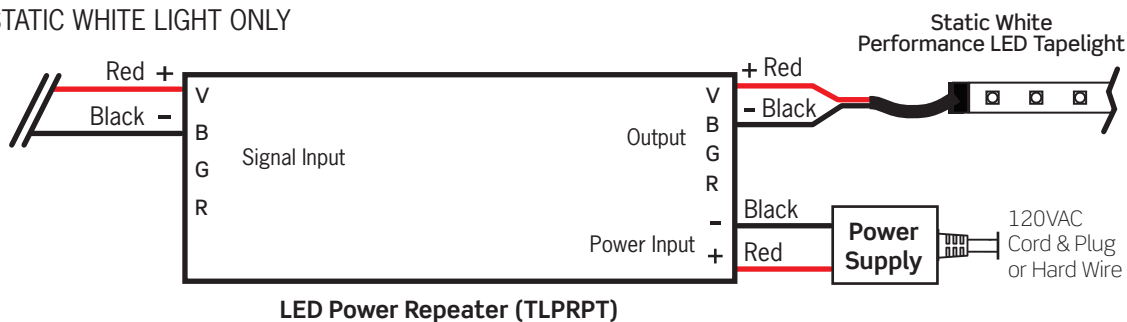


### REPEATER WIRING DIAGRAM

For Continuous Dimming, STATIC WHITE LIGHT ONLY

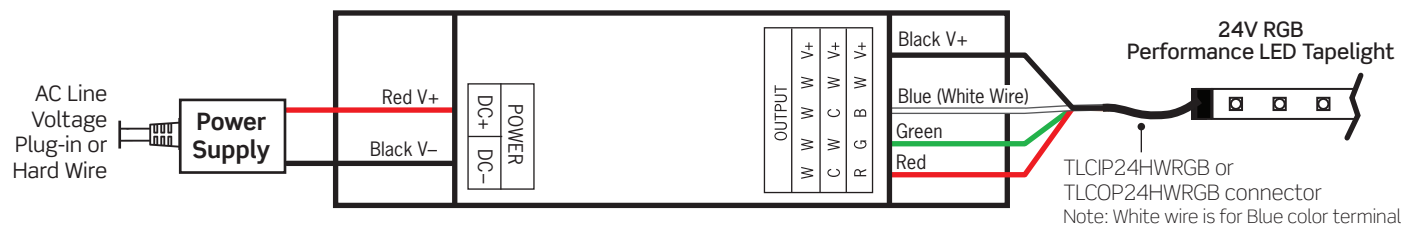
Signal Input Options:

1. Output connector from previous run of tapelight
2. Secondary dimming signal from output of dimming module



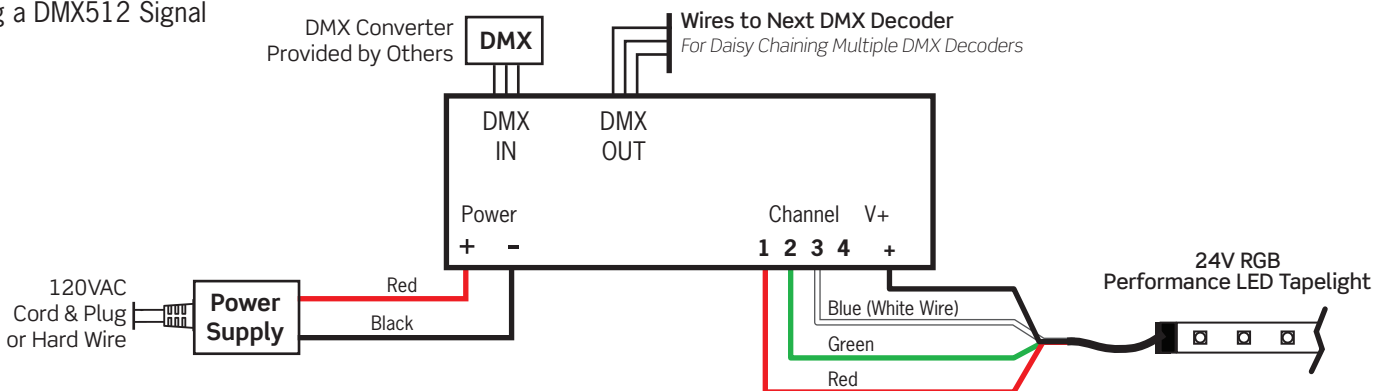
### 24V RGB TAPELIGHT WIRING

TLPRGBWRF and TLPRGBWTC Controllers; Wiring for 24V RGB Tapelight, for Controlling RGB Color and Dimming



### DMX WIRING DIAGRAM

Using a DMX512 Signal



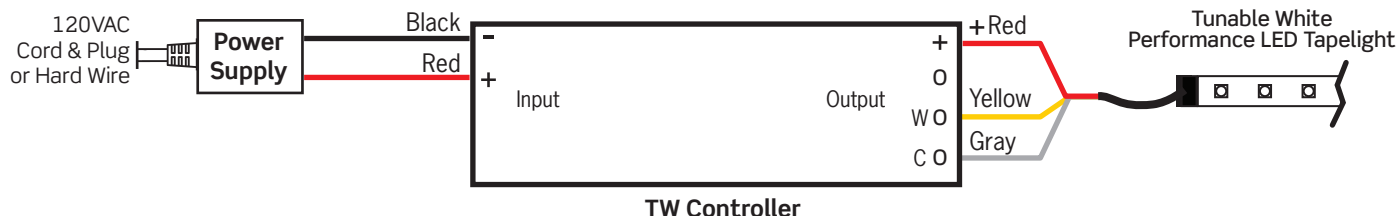
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## INSTALLATION INSTRUCTIONS | Performance LED Tapelight Wiring Diagrams

### TUNABLE WHITE CONTROLLER WIRING DIAGRAM

TUNABLE WHITE ONLY

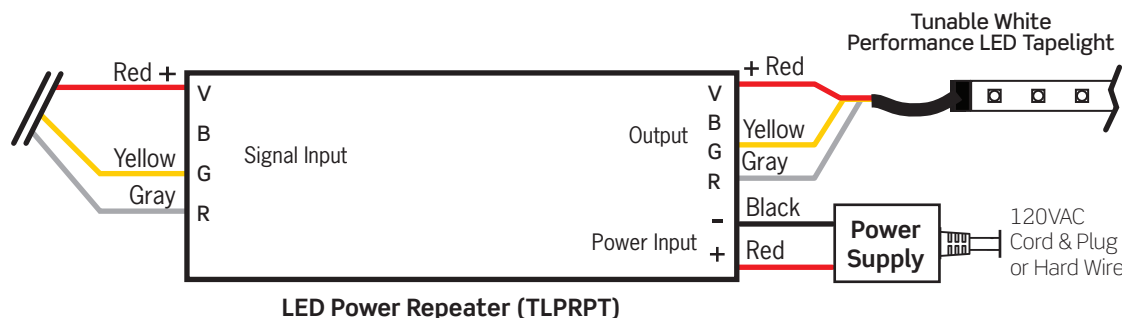


### REPEATER WIRING DIAGRAM

For Extended Runs; TUNABLE WHITE ONLY

Signal Input Options:

1. Output connector from previous run of tapelight
2. Secondary control signal from output of Tunable White receiver/controller



### DMX WIRING DIAGRAM

Using a DMX512 Signal; TUNABLE WHITE ONLY

