

Tetra® Flexible Tape

LED Lighting System

Installation Guide

12
Volt

GETP35-1, GETP40-1, GETP50-1, GETP60-1, GETPRD-1

GETPH35-1, GETPH40-1, GETPH50-1, GETPH60-1, GETPBL-1, GETPGL-1

EN Instruction Guide	DE Einbauanleitung	FR Guide d'installation	LV Uzstādīšanas instrukcija	RO Ghid de instalare	TR Montaj Kılavuzu
AR دليل التركيب	EL Οδηγός Εγκατάστασης	HR Priručnik za instalaciju	NL Installatiehandleiding	RU Инструкции по установке	UK Посібник з установлення
BG Инструкции за монтаж	ES Guía de instalación	HU Felszerelési útmutató	NO Monteringsanvisning	SV Installationsanvisning	ZH 安裝指南
CS Montážní příručka	ET Paigaldusjuhend	IT Guida all'installazione	PL Instrukcja instalacji	SL Navodila za namestitvev	
DA Monteringsvejledning	FI Asennusohje	LT Sumontavimo vadovas	PT Guia de Instalação	SK Návod na inštaláciu	



BEFORE YOU BEGIN

Read these instructions completely and carefully.

! WARNING/AVERTISSEMENT

RISK OF ELECTRIC SHOCK

- Turn power off before inspection, installation or removal.
- Properly ground GE power supply enclosure.

RISK OF FIRE

- Use only UL approved wire for input/output connections. Minimum size 18 AWG (0.82mm²)
- Follow all NEC and local codes.
- Not to be submerged or used in a marine environment.

RISK OF FIRE OR ELECTRIC SHOCK

- LED Retrofit Kit installation requires knowledge of sign electrical systems. If not qualified, do not attempt installation. Contact a qualified electrician.
- Install this kit only in host signs that have been identified in the installation instructions and where the input rating of the retrofit kit does not exceed the input rating of the sign.
- Installation of this LED retrofit kit may involve drilling or punching of holes into the structure of the sign. Check for enclosed wiring and components to avoid damage to wiring and electrical parts.
- Do not make or alter any open holes in an enclosure of wiring or electrical components during kit installation.

RISQUES DE DÉCHARGES ÉLECTRIQUES

- Coupez l'alimentation avant l'inspection, l'installation ou le déplacement.
- Assurez-vous de correctement mettre à terre l'alimentation électrique GE.

RISQUES D'INCENDIE

- N'utilisez que des fils approuvés par UL pour les entrées/sorties de connexion. Taille minimum 18 AWG (0.82mm²)
- Respectez tous les codes NEC et codes locaux.
- Ne pas submerger ou installer dans un environnement marin.

RISQUE D'INCENDIE OU DE CHOC ÉLECTRIQUE

- L'installation de l'équipement de remplacement DEL exige la connaissance des systèmes électriques pour enseignes. Si non qualifié, ne tentez pas d'installation. Veuillez contacter un électricien qualifié.
- Risque d'incendie ou de choc électrique. Installez cet ensemble seulement dans des enseignes hôtes qui ont été identifiés dans les instructions d'installation et dont la capacité d'entrée de l'ensemble ne dépasse pas la capacité d'entrée de l'enseigne.
- L'installation de cet équipement de remplacement DEL peut impliquer le perçage ou le poinçonnage de trous dans la structure du panneau. Vérifiez le câblage et les composants inclus pour éviter d'endommager le câblage et les composants électriques.
- Ne pas faire ou modifier les trous ouverts dans une enceinte de câblage ou de composants électriques pendant l'installation de cet équipement de remplacement DEL.

Prepare Electrical Wiring

Electrical Requirements

- Limited to use in dry, damp and wet locations.
- The grounding and bonding of the LED Driver shall be done in accordance with National Electric Code (NEC) Article 600.
- Follow all National Electric Codes (NEC) and local codes.
- These products are only suitable for connection to a circuit from a Class 2 power source.
- These products have not been evaluated for use when connected to a power source that does not comply with Class 2 voltage and energy limited supplies.



Save These Instructions

Use only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.



RETROFIT SIGN CONVERSION LED KIT FOR USE ONLY IN ACCORDANCE WITH KIT INSTRUCTIONS. KIT IS COMPLETE ONLY WHEN ALL PARTS REQUIRED BY THE INSTRUCTIONS ARE PRESENT. TROUSSE DE CONVERSION À DEL POUR LA MODERNISATION DES ENSEIGNES À UTILISER CONFORMÉMENT AU GUIDE D'INSTALLATION.

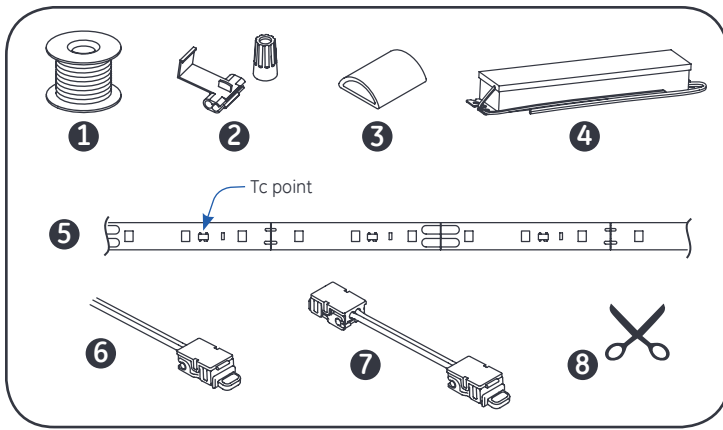
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This Class [A] RFLD complies with the Canadian standard ICES-005. Ce DEFR de la classe [A] est conforme à la NMB-005 du Canada.

current
powered by GE

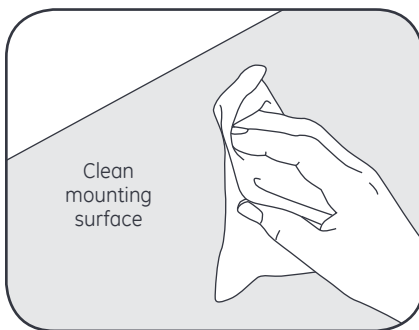




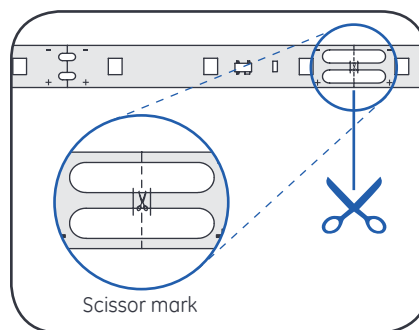
Components

- 1 UL certified 18 AWG (0.82 mm²) supply wire
- 2 UL certified 22-14 AWG (0.33-2.08 mm²) twist-on wire connectors or 18-14 AWG (0.82-2.82 mm²) inline/IDC connectors
- 3 Flexible Tape End Cap
- 4 Tetra® 12 Volt Power Supply
- 5 Tetra® Flexible Tape
- 6 Tetra® Flexible Tape Lead Connector (GETPLCN54-1)
- 7 Tetra® Flexible Tape Jump Connector (GETPJC54-1)
- 8 Scissors

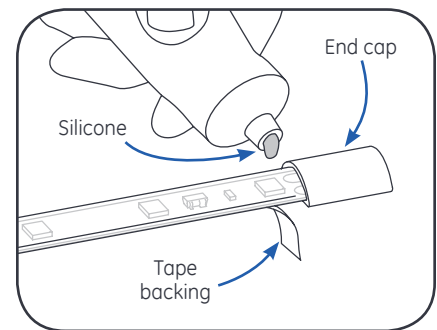
Installation Steps



- 1 Mounting surface must be free of dust, dirt or grease. Clean mounting surface with alcohol before installation and allow to dry.

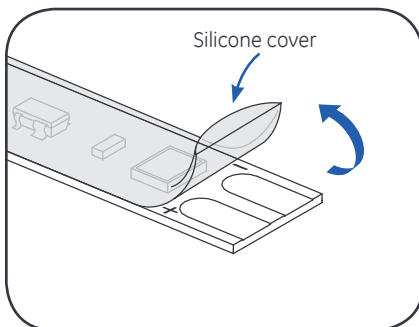


- 2 Measure and cut Tetra® flexible tape to the desired length using scissors. Cut only on the scissor markings and stay within the limit lines.

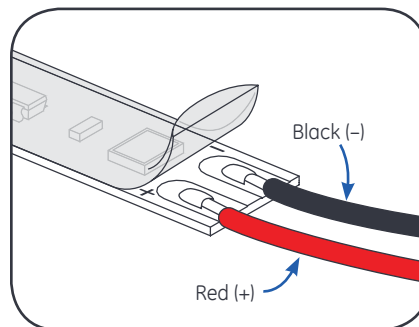


- 3 Peel away a portion of the tape backing at cut end. Press fit an end cap fully to the open end and apply electrical grade silicone (see note below).

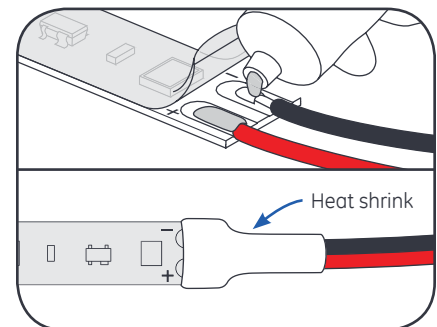
If soldering is needed, refer to the steps 4a-6a



- 4a At the cut end, carefully peel back the silicone cover over the soldering pads. Make sure not to remove the silicone over the LED.



- 5a Using UL certified 18AWG wire, solder a red wire to the (+) pad and a black wire to the (-) pad.

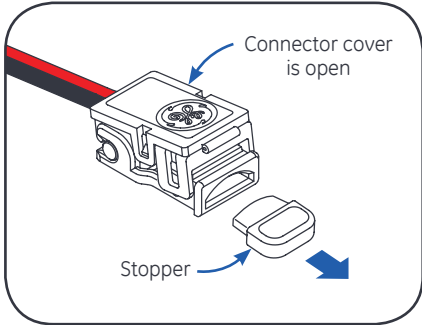


- 6a Seal the soldering points with electrical silicone. Replace the silicone cover and secure it by shrinking a piece of ¼" heat shrink over the end.

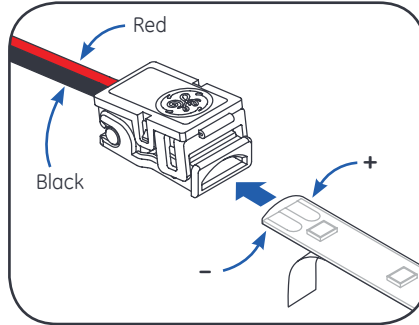
NOTE: Example electrical grade silicones include:

- Momentive RTV 6700 Series Silicone Rubber Adhesive Sealant
- Momentive White Blanc RTV 162 Silicone Rubber Adhesive Sealant-Electrical Grade
- Dow Corning-3140-Non-Corrosive Flowable (clear)
- Dow Corning 3145-Non-Corrosive Nonflowable (clear or gray)
- Dow Corning RTV 748 Non-Corrosive Sealant-White

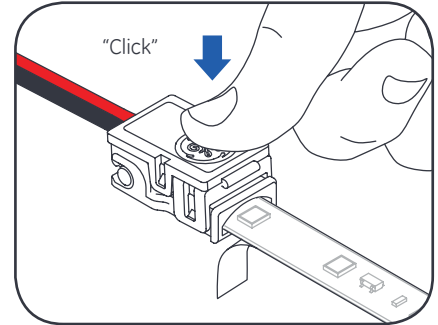
If connector is needed, refer to the steps 4b-6b



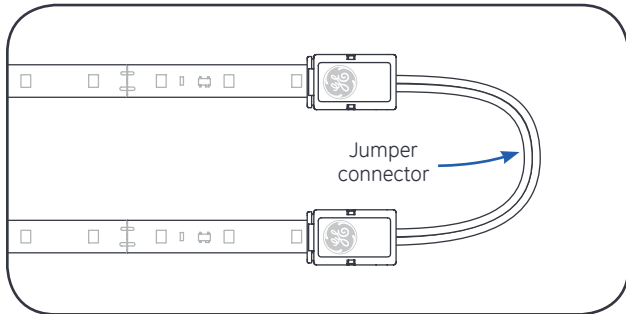
4b Check the connector for cosmetic issues. Open the cover. Remove the stopper from the tape guide.
NOTE: If the stopper is missing and the connector cover has been locked, please change to another one.



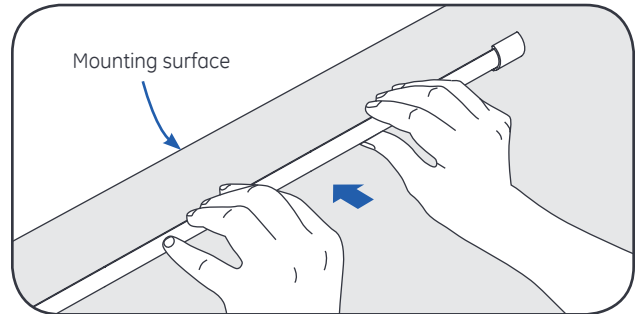
5b Partially remove the tape backing on the end to be connected. Align red lead with the (+) contact on the tape and the black lead with the (-) contact. Fully insert the tape into the open end of the tape guide with the LEDs facing the cover.



6b Press the cover down onto the tape guide until a "click" is heard. Visually check the connection for correct polarity, good continuity, and secureness.



7 If necessary, join two strips together using a jump connector or a soldered wire connection. Follow steps 4b-6b for each end of the jump connection, or 4a-6a for each end of the soldered wire connection.

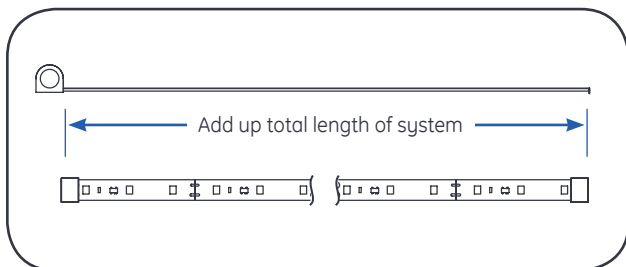


8 Remove tape backing and stick Tetra® flexible tape in place. Ensure the tape is firmly attached.
NOTE: Securing with electrical grade silicone is also acceptable.

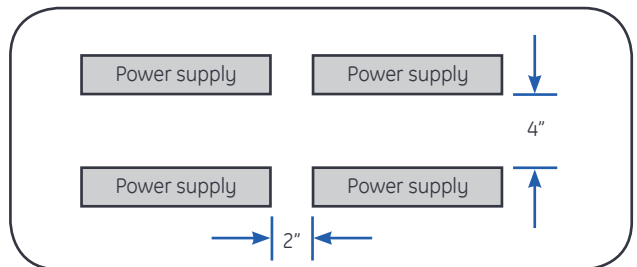
To avoid water ingress or shorting to the mating surface, all product should be inspected for breaks in the adhesive backing or silicone cover prior to installation and any damaged product should be not be installed.

Do not remove, reposition, or lift the tape once the adhesive backing has made contact with the mounting surface.

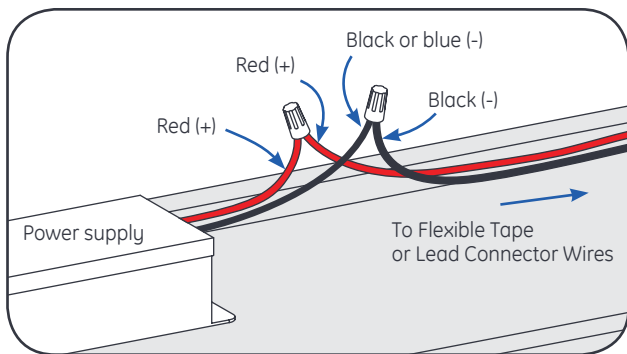
Electrical Connections



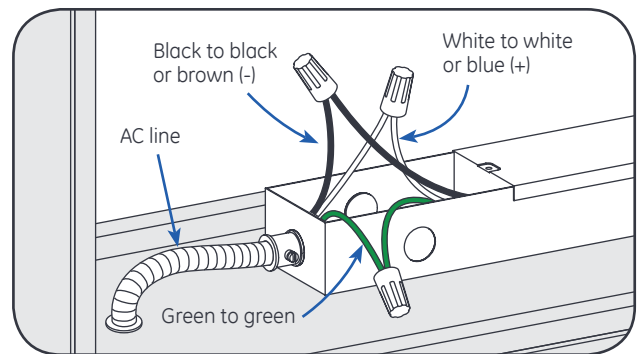
1 Add up total footage of the system to determine the appropriate number of 12VDC Class 2 Tetra® power supplies to use based on the **Power Supply Loading** chart on last page.



2 If installing multiple power supplies, keep them at least 2" (50.8mm) apart end to end and 4" (101.6mm) apart along the sides.



- 3** Connect the red wire (+) of the LED system to the red wire (+) of the power supply. Connect the black wire (-) of the LED system to the black or blue wire (-) of the power supply.



- 4** Wire AC line to power supplies in accordance with the applicable local, state, and country electrical codes. Connect black to black or brown, white to white or blue, and green to green using 18 AWG (0.82mm²) wire connectors.

NOTE: All power supplies except GEPS12-180U must be installed in an enclosure or be provided with a GEPSJB60 power supply extended enclosure.

Interconnect multiple runs of Tetra Flexible Tape together using twist-on wire connectors or in-line (IDC) connectors. Join black wires (-) together and red wires (+) together.

NOTE: Make sure not to exceed power supply power limits (see step 1 above).

NOTE: The UL Retrofit Classification is only applicable when retrofitting a listed sign.

Retrofit Instructions

1. **(Existing Signs Only)** Prior to installation, survey the site for information regarding power and accessibility inside and outside the building. Ensure that the branch circuit supplying the existing transformer or ballast will be within the voltage ratings of the new LED power supply, and have a current rating not exceeding 20A, or that permitted by applicable local, state, or country electrical codes (whichever is less).
2. **(Existing Signs Only)** Remove the existing lighting equipment to be replaced, such as neon tubing or fluorescent tubes; and associated transformers and ballasts. Care should be taken not to break the existing neon or fluorescent tubes. **NOTE:** Follow all federal and local regulations when disposing of neon tubing, fluorescent tubes, transformers and ballasts.
3. **(Existing Signs Only)** If removal of the existing lighting equipment eliminates the disconnect switch, as required by applicable local, state, or country electrical codes; a new disconnect switch must be installed.
4. **(Existing Signs Only)** Repair and seal any unused openings in the electrical enclosure. Openings greater than 12.7-mm (1/2-in) diameter require a metal patch secured by screws or rivets and caulked with non-hardening caulk. Smaller openings may be sealed with non-hardening caulk.
5. **(Existing Signs Only)** A clean and dry mounting surface ensures optimum adhesion if the self-adhesive method of mounting is chosen. Follow the manufacturer's directions when using a non-oil based solvent, such as rubbing alcohol to clean the surface area where you intend to mount the module. before installing, ensure the surface is dry.
6. Using the layout guidelines above, determine required number of LED modules required to illuminate the sign.
7. A Tetra® 12VDC Class 2 Power Supply, as listed below, must be used with this retrofit kit. Using the Maximum Loading chart below, determine the number of Tetra® Class 2 Power Supplies required to power the number of LED modules required to illuminate the sign, so as not to overload the Tetra® Class 2 Power Supply chosen.
8. Follow the instructions above to properly mount the LED modules.
9. Connect the DC output of the power supply to the LED modules using the Electrical Connections instructions above.
10. Connect the power unit to the supply in accordance with the applicable local, state, and country electrical codes, and the instructions found in the power supply installation guide.
11. If required, the disconnect switch shall be installed by qualified personnel, in accordance with applicable local, state, and country electrical codes.

Troubleshooting

Symptom	Solution
All letters are OFF	<ul style="list-style-type: none"> Check AC input connection and/or check circuit breaker. Check wire connection(s) at the Tetra® LED System and power supply for improper termination(s) or short circuits. Properly terminate or replace the wire connection(s). Check that connections are the red striped wire (+) of the LED strip to the red wire (+) of the power supply and the white wire (-) of the LED strip to the black or blue wire (-) of the power supply.
Some LEDs appear dim OR not illuminated	<ul style="list-style-type: none"> Ensure the overall length of the Tetra® LED System does not exceed the maximum load. Ensure the length of supply wire is equal to or below the recommended remote mounting distance. Verify that each connector between the affected LEDs and power supply is fully engaged by applying pressure on the cover verifying that the tabs have clicked into place and their is good electrical contact. Check wire connection(s) at the Tetra® LED System and power supply for improper termination(s) or short circuits. Properly terminate or replace the wire connection(s). Check that connections are the red wire (+) of the LED strip to the red wire (+) of the power supply and the black wire (-) of the LED strip to the black or blue wire (-) of the power supply.
Shadows	<ul style="list-style-type: none"> Re-route supply wire and secure to the back of the can with silicone. Adjust wire connector orientation so that it does not cover any LEDs. Adjust LED layout to ensure uniformity of illumination on the face of the letter.

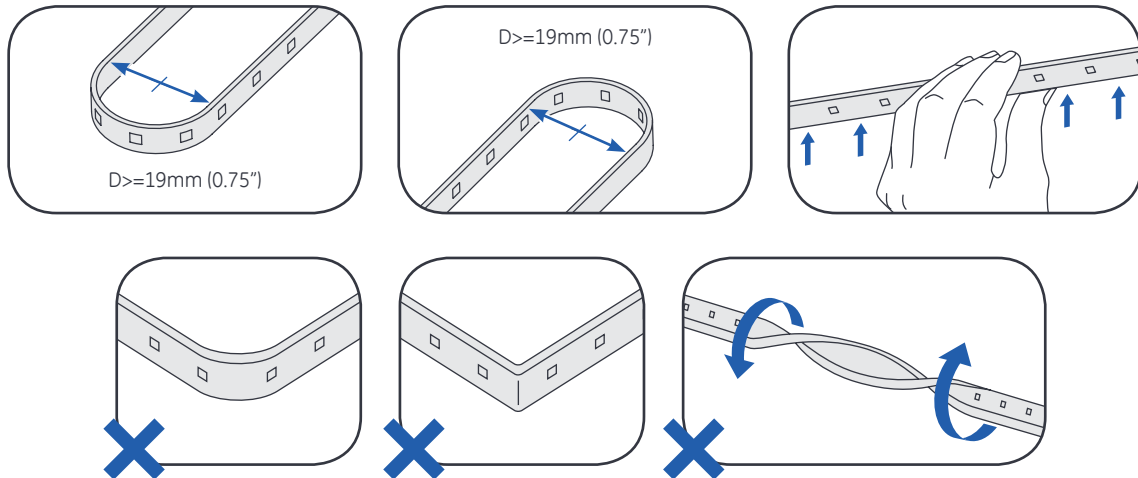
Power Supply Loading Specifications

Maximum Loading per Tetra 12 VDC Power Supply				
SKU	Rating	25W Power Supply	60W Power Supply	180W Power Supply
		<i>Note: Load shall not exceed 2A</i>	<i>Note: Load shall not exceed 5A</i>	<i>Note: Load shall not exceed 5A per each (of 3) output channels</i>
GETP35-1 GETP40-1 GETP50-1 GETP60-1	4.5W/m (1.37W/ft.)	4m/13 ft.	10m/32 ft.	10m/32 ft. per output channel 30m/96 ft. per power supply
GETPH35-1 GETPH40-1 GETPH50-1 GETPH60-1	10.8W/m(3.3W/ft.)	2m/6.5 ft.	4m/13 ft.	4m/13 ft. per output channel 12m/39 ft. per power supply
GETPRD-1	3.5W/m (1.06W/ft.)	5m/16.4 ft.	12m/39 ft.	12m/39 ft. per output channel 36m/117 ft. per power supply
GETPGL-1	2.4W/m(0.73W/ft.)	7m/23 ft.	15m/49 ft.	15m/49 ft. per output channel 45m/147 ft. per power supply
GETPBL-1	4.5W/m(1.37W/ft.)	4m/13 ft.	10m/32 ft.	10m/32 ft. per output channel 30m/96 ft. per power supply

NOTE: For linear runs longer than 5m/16 ft. the middle connection to the tape is recommended to minimize voltage drop.

Maximum Remote Mounting Distance				
	18 AWG/0.82 mm ² Supply Wire	16 AWG/1.31 mm ² Supply Wire	14 AWG/2.08 mm ² Supply Wire	12 AWG/3.31 mm ² Supply Wire
25W Power Supply	120 ft./36.6 m	-	-	-
60W Power Supply	20 ft./6.1 m	30 ft./9.1 m	50 ft./15.2 m	86 ft./26.2 m
180W Power Supply	20 ft./6.1 m	30 ft./9.1 m	50 ft./15.2 m	86 ft./26.2 m

Notices



This product is intended solely for the use of non-residential signage lighting and is not intended for use in any other applications.
 IP54 rated: LED modules are not suitable for prolonged submersion or direct exposure to water and must be protected from the weather.
 Limited to use in dry and damp locations. Water exclusion must be determined in the end product.
 Conforms to the following standards:



For the latest install guides for your product go to:
<https://products.currentbyge.com/sign-lighting/tetra-led-tape>

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