Manuals+ — User Manuals Simplified.

GE current GEMS2471-W1 Tetra Mini Max MS Instruction Manual

Contents

**GE current GEMS2471-W1 Tetra Mini Max MS**

Installation Guide

This product must be installed by a recognised qualified electrical engineer, familiar with the electrical installation regulations of the country of use. Whilst our components conform with all standards applicable to enable CE compliance individually, the components within this range are for use installed within a 3rd party enclosure. Electrical safety and electromagnetic interference of the total system are the responsibility of the installer/provider of the total system.

- Do not operate the product with damaged parts.
- Turn power off before inspection, installation or removal.
- Product may fail if not installed correctly.
- For indoor use only.
- Environmental suitability – dry, damp and wet rated.
- To ensure the product warranty is valid, please ensure all installation instructions and environmental conditions for storage and operation are complied with.

Caution notices and safety information can be found on the last page of the installation guide. Please read them carefully before starting the product installation.

Components
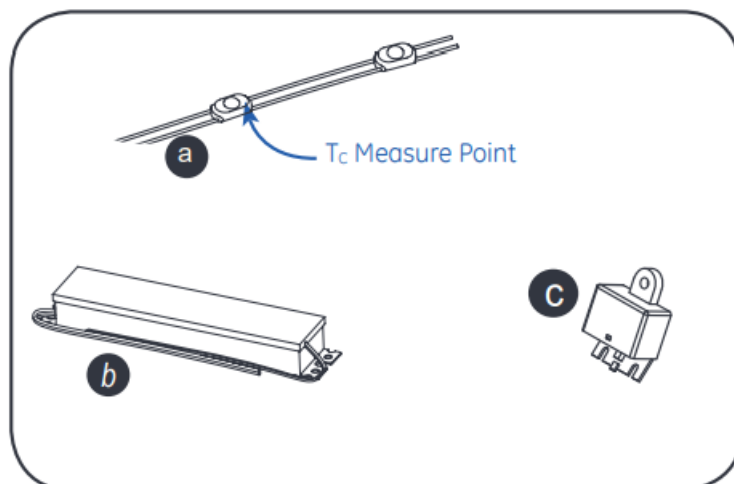
- **A:** Tetra MS LED modules
- **B:** Tetra 24V power supply
- **C:** Weather box GEXNWB2 (optional) Screws, rivets, terminals, RTV silcone supplied by others

Layout Modules

1. Before you begin, clean surfaces and remove all debris from the inside of the channel letter.Clean the surfaces with a 50:50 mixture of isopropyl alcohol (IPA) and water and let dry.
2. Measure and cut Tetra LED strip to the appropriate length for each letter. Cuts can be made between any of the modules.
   Remove tape backing and stick
3. LED modules into place. When using tape apply approximately 15 psi pressure on the module (avoid the lens dome surface) for 5 seconds, full bonding strength after 24 hours. Continue until you have reached the end of the strip.
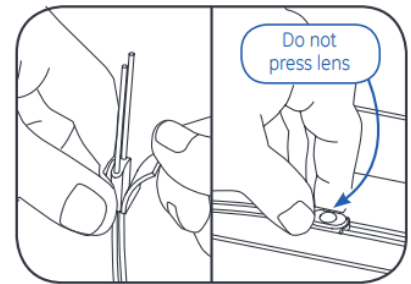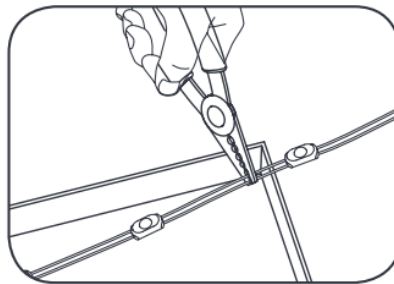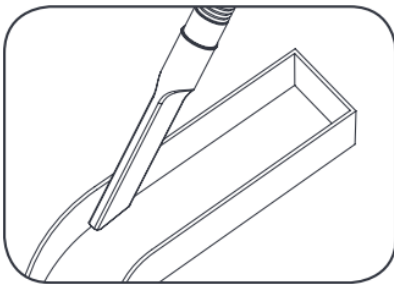
4. Use the double stick tape or electrical grade RTV silicone to fix LED module within the channel letter.
5. Drill a 1/4-inch (6.4 mm) hole near the LED strip and grommet the hole for supply wire access.
6. Remove all the debris from the inside of the channel letter and replace the sign face.
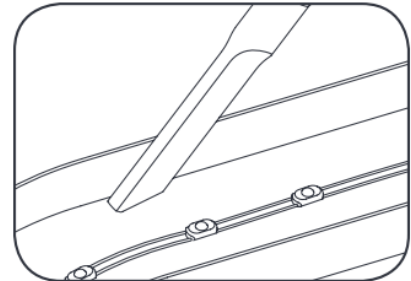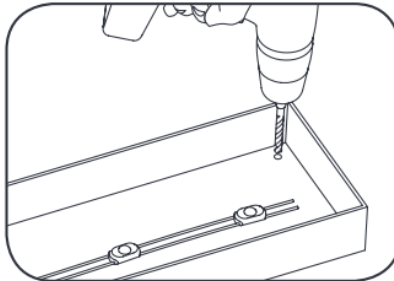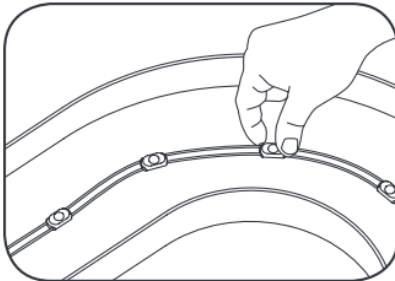
NOTE: For halo-lit applications LED modules should be mounted on UL recognized clear acrylic or polycarbonate. The light output from the LED system should be directed back into the sign enclosure. This will allow for uniform backlighting of the sign and will provide simple mounting.

Electrical Connections

NOTE: Do not use connectors pre-filled with silicone grease/mineral base protective grease or use silicone grease to seal connections.

1. Connect LED strips using in-line (IDC) connectors or twist-on wire connectors.
   NOTE: Seal all connections in wet locations with electrical grade RTV silicone.
2. Must cap all exposed wires with appropriate wire connectors and seal with electrical grade RTV silicone.
   Optional: Cut wires flush to the module and seal with electrical grade RTV silicone.
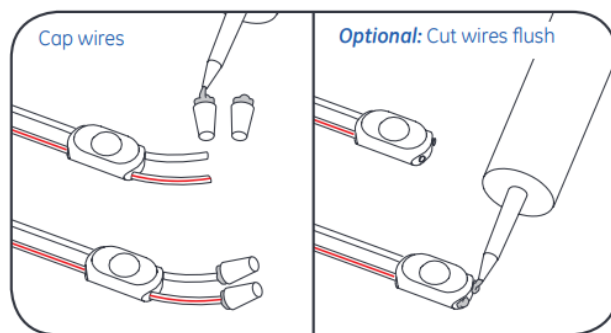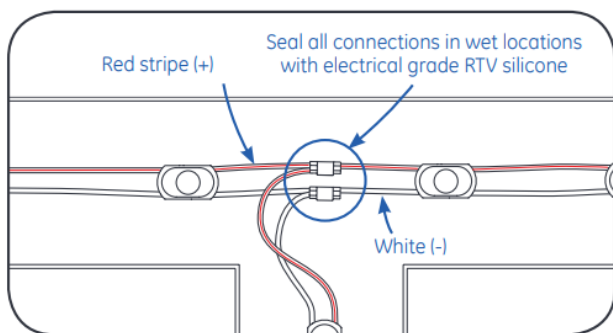
3. Run a wire from the LED power supply to the LED module and connect.

   NOTE: Must be used with Tetra® 24 Volt Power Supplies.

   NOTE: Refer to Maximum Loading & Remote Mounting Specifications on page 4.
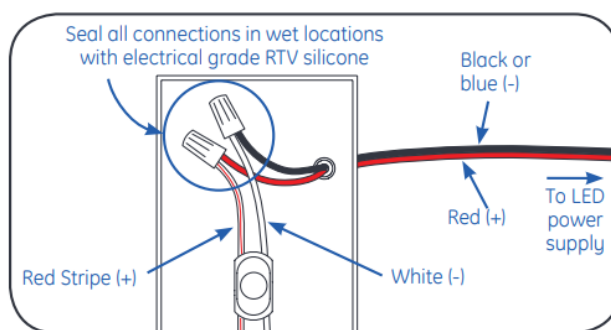
4. Connect the red stripe wire (+) of the LED strip to the red wire (+) of the power supply. Connect the white wire (-) of the LED strip to the black or blue wire (-) of the LED power supply.

   NOTE: All electrical connections should be suitably protected from mechanical damage and the environment. Seal all connections in wet locations with electrical grade RTV silicone.
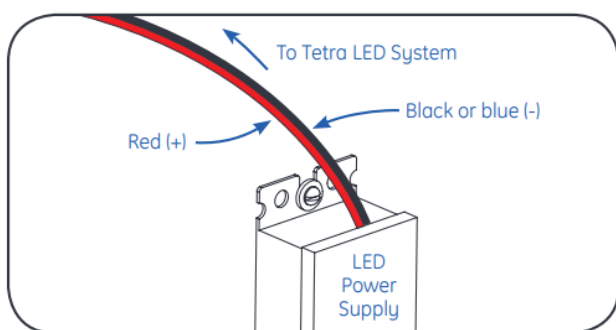
OPTIONAL

- A Weather Box (GEXNWB2) may be used to house and seal Class 2 connections as described below:
- A) Insert wire connectors into weather box. Fill with electrical grade silicone and close box.
- B) Secure the weather box using a #6 or #8 (M2 or M3) screw.

Troubleshooting

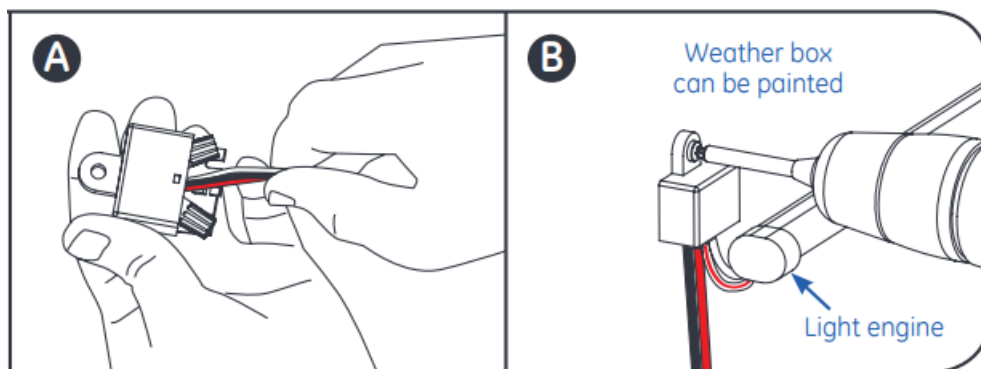| Symptom	Solution
All letters are OFF	• Check AC input connection and/or check circuit breaker. • Check wire connection(s) at the Tetra® LED System and power supply for improper termination(s) or short circuits. Properly terminate or replace the wire connection(s). • Check that connections are the red 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	• 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. • Ensure the overall length of the Tetra® LED System does not exceed the maximum load.
Some of the letters are not illuminated	• 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.
Shadows	• Re-route supply wire and secure to the back of the can with electrical grade RTV 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.

Specifications

Maximum Loading per Tetra 24V DC Power Supply

SKU	Rating	25W Power Supply Note: Load shall not exceed 1.04A	80W Power Supply Note: Load shall not exceed 3.3A	100W Power Supply Note: Load shall not exceed 4.0A	180W Power Supply Note: Load shall not exceed 3.8A per each (of 2) output channels	300W Power Supply Note: Load shall not exceed 4A per each (of 3) output channels
GEMS2471-W1 GEMS2465-W1 GEMS2457-W1 GEMS2450-W1 GEMS2441-W1 GEMS2432-W1	24V DC, 9.9mA/module 0.24W/module	90 modules/ 22.5 ft. (6.86 m)	282 modules/ 70.5 ft. (21.49 m)	340 modules/ 85 ft. (25.91 m)	320 modules/ 80 ft. (24.38 m) per output channel 640 modules/ 160 ft. (48.76 m) per power supply	340 modules/ 85 ft. (25.91 m) per output channel 1020 modules/ 255 ft. (77.72 m) per power supply

NOTE: The maximum loading claimed in the table is at ambient temperature 25°C (77°F).
For linear long runs, center connection to the LED strip is recommended to minimize voltage drop.

Maximum Remote Mounting Distance from Driver Output

x max
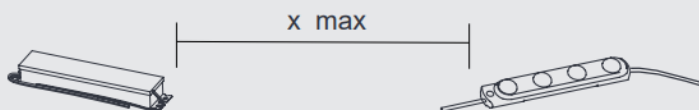
	18 AWG/0.82 mm2 Supply Wire	16 AWG/1.31 mm2 Supply Wire	14 AWG/2.08 mm2 Supply Wire	12 AWG/3.31 mm2 Supply Wire
25W Power Supply	120 ft./36.6 m	–	–	–
80W Power Supply	20 ft./6.1 m	25 ft./7.6 m	35 ft./10.6 m	40 ft./12.1 m
100W Power Supply	20 ft./6.1 m	25 ft./7.6 m	35 ft./10.6 m	40 ft./12.1 m
180W Power Supply	20 ft./6.1 m	25 ft./7.6 m	35 ft./10.6 m	40 ft./12.1 m
300W Power Supply	20 ft./6.1 m	25 ft./7.6 m	35 ft./10.6 m	40 ft./12.1 m

Documents / Resources

GE current GEMS2471-W1 Tetra Mini Max MS [pdf] Instruction Manual
GEMS2471-W1, GEMS2465-W1, GEMS2457-W1, GEMS2450-W1, GEMS2441-W1, GEMS2432, GEMS2471-W1 Tetra Mini Max MS, GEMS2471-W1, Tetra Mini Max MS, Mini Max MS, Max MS, MS

References

- **C Homepage | Current - GLI Brands**