



www.Concealite.com

202 Elk Street, PO Box 160
Elkton, SD 57026
Customer Service: (605) 531-5588

Electroluminescent Lighting, CS Series
Invisi-X Exit Sign
Suspended Accessible Ceiling / Ceiling Pendant

INSTALLATION INSTRUCTIONS

Ordering Information

Exit Sign:

IX - Invisi X Exit Sign, 6 Inch High Letters And Arrows

Mounting Style:

SC - Suspended Ceiling

Illuminated Letters / Arrows:

R - Red

G - Green

Power Options:

AC - AC Only Universal 120/277 Volt 60 Hz input

EM - Emergency Battery Backup 4 Hour Run Time Self-Diagnostic Universal 120/277 Volt 60 Hz input

Exit Sign Faces:

SF - Single Face

DF - Double Face Available With Mounting Types

(CP,EWR,EWL,WGB,WGT,WGR,WGL,SMCP,SMHW,SMEWR,SMEWL,SC)

Arrow Configurations:

NA - No Arrows

LA - Left Arrow

RA - Right Arrow

BA - Both Arrows

SA - Single Arrow (Double Face)

IA - Inner Arrows, (Arrows Next To Wall Mounting) Available With Mounting Types (EWR,EWL,GWR,GWL,SMEWR,SMEWL)

OA - Outer Arrows (Arrows Away From Wall Mounting) Available With Mounting Types

(EWR,EWL,GWR,GWL,SMEWR,SMEWL))

Options:

NYC - New York City 8 Inch Red Letters

CF - Custom Finish Per Fixture Note U.S. RAL# Required

(Specify Color When Ordering) Available With Mounting Types

(SMCP,SMHW,SMEWR,SMEWL,SC)

PLCS - Custom Post Length and Ceiling Slope Degree Angle, Per Sign Dimension Specified In shop drawing PDF.

REM - Remote Power Enclosure is available with (CP,EWL,EWR) Mounting Types and Both Emergency Battery Back Up and AC Only power configurations. The REM enclosure can be located up to 50 feet in distance. (Remote Power Unit is standard for all other Mounting types)

NFPA 72 Standards
Tested to UL Standards





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Important Safeguards **Read and Follow All Safety Instructions**

- ✓ Damp label rated for outdoor applications.
- ✓ Do not mount units where they will be exposed to direct sunlight, radiators, gas or electric heaters. Prolonged exposure to temperatures exceeding 95 degrees Fahrenheit may reduce battery life and void warranty.
- ✓ Use caution when servicing batteries. Battery acid causes burns to skin and eyes. If acid is spilled on skin or in eyes, flush with fresh water and contact a physician immediately.
- ✓ Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- ✓ Do not store or place flammable materials near lamps.
- ✓ The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- ✓ Do not use this equipment for any purpose other than for its intended use.
- ✓ Before wiring to AC service, turn off AC power at fuse or circuit breaker supplying unit.
- ✓ Battery in this unit (if self-contained battery backup series) may not be fully charged. After the AC service is supplied to unit, let the battery charge for at least 48 hours before performing any tests.
- ✓ Qualified service personnel should perform servicing of this equipment.

Failure to follow published installation instructions or any modifications to the product may damage the unit and will void the warranty.



WARNING! To avoid fire, shock/electrocution, or injury ... **TURN OFF POWER** at circuit breaker or fuse and test to ensure that power is off before wiring. Remove and discard the packaging materials.

Suspended Ceiling / Ceiling Pendant Installation

Step #1: Determine Location

This unit is designed for recessed flush trim plate mounting into a suspended ceiling using ceiling pendant mounted exit signs for use indoors and outdoors (damp locations). Determine exit sign egress viewing location as directed by governing Codes, including National and local Code requirements. Confirm proper exit sign directional arrow designations required for each installation location prior to beginning installation procedures.

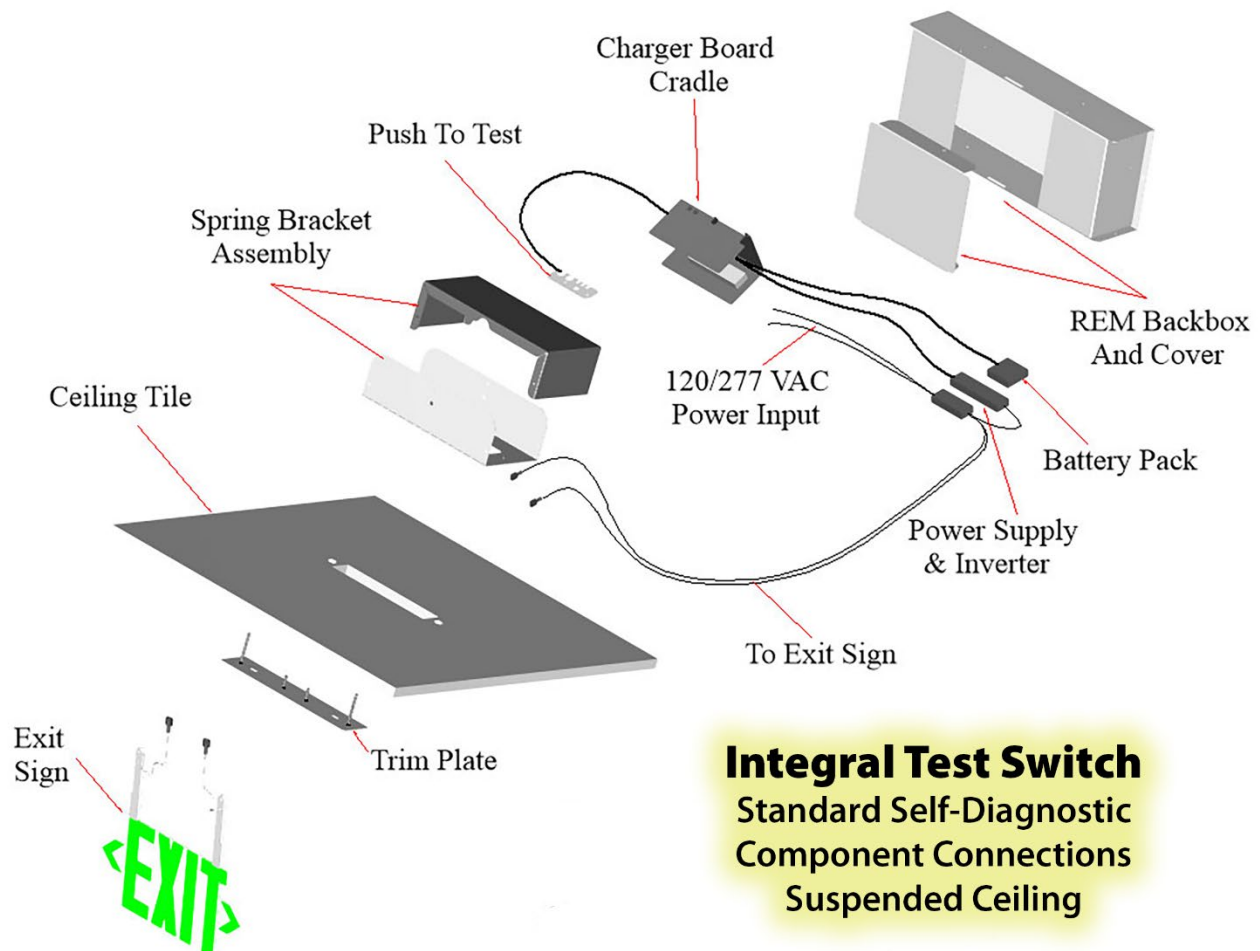
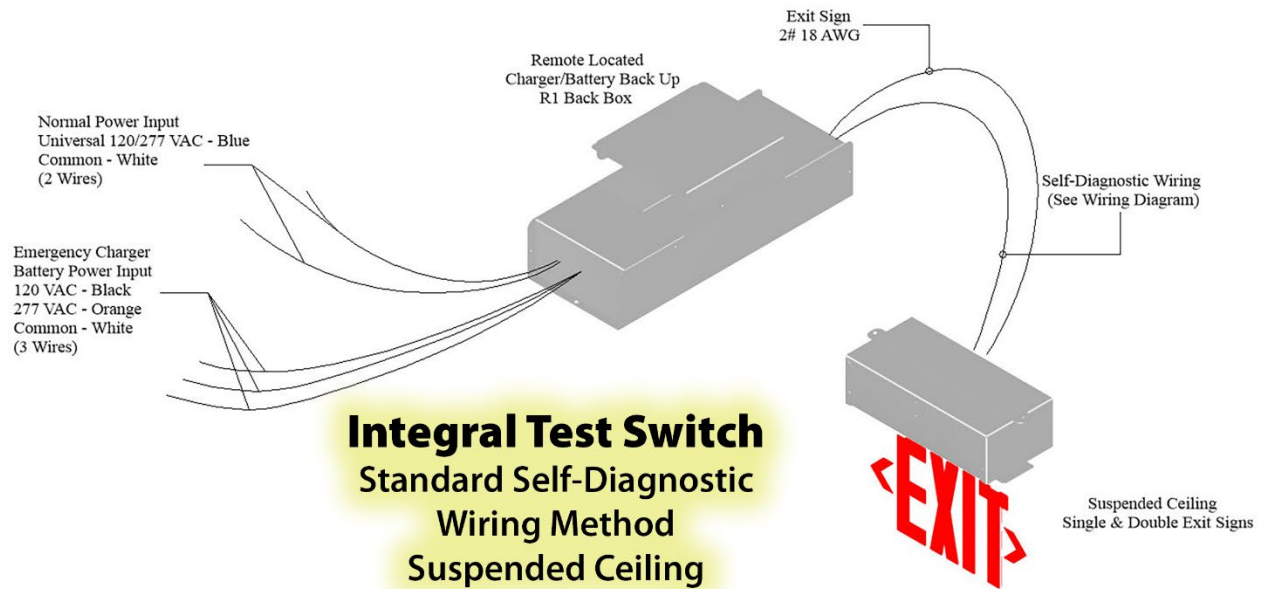
Note: Do not cut or remove any portion of the clear or color areas of the electroluminescent (EL) letter and arrow illuminated panels. Modifying the EL panels will void warranty.

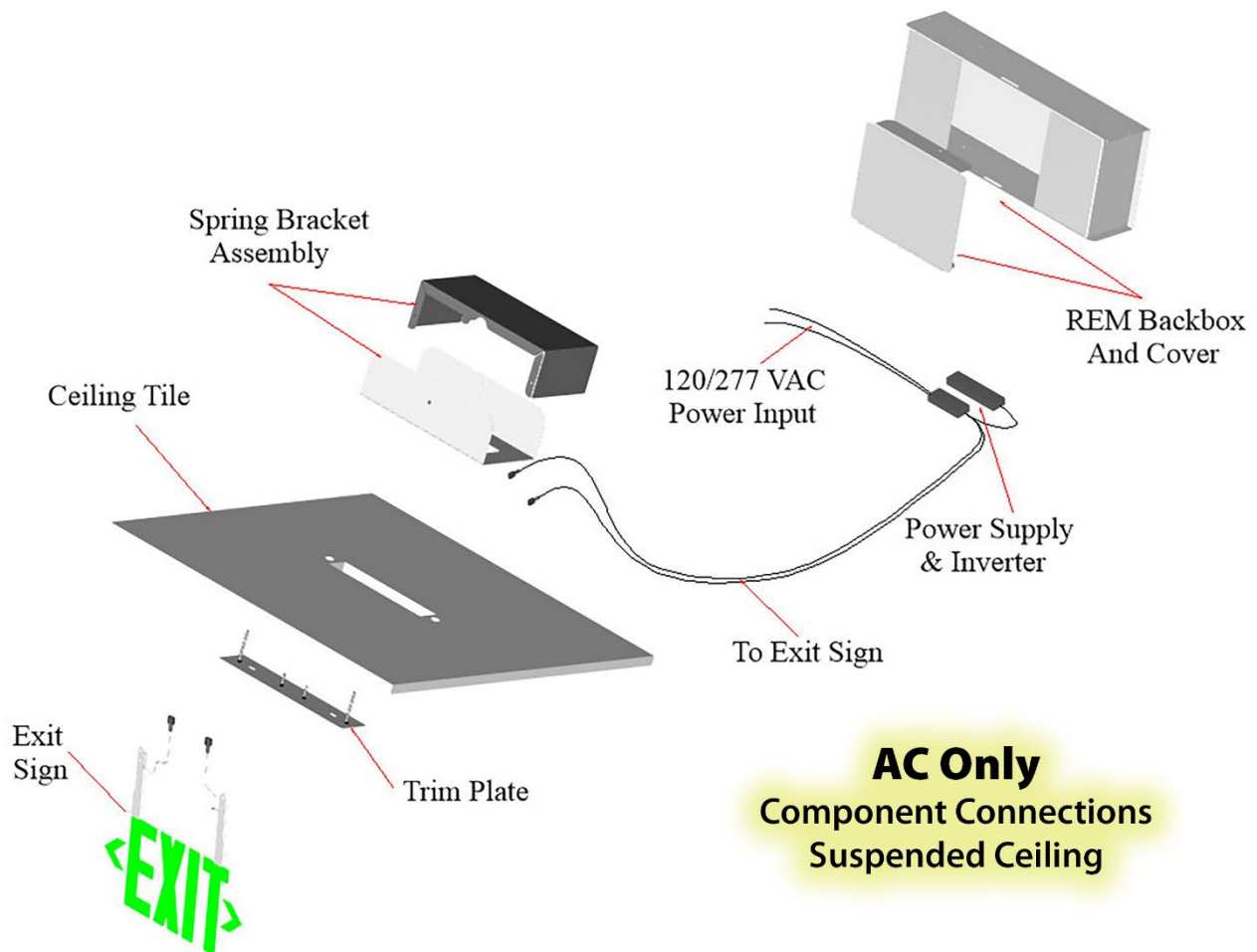
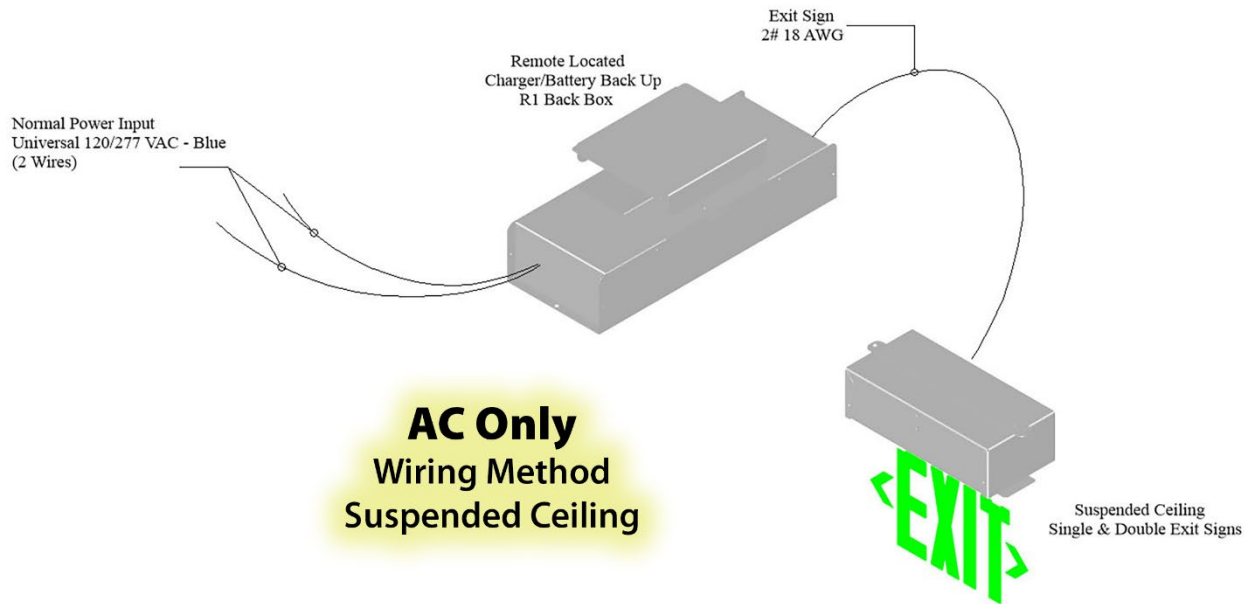
Step #2: Prepare Location

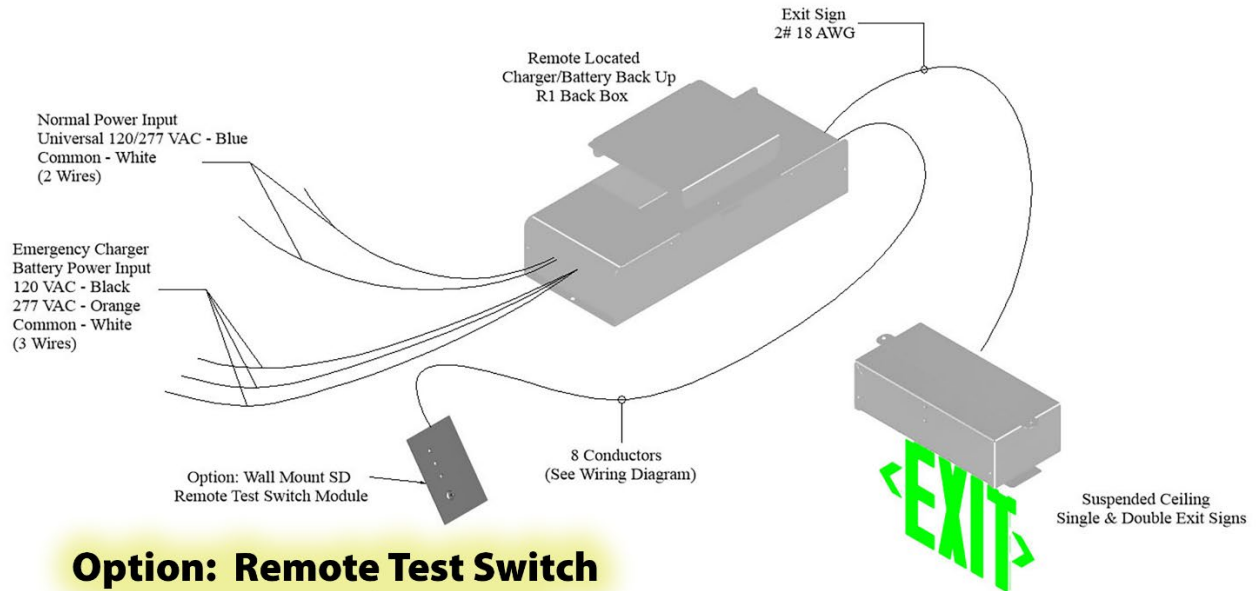
Confirm that the location is clear of obstructions, including electrical and mechanical building systems. The space required within the ceiling area for the remote power enclosure recessed mounting is 21" long by 8" wide by 3.625" deep. The recessed back box portion of the exit sign fixture enclosure measures 10.625" long by 5" wide by 3.125" deep and should only be installed into a completely clear, unobstructed, recessed area that allows the exposed exit signage mounting face(s) to be pendant mounted from the ceiling in the proper Code required directions. The recessed back box portion of the exit sign fixture should only be installed into an unobstructed recessed ceiling area that allows the exposed exit sign mounting face(s) to be positioned best where required for visible directional indication as required by Code.

1. Provide a 9.50" long by 1.25" wide ceiling opening in the suspended ceiling material by completely removing the ceiling materials section.
2. Drill two (2) .625-inch holes in the suspended ceiling material measuring 6.50" on center at the location where the pendant exit sign is to be installed, using the upper ceiling exit sign support bracket as a template.
3. Align the suspended ceiling exit sign upper support bracket on top of the two .625-inch holes.

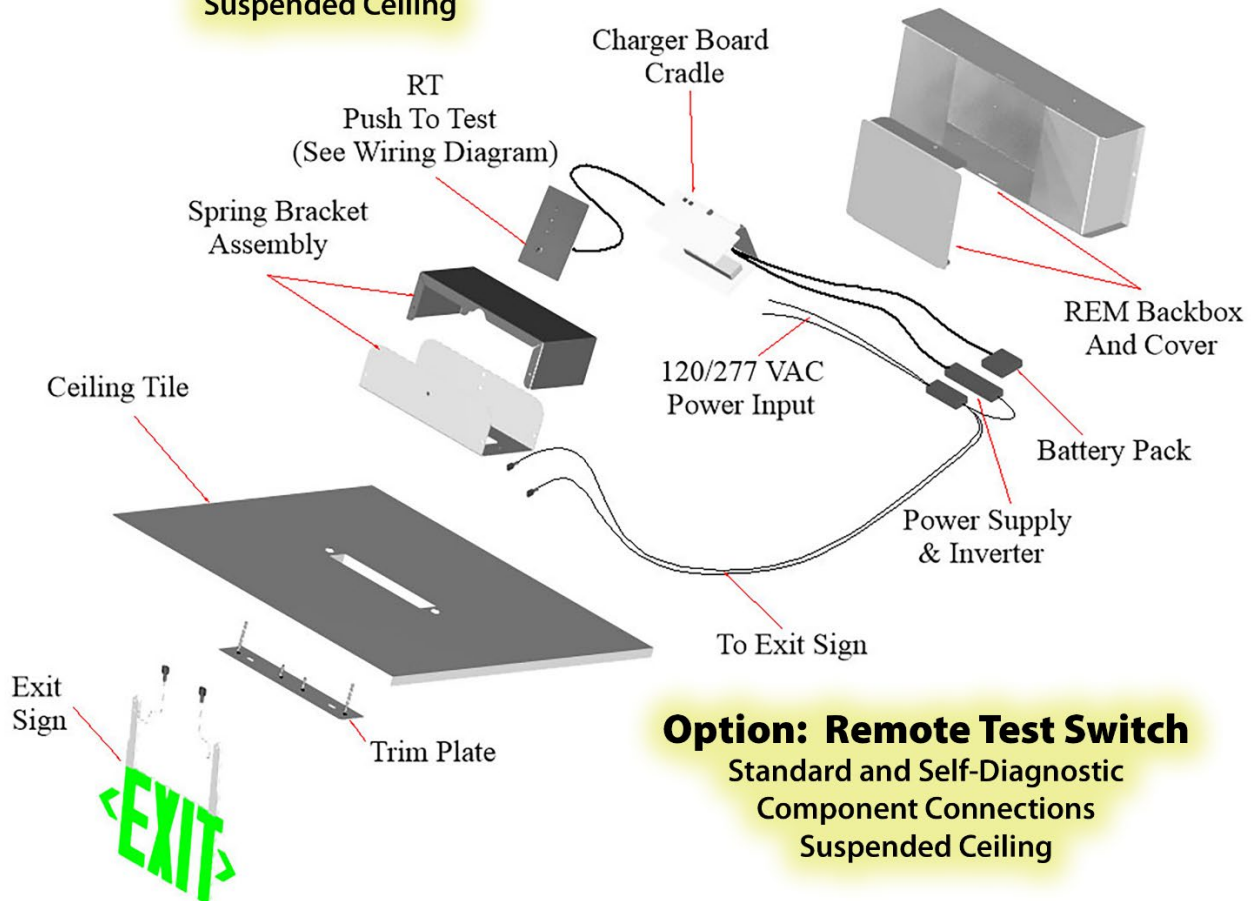
Location Preparation Diagrams ... Next Page ->



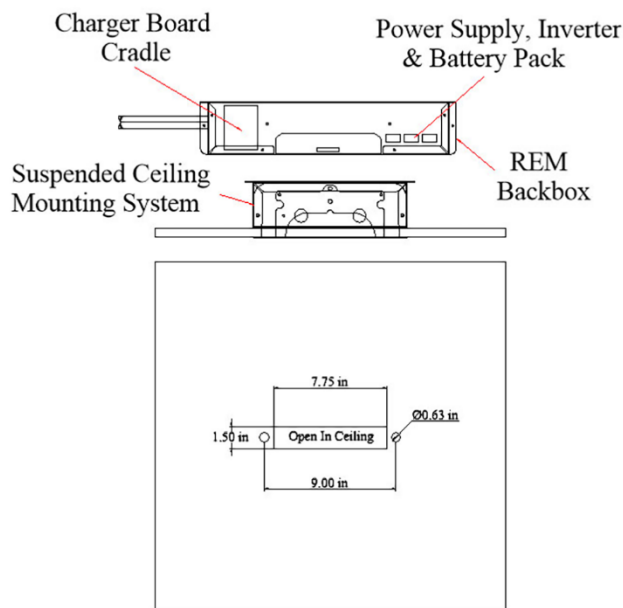




Option: Remote Test Switch
Standard and Self-Diagnostic
Wiring Method
Suspended Ceiling



Option: Remote Test Switch
Standard and Self-Diagnostic
Component Connections
Suspended Ceiling



Note: Use bottom of Recessed Exit Sign Back Box as template. See photo.

Painting/Finishing of the Flush Trim Plate [complete this step **BEFORE** installation]

The flush exit sign metal trim plate is provided with a factory primer-coated finish which is ready to accept paints and various finishes. ***Painting should be completed prior to the installation process.***

Paint or apply finish as desired, to match surrounding surface finishes/textures. Take care to not allow excessive paint/finish to remain and cure on the inside edges of the flush trim plate and within the two (2) integral rectangular power post access openings, in order to maintain a flush, finished appearance. After each paint application has been applied, remove excess paint build-up that may occur along the inner edges and outer edges of the flush trim plate. Keeping excess paint cleaned away from the edges will allow the cover plate to fit flush with the flush mounting panel.

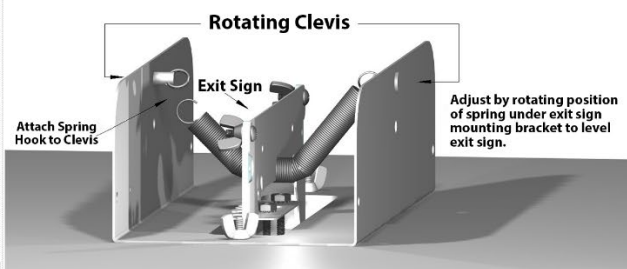
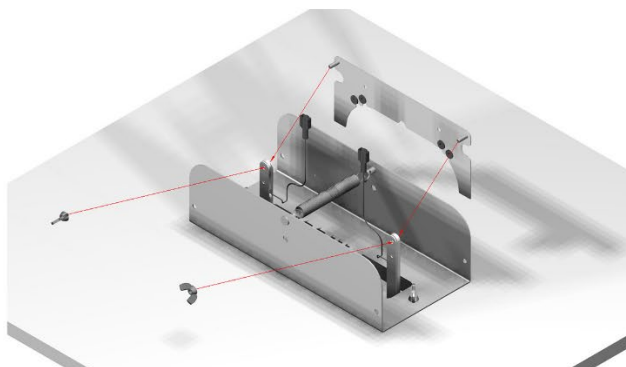
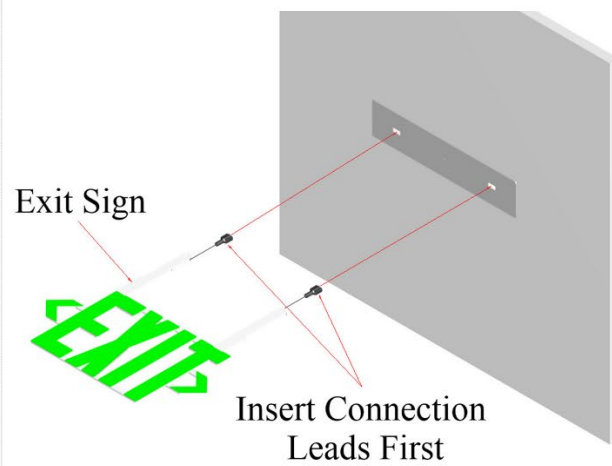
Covering Material: If the flush panel and cover plate of the exit sign is to be covered with a material such as wallpaper, cloth, laminate, etc., allow the mastic used in application to completely setup and cure. Use a sharp-edged cutting tool, such as a single-edge razor blade or utility knife, to draw against all edges of the two (2) openings for the pendant power posts that extend outward from the flush-mounted panel to the exit sign.

Painting and/or finishing of the flush exit sign metal panel, and removable cover plate, must be completely dried and cured before moving onto the next steps.

Mounting the Electroluminescent Lighting (EL) Pendant Exit Sign Assembly

4. First, insert the two (2) pendant exit sign power post mounted lead conductors from below up and through the cut rectangular ceiling opening.
5. Continue to insert the two (2) exit sign power posts from below and up through the cut rectangular ceiling opening.
6. Position the exit sign posts onto the exit sign spring bracket, threaded stud posts.
7. Complete the mounting of the exit sign onto the spring bracket threaded stud posts by attaching the two (2) #8-32 wing nuts (provided).

Mounting Diagrams ... Next Page ->



8. Locate the adjusting / leveling exit sign mounting spring and fasten to the upper ceiling exit sign support bracket. Routing the spring underneath the exit sign spring bracket, then onto the open rotating clevis on the adjacent side of the support bracket.

9. Adjust the vertical position of the EL exit sign by relocating the spring across the spring bracket. Final adjustments to assure level / vertical positioning are accomplished by rotating the spring by hand in the counterclockwise or clockwise direction which will provide minute change of the exit sign position until the desired angle is reached. Bracket assembly threaded bolts are mounted to the behind the flush mounting panel. (This *spring position adjustment method* can also be utilized for sloped ceiling installation requiring the exit sign position to be offset from the plane of the ceiling.)

10. The two (2) EL panel exit lead wire connectors are to be connected to the remote power supply recessed back box exit sign lead circuits upon routing to the exit sign's power supply connector.

11. Locate and install the test switch and LED power indicator plate assembly for recessed mounting onto the upper side of the flush trim plate assembly. Mount with two (2) #8-32 wing nuts. Routing an eight (8) conductor raceway / wiring to the remote power supply back box for Self-diagnostic (SD) systems is used and four (4) conductor raceway / wiring for standard power supply emergency battery backup system is used.

NOTE: See drawing for conductor raceway / wiring for remote wall test switch and LED system status indicator (if this option is used).

12. Provide exit sign fixture ground conductor connections with only UL recognized wire nuts, between green conductor leads and branch circuit.

13. Install the recessed back box over the entire recessed support bracket assembly.

14. Secure the exit sign recessed back box into the recessed support bracket assembly using the two (2) #8-32 self-tapping screws provided.

15. Secure the recessed back box to the suspended ceiling structure with T-Bar bracket assembly. (option: T-Bar)

Remote Recessed Power Supply Back Box Installation

16. Provide National Electrical Code conduit raceway connections to the recessed remote power supply back box, utilizing the provided 13/16" knockouts located on the power input side of the recessed back box.

17. Provide a single, unswitched supply from either a 120 VAC or 277 VAC branch circuit used for normal lighting in the egress room area.

NOTE: For remotely-powered Invisi-X exit sign installations, route two (2) #10 copper AWG rounded raceway branch circuits to the remote location of the designated power supply.

Emergency Self-Contained Battery Backup Input

Make the proper supply lead branch circuit connections with only UL-recognized wire nuts. If using 120VAC, connect the black and white leads to the building utility power. If using 277VAC, connect the red and white leads to the building utility power. Cap off unused wire.

Connect the battery pack to the power supply using the keyed connectors identified as "battery".

AC Only Power Input: Make the proper lead branch circuit connections with only UL recognized wire nuts. For the 120/277VAC lead (H), connect it to the building power black conductor. For the 120/277VAC common (N) lead, connect it to the building power universal white conductor.

18. Provide recessed remote power supply back box ground conductor connections with only UL recognized wire nuts, between green conductor leads and branch circuit conductors within the back box.

Step #4: Energizing the Illuminated Exit Sign

NOTICE: Do not energize the incoming branch circuit power to exit sign fixture power supply assembly unit until the entire installation is complete.

1. Remove protective film from exit sign EL panel sign faces and mirrored sections.
2. Install the cover plate onto the flush mounting panel by first inserting the cover fully into the recessed back box area. Then, retract outward until the spring retainer cross support bracket edge remains in the back box. Now, slide the cover along the exterior of the flush panel opening until the access cover is fully installed in the finished flush mounted position. To remove the access cover, reverse this process.

Manual Testing: Battery Backup Units Only

1. Testing the operation of the unit is accomplished by depressing the recessed, concealed, momentary push-to-test switch located within the exit sign flush panel. To test the unit, visibly locate the round hole opening on the flush mounting plate. Insert a paper clip, or similar diameter round object, into the opening to depress the switch and operate the unit in emergency testing mode. Restore the unit to normal mode by removing the inserted paper clip.
2. Power and charge status visible illumination indicators are viewed through the exit sign's flush panel concealed, momentary push-to-test hole opening.

Troubleshooting: Symptoms and Possible Corrective Measures

➤ ***Unit does not operate illuminate.***

- 1) Verify AC power is energized to the unit.
- 2) Replace LED charger board.

➤ ***Unit does not illuminate during emergency mode.***

- 1) Verify battery backup keyed male/female plug connection is secure.
- 2) Install new battery backup pack.
- 3) Contact factory.

Routine Care: Taking a Unit Out of Service

1. Do not use harsh cleaning chemicals to clean the exit sign. Lightly dust the debris or vacuum from the exit sign routinely.
2. If a unit is to be deliberately taken out of service for an extended period, and when the unit includes optional EM separate emergency power battery/charger unit, the optional emergency unit male/female keyed plug-in connector within the exit sign LED circuit board area should be disconnected from the battery pack so that the battery pack will go into storage in a fully charged condition. Disconnect and remove the input 120VAC or 277VAC, as applicable, power connections as per emergency power unit manufacturer's recommendations. If there is any chance that a unit taken out of service may later be used on a different VAC circuit, tag the unit's current primary input selection as either 120VAC or 277VAC, as applicable.



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Warranty

All Concealite fixtures are tested and are guaranteed to be free from defective materials and workmanship for a period of three years (3) from date of shipment, under normal operations and proper use. Correction of all defects shall be by replacement or repair (at our discretion) and shall constitute fulfillment of all manufacturer's obligations. We will not allow any charge for labor, materials, etc. that does not have our written approval before the work has begun. Damage incurred in handling or in transit are not covered. Any other warranty, expressed or implied, is hereby void. Modifications to the product or failure to follow these installation instructions will void the warranty.

Save These Instructions