

Concealite Life Safety Products

**Model: EXR - EXIT Sign – Flush Wall Mounted 120/277 VAC Input
Standard AC Only, R – Red Letters, G –Green Letters, EM 90 Minute, Self-Powered,
EM2 – 2 Hour Self-Powered, EM4 – 4 Hour Self-Powered, DL – Damp Label,
SD - Self-Diagnostic,**

DUAL120 - Dual Circuit 120VAC / DUAL277 - Dual Circuit 277VAC

Save These Instructions

Important Safeguards

When using electrical equipment, basic safety precautions should always be followed:

Read and Follow All Safety Instructions

1. Damp label rated for outdoor applications.
2. 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.
3. 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.
4. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
5. Do not store or place flammable materials near lamps.
6. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
7. Do not use this equipment for other than intended use.
8. Before wiring to AC service, turn off AC power at fuse or circuit breaker supplying unit.
9. 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.
10. Qualified service personnel should perform servicing of this equipment.

Model: EXR Series

AC Supply Voltage:	120 Volts AC or 277 Volts AC (+/- 10%)
Power Consumption:	Maximum 5 Watts
LED Lighting	Red, Green
Self-Powered Option EM Integral NiCad Battery Backup	90 Minute, 2 Hour, and 4 Hour Operation
ETL listed UL924	Damp location
Self-Diagnostic	(SD) Option
Dual Circuit Option	Two Input Power Source Relay

Instructions for Installation...Operation...Service

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

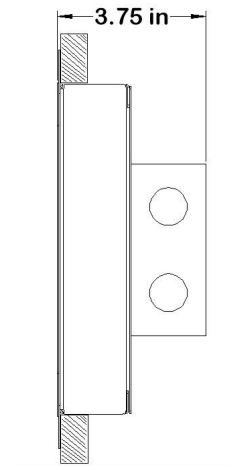
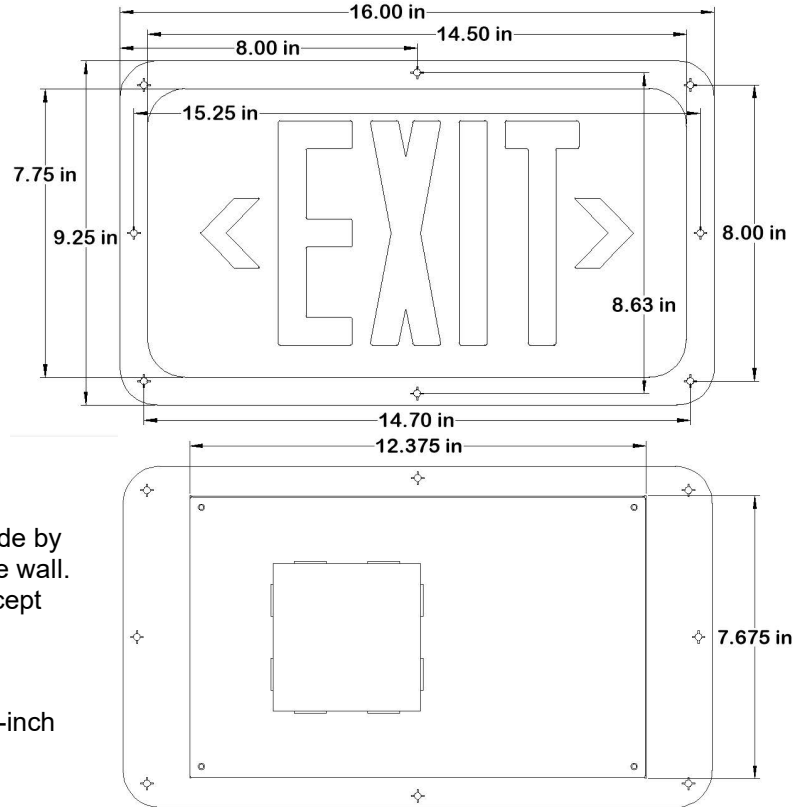
Step #1 Location

This unit is designed for recessed flush wall mounting for indoor building construction. Determine exit sign egress viewing location as directed by governing Codes, including National and local Code requirements.

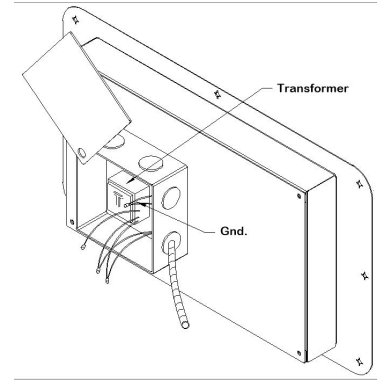
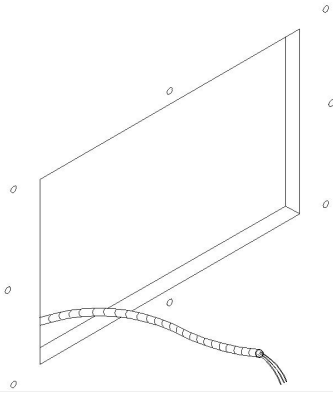
Step #2: Recessed Flush Wall Mounting Installation.

For recessed flush wall mounting installation, confirm that the wall location is a clear location, clear of obstructions including electrical and mechanical building systems. The clear area required for recessed flush mounting is 7 ³/₄ inches high by 12 ¹/₂ inches wide by 3 ³/₄ inches in depth within the wall area mounting location to completely recess the recessed back box. The recessed back box portion of the exit sign fixture should only be installed into a completely clear unobstructed recessed wall area that allows the exposed exit sign flush mounting face to be positioned flush with the exposed finished wall surface.

- 1.) Measure and remove a 7.675 inch-high by 12.375 inch wide by **minimum of 3.75 inch** ³/₄ deep rectangular opening on the wall. Center between the drilled toggle bolt hole locations to accept the recessed exit sign back box.
- 2.) Mark the eight (8) alignment hole locations, then drill 1/2-inch diameter hole openings at the marked locations.
- 3.) Locate the desired final location of the exit sign and locate and mark eight (8) hole locations that will accept the toggle bolts that are centered on both sides of the flush exit sign face. The locations of these eight (8) toggle bolt holes should be located with the use of a leveling tool to assure that the final position of the exit sign face letters and / or direction arrows of the exit sign remain horizontally level with the room construction.
- 4.) Provide National Electrical Code conduit raceway connections to the recessed back box utilizing the provided 13/16" KO's located on the top, sides and back side of the back box.
- 5.) Access the branch circuit termination junction box by opening the junction box cover located on the back side of the exit sign fixture.
- 6.) Provide a single unswitched supply from either a 120 VAC or 277 VAC branch circuit used for normal lighting in the egress room area.
- 7.) 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.



- 8.) Provide exit sign fixture ground conductor connections with only UL recognized wire nuts, between green conductor lead and branch circuit conductors within the junction box.

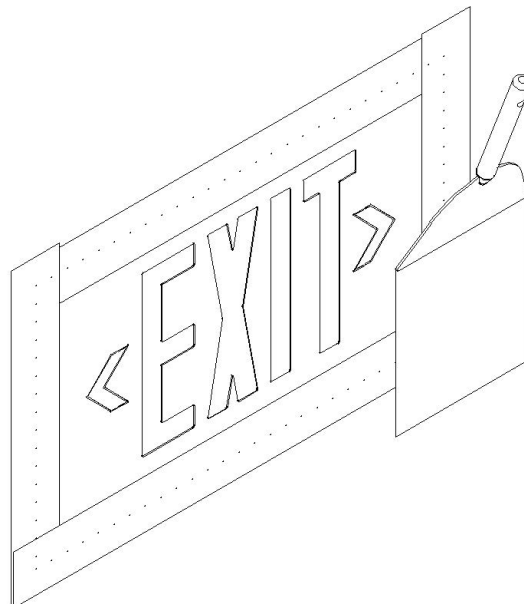


- 9.) Apply construction adhesive (not included) onto the back side of the flush exit sign face perimeter.
- 10.) Insert the exit sign face into the wall openings, by also inserting the two (2) toggle bolts into the ½ inch diameter holes, until flush against the wall. Lightly tighten the toggle bolts screws to secure the exit sign face into the final position. Verifying that the fixture is seated horizontally level and continuously flush around the entire perimeter of the flush exit sign panel against the wall material. Complete the mounting installation by tightening the screws until flush with the wall surface. Attention: Do not over-tighten the exit sign face screws to avoid distorting the exit sign flush face. Remove any visible excess adhesive.
- 11.) Optional: Arrows - Determine exit sign installation location requirements of left or right, both or no arrows as needed. Arrows are metal and removable from the face of the front exit sign metal panel. Where required, selectively remove the left and / or right metal arrows by twisting the arrows until they are disconnected from the front exit sign face metal panel. Inserting blade type screwdriver into slot to aid in arrow removal.

Step #3: Masking and Painting / Finishing of The Front Flush Exit Sign Metal Panel.

Note : Professional attention is recommended to assure that the flush EXR exit sign panel is completely concealed and invisible within the recessed wall area.

- 1.) Provide concealing tape and masking coverage around the exposed perimeter edging of the flush exit sign panel and adjacent wall. Maintain minimal masking application coverage along the panel perimeter edging to maintain level surface to be consistent with the exit sign panel and adjacent wall.
- 2.) Use masking compound only on the visible area of arrow to conceal locations that are not needed to be visible and illuminated. Maintain minimal application coverage over the non-used arrow area to maintain level surface to be consistent with the remaining exit sign panel and adjacent wall.
- 3.) Complete by sanding all areas to provide a seamless feathered continuous flush appearance to completely blend into surrounding wall finish.



4.) Complete the painting / finishing of the front exit sign metal panel as desired to match surrounding wall finishes / textures as desired. Include painting / finishing of exposed edges of the letters and arrows to also match the wall. The front exit sign metal panel face is factory coated finished to accept paints and finishes. Taking care to not allow excessive paint / finishes to remain and cure on the inside edges of the letters and arrow openings used.

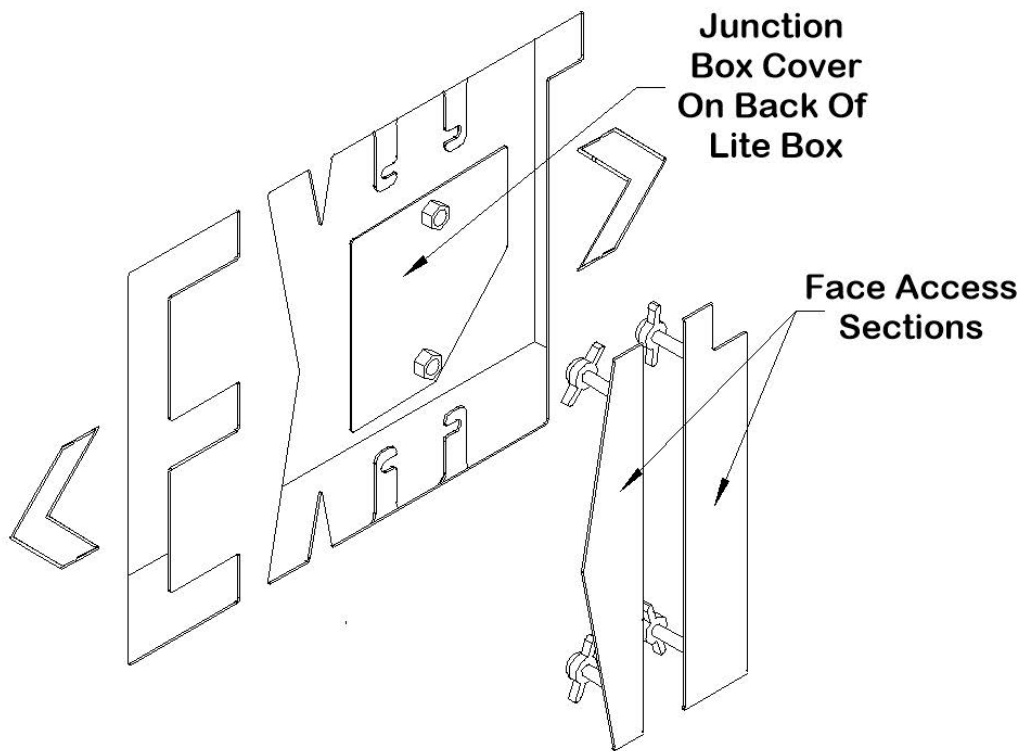
5.) Remove Two (2) EXIT Sign Access sections. Paint to match. Reinstall using Two (2) 8/32 nylon wing nuts provided.

6.) Remove excess paint build up that may occur along the edges of the letters and arrows stencil shapes to maintain a continuous clean straight edge line around shapes to properly fit snap in letters and arrows.

7.) Covering Material: If the front face of the exit sign panel is to be covered with a material (wallpaper, cloth,

laminare, etc.) allow mastic used in applying the covering to completely setup. Use a sharp-edged cutting tool such as a single edge razor blade or a utility knife drawn against all edges of the letter and arrow openings to completely removing liner material and provide a continuous clean straight edged line around shapes.

Note: Painting / final front exit sign metal flush panel finishes must be completed and completely dried / cured prior to taking the additional installation steps!



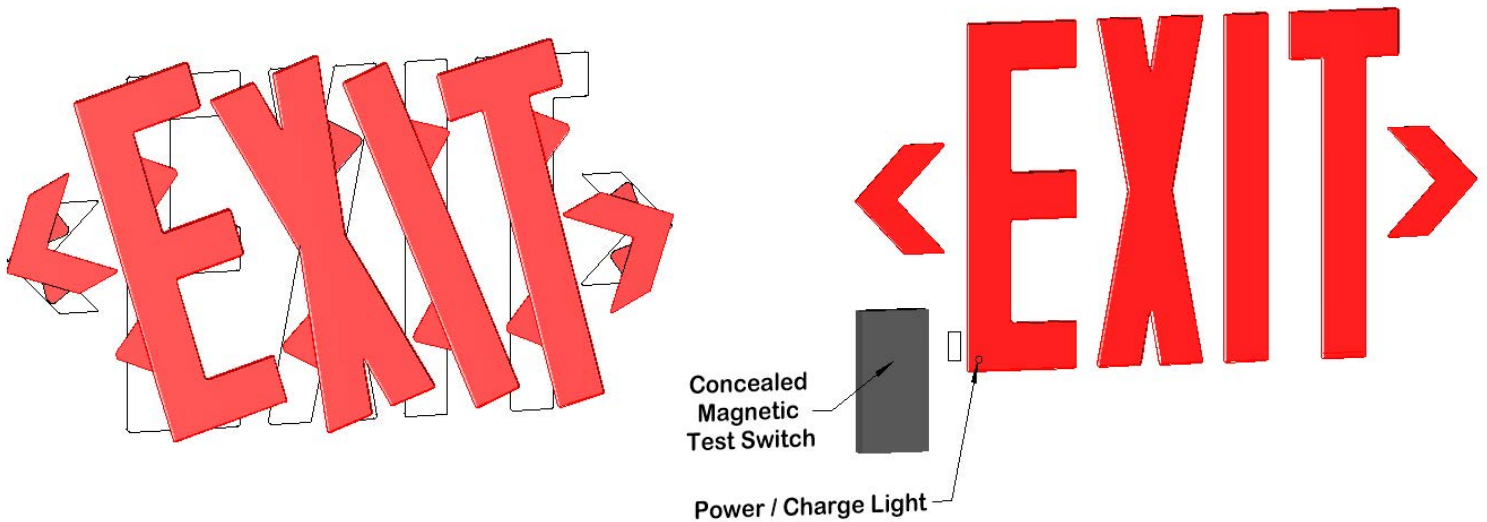
Step #4: Energizing the Illuminated Exit Sign.

1.) Provide and energize the uninterrupted building supply branch circuit power to the exit sign.

Step #5: Mounting Plastic Illuminated Letters and Arrows.

1.) Verify that all excess paint or other possible obstructions are cleared from the perimeter exposed edges of letter and arrow metal stencil openings. If necessary, a sharp-edged knife can be used to remove and clear out any excess paint along the metal edges.

2.) Insert the letters and arrows by first aligning the recessed tabs in line with the respective exit sign face stencil opening. Then, while flexing the two tabs inward, rotate each of the letters in a clockwise direction until the plastic letter is in line with the stencil opening. Carefully insert into final position by slightly flexing the upper and lower tips of the letters and arrows away from the exit sign face. Release the letter once they are in line. Make sure the letter is seated into the recessed stencil area. Assure the letters and arrows are completely flush and in contact with the entire perimeter of the openings.



Manual Testing

- 1.) Testing the operation of the unit is accomplished by using the magnetic switch. To test the unit, pass magnet over lower left corner of the **Letter "E"** to initiate the emergency power testing mode. The different patterns and the resulting tests are listed in the table below.

Action	Reaction & LED Indication
Pass magnet over lower left at letter "E" Once (within 2 seconds).	30-second test: FLASHING Green
Pass magnet over lower left at letter "E" Twice (within 2 seconds).	15-minute test: Green BLINKING twice
Pass magnet over lower left at letter "E" Three times (within 2 seconds).	90-minute test: Green BLINKING three times

- 2.) Power and charge status visible illumination indication is viewed within recessed hole opening directly left of the letter 'E'. Red indicates normal operation for AC only units. Green indicates normal operation for standard self powered with micro Nicad battery backup.

Troubleshooting

Symptom	Possible Corrective Measure(s)
Unit does not operate illuminate.	Verify AC power is energized to the unit. Replace LED charger board.
Unit does not illuminate during emergency mode.	Verify battery backup keyed plug / receptacle connection is secure. Install new battery backup pack, contact factory.

Routine Care - Taking a Unit Out of Service

If a unit is to be deliberately taken out of service for an extended period, disconnect and remove the input 120 VAC or 277 VAC as applicable power connections as per emergency power unit manufacturers 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 120 VAC or 277 VAC as applicable.

Warranty

All Concealite fixtures are tested and are guaranteed to be free from defective materials and workmanship for a period of one year from date of shipment under normal operations and proper use. Correction of all defects shall be by replacement or repair (at our option) 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 is begun. Damage incurring in handling or in transit are not covered by this guarantee. Any other warranty, expressed or implied, is hereby void. Modifications to the product or failure to follow installation instructions will void the warranty. Batteries provided as part of this unit's equipment carry a one-year warranty. Failure to fully charge the batteries within 120 days from shipment will void the warranty on the batteries.

Exit Sign:

Letters / arrows:	Options:
R – Red	SD – Self-Diagnostic
G – Green	EM – 90-minute operation
	EM2 – 2-hour operation
	EM4 – 4-hour operation
	DL – Damp Label
	Dual – Dual Circuit Relay

INSTRUCTION FOR SELF-DIAGNOSTIC TEST

1. Introduction

Once the unit is properly installed according to the installation instruction sheet and AC power supplied it will come ON. The dual color LED indicator will also come ON and the self-diagnostic test function will automatically initiate. The LED indicator points out the current unit status. A STEADY GREEN on the LED indicates a normal service; BLINKING GREEN indicates that the unit is in testing mode; GREEN/RED FLASHING indicates that the battery is charging; RED (in different combinations) would indicate a fault or a service alert. Refer to the section 3-Fault Indication for more details. The indicator would be OFF when the unit is in emergency mode.

2. Self - Diagnostic Service

The self-diagnostic function is factory preset without any allowable field adjustment. The automatic self-diagnostic feature serves the following tests.

- A. On-line real time monitoring of battery and lamps (both local and remote): identifies battery charging, disconnection and failure along with local and remote lamp failures.
- B. Self-testing and a 15--minute discharge once in every 30 days, after AC power has been supplied for a minimum of 24hrs.
- C. Self-testing and a 90-minute discharge once in every year, after AC power has been supplied for a minimum of 24hrs.

3. Fault Indication

Fault Description	LED Indication
Battery disconnection	STEADY Red
Battery recharge failure	FLASHING Red
Battery failure	Red BLINKING '2' TIMES
LED failure (Exits only)	Red BLINKING '3' TIMES
Local lamp failure (Emergency lights only)	Red BLINKING '4' TIMES
Conversion system fault	Red BLINKING '6' TIMES

WARNING:

- i) Make sure that power is OFF before making any Electrical Connections.
- ii) Unused wires must be capped using enclosed wire nuts.

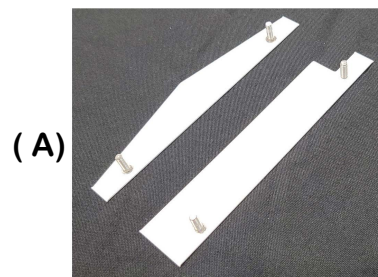
Maintenance Access Instructions



- 1) Remove the Letter "I" and "T" by lifting corners and twisting Counterclockwise.



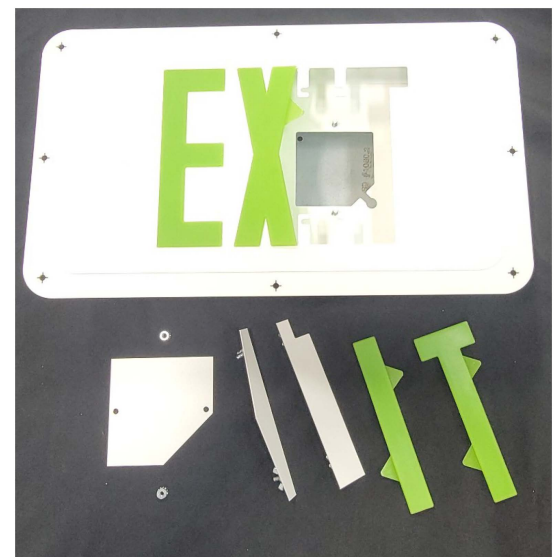
Face Sections



(B)



- 2) Remove metal face sections (A) & (B) by loosening interior wing nuts & sliding away from sign.



- 3) Remove recessed J-Box Cover Plate to access power supply input connections.

Note: Reverse order to reassemble