

VEX SERIES

INSTALLATION INSTRUCTIONS

IMPORTANT SAFEGUARDS READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

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

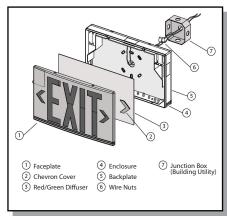
DISCONNECT AC POWER SUPPLY BEFORE SERVICING.

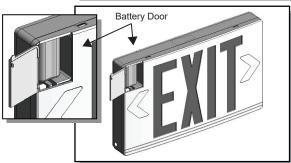
- · Installation and servicing of this equipment should be performed by qualified service personnel
- Ensure that the electrical wiring conforms to the National Electrical Code NEC® and local regulations if applicable.
- · Do not mount near gas or electrical heaters.
- Equipment should be mounted in locations and at heights where it will not be readily subjected to tampering by unauthorized personnel.
- For 2Cl operation ensure that both AC power and auxiliary power are not simultaneously live.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- · Any modification or use of non-original components will void the warranty and product liability.
- Do not use this equipment for other than intended use.

SAVE THESE INSTRUCTIONS!

Wall Mounting

- 1. Remove faceplate and set aside.
- 2. Drill 3/8" hole into the center of the backplate (5). Drill 1/4" inch holes into the oblong holes on backplate (5) that correspond to junction box (7) being used.
- 3. Feed transformer leads through center hole of backplate.
- 4. Make electrical connections: see **Electrical Connection** section.
- 5. Feed excess wire into the junction box and secure backplate (5) to the junction box (7) using screws (supplied by others).
- 6. For units without a battery door: connect the battery terminals before securing the faceplate to the housing.
- 7. Remove diffuser (3) from inside of the faceplate (1) in order to remove snap-in chevrons (2) as required. Store unused chevron covers in a safe place. Then snap the faceplate (1) to the housing (4).
- 8. For units with a battery door: after securing the faceplate to the housing, open the battery door and connect the battery terminals. Close door and push the test button to confirm. Allow to charge for 24 hours before the 90 minute test. Then follow Self-test/Self-diagnostics testing section.









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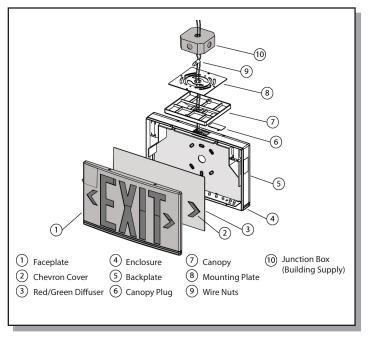
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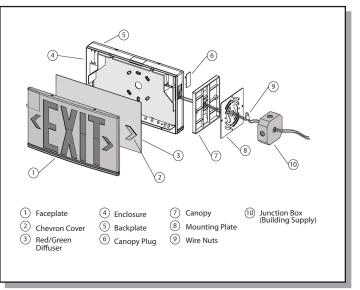
Ceiling Mounting

- 1. Attach the sign to canopy (7) by inserting the canopy into sign then slide to the side to lock.
- 2. Feed transformer leads through top hole of housing (4), making sure to secure the wires into wire guides found at the edge of the sign.
- 3. Make electrical connections: see **Electrical Connection** section.
- 4. Attach mounting plate (8) to junction box (10).
- Feed the excess wires into junction box. Align holes in canopy with those in mounting plate. Use supplied screws to secure canopy to the mounting plate, tightening until canopy is pulled tightly to the ceiling.
- 6. For units without battery door: connect the battery terminals first before securing the faceplate to the housing.
- 7. Remove the diffuser (3) from inside of faceplate (1) in order to remove snap-in chevrons (2) as required. Store the unused chevron covers in a safe place. Then snap the faceplate (1) to housing (4).
- 8. For double-faced signs, replace the backplate with the extra EXIT faceplate.
- 9. For units with a battery door: after securing the faceplate to the housing open battery door and connect the battery terminals. Close door and push the test button to confirm. Allow to charge for 24 hours before the 90 minute test. Then follow Self-test/Self-diagnostics testing section.

End Mounting

- 1. Attach sign to canopy (7) by inserting canopy into sign then slide to the top to lock.
- 2. Feed transformer leads through the side hole of the housing (4), making sure to secure the wires into wire guides found at the edges of the sign.
- 3. Make electrical connections: see Electrical Connection section.
- 4. Attach mounting plate (8) to junction box (10).
- 5. Feed excess wire into the junction box.
- 6. For units without a battery door: connect the battery terminals before securing the faceplate to the housing.
- 7. Align holes in canopy with those in the mounting plate. Use supplied screws to secure the canopy to the mounting plate, tightening until canopy is pulled tightly to the ceiling.







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- 8. Remove diffuser (3) from inside of the faceplate (1) in order to remove snap-in chevrons (2) as required. Store unused chevron covers in a safe place. Then snap faceplate (1) to housing (4).
- 9. For double-faced signs, replace the backplate with the extra EXIT faceplate.
- 10. For units with a battery door: after securing the faceplate to the housing open the battery door and connect the battery terminals. Close door and push test button to confirm. Allow to charge for 24 hours before the 90 minute test. Then follow Self-test/Self-diagnostics testing section.

Extension Rod Mounting (VEPA)

- Fasten VEPA to extension rod using the supplied lock nuts.
- 2. Attach sign to canopy by inserting the canopy into sign then slide to the side to lock.
- 3. Make electrical connections: see **Electrical Connection** section.
- 4. All electrical connections should be made inside the VEPA junction box.
- 5. Fasten VEPA to canopy using 8-32 x 1/4" machine screws.

Electrical Connections

All electrical connections should be made inside junction box.

Make electrical connections as follows:

120V ACWhite - Common
Black - 120V

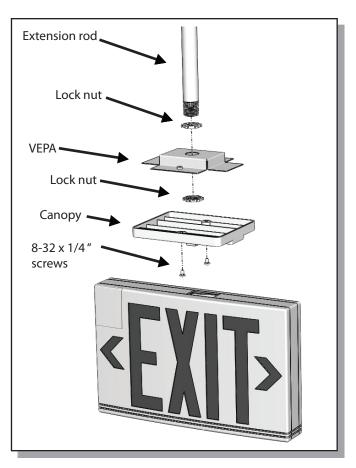
277V AC
White - Common
Orange - 277V

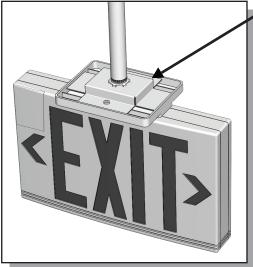
Note: Cap unused leads to prevent shorting.

2CI option models have two transformers, one for the AC input and the other for the auxiliary input. Please make connections as follows:

AC Line
White - Common
Black - 120V
Red - 277V
Auxiliary Line
White - Common
Black - 120V
Red - 277V
Red - 277V

Note: The AC and auxiliary power cannot be simultaneously live, consult factory for a solution.





Note: AC connections should be made inside VEPA enclosure.





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Self-test/Self-diagnostics testing for numeric indicator

1. Introduction

Once the unit is properly installed according to the installation instruction and AC power is supplied, the EXIT sign will illuminate. The numeric Indicator will display the status of the unit.

0	Normal service
1	Battery charging
2	Emergency mode
3	Battery recharge failure
4	Battery disconnected
5	LED failure
6	Battery Failure
7	Manual testing
8	Yearly/monthly self-check testing mode

2. Operation

The self-test/self-diagnostics function is a factory preset without any field adjustment. The automatic self-test/ self-diagnostics feature serves the following test.

- a. Online real-time monitoring of battery and LED(s): identifies battery charging, disconnection and failure along with LED failures.
- b. Self-testing with a 60 second discharge once every 30 days (conforming to NFPA code requirements), after AC power has been supplied for a minimum of 24 hours.
- c. Self-testing with a 30 minute discharge once every 180 days, after AC power has been supplied for a minimum of 24 hours.
- d. Self-testing with a 90 minute discharge once every 365 days (conforming to NFPA code requirements), after AC power has been supplied for a minimum of 24 hours.

3. Fault Indication

Numeric Indicator	Fault Description
3	Battery Recharge Failure*
4	Battery Disconnection
5	LED Failure
6	Battery Failure**

^{*} A battery recharge failure will display if the battery is NOT able to recharge within the 24 hour charge time.

^{**} A battery failure will display if the battery is NOT able to operate the unit for the period of the discharge test.

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4. Manual Testing

This unit also provides for manual testing by pressing the test button in a specific pattern. To test this unit, the battery needs to be charged initially for 24 hours before pressing the test button (manual test). On pressing the test button, the unit will simulate an emergency mode with the numeric indicator displaying a "7". The unit will return to normal operation after 60 seconds/30 minutes/90 minutes respectively. The different patterns and the resulting test are listed in the table below.

Action	Reaction	Indicator
Push test button once (within 2 seconds)	60 second test	7
Push test button twice (within 2 seconds)	30 minute test	7
Push test button three times (within 2 seconds)	90 minute test	7
Push and hold test button (3-5 seconds)	System Interruption	
Push and hold test button (more than 6 seconds)	System Reset	

Self-test/Self-diagnostics (G2 option)

1. Introduction

Once the unit is properly installed according to the installation instruction and AC power is supplied, the EXIT sign will illuminate. The dual-color LED indicator will also display automatically initiating the self-diagnostic test function. The LED indicator displays the current unit status.

- · A STEADY GREEN on the LED indicator indicates normal operation.
- BLINKING GREEN indicates that the unit is in testing mode.
- GREEN/RED FLASHING indicates that the battery is charging.
- RED (STEADY and BLINKING) would indicate a fault or a service alert.
- The LED indicator would be off when the unit is in emergency mode.

Refer to Fault Indication section for more details.

2. Operation

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

- a. On-line real time monitoring of battery and LED(s): Identifies battery charging, disconnection and failure along with LED failures.
- b. Self-testing and a 30-second discharge once every 30 days (conforming to NFPA code requirements), after AC power has been supplied for a minimum of 24 hours.
- c. Self-testing and a 30-minute discharge once every 180 days, after AC power has been supplied for a minimum of 24 hours.
- d. Self-testing and a 90-minute discharge once every 365 days (conforming to NFPA code requirements), after AC power has been supplied for a minimum of 24 hours.



3. Fault Indication

FAULT DESCRIPTION	LED INDICATION
Battery Disconnection	STEADY Red
Battery Recharge Failure*	FLASHING Red
Battery Failure**	Red BLINKING '2' times
LED Failure	Red BLINKING '3' times

^{*} A battery recharge failure will display if the battery is NOT able to recharge within the 24hrs charging time.

4. Manual Testing

This unit also provides for manual testing by pushing the test button in a specific pattern. The different patterns and the resulting tests are listed in the table below.

ACTION	REACTION AND LED INDICATION
Push test button once (within 2 seconds)	30 second test; FLASHING Green
Push test button '2' times (within 2 seconds)	30 minute test; Green BLINKING '2' times
Push test button '3' times (within 2 seconds)	90 minute test; Green BLINKING '3' times
Push & Hold test button (3-5 seconds)	System Interruption
Push & Hold test button (more than 6 seconds)	System Reset

5. General

During an electrical power failure, the unit will transfer into emergency mode and stay illuminated for a minimum of 90 minutes. To test the unit, the battery needs to be charged initially for 24 hours before depressing the test button (to do manual test). On pressing the test button, the unit will transfer into a simulated emergency mode with the LED indicator flashing or blinking green. The unit will return to normal operation after 30 seconds/30 minutes/ 90 minutes respectively.



^{**} A battery failure will display if the battery is NOT able to operate the unit for the period of a discharge test.