

VH Series Class I, Div.2 Battery Unit

Installation instructions



IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. Servicing of this equipment should be performed by qualified service personnel.
2. Make sure the area is clear of all HAZARDS before installing or servicing the unit.
3. Turn off electrical power before and during installation and maintenance.
4. Before conducting maintenance, turn off the unit and wait for it to cool.
5. Do not install where the marked operating temperatures (T-Code) exceed the ignition temperature of the hazardous atmosphere.
6. Do not operate in ambient temperatures above those indicated on the rating labels.
7. Keep tightly closed when in operation.
8. Do not use outdoors.
9. Do not let the power cords touch hot surfaces.
10. Do not mount near gas or electric heaters.
11. Use caution when handling batteries. Battery acid can cause burns to the skin and eyes. If acid is spilled on the skin or eyes, flush acid with fresh water and contact a physician immediately. Avoid possible shorting.
12. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
13. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
14. Do not use this equipment for other than intended use.

SAVE THESE INSTRUCTIONS

Installation Instructions

1. **Turn off unswitched AC power.**
 - a. Remove the unit cover (2). Disconnect the lamps from terminal block (see fig 3) and remove the electronic module (3). Three nuts secure the electronic module to the housing.
 - b. Determine which holes in the housing will be used for conduit. Support frame by two blocks of wood, maximum one inch apart. Strike knockouts with a hammer and screwdriver. Clear holes of burrs to allow proper installation of the fitting. Install conduit fitting rated for Class I Div 2, on the housing. For **Nexus** option, install the liquid tight fitting, provided with the unit to route the data cable.

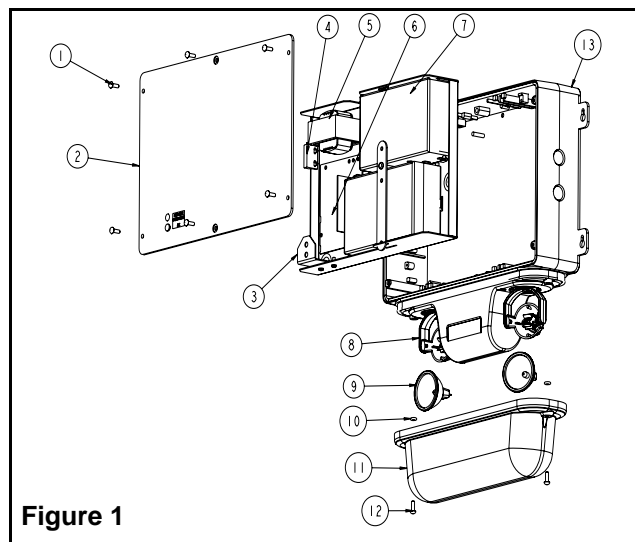


Figure 1

Part List

1. Tamper-proof screw
2. Unit covers
3. Electronic module
4. Magnetic test switch
5. Transformer
6. Charger board
7. Battery
8. Lamp holder
9. Lamp
10. O-ring
11. Lens
12. Tamper-proof screw
13. Housing

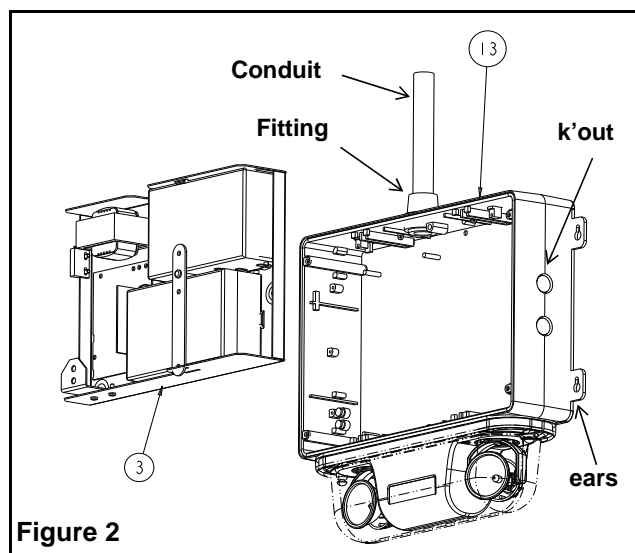


Figure 2

- c. Install the unit on the wall with 4 screws (not provided). Use the ears located on each side (see figure 2). Route unswitched AC circuit wires into the housing.
- d. Reinstall the electronic module inside the housing using the three nuts.

2. ELECTRICAL CONNECTIONS

Auto-diagnostic models (refer to figure 3):

- a. Connect transformer primary wires to AC wires from building: white wire with neutral; black (120Vac) or orange (277Vac) to line voltage. Unused primary wire must be insulated to prevent shorting. Connect green wire to the ground.
- b. Reconnect the lamps on terminal blocks (L1+/L1-).
- c. For units with remote capacity, connect the remote heads DC+ to L1+ and DC- to L1-.
- d. Connect the battery to the charger board.

Nexus models:

See Nexus addendum for the details on electrical connection.

3. Lamps adjustment:

- a. To access the lamps, remove the lens. Remove the lamps protectors. Adjust the lamps in appropriate position. Put the lens back in place.

4. Put the unit cover back in place. Make sure the unit is tightly closed.

5. Energize AC.

Manual Testing

Operate the magnetic “test switch” by holding the provided magnet where indicated on the side of the housing. This will initiate a one minute test. The DC lamps will illuminate for approximately one minute, then the unit will automatically return to stand by mode. Test can be cancelled by holding the magnet near the test switch again.

Automatic Testing

The unit will perform an automatic self-test of 1 minute every month, 30 minutes every 6 month and a 90 minutes self-test once a year.

Automatic Diagnostics

There are five diagnostic indicators: one external and four internal. Unit must be opened to gain access to internal indicators.

External: Service alarm, “Service Required”. The LED will turn-on if any alarm condition is detected (see fig. 4 & 5).

Internal: Battery Failure, Battery Disconnect, Charger Failure & Lamp Failure. Steady ON if alarm condition exists (See fig. 11).

Normal operation, No fault “Service Required” is OFF.

Faulty operation “Service Required” is ON.

(see AD charger owner manual for more details)

Nexus models

Nexus models use two local indicators. One is a green LED for AC pilot lamp. The other is a bicolor LED (Service) which identifies and displays the Nexus status. See Nexus addendum for details.

