

Ultraviolet/Infrared Test Lamp W8067S W1212 Portable Battery Pack

APPLICATION

The Det-Tronics W8067S Ultraviolet/Infrared (UV/IR) Test Lamp is a portable, battery operated source of ultraviolet and infrared radiation for periodic testing of single frequency IR and UV/IR flame detection systems. The test lamp produces UV and IR radiation to verify response of the flame detection system without the need for an open flame, and is suitable for use in non-hazardous (de-classified) areas.

The W8067S Test Lamp can be powered by a rechargeable, removable internal battery pack, making it ideal for applications where detectors are mounted in high or hard to reach locations. Alternatively, the test lamp can be powered by the W1212 Portable Battery Pack, which provides substantially longer operating times between recharges. Both battery packs are easily recharged from a 120 volt AC power source. Internal battery pack, charger and adapter are included. The optional W1212 portable battery pack is highly recommended.

SPECIFICATIONS

ENCLOSURE—

Rugged, weatherproof, ABS construction.
For use in non-hazardous (de-classified) locations only.
Test lamp is not explosion-proof.

POWER SOURCE—

Cordless: Uses a rechargeable, removable battery.
Corded: Uses the W1212 portable battery pack or any other supply with a 12 volt DC universal cigarette lighter receptacle.

BATTERY CHARGING—

120 vac, 50/60 Hz. using adapters provided.
(220 vac adapters available. See "Ordering Information.")

TEMPERATURE RANGE—

Operating: -15°C to $+50^{\circ}\text{C}$ ($+5^{\circ}\text{F}$ to $+122^{\circ}\text{F}$).
Charge: 0°C to $+40^{\circ}\text{C}$ ($+32^{\circ}\text{F}$ to $+104^{\circ}\text{F}$).
Storage: -15°C to $+40^{\circ}\text{C}$ ($+5^{\circ}\text{F}$ to $+104^{\circ}\text{F}$).



OPERATING TIME—

Internal Battery: Up to 10 minutes continuous when fully charged.
W1212: Offers extended operating time between charges.

OPERATING RANGE—

The W8067S Test Lamp will activate IR and UV/IR detectors at up to 20 feet, depending on the detector sensitivity setting, angle of the test lamp relative to the detector, and detector window cleanliness.

DIMENSIONS—

W8067S Test Lamp: See Figure 1.
W1212 Battery Pack: Length: 8.4 in. (21.3 cm)
Width: 2.75 in. (7.0 cm)
Height: 5.5 in. (14.0 cm).

WEIGHT (Approximate)—

W8067S Test Lamp: 13 pounds (5.9 kilograms).
W1212 Battery Pack: 11 pounds (5.0 kilograms).

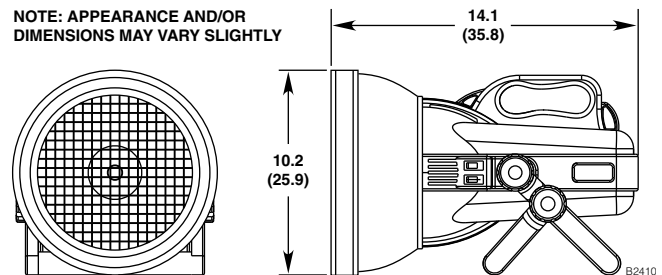


Figure 1—Test Lamp Dimensions in Inches (cm)

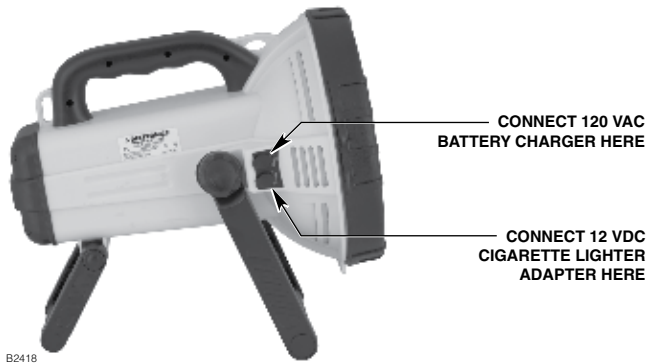


Figure 2—Location of Power Terminals

BATTERY CHARGING

WARNING

As with all rechargeable systems, explosive gases could be vented from the battery on overcharge, therefore, use the battery charger in a ventilated area away from sources of ignition.

INTERNAL BATTERY

Charge the battery fully prior to initial use of the test lamp. Before charging the battery, be sure that the power switches are in the "off" position.

AC/DC Adapter

Plug the battery charger into the upper jack on the test lamp (See Figure 2 for location), then plug the power cord into a standard 120 vac outlet. The LED glows a steady red while the unit is charging. The LED blinks to indicate that the battery is fully charged. The time required to fully charge the battery is approximately 15 hours.

NOTE

Do not use any charger other than the one provided with the W8067S.

Cigarette Lighter Adapter

Plug the large end of the adapter into an external 12 Vdc power outlet and the other end into the lower jack on the test lamp. The LED glows steady red with the external power source connected to the test lamp.

W1212 BATTERY PACK

1. Attach the battery socket. Remove the protective paper on the adhesive strip that is affixed to the socket, then locate the socket on top of the battery as shown in Figure 3 and press it firmly into place.

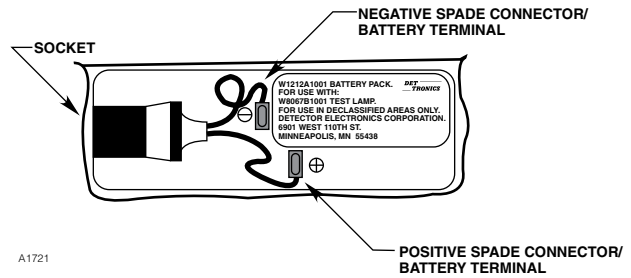


Figure 3—W1212 Battery Pack Connections

2. Connect the two spade connectors from the socket to the battery terminals — small spade connector to small battery terminal (negative) and large spade connector to large battery terminal (positive).
3. Connect the charger to the battery socket and plug the power cord into a standard 120 vac outlet.
4. Charge the battery for approximately 36 hours initially and 24 hours after each complete discharge. **Do not** charge for over 48 hours or damage may result.
5. To use the W1212 with the W8067S, connect one end of the cigarette lighter adapter to the socket on the W1212 and the other end to the lower power jack on the test lamp.

OPERATION

WARNING

The test lamp creates high heat. To prevent risk of fire, do not lay the test lamp face down on any surface when it is on. Unplug the test lamp when not in use.

WARNING

Do not look directly into the test lamp when it is on or shine it into another person's eyes at close range.

GENERAL OPERATING INSTRUCTIONS

Prior to operation, charge the battery fully, following the instructions in the "Battery Charging" section. Use the toggle switches on the side of the lamp to turn the light on and off. Place both switches in the "on" position.

IMPORTANT

When the test light dims, the battery charge is low. Do not allow the battery to completely discharge. Fully recharge the battery as soon as possible after each use.

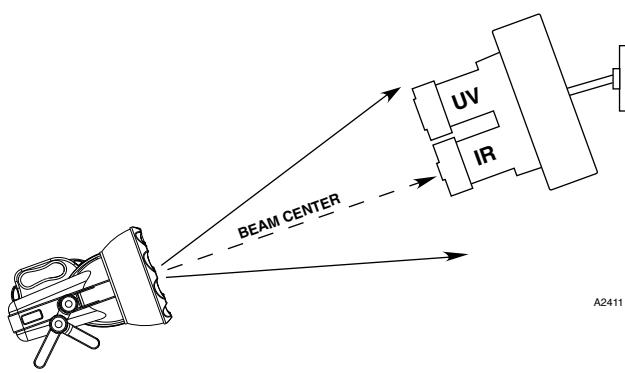


Figure 4—Recommended Test Lamp Position

DETECTOR TEST PROCEDURE

NOTE

Prior to testing, the detector viewing window should be cleaned following the guidelines in the detector instruction manual.

Aim the W8067S on the center viewing axis of the detector. Refer to Figure 4. Note that any deviation from the center line will reduce the maximum test range as shown in Table 1. For IR or UV/IR detectors, center the beam on the IR sensor. Then, while carefully aiming the beam on the IR window, **slightly** wobble* the test lamp just enough to induce a slight flicker effect on the detector, but **not so much** that the beam no longer covers the detector window(s). (If the test light is momentarily removed from the detector window, the detector's signal processing will start over, resulting in a longer response time.)

*NOTE

A slight wobble of the test lamp is required to meet the "flicker" requirements of the IR detection circuitry, but is not required for the UV side of a UV/IR detector, since UV detectors do not utilize flicker detection circuitry.

Table 1—Detector Response to W8067S at Various Angles Relative to Center Line

DEVIATION FROM CENTER LINE	PERCENTAGE OF MAXIMUM RANGE
0°	100%
15°	80%
30°	50%
45°	25%

Response of the detection system will depend upon the distance between the test lamp and the detector, the angle of the test lamp relative to the detector, and the sensitivity programmed into the detection system. It may be necessary to decrease the distance between the detector and the test lamp in order to obtain a response. Typical response time is 5 to 15 seconds.

NOTE

The maximum recommended battery charge level is required for maximum test range capability.

SERVICE PROCEDURES

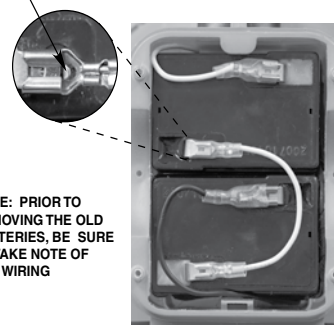
BATTERY MAINTENANCE

The battery must be charged and stored properly to ensure satisfactory performance. Always store the battery in a fully charged condition. Disconnect the charger from the battery. Store in a cool place.

Internal Battery. Charge the battery for at least 15 hours and never over 24 hours — initially and immediately after each discharge. Never leave the battery discharged. Recharge at least every 3 months.

Internal Battery Replacement. Care should be taken when releasing the spade connectors, we strongly suggest refraining from pulling on the wires as a method of removal. Refer to Figure 5 for recommended removal.

PUSH DOWN ON THE TINY LEVER, THEN PULL FOR EASY RELEASE OF THE SPADE CONNECTORS



NOTE: PRIOR TO REMOVING THE OLD BATTERIES, BE SURE TO TAKE NOTE OF THE WIRING

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Figure 5—Spade Connector Removal on Internal Battery for W8067S

W1212 Battery. Charge for 36 hours initially and for 24 hours after each discharge. Recharge for 24 hours every eight weeks when not in use.

TROUBLESHOOTING

If the test lamp fails to light:

- Check battery charge.
- Check battery connections if using W1212.
- Check internal battery for correct installation.

If the battery fails to charge, check:

- Charger connections.
- Input power to charger.
- Charger should be warm when plugged in. If not, replace the charger.
- If all above checks out, replace the battery.

If the battery has been charged and the test light becomes dim within the first 30 seconds, the battery must be replaced.

BULB REPLACEMENT

WARNING

Always allow the test lamp to cool before replacing the bulb.

When replacing the bulb, use only part number 103853-001, available from Detector Electronics. Use of other bulbs can adversely affect the performance of the test lamp.

1. Disconnect any power cords attached to the test lamp.
2. Pull the rubber cover off the front of the test lamp. See Figure 6.
3. Remove the Phillips screws from the reflector cap.
4. Remove the reflector. Use care not to damage the wiring or connections.

CAUTION

Do not touch the glass bulb or the inside of the reflector. Perspiration and oil from fingers can adversely affect the performance of the bulb. Handle the bulb by its metal base only. If necessary, the bulb can be cleaned with alcohol.

5. Open the bulb retainer to release the bulb. (Push the wire prongs together and pull up to release bulb.) See Figure 7.

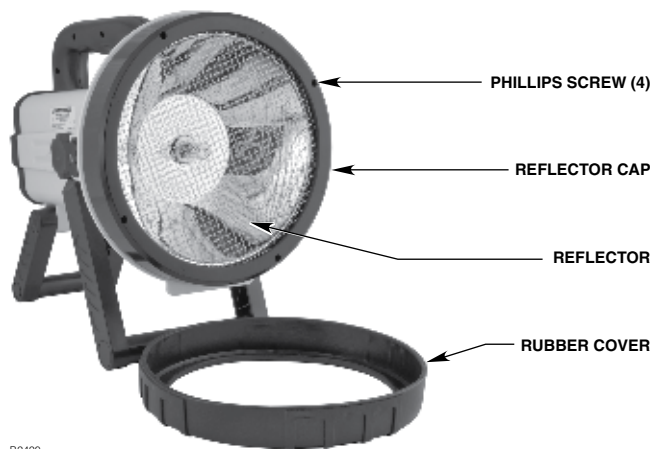


Figure 6—Front of Test Lamp with Rubber Cover Removed

IMPORTANT

Note the location of each of the three bulb wires. The wires must be connected to the new bulb in the same way to ensure proper operation of the lamp switches.

6. Disconnect the bulb wire connections from the old bulb and install them on the new bulb.
7. Holding the new bulb by its base, install it in the reflector.
8. Replace the wire bulb retainer.
9. Place the reflector inside the lamp housing.
10. Secure the reflector cap to the lamp housing using the screws that were removed earlier. Use care not to over-tighten.
11. Re-install the rubber cover.

ORDERING INFORMATION

When ordering, specify:

Description	Number
Model W8067S1003 Test Lamp	006439-004
Model W1212 Portable Battery Pack	006438-001
Optional 220 vac ac/dc adapter (Euro)	103852-001
Bulb	103853-001
Internal Battery, 6V (2 required for 12V Operation)	103855-001

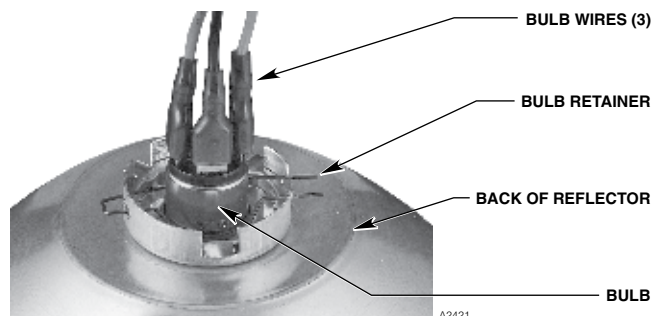


Figure 7—Bulb Removal

Detector Electronics Corporation

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