

Ultraviolet/Infrared Test Lamp W867

APPLICATION

The Det-Tronics W867 Ultraviolet/Infrared (UV/IR) Test Lamp is a portable, battery operated source of ultraviolet and infrared radiation that can be used for periodic inspection of UV, single frequency IR and UV/IR flame detection systems. It 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 hazardous (classified) areas. (Note: Det-Tronics Dual Frequency IR detectors require the model W868 Dual Frequency IR Test Lamp for testing.)

SPECIFICATIONS

ENCLOSURE—

Cast aluminum.

CERTIFICATION—

Class I, Division 1, Groups C and D;

Class II, Division 1, Groups E, F and G.

For storage and use in dry or damp locations only.



ELECTRICAL RATINGS—

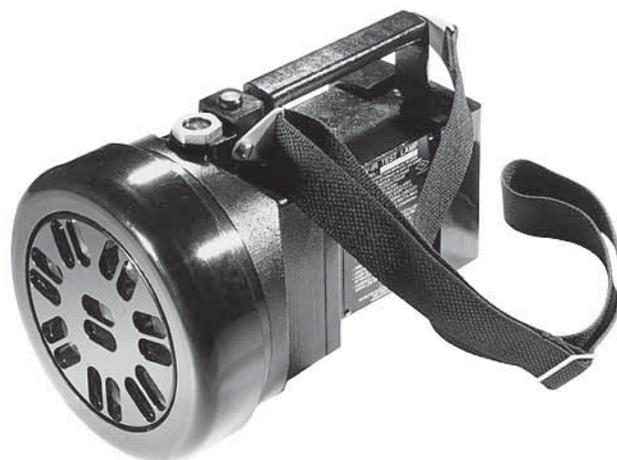
Battery Charger Input Voltage: 120 volts ac, 60 Hz
220 volts ac, 50 Hz (optional).

TEMPERATURE RANGE—

Operating: +5°F to +122°F (-15°C to +50°C).
Charge: +32°F to +104°F (0°C to +40°C).
Storage: +5°F to +104°F (-15°C to +40°C).

OPERATING TIME—

Approximately 15 minutes continuous between recharges. This will vary with the ambient temperature.



OUTPUT—

Broadband emissions in both UV and IR spectra.

APPROXIMATE OPERATING RANGE—

UV detector (25 cps sensitivity setting):
>50 feet (15 meters).

IR detector (40 cps sensitivity setting):
5 feet (1.5 meters).

UV/IR detector (16 cps sensitivity setting):
5 feet (1.5 meters).

DIMENSIONS—

See Figure 1.

WEIGHT (APPROXIMATE)—

14 pounds (6.2 kg).

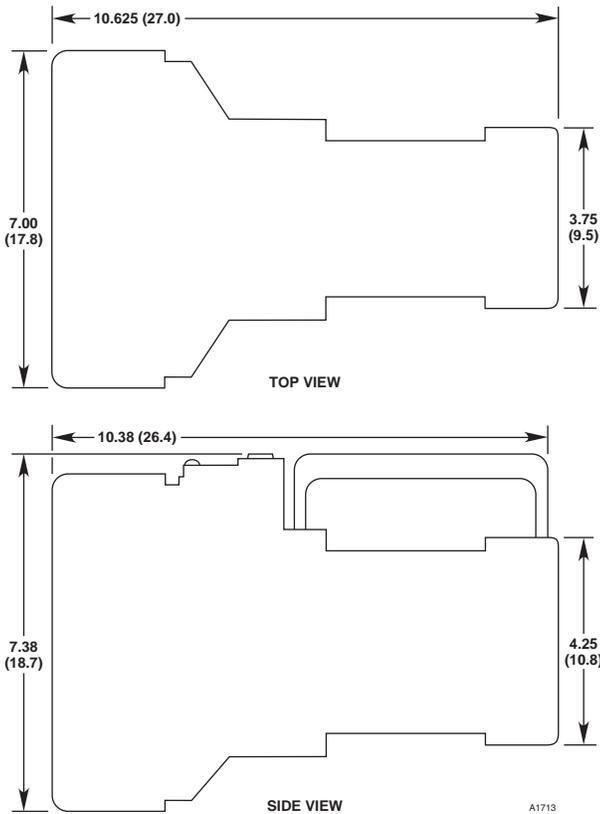


Figure 1—W867 Test Lamp Dimensions in inches (cm)

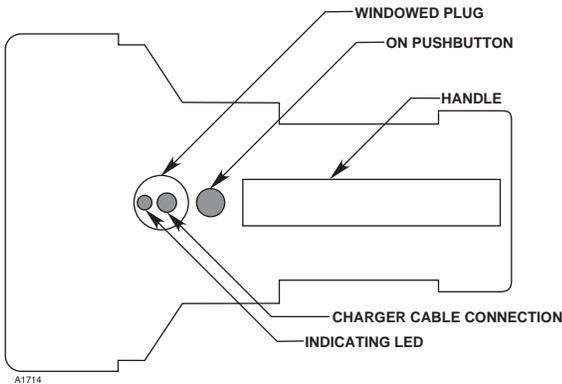


Figure 2—Top View of W867 Test Lamp

WARNING

Exposure to ultraviolet radiation from the W867 Test Lamp can be damaging to the eyes. Do not look directly into the window of the test lamp when it is on.

OPERATION

To operate the W867 Test Lamp, push the "ON" button (see Figure 2) and aim the test lamp at the detector. The UV and IR emitting lamp inside the W867 will flash on and off at a rate of approximately 2 times per second. This flashing operation satisfies the "flicker" circuit in the IR detector. Response of the detection system will depend upon the distance between the W867 and the detector, and upon 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.

Do not operate the test lamp longer than is necessary to actuate the detector. Each detector can be checked with less than 30 seconds of operating time. It is important to avoid discharging the battery to the point where the battery charge level Indicating LED (see Figure 2) is on steady. Refer to the Battery Maintenance section of these instructions for further information.

CAUTION

Do not remove the shock insulators from the lens cap or battery storage compartment.

SYSTEM CHECKOUT

A system checkout should be performed after installation is complete. A periodic maintenance checkout (with minimum frequency of once every six months) should be scheduled to ensure that the system is in proper operating condition. Depending on the degree of hazard and the amount of contaminants in the atmosphere, the checkout can be scheduled more often. Note that oil films will significantly reduce the transmission of ultraviolet radiation through the detector windows.

For specific system checkout instructions, see the "Checkout Procedure" section of the instruction manual for the flame detection system being used.

The W867 Test Lamp is a safe, portable UV/IR source for external testing and verification of the response of Det-Tronics UV, single frequency IR, and UV/IR detectors. It is suitable for use in hazardous (classified) areas, but is not a substitute for an actual open flame test.

SERVICE PROCEDURES

BATTERY MAINTENANCE

A battery charge level indicating LED and the charger cable connection for recharging the battery are located beneath a removable windowed plug in front of the ON pushbutton switch. See Figure 2. To maintain the explosion-proof rating of the W867, the plug must be installed whenever the battery is not being charged. To determine the battery charge level, press the ON pushbutton and observe the Indicating LED. When the battery is fully charged, the red Indicating LED (viewed through the window) is off. When the battery reaches a marginal level, the Indicating LED will flash on and off. The battery should be recharged at this time. If the Indicating LED is on continuously, the battery is at a very low level and the test lamp should not be operated until the battery has been recharged.

WARNING

The life of the battery is significantly reduced if it is operated when the red LED is on continuously.

RECHARGING

A 12 volt dc, 0.3 ampere battery charger is provided to supply dc voltage from an ac outlet for recharging the W867 battery. Battery chargers are available to operate on either 120 vac 60 Hz or 220 vac 50 Hz (optional). This plug-in battery charger contains a Power On LED to indicate when the charger is plugged in and a Fast Charge LED to indicate when the battery is being charged.

WARNING

Do not operate the W867 Test Lamp when the battery is charging.

Do not recharge the battery in a hazardous area.

To recharge the battery, first remove the windowed plug to gain access to the recharge connection. Plug the charger cable plug into the battery. Plug the battery charger into the appropriate ac outlet. The Power On and Fast Charge LEDs on the battery charger should be on. When the battery is fully charged, the Fast Charge LED will go out. This should take from 12 to 14 hours from a discharged state.

To return the W867 Test Lamp to service, unplug the battery charger from the ac outlet. Disconnect the charger cable from the battery. Replace the windowed plug. Press the ON pushbutton and observe the indicating LED on the battery. The indicating LED should be off, which shows that the battery is fully charged and ready to operate.

DEVICE REPAIR AND RETURN

The W867 UV/IR Test Lamp is not designed to be repaired in the field. If the test lamp fails to operate after fully charging the battery, return it to the factory for repair.

Prior to returning devices, contact the nearest local Detector Electronics office so that a Return Material Identification (RMI) number can be assigned. **A written statement describing the malfunction must accompany the returned device or component to assist and expedite finding the root cause of the failure.**

Pack the unit properly. Always use sufficient packing material in addition to an antistatic bag as protection from electrostatic discharge.

NOTE

Inadequate packaging that ultimately causes damage to the returned device during shipment will result in a service charge to repair the damage incurred during shipment.

Return all equipment transportation prepaid to the factory in Minneapolis.

ORDERING INFORMATION

When ordering, specify:

Part Number	Description
004000-003	W867C3001 - 120 VAC
004000-004	W867C3002 - 220 VAC; 2 pin, Euro
004000-005	W867C3003 - 220 VAC; 3 pin, UK

NOTE

Includes test lamp with battery and charger.

For assistance in ordering, please contact:

Detector Electronics Corporation
6901 West 110th Street
Minneapolis, Minnesota 55438 USA
Operator: (952) 941-5665 or (800) 765-FIRE
Customer Service: (952) 946-6491
Fax: (952) 829-8750
Web site: www.det-tronics.com
E-mail: detronics@detronics.com



Environmental Protection

Waste electrical products should not be disposed of with industrial and commercial waste. Please recycle where facilities exist. Check with your Local Authority or the local Detector Electronics office for recycling advice.

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