ESP SAFETY INC
555 N. First Street
San Jose CA 95112

Part Number: 50017-001
Description: TEST LAMP, FLAME DETECTORS

Rev: 01
Date: 11/17/09
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Testing Emission Source ITES
Operating Manual
50017-001 OM

Rev	ECO	Description of Change	Approved by	Date
01		Initial Release		

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1. Purpose

The Testing Emission Source ITES GSKF.676216.001 (hereinafter after referred to as ITES) is intended for the functional testing of the IPES Flame Detectors (hereinafter after referred to as IPES), supplied by ESP Safety Inc, San Jose, CA, without removing it from the field. The radiation produced by this source approximates the radiation produced by petrochemical, natural gases, and other hydrocarbon flames or fires.

2. Basic Characteristics

- ITES generates directed modulated radiation with sufficient intensity to signal a flame or fire response, appearing on the IPES output, at a distance of 3 m (9.84 ft) (when used with a new battery set).
- The supply sources of the ITES are 3 "D" size "Duracell" mark batteries.
- ITES total operating time from one battery set is approximately one hour.
- Explosion proof mark 2ExeibIIBT4 X.
- Dimensions, 60 mm x 410 mm (2.36 in x 16.14 in)
- Weight (with batteries), ≤ 1.0 kg (2.2 lbs).

The X symbol after the explosion proof mark means that under exploitation the ITES needs to be protected from impact and drop.

3. ITES Contents

ITES is supplied to the customer pre-assembled with an emission source, housing, 3 "D" size batteries, an emission source for checking other types of power sources, and an Operating Manual.
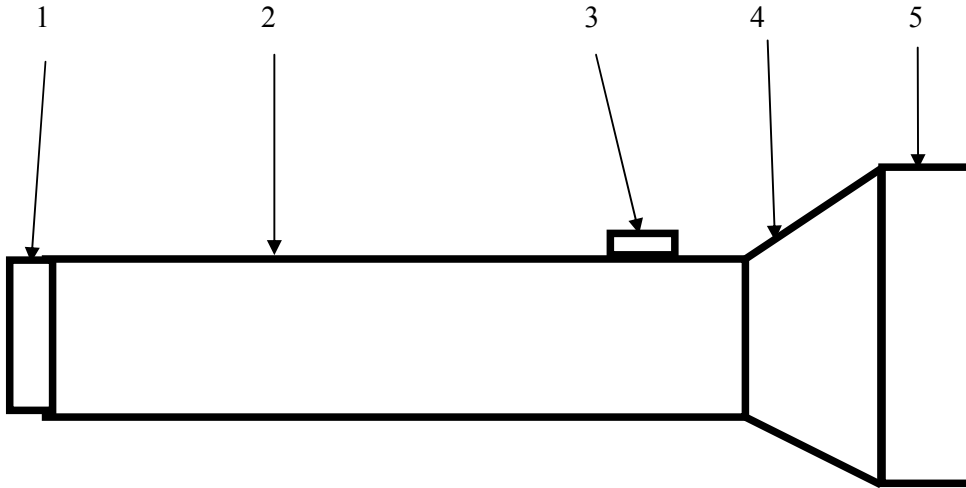
4. Set-up Procedure (see Appendix)

a. Remove back cover (1) of the ITES.
b. Install 3 "D" size batteries into the ITES body (2).
c. Replace the back cover (1).
d. Check the functionality of the ITES. Press the on/off switch (3) and make sure the modulating radiation is present.
e. Turn the reflector body (4) to obtain the minimum size and maximum brightness of the radiation spot at a distance of 1 - 2 meters (3.28 – 6.56 feet).

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Appendix

1 –Back Cover 2 – ITES Body 3 –On/Off Switch 4 – Reflector
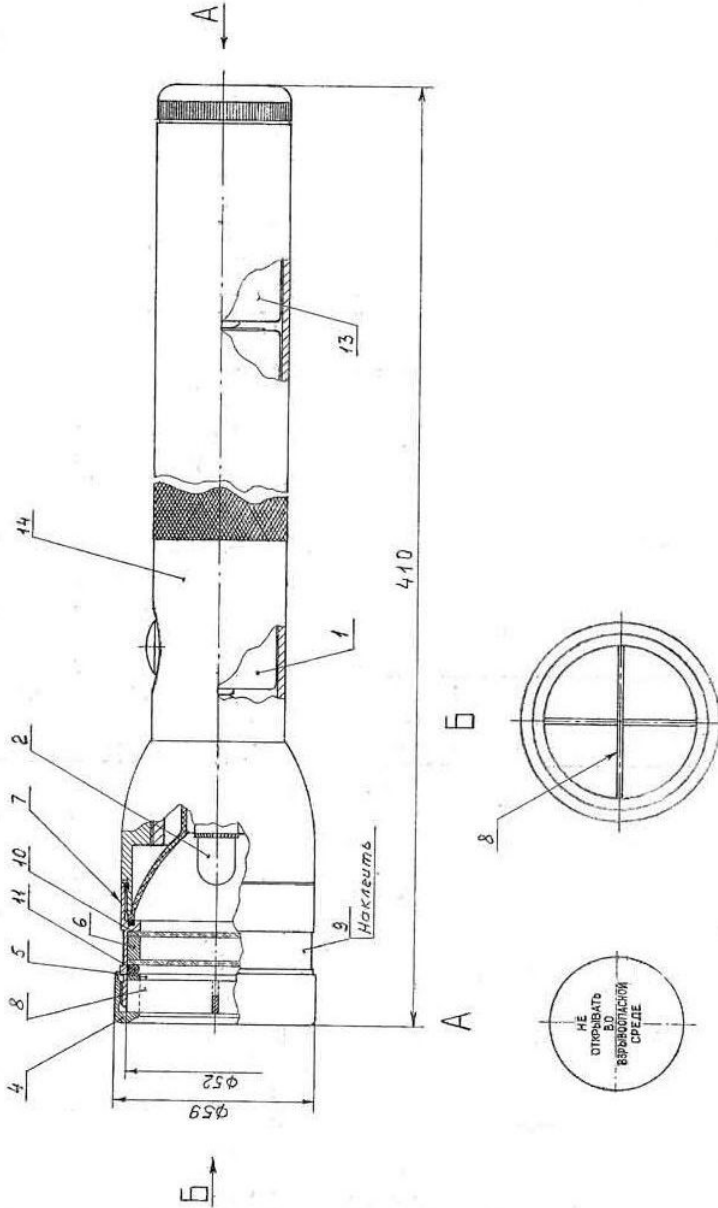Cover   5 – Glass Cover

ITES is manufactured for the following types of IPES Flame Detectors

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Table 1

Reference designation of type	Designation of Design document	Types of Flame Detectors	Distance, ITES is provided the response from Flame detector
ITES IR/UV	50017-001	IPES IR/UV	Up to 3 m
ITES IR3		IPES IR3	Up to15 m

Note: UV- Ultraviolet, IR- Infrared

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5. Operating Procedure

a. Point the ITES toward the IPES Flame Detector at a distance of up to 2 m (6.56 ft) and press the on/off switch (4). Adjust radiation as specified in section 4 (e). Direct the beam toward the IPES for 4 -5 seconds. The IPES detection is indicated by a continuous LED lighted for 5 – 6 seconds.

b. After the IPES has responded, switch off the ITES.

c. Ensure that no water, dust or dirt is present on ITES's reflector. If there is evidence of dirt that is visible, then remove glass holder (5) and wipe the surface of the reflector with a wet clean coarse calico. If there is dirt under the radiation source, unscrew it from the holder and wipe with cotton wool GOST 5556, moistened with ethanol GOST 18300.

d. Touching the glass bulb of the emission source, the surface of the reflector, or the protection glass is strictly prohibited!

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6. Probable Defects and Defect Elimination

Defect	Defect description	Defect Elimination
While switching on the ITES, the visual radiation is present, but a known good IPES doesn't generate a flame or fire response	The ITES lamp is working in nominal mode because of a low power supply The reflector and/or the radiation source are dirty The distance to the IPES Flame Detector is too large	Replace the batteries Clean the surface of the reflector and/or the radiation source Bring the ITES to a known good operational distance of 0.5 - 1 m (1.64 – 3.28 ft) from the IPES and check the IPES response
There is no visible radiation while the ITES is switched on, the batteries are known to be good	The ITES lamp is burnt out.	Replace the lamp

7. Warranty

The manufacturer guarantees trouble-free operation during the first 12 months after supplying the device to the customer. The warranty is not extended to the batteries and/or lamps used in the ITES.

8. Test Emission Source ITES IR/UV serial number №_____ is in accordance with technical requirements 50017-001.

9. Date of issue: "___"_____200 .

Signature of ESP representative   (Name)

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