

# HALOGEN LEAK DETECTOR



**BATTERY-OPERATED ELECTRONIC  
HALOGEN GAS DETECTOR**

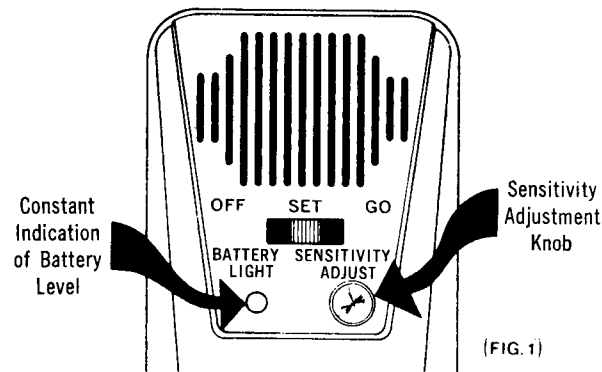
**owner's  
manual**

## GENERAL DESCRIPTION

This instrument is an extremely sensitive, easy to use halogen leak detector. Since no calibration is necessary, the most inexperienced person can start leak checking in seconds. The clear, audible signal guides you right to the leak source even when background contamination is present.

## FEATURES OF THE TIF HLD 440 HALOGEN LEAK DETECTOR

- Does not require calibration.
- Clear audible signal for mistake proof leak detecting.
- Finds leaks in contaminated atmospheres.
- Cordless. Operates on two C cell alkaline batteries.
- Sensor not poisoned by large doses of refrigerant.
- Instantaneous on — no warm-up.
- Constant battery indication.
- Responds to minute traces of halogen gas (3 to 1000 PPM).
- No dangerous or poisonous gases are generated when searching for leaks in a heavily contaminated environment.
- Long flexible stainless probe for probing hard to reach areas.
- Utilizes an audible "Geiger Counter" ticking signal which increases in frequency as the leak source is approached.



## TO OPERATE

- 1) Move slide switch to SET position. (see figure 1)
- 2) Turn the knob until rapid ticking signal is heard.
- 3) Move slide switch to GO position.
- 4) Start leak checking and listen for a change in the ticking rate. When a small trace of refrigerant enters the sensing tip, the "Geiger Counter" ticking signal quickens. As more gas enters the tip, the signal intensifies to a siren.
- 5) To rotate probe 180°, see figure 2.

## TROUBLESHOOTING GUIDE

1. **ERRATIC TICKING** (Check the following)
  - a) Replace tip
  - b) Look for a source of contamination
  - c) Follow "To Operate" instruction carefully
  - d) Red battery indicator light should be lit
2. **BATTERIES**
  - a) When your leak detector is turned on, the red battery indicator should be lit.
  - b) If the red light is not on, install fresh size "C" alkaline batteries. If the light is on and the unit fails to operate properly, turn the detector off and replace the sensing tip. Remember cold temperature will effect battery strength.
3. If the unit is still erratic return to the factory for repairs.

## LEAK DETECTION TECHNIQUES

### SEARCHING FOR LARGE LEAKS OR LEAKS IN CONTAMINATED AREAS

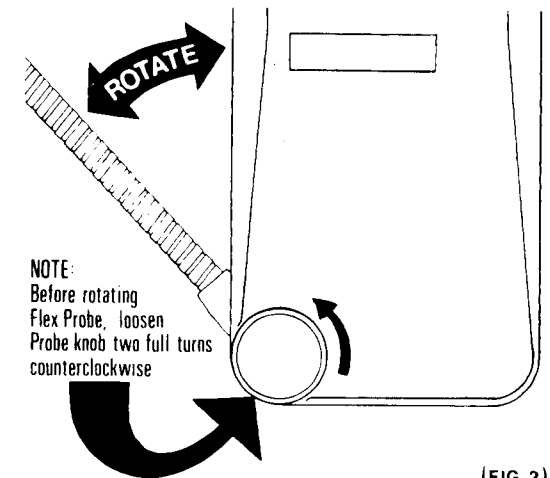
1. In areas of high background contamination and/or large leaks, if the siren alarm sounds before the leak source can be located, your leak detector can be de-sensitized. Turn the control knob counter-clockwise slowly until the siren alarm returns to a ticking signal. Now a large leak can be located despite any background contamination which might be present.

2. In windy areas, a large leak can be extremely difficult to find, because the escaping gas is rapidly carried away from the leak source. Under these conditions, it may be necessary to shield the potential leak area.

### SEARCHING FOR SMALL LEAKS

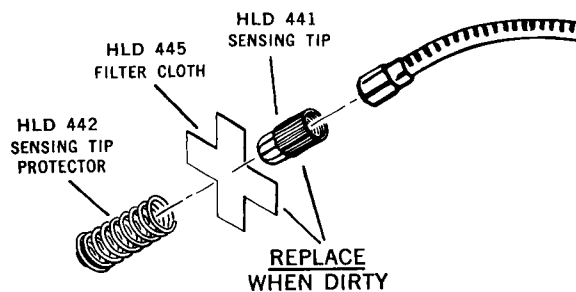
1. In a situation when large leaks mask the presence of very small leaks, locate and repair large leaks first. Finding the small leaks will then become an easy task.

2. When searching for ULTRA small leaks, you may wish to leave the instrument's slide switch in the CALIBRATE position. In this position, due to the extreme sensitivity, a slight variation in the ticking signal may be noticed.



## MAINTENANCE

- 1) Always be sure your instrument is off when changing tips. To change the sensing tip, turn the tip counter-clockwise. Attach a new tip by turning clockwise on the connector. Do not operate your leak detector until the sensing tip is screwed on finger tight. Use care not to catch perspiration, or grease such as hand cleaner in the slots, while attaching the tip.
- 2) Minimize tip contamination from dust and grease by utilizing the tip protector and filter cloth.
- 3) Always change filter cloth when new tip has been installed.
- 4) To install batteries, remove the battery cover on the back of the instrument. Be sure to install batteries as indicated in the battery compartment.
- 5) Batteries affect performance. When your leak detector is turned on, the red battery indicator should be lit. If the red light is not on, install fresh and/or tested Size "C", Alkaline batteries. Remember, cold temperatures will affect battery strength.
- 6) If the red light is on, and the unit fails to operate properly, turn instrument off and replace the sensing tip\*. If the unit still does not function correctly, return it to the factory for repairs.



### PARTS LIST

SENSING TIP .....	Part #HLD 441
SENSING TIP PROTECTOR .....	Part #HLD 442
LEAK SOURCE .....	Part #HLD 443
FILTER CLOTHS .....	Part #HLD 445
MAINTENANCE KIT* .....	Part #HLD 444

\*Maintenance Kit contains:

- 2 SENSING TIPS
- 3 SENSING TIP PROTECTORS
- 1 LEAK SOURCE
- 12 FILTER CLOTHS

### ACCESSORIES:

EARPHONE .....	Part #HLD 446
CARRYING CASE .....	Part #HLD 447

## SPECIFICATIONS

1. POWER SUPPLY:	Two, Size "C" Alkaline Batteries
2. SENSITIVITY:	One-half Ounce per year
3. OPERATING TEMPERATURE RANGE:	30° - 100° F
4. BATTERY LIFE:	Approximately 70 hours, normal usage (Alkaline Bat.)
5. DUTY CYCLE:	Continuous, no limitation
6. RESPONSE TIME:	Instantaneous
7. WARM-UP TIME:	Instantaneous
8. WEIGHT:	28 ounces (with batteries)
9. DIMENSIONS:	8" x 3" x 1.8"
10. PROBE LENGTH:	12.5"

## WARRANTY AND REPAIR/EXCHANGE POLICY

TIF instruments are designed and produced to provide unlimited service. Should the unit be inoperative after the user has performed the recommended maintenance, a no-charge repair or replacement will be made to the original purchaser. This applies to all repairable instruments which have not been tampered with or damaged. The claim must be made within one year from the date of purchase. Repairable instruments, out of warranty, will be repaired or replaced for a nominal service charge. All returned units, out of warranty, serviced F.O.B. Miami. An additional 90-day warranty will cover the repaired or replaced unit.

U.S. Patent #3,742,475

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