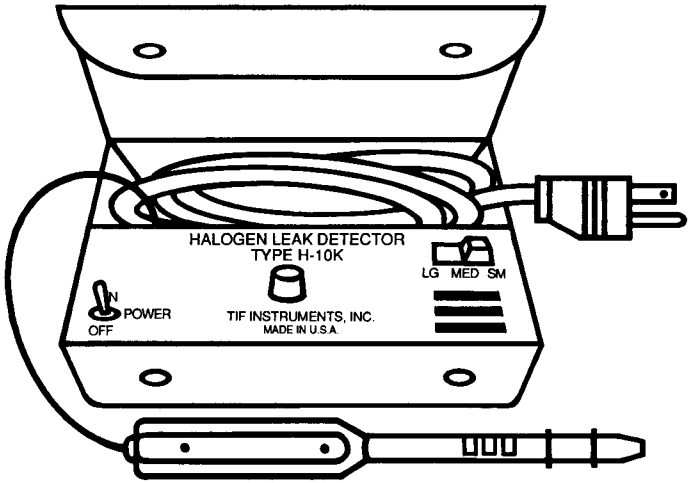
H10K AC Pump Style
Halogen Leak Detector
OWNER'S MANUAL



General Description

The TIF H10K Halogen Leak Detector is an extremely sensitive, easy to use, AC powered service tool for detecting leaks in refrigeration and air conditioning systems. Since only two simple controls are used for operation, even the most inexperienced person can start leak checking in seconds. The combination of a clear, audible signal and bright, flashing lamp guide you right to the leak source. Adjustable sensitivity allows you to pinpoint leaks even when background contamination is present.

Features of the TIF H10K Halogen Leak Detector

- Adjustable sensitivity and balance controls
- High efficiency pump provides fast response and clearing times
- Clear, audible signal and flashing lamp for mistake proof operation
- Finds leaks in contaminated atmospheres
- Sensor not poisoned by large doses of refrigerant
- Instantaneous on - no warm up

Features (cont.)

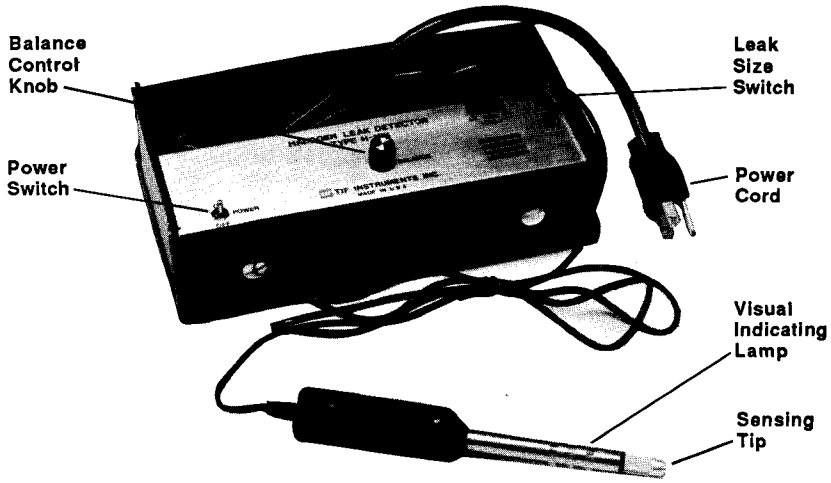
- Plugs into any standard 115VAC outlet
- Responds to minute traces of halogen gas (as low as 3ppm)
- No dangerous or poisonous gases are generated
- Long, flexible cord for hard to reach areas
- Made in U.S.A.

Applications of the TIF H10K

The TIF H10K Halogen Leak Detector may be used to detect:

- Leaks in refrigeration and air conditioning systems
- Ethylene Oxide gas leaks in hospital sterilizing equipment
- SF-6 in High Voltage circuit breakers
- Most gases containing Chlorine, Fluorine and/or Bromine (i.e. Halogen gases)
- Cleaning agents used in the dry cleaning industry.

The TIF H10K AC Pump Style Halogen Leak Detector



Leak Size/Balance Control

The adjustable sensitivity of the TIF H10K is controlled by the Leak Size switch and the Balance Control knob.

Leak Size switch - This is the "coarse" adjustment. The larger a leak, the less sensitive the tool should be, due to background contamination. Therefore the H10K is **most** sensitive in the SMALL position. To de-sensitize the unit switch to MEDIUM or LARGE leak size.

Balance Control knob - This is the "fine" adjustment. Adjust clockwise to **increase** sensitivity and counter-clockwise to decrease. The faster the ticking rate the greater the sensitivity.

Operating Instructions

1. Plug the power cord into any standard 115VAC outlet.

2. Move the power switch to the ON position.

3. Set the Leak Size switch to SMALL.

4. Turn Balance Control knob clockwise until the lamp in probe handle is steadilly illuminated, and then back counter-clockwise until it begins to flash. THIS IS MAXIMUM SENSITIVITY.

5. Begin leak checking, when a small amount of refrigerant is detected, the ticking rate will increase to a siren and the lamp in the probe handle will illuminate steadily.

6. If background contamination causes a signal to occur before a leak is pinpointed, decrease sensitivity by rotating the Balance Control knob counter-clockwise until the ticking rate decreases. If further adjustment is necessary switch to MEDIUM leak size; switching to LARGE will decrease sensitivity still further. REMEMBER, fine adjustments can be made in any leak size position by rotating the Balance Control knob.

Leak Detection Techniques

1. In areas of high background contamination and/or large leaks it is often necessary to desensitize the unit as described in step 6 of the operating instructions.

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

3. In a situation when large leaks mask the presence of small ones, locate and repair the large leaks first.

Troubleshooting Hints

SYMPTOM	REMEDY
Responds continuously before leak is found	De-sensitize with Balance Control knob or Leak Size switch
Responds continuously all the time	Check tip for contamination and replace if necessary
Erratic ticking when turned on	Replace tip

Note: If the unit still does not operate properly after examining this chart it must be sent back to the factory for repair.

Maintenance

A. Minimize tip contamination from dust and grease by always using the tip protector.

B. When changing tips **always be sure that the instrument is switched off.** To change the sensing tip (see Fig 2):

1. Turn the tip counter-clockwise to remove.
2. Attach a new tip by screwing it on clockwise.
3. Do not operate the unit until the tip is on finger tight.
4. Use care not to catch perspiration or grease, such as hand cleaner, in the tip-protector.

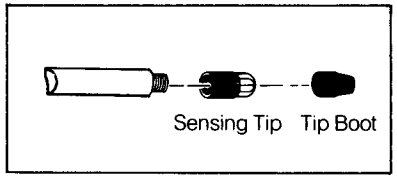


FIG. 2

Replacement Parts

Sensing Tip..... Part # 541
Tip protector..... Part # 542
Maintenance Kit ..... Part # 544
(includes 2 tips & 3 protectors)

Specifications

Power Supply: 110 to 125 volts, 50/60 Hz
Sensitivity:
Leak Size switch position

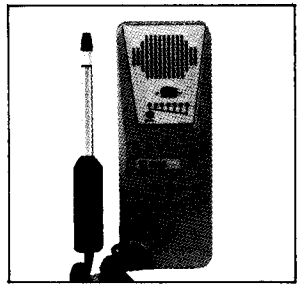
LARGE	MEDIUM	SMALL
2 oz/yr	.5 oz/yr	.1 oz/yr

Operating Temp Range: 30-100° F
Duty Cycle: Continuous, no limitation
Response Time: Instantaneous
Warm-up Time: Instantaneous
Probe Length: 60 inches
Dimensions: 8.5" L x 4.5" W x 2.6" H
Weight: 2 lb. 4 oz.

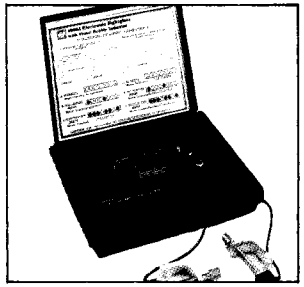
Limited One Year Warranty and Repair/Exchange Policy

This instrument is designed and produced to provide unlimited service. Should it be inoperative after performing the reccommended maintenance, a no-charge repair or replacement will be made to the original owner within one year of the date of purchase. This applies to all repairable units which have not been tampered with or damaged. This warranty does not cover consumable items such as batteries, tips and fuses, nor physical damage and normal wear to components such as probes, sensors and adaptors. For repair service, send your tool to the factory address on the Owner's Manual. Repaired or replaced tools will carry a 90-day warranty.

Other TIF Products



The TIF5600 Automatic Halogen Leak Detector
Simple to operate, all you do is turn it on. A computer-like beeping signal increases in frequency as the leak is approached. The 7 high-brightness LEDs begin to light up as you approach the leak. Super sensitivity and the magic wand let the 5600 detect leaks where others simply can't.
Model No. TIF5600
U.S. Patent #32,552 #4,282,521



The TIF4000A Electronic Sightglass with Visual Bubble Indicator
Astounding is what this superb instrument has been called by top air conditioning experts. It is a remarkable new method of determining how to fill a system precisely.
It could not be easier to use. Automatically tells you when system is full or needs refrigerant.
Model No. TIF4000A
U.S. Patent #4,138,879