



**AUTOMATIC HALOGEN
HFC / CFC / HCFC
LEAK DETECTOR**

OWNER'S MANUAL

**Covers Leak Detector Models:
TIF5050, TIF5550 and TIF5650**



CLASS 1 DIVISION 2 GROUPS A, B, C & D HAZARDOUS
LOCATIONS HAND HELD GAS DETECTOR
CLASSIFIED BY UNDERWRITERS LABORATORIES,
INC.® AS TO FIRE ELECTRICAL SHOCK AND
EXPLOSION HAZARDS ONLY. READ OWNERS
MANUAL BEFORE OPERATING.

CAUTION: TO REDUCE THE RISK OF ELECTRIC
SHOCK, DE-ENERGIZE UNIT BEFORE REPLACING
SENSING TIP OR SERVICING UNIT. USE ONLY WITH

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INTRODUCTIONS

Congratulations on your decision to purchase our newest Halogen Leak Detector. You have made an excellent choice.

Your new unit has been specifically designed to meet both current and future leak detection needs by providing you with the ability to detect a multitude of gases. A simple flick of a switch will program the unit to detect either existing (R12, R22, R502) or new generation (134a) gases.

Just turn the Leak Detector on and begin searching for leaks. An audible computer-like beeping signal will increase in frequency as the leak source is approached. In situations where the area is heavily contaminated with gas the unit can be automatically adjusted to the contaminated atmosphere to prevent misleading readings.

For best results please read this manual carefully before attempting to operate the unit. Should you experience any difficulty or require technical assistance please call our Customer Service Hotline at 1-800-327-5060.

FEATURES

Model 5050, 5550 and 5650 Features:

- Switchable to detect either CFC, HFC or HCFC gases
- Rapid warm-up period
- Cordless - Operates on two "C" Cell batteries
- Constant power indication
- Finds leaks in contaminated atmospheres
- Super sensitive: Responds to minute traces of refrigerant gases
- No dangerous or poisonous gases are generated

Additional Model 5050 Features:

- Long flexible stainless probe for hard-to-reach areas
- Leatherette carrying case

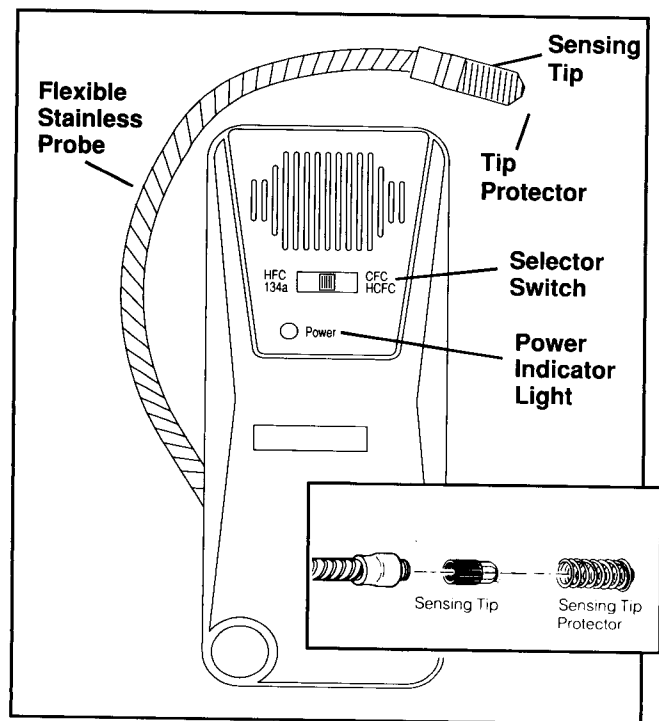
Additional Model 5550 Features:

- High efficiency pump reduces response time
- Long flexible coiled probe cord for hard-to-reach areas
- Rugged blow-molded carrying case

Additional Model 5650 Features:

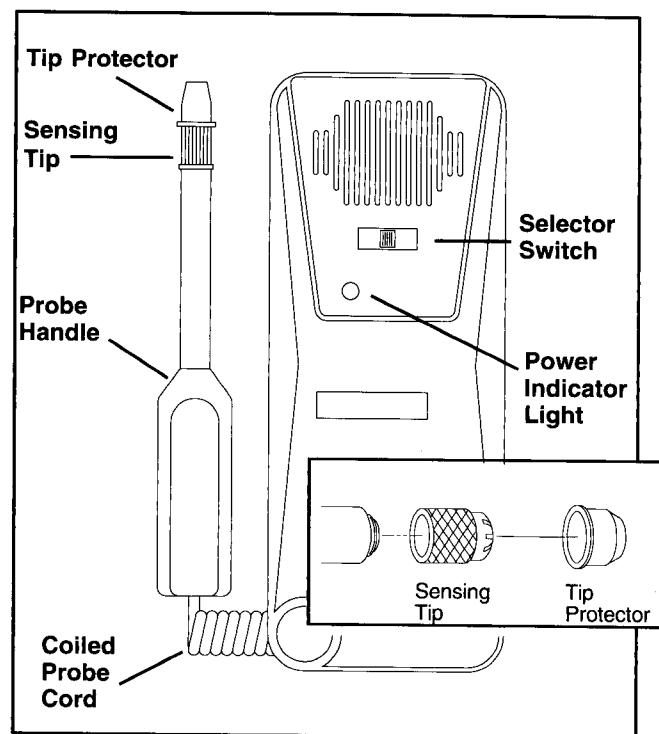
- LED leak intensity display lights for leak size indication
- High efficiency pump reduces response time
- Long flexible coiled probe cord for hard-to-reach areas
- Reset button • Rugged blow-molded carrying case

5050 PARTS & CONTROLS



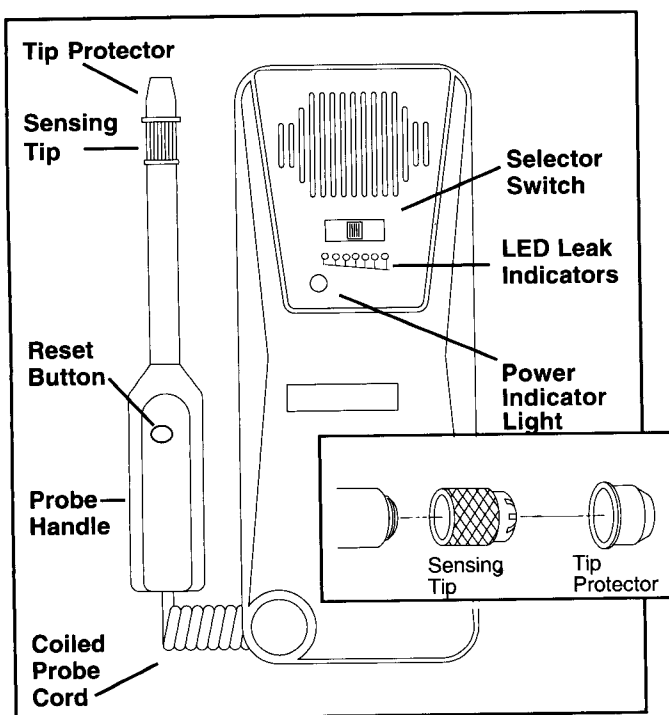
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5550 PARTS & CONTROLS



5

5650 PARTS & CONTROLS



6

OPERATING INSTRUCTIONS

Automatic Calibration

The leak detector models covered by this manual are all equipped with a patented automatic circuit. A good understanding of how this circuitry works will enable you to take full advantage of this feature and avoid misuse.

The automatic calibration feature works like this:

Whatever level of gas surrounds the tip when the unit is turned on, or reset, is taken as zero. Only a greater concentration of gas will be indicated. If there is no gas around the tip when the unit is turned on, or reset, the unit is set at its maximum sensitivity and will indicate the presence of any halogen. However, if, for example, there is a 100 ppm concentration around the tip at turn on, or reset, only a concentration above 100 ppm will be indicated.

The automatic calibration feature makes it possible for you to ignore ambient concentrations of gas and pinpoint leaks much more easily. For best results turn the unit on and **then** move towards the suspected leak area. Reset as often as necessary to pinpoint the exact location of the leak.

NOTE: Because of this automatic feature, if the probe is placed in front of large leak and the unit is switched on, a leak would **NOT** be indicated. This occurs because the level at the tip, at turn on, is taken as zero; only a concentration **above** the level at the tip would be indicated.

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OPERATING INSTRUCTIONS

Getting Started

1. Turn unit on by moving the selector switch to the position which identifies the type of gas to be detected. IF THE GAS IS NOT KNOWN, START IN THE "HFC" POSITION.

GAS IDENTIFICATION CHART

HFC	R125, R134a, HP62, Etc....
CFC	R12, R11, R13, R113, R114, R500, R503
HCFC	R22, R123, R124, R502, HP80/81, MP 39

2. The unit will begin to beep at a slow steady rate. Allow the unit to stabilize for five or six beeps and then begin searching for leaks.
3. The audible tone frequency and beep rate will increase when gas is detected. Model 5650 will also visually reflect leak size with the LED indicator lights.

Leak Detection Techniques

1. In areas that are heavily contaminated with gas the unit may be reset to block out ambient contamination and pinpoint the leak. The probe should not be moved while the unit is being reset. The unit can be reset as many times as necessary to pinpoint the leak.

TO RESET FOR CONTAMINATED AREAS

5050, 5550	Turn unit OFF and back ON
5650	Push reset button on probe handle

OPERATING INSTRUCTIONS

2. Take care not to contaminate the detector probe tip if the part being tested is contaminated. If the part is particularly dirty, or condensate (moisture) is present it should be wiped off with a dry shop towel or blown off with shop air. No cleaners or solvents should be used, since the detector may be sensitive to their ingredients.

3. Visually trace the entire refrigerant system, and look for signs of air conditioning lubricant leakage, damage, and corrosion on all lines, hoses and components. Each questionable area should be carefully checked with the detector probe, as well as all fittings, hose to line couplings, refrigerant controls, service ports **with caps in place**, brazed or welded areas, and areas around attachment points and hold-downs on lines and components.

4. Always follow the refrigerant system around in a continuous path so that no areas of potential leaks are missed. If a leak is found, always continue to test the remainder of the system.

Operating Tips

The selector switch is, in essence, a sensitivity switch with the "HFC" position being the most sensitive. The unit cannot, in fact, tell the difference between CFC, HCFC, or HFC compounds.

UNIT MAINTENANCE

Proper maintenance of your Leak Detector is very important. Carefully following the instructions, outlined below, will reduce performance problems and increase product life expectancy.

WARNING: TURN UNIT OFF BEFORE CLEANING OR REPLACING THE SENSING TIP. FAILURE TO DO SO MAY RESULT IN A MILD ELECTRICAL SHOCK!

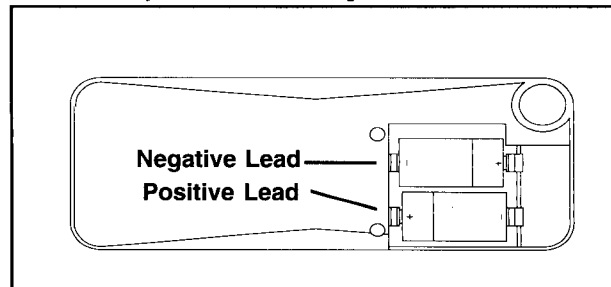
- **Keep the sensing tip clean:** Prevent dust, moisture and grease build-up by utilizing the provided tip protector. The tip protector should be cleaned, with a cloth, on a regular basis to provide adequate tip protection.
- **Sensing tip replacement:** The tip will eventually wear out and require replacement. It is difficult to predict exactly when this will occur since tip longevity is directly related to the conditions and frequency of use. The tip should be replaced whenever the beep rate increases in frequency or becomes erratic, even in a clean, pure, air environment. To replace the tip make sure the unit is in the OFF position.

Remove the old tip by unscrewing in a counter-clockwise direction. Use the replacement tip, **located in the battery compartment**, and screw it on in a clockwise direction until finger tight.

Caution: Old style tips used on models 440, 5000, 5500, 5600 and 6000 will not work on your new leak detector.

UNIT MAINTENANCE

- **Batteries affect unit performance.** When the selector switch is in the ON position the red power indicator light should be on. If the light does not come on, then 2 new and/or tested size "C" Alkaline batteries should be installed. Batteries must supply at least 2.2v (under load) to light power indicator and operate unit. **Always check battery voltage under load:** Remove battery cover and turn unit on. Measure voltage across the batteries as indicated by arrows in the diagram below.



- **To install batteries,** unscrew the large screw located on the back of the instrument case and remove the battery cover. Install two fresh batteries, replace the battery cover and tighten the screw. The power indicator light should illuminate when the unit is turned back on.

NOTE: Low temperatures will affect battery voltage.

TROUBLE SHOOTING GUIDE

UNIT	PROBLEM	CAUSE	CORRECTION
5050 5550 5650	Continuous beeping signal	Loose Sensing tip	Tighten tip finger tight
5050 5550 5650	Erratic and/or continuous beeping signal	Dirty tip or protector	Replace or clean tip or protector*
5050 5550 5650	Erratic and/or continuous beeping signal	Low battery condition	Check pwr. light ** & voltage. Replace batteries if needed.
5050 5550 5650	Reduced sensitivity	Tip is worn out	Replace tip
5550 5650	Probe pump runs but unit does not beep	Batteries reversed	Remove and correct
5050 5550 5650	Unit will not detect a known leak	Tip is worn out	Replace tip
5050 5550 5650	Unit will not detect a known leak	Low battery condition	Check power light** & voltage. Replace batteries if needed

TROUBLE SHOOTING GUIDE

UNIT	PROBLEM	CAUSE	CORRECTION
5050 5550 5650	Unit will not detect a known leak	Turned on in presence of a leak	Reset unit in a clean atmosphere (see page 7)
5050 5550 5650	Unit will not detect a known leak	Dirty tip or protector	Replace or clean tip or protector *

* Remember that a worn out tip, no matter how clean, is still worn out and will result in poor unit performance.

** Battery condition can be judged by checking the power indicator light on the front of the unit. Weak batteries may cause the light to "blink". Good batteries will result in a steady light.

NOTE: It is best to measure the battery voltage, as indicated in the maintenance section on page 11, before reaching a conclusion.

REPLACEMENT PARTS

Standard Equipment

Your Halogen Leak Detector comes equipped with one Carrying Case, one Owner's Manual and one replacement Sensing Tip. The replacement tip is located inside the unit, in the battery compartment.

To purchase replacement parts for your leak detector please contact your local distributor. To ensure that you obtain the correct parts it is best to reference the part number when placing your order.

Replacement Parts

Model	Part Description	Part #
All Models	Sensing Tip	551
5550/5650	Tip Protector	556
5050	Tip Protector	543
5050	Carrying Case	447
5550/5650	Deluxe Carrying Case	548
5050	Maintenance Kit	554
	2 Sensing Tips	
	3 Tip Protectors	
5550/5650	Maintenance Kit	555
	2 Sensing Tips	
	3 Tip Protectors	

NOTE: "All models" refers only to the units covered by this owner's manual.

SPECIFICATIONS

Power Supply: 3V DC; two "C" cell Alkaline batteries

Maximum Sensitivity: Varies with compound, contact manufacturer for more information.

Operating Temperature: 30 ° to 125 ° F

Battery Life: Approximately 50 hours normal use

Duty Cycle: Continuous, no limitation

Response Time: Instantaneous

Reset Time: One second

Warm-Up Time: 5 to 6 Seconds

Unit Weight: 20 ounces or 560 grams (with batteries)
35 ounces or 980 grams (in package)

Unit Dimensions: 8" x 3" x 1.8" or
20.32 cm x 7.62 cm x 4.57 cm

5050 Probe Length: 12.5" or 31.75 cm

5550/5650 Probe Cord Length: 36" or 91.44 cm

WARRANTY & REPAIR

Limited Warranty and Repair/Exchange Policy

This instrument has been designed and manufactured to provide unlimited service. Should the unit be inoperative, after performing the recommended maintenance, a no-charge repair or replacement will be made to the original purchaser if the claim is made within one year from the date of purchase. This warranty applies to all repairable instruments that have not been tampered with or damaged through improper use.

This warranty does not cover batteries, sensing tips, tip protectors, or any other materials that wear out during normal operation of the instrument.

Returning Your Unit For Repair

Before returning your instrument for repair please make sure that you have carefully reviewed the **Troubleshooting Guide** and **Unit Maintenance** section of this manual to determine if the problem can be easily repaired. Make sure that you have either replaced or cleaned the **sensing tip and tip protector** and that the **batteries** are working properly **BEFORE** returning the unit.

If the instrument still fails to work properly send the unit to the repair facility address on the back cover of this manual. Repaired or replaced tools will carry an additional 90 day warranty. For more information please call (800) 327-5060.

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