

LEAKHUNTER *Plus*™



**MATHESON
TRI•GAS**

ask. . .The Gas Professionals™



LEAKHUNTER *Plus*[™]

Model 8066



Description

The Matheson LEAKHUNTER Plus[™] is a truly universal leak detector. Extensive R&D has produced a multi-functional leak detector engineered to perform superbly in both portable and benchtop applications. It has been designed to locate and measure a wide variety of gas leaks quickly, precisely and cleanly.

The LEAKHUNTER Plus[™] is highly sensitive and will locate leaks too small to bubble with a soap solution. And, with the detector cell in the probe itself, the Model 8066 exhibits excellent response and recovery times. Great attention has been paid to ergonomics and durability. And, the Model 8066's controls have been kept simple so that it can be operated with little or no training.

Applications

In the Laboratory:

Instruments, such as chromatographs and GC/MS, reaction vessels, sampling cylinders, research apparatus, manifolds, regulators and valves.

In the Plant: Pressurized containers and storage vessels, piping, process and gas transfer lines, pilot plant reactions, tracer studies and refrigeration systems.

On Production Lines: Quality assurance procedures in

manufacturing, welds, seals and connectors, valves, waterproof enclosures, refrigeration and air conditioning units and military equipment.

In the Hospital: Medical gas systems and piping, fittings and apparatus.

In the Field: Tracer studies, helium and CO₂ pipelines and refrigeration lines.

Environmental Compliance: Fugitive Emissions

LEAKHUNTER *Plus*[™]



CAUTION: The LEAKHUNTER *Plus*[™] is not designed as intrinsically safe and should not be used to detect leaks of combustible gases which may exceed their lower explosive limit (LEL).

Gases Detected

The LEAKHUNTER *Plus*[™] will detect any gas which has a thermal conductivity different from that of the ambient air on which it was zeroed. The larger the difference, the greater the sensitivity. As the instrument will normally be zeroed in ambient air comprised mostly of nitrogen and oxygen, the LEAKHUNTER *Plus*[™] will not be highly sensitive to leaks of these gases. A gas may have a higher or lower thermal conductivity than air and therefore will produce a positive or negative reading on the display.

The LEAKHUNTER *Plus*[™] groups gases with similar thermal conductivities into one of four Gas Groups. Each of the Groups has a calibration curve stored in memory. While the LEAKHUNTER *Plus*[™] will detect any gas with a thermal conductivity different from air, the twelve gases below have been tested for sensitivity and assigned to a particular Gas Group.

Group	Gas	Pos/Neg	Minimum Detectable Leak Concentration			
			cc/sec	cc/min	ft ³ /min	ppm
1	Hydrogen	+	8.10E-06	4.9E-04	1.7E-08	1.3E+02
	Helium	+	1.00E-05	6.0E-04	2.1E-08	1.6E+02
2	Neon	+	5.80E-05	3.5E-03	1.2E-07	9.3E+02
	Xenon	-	5.81E-05	3.5E-03	1.2E-07	9.3E+02
3	R11	-	6.84E-05	4.1E-03	1.5E-07	1.0E+03
	R12	-	7.90E-05	4.7E-03	1.7E-07	1.3E+03
	R21	-	7.98E-05	4.8E-03	1.7E-07	1.3E+03
	R22	-	9.46E-05	5.7E-03	2.0E-07	1.5E+03
4	Methane	+	1.06E-04	6.4E-03	2.2E-07	1.8E+03
	Argon	-	1.37E-04	8.2E-03	2.9E-07	2.2E+03
	CO ₂	-	1.53E-04	9.2E-03	3.2E-07	2.4E+03
	Water Vapor	-	1.75E-04	1.1E-02	3.7E-07	2.8E+03

Example: 1.00E-05 = 1 x 10⁻⁵

Specifications

Detection Principle:

Dual cell micro volume thermal conductivity

Power:

1 x size 9V NiCad battery (alkaline battery, not included, may be substituted)

Charger/Adapter:

115V: Combination charger/AC adapter

220V: Charger only

Operating Time:

NiCad: 4 hours

Alkaline: 9 hours

Response Time:

Approximately 1 second

Recovery Time:

Approximately 1 second

Audio:

Fixed volume, variable frequency proportional to leak rate

Diagnostics:

Low battery indicator

Detector cell failure alarm

Temperature:

Operating: 0° to 45°C (32° to 113°F)

Storage: -10° to 50°C (14° to 122°F)

Humidity:

0-90% RH non-condensing

Size:

Console: 6.75" L x 3" W x 1" D

172mm x 77mm x 26mm

Probe: 8" L x 1.75" Diameter

204mm x 28mm

Weight:

15.5 ounces (440 gm)

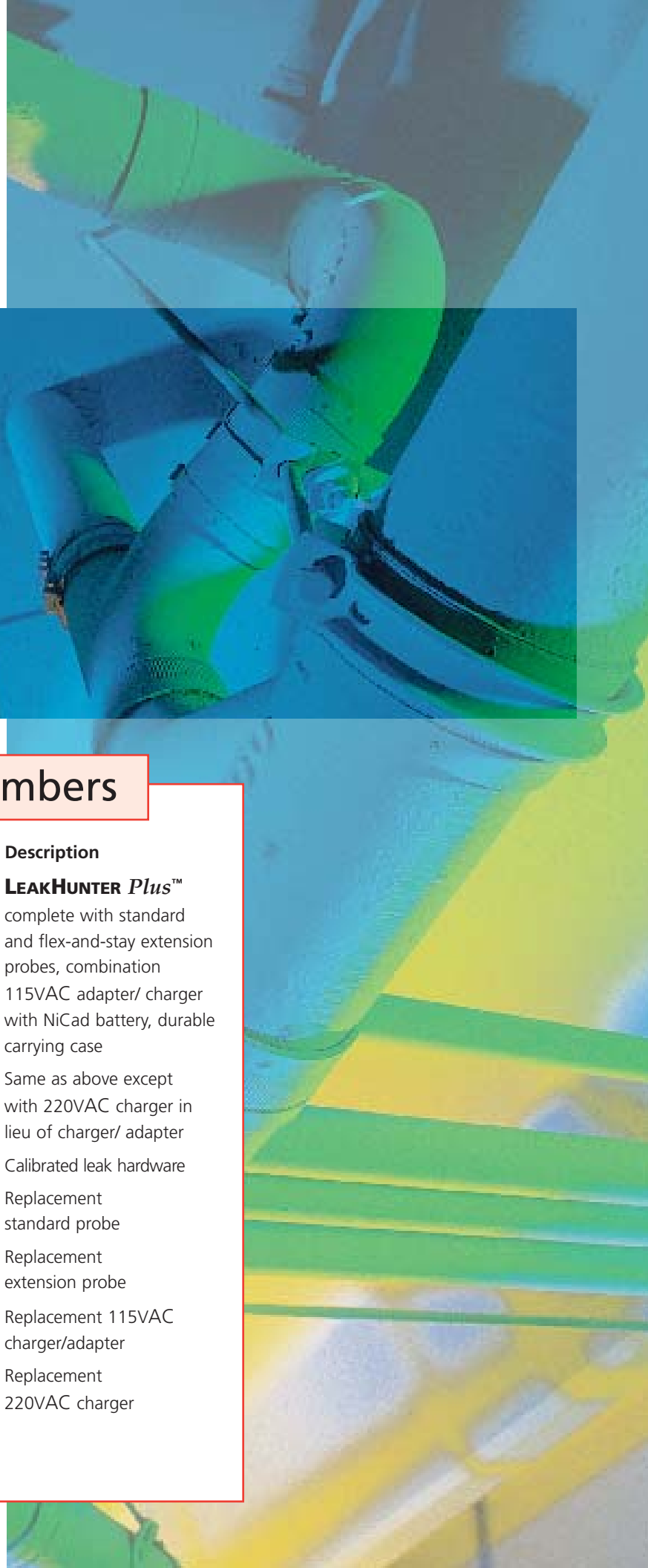
(Including case:) 3.3 lb (1.5 kg)

Warranty:

One year

Model Numbers

Model	Description
8066	LEAKHUNTER Plus™ complete with standard and flex-and-stay extension probes, combination 115VAC adapter/ charger with NiCad battery, durable carrying case
8066-220	Same as above except with 220VAC charger in lieu of charger/ adapter
8066-02	Calibrated leak hardware
8066-03	Replacement standard probe
8066-04	Replacement extension probe
8066-05	Replacement 115VAC charger/adapter
8066-06	Replacement 220VAC charger



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he **LEAKHUNTER Plus™**

is so universal that it replaces three previous Matheson models by combining the best features of the Model 8065 Leak Hunter, the Model 8067 Quantitative Leak Detector and the Model 8017 Benchtop Leak Detector. Moreover, its advanced electronics improves upon these products by providing more sensitive, more stable and more accurate readings.



PORTABLE APPLICATIONS

The **LEAKHUNTER Plus™** offers the convenience and flexibility of either one or two-handed operation. The following features make it an excellent portable detector.

- Probe easily attaches to the body of the instrument giving you a free hand.
- Detachable probe permits access to even the most difficult to reach places. An extension flex-and-stay probe is also included to extend your reach.
- Precise probe tip can pinpoint leaks in areas where several connections are grouped together.
- Rechargeable NiCad batteries (included with charger) provide hours of portable operation.

QUANTITATIVE APPLICATIONS

The **LEAKHUNTER Plus™** can be used to simply locate leaks so they can be corrected, or it can be used to measure the size of a leak. Features which make it an excellent quantitative leak detector include:

- Calibration data for twelve gases is stored in memory. At the touch of a button, the appropriate calibration data is selected depending upon the target gas to be detected.
- Leak rates are displayed in a large LCD readout. The user easily switches between units of cc/sec, cc/min, ft³/min or ppm.
- A peak hold function freezes the display at the maximum leak rate encountered as the probe passes through the suspect leak area.
- Built-in autoranging automatically adjusts the instrument's sensitivity to the size of the leak.

BENCHTOP APPLICATIONS

By removing the detachable probe, the **LEAKHUNTER Plus™** can be used as a benchtop detector. The following features make it an excellent benchtop detector.

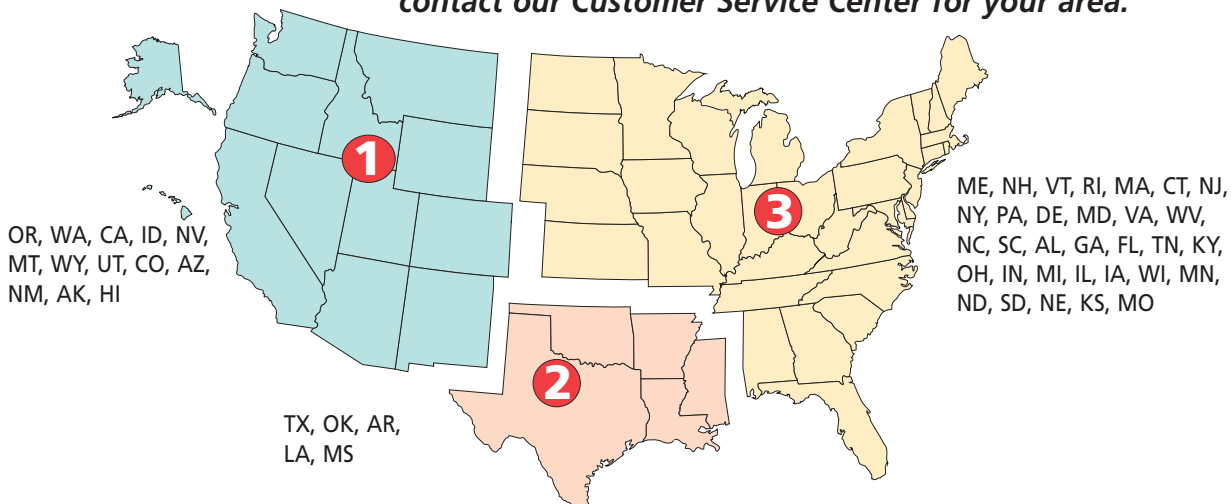
- Console can sit on benchtop to perform leak detection procedures with just the probe in hand.
- Console's no-slip feet and built-in incline stand make for a stable set-up with easy viewing.
- AC power adapter provides continuous operation with no need to recharge batteries.



MATHESON TRI•GAS

CUSTOMER SERVICE CENTERS

To place an order, or to obtain more information, please contact our Customer Service Center for your area:



SPECIALTY GASES

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MATERIAL SAFETY DATA SHEETS (MSDS)

Data Sheets for gases can be downloaded from the Matheson Tri-Gas, Inc. Web site at www.mathesontrigas.com/msds

ELECTRONIC GASES

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