SYSTEMS

8.1





3. RECOVERY MACHINES

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The only tool you will need for fast, easy and certain leak detection.







ACCUPROBE™ IR LEAK DETECTOR

Use the infrared (IR) sensor for ultimate sensitivity, accuracy and reliability. Identifying the smallest leaks is fast and easy. Detects all CFC, HCFC, HFC and HFO refrigerants, including R-134A, R-404A, R-410A and R-1234YF. The Smart Alarm LED shows the size of the leak on a rising scale. Coupled with two modes for sensitivity gives the AccuProbe™ IR the ability to locate a leak of any size.

- Sensor Type: Infrared
- · Senses All CFC, HCFC, HFC and HFO Refrigerants
- Sensitivity Modes: High and Low (Auto Zero)
- Manual zero capability
- Audible and Visual Leak Indication
- Regulations: CE, EN14624, EN61010, SAE2913
- Rechargeable Li-Ion Battery
- · Sensitivity will not degrade over time
- USB micro charging port (cable included)
- Includes one (1) spare filter
- · Includes carrying case
- Two year over-the-counter warranty
- Made in the USA

Specifications

- Minimum Sensitivity: 0.1 oz/ yr. (3 g/yr.)
- Body Material: ABS
- Body Length: 8.25" (210 mm)
- Probe Length: 17" (430 mm)
- Weight: 0.84 lb. (0.38 kg)
- Calibration: Automatic
- Response Time: Instantaneous
- Battery Life: 8 hours
- Fast Charge Time: 3 hours
- Holds Charge When Not In Use: 9 months (app.)
- Operating Temperature Range: -4°F to 140°F (-20°C to 60°C)

UPC# **Description**

AccuProbe IR™ Leak Detector

Accessories and Parts

69321 Replacement Filters (5 pack) Replacement Battery Pack

Use the solid electrolyte sensor or UV technology (or both at the same time) to detect the more current and difficult HFC refrigerants such as R-134a, R-404A, R-407 and R-410A, in addition to all HCFC (R-22) refrigerants including SNAP approved hydrocarbon and HFO refrigerants, all with minimal chance of false alarms.

AccuProbe™ UV LEAK DETECTOR

Our solid electrolyte sensor technology reduces heat and gives the sensor longer life than traditional heated anode or heated diode detectors.

3 UV lights fluoresce between 395 and 415 nanometers.

The Smart Alarm™ LED shows how big or small a leak is on a scale of one to nine:

- 1 to 3 less than 0.1 oz./yr.
- 4 to 6 0.1 to 0.5 oz./yr.
- 7 to 9 more than 0.5 oz./yr.

In addition to the Smart Alarm indicator, the AccuProbe UV features low, normal and high sensitivity levels with visual and audible signals.

- If there is no response from the flashing tip or beeping signal at the preset normal sensitivity in the general area of a suspected leak, select high sensitivity
- High sensitivity will detect even low levels that could be missed with other detection systems
- Use low sensitivity as you move the tip over more defined areas of a system



The frequency of flashing from the electrolyte sensor tip increases as you get closer to a leak and refrigerant concentration increases. The

audible alert, which can also be muted, increases in frequency and duration as concentration increases.

- Robust, ergonomic design is easy to use in close areas and extendable into hard-to-reach areas
- Long life, stable sensor
- Instantaneous response time
- Clears in 12 seconds or less after exposure to a 1.75 oz (50g)/yr. leak
- Automatic calibration and reset to ambient
- Low battery indicator
- Microcontroller technology
- SAE J2913 certified, CE marked, EN 14624
- 24-month limited warranty
- Made in the USA



Specifications

Sensitivity:

HFC (R-134a) 0.06 oz. (1.7g)/yr. HCFC (R-22) 0.03 oz. (0.9 g)/yr. HFO (1234yf) 0.15 oz. (4.3 g)/yr.

Heated solid electrolyte sensor: Over 300 hours service life with minimal cleaning and no adjustments

Maintenance required: None Body length: 10.5" (270 mm) Probe length: 17" (430 mm) Weight: 17 oz. (480 g)

UPC# Description

Warm up time: 20 seconds or less

Calibration: Automatic Response time: Instantaneous Power: 4 AA alkaline batteries, 4.5 hours continuous life

Operating temperature range: 24° to 125°F (-4° to 52°C)

Storage temperature range: -4° to 122°F (-20° to 50°C)

Humidity: 0 to 95% RH non-condensing Approvals: SAE J2913

CE marked, EN 14624

OI On	Description
69336	AccuProbe UV
69337	AccuProbe UV with global power supply (US, EU, UK, AU, NZ)
69338	AccuProbe UV - Japan
Access	sories and Parts
69375	A/C Adapter - global power supply (US, EU, UK, AU, NZ) CE and GS approved
69383	Kit – sensor, filters and bottle
69384	Replacement sensor and filter
69385	Sensor filters (5 pak)
69386	Leak sensor bottle
69387	Carrying case with inserts
69388	Battery cover/screw (AccuProbe UV)

ACCUPROBE™ II LEAK DETECTOR



Low, normal and high sensitivity levels with audible signals to quickly and easily pinpoint leaks.



Specifications

Sensitivity: HFC (R-134a) 0.06 oz. (1.7 g)/yr. HCFC (R-22) 0.03 oz. (0.9 g)/yr. HFO (1234yf) 0.15 oz. (4.3 g)/yr.

Sensor life: Over 300 hours service life with minimal cleaning and no adjustments

Probe length: 17" Weight: 15 oz. Warm up time: 20 seconds or less Power: 4 AA alkaline batteries, 4.5 hours continuous life Approvals: SAE J2913 CE marked, EN 14624

UPC#	Description
69354	AccuProbe II leak detector
69383	Kit – sensor, filter and bottle
69384	Replacement sensor and filter
69385	Sensor filters (5 pak)
69386	Leak sensor bottle
69387	Carrying case with inserts
69361	Zipper pouch

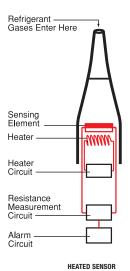
Tips for Detecting System Leaks with Leak Detector:

- Inspect entire A/C system for signs of oil leakage, corrosion cracks or other damage. Follow the system in a continuous path so no potential leaks are missed.
- Make sure there is enough refrigerant in the system (about 15% of system capacity or 50 psi min.) to generate pressure to detect leaks.
- 3. Check all service access port fittings. Check seals in caps.
- 4. Move detector probe at 1" per second within 1/4" of suspected leak area.
- 5. Refrigerant is heavier than air so position probe below test point.
- 6. Minimize air movement in area to make it easier to pinpoint the leak.
- Verify an apparent leak by blowing air into suspected leak to clean the area and see if the leak remains.
- 8. When checking for evaporator leaks, check for gas in condensate drain tube.

ELECTROLYTE SENSOR

Electrolyte Sensor Leak Detectors

When the electrolyte sensing element is exposed to refrigerant, an electrochemical reaction changes the electrical resistance within the element, causing an alarm. The sensor is refrigerant specific with superior sensitivity to all HFCs and HCFCs, and minimal chance of false alarms. When exposed to large amounts of refrigerant, which could poison other systems, the electrolyte sensor clears quickly and does not need recalibration before reuse.



${ m H_2}$ **DETECTOR** Detects 5% ${ m H_2}$ in 95% Nitrogen Tracer Gas



Many countries are now adopting laws that ban the use of refrigerants for system testing. The YELLOW JACKET $\rm H_2$ was developed for the $\rm H_2$ (95% nitrogen and 5% hydrogen) tracer gas mixture.

When used with the H₂/nitrogen tracer gas mixture, the YELLOW JACKET H₂ will detect leak rates less than 5 ppm.

- · Long life, stable sensor
- Does not require rechargeable batteries
- Automatic calibration and reset to ambient
- Three adjustable sensitivity levels
- Low battery indicator
- CE Certified
- True mechanical pump
- Two-year warranty
- Made in the USA

Specifications

Sensitivity: Less than 5 ppm Sensor life: Over 300 hours Response Time: Instantaneous Probe length: 17" Weight: 1.5 lbs. Warm up time: 20 seconds or less Power: 4 AA alkaline batteries, 8 hours continuous life Approvals: EN35422 and EN14624

UPC#	Description
69341	H2 leak detector
69342	Replacement sensor
69343	Carrying case with inserts (grey)

MICRO LED UV LEAK DETECTION KITS AND LAMPS For all A/C systems and lamps



Individual reflectors surround each of five LEDs recessed for protection in the stainless steel head.

- Long life LEDs
- Constant ON switch
- Sealing locks out moisture
- AA Alkaline battery included (dispose of batteries via disposal practices in your area)
- Aluminum body

UPC#	Description
69782	395-415 nm wavelength UV LED flashlight
69788*	Micro UV LED and dye kit for auto
69789*	Micro UV LED and dye kit for AC/R
69793	Replacement pouch for LED (for older style with black casing)
69794	Lithium battery (2 pak) (for older style with black casing)

* Not for direct injection into R-410A systems due to high pressure Bulbs not replaceable.

LARGE SYSTEM INJECTORS

Systems with up to 32 gallons of lubricant



Self-contained injection system for inducing up to 16 oz. of universal AC/R dye into the largest systems. Add to the lo-side. Easily works on all system pressures to 300 psi, .35 oz. per stroke. Hose included with SealRight end.

- Recommended for R-410A
- Made in the USA



UPC#	Description
69555	Large system injector
77950	Large system injector with coupler

CALIBRATED A/C SCREW INJECTION



This 2 oz. injector is easy to refill and easy to operate. Calibrations are clearly marked on the injector. Connect to A/C lo-side and rotate handle. AC/R and auto models. Maximum port pressure of 250 psi. MADE IN

UPC#	Description
69729	Universal screw injector (no hose)
69730	1/4" Calibrated A/C screw injector (with hose)
69731	Auto R-134a calibrated A/C screw injector with service coupler
69732	Auto R-134a calibrated A/C screw injector without service coupler
69723	1/4" replacement hose
69724	R-134a replacement hose

UNIVERSAL A/C DYE INJECTORS AND HOSE



US Patent # 6,164,348

Universal A/C dye injectors work in AC/R and auto A/C systems. Four 1/4 oz. applications of dye in each disposable tube make it economical, fast and clean. Hose features back flow check valve.

- Maximum system port pressure of 80 psi
- Not for direct injection into R-410A systems due to high pressure
- Made in the USA



UPC#	Description
69702	Hose plus 2 injectors for AC/R
69703	Auto R-134a hose, coupling and injectors
69705	Injector hose with SealRight
69706	Auto R-134a injector hose and service coupler

DYE AND OIL INJECTORS



Body and cap are rugged aluminum with an "O" ring seal. 1/4" Male fitting at one end with Schrader. A ball valve for control on other end with a short length of hose. Valve depressor in 1/4" Female end. 600 psi working pressure.

Saves time on many applications:

- Add oil to system
- · Put oil in after changeout
- · Add scanner fluorescent solution
- · Add additives to system
- · Refrigerant sampling
- Recommended for R-410A
- Made in the USA



UPC#	Description
69559	1/4 oz. Oil injector
69560	1/2 oz. Oil injector
69561	2 oz. Oil injector
69562	4 oz. Oil injector
69563	"O" ring 1/4 and 1/2 oz. injector (5 pak)
69564	"O" ring 2 and 4 oz. injector (5 pak)
69722	Replacement hose

UNIVERSAL A/C DISPOSABLE INJECTORS

Universal disposable 1 oz. applicator for fast economical dispensing. Universal dye for all common refrigerants and oils. Two 1/2 oz. applications for regular split systems or four 1/4 oz. applications for small appliances or auto A/C.



- Less costly and faster than many other methods
- · One dye minimizes inventory
- No back-up refrigerant to move dye into system
- · Maximum system port pressure
- · Not for direct injection into R-410A systems due to high pressure
- Made in the USA



Easy to use: connect to system, push in plunger, then disconnect

UPC#	Description
69700	1 oz. (30 ml) Injector (6 pak) (12 residential applications/case)
69721	1 oz. (30 ml) Injector (2 pak) (4 residential applications/package)
69727	1 oz. (30 ml) Injector

01 - Systems with up to 2.9 lbs. gas

1 - Systems with 1 to 4.9 lbs. gas

2 - Systems with 5 to 9.9 lbs. gas

3 - Systems with 10 to 25 lbs. gas

UNIVERSAL A/C DYE SOLUTIONS



Universal dye for A/C systems with mineral, alkyl benzene or polyol ester lubricants.

- Field proven and sold worldwide
- Passed thermal stability tests
- One dye for AC/R systems
- Raw material QC assures dye uniformity
- Made in the USA



UPC#	Description
69711	1/4 oz. (7.5 ml) Universal A/C (24 pak)
69708	1/2 oz. (15 ml) Universal A/C (12 pak)
69709	1 oz. (30 ml) Universal A/C (6 pak)
69710	2 oz. (60 ml) Universal A/C (6 pak)
69712	8 oz. (240 ml) Universal A/C
69713	8 oz. (240 ml) Universal A/C (6 pak)
69803	1 gal. (3.78 L) Universal A/C

DYE APPLICATION AMOUNTS

Application Small appliance A/C or refrigerant systems Larger systems System size in lbs. of refrigerant

> Up to 4.9 lbs. (2.22 kg) Up to 25 lbs. (11.34 kg) Above 25 lbs. (11.34 kg) Universal dye amount 0.25 oz. (7.5 ml)

0.5 oz. (15 ml) 0.5 oz. (15 ml) per gallon of oil Not recommended for systems with internal temperatures below -40°F. Compatible with mineral, alkylbenzene, ester and PAG oil systems.

Oil/fluid and coolant dyes available on page 87.

FLUORESCENT SCANNER SOLUTIONS

Technology to match refrigerant and system volume



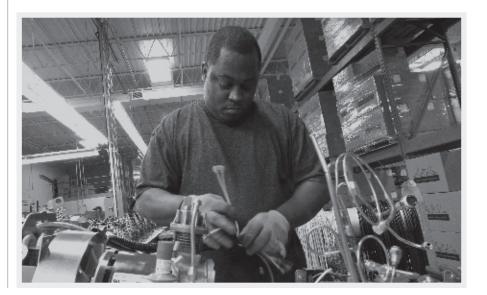
Different concentrations of fluorescent solutions are available to match the

- Operating temperature is -40°F for all
- When working on split systems, use solution 3 even if system has 10 lbs. or less of gas
- Made in the USA

Self-infusing Injector Tubes			
Solution Concern	System Size	Ester Oil System	
01 (0.03 oz.)	up to 2.9 lbs.	69620	
1 (0.5 oz.)	up to 4.9 lbs.	69621	
2 (0.5 oz.)	up to 9.9 lbs.	69622	
3 (0.5 oz.)*	up to 25 lbs	69623	

refrigerant volume in a system.

solutions



FLUORESCENT SOLUTIONS

For non-refrigerant applications



The oil and fluid dye solution is for finding leaks in oilbased applications. Use 1 oz. per 2 gallons of oil.

- Pin point leaks in milling machines and hydraulic systems such as cherry pickers
- Find seal and gasket leaks in engines, compressors and transmissions
- Locate leaks in gasoline or diesel fuel equipment, offset printing presses, injection-molding machines, locomotive engine oil coolers and oil-cooled chillers
- Made in the USA



UF	PC#	Description
697	733	1 oz. (30 ml) Oil and fluid dye (6 pak)
697	734	1 oz. (30 ml) Oil and fluid dye (24 pak)
697	735	8 oz. (240 ml) Oil and fluid dye

YELLOW JACKET solutions meet or exceed applicable ASHRAE and ANSI tests and SAE standard J2297 for R-134a UV leak detection.

COMBUSTIBLE GAS DETECTORWith ultra-sensitive, long life sensor



Detects all hydrocarbon and other combustible gases including propane, methane, butane, industrial solvents and more.

Unit is preset at normal sensitivity, but you can switch to high or low. Slow beeping indicates that unit is warmed up. Frequency increases when a leak is detected until an alarm sounds when moving into high gas concentration. The Smart Alarm™ LED indicates leak size.

If no leak is detected in a suspected area, select high sensitivity. This will detect even low levels in the area. Move the tip over more defined areas, and you will be alerted when the tip encounters the concentration at the leak source.

- Ultra-sensitive sensor detects less than 15 ppm methane and better than 12 ppm for propane. Performs equally well on a complete list of detectable gases including acetylene, butane and isobutane
- · Automatic calibration and zeroing
- Sensor replacable after full service life
- Smart Alarm LED shows how big or small a leak is on a scale of one to 9.
- 24-month limited warranty (12-month warranty on sensor)
- Made in USA

CLEANERS



Scan-off UV Cleaner

Water-based biodegradable spray cleans scanner solution from system.

Natural Degreaser

Heavy duty biodegradable degreaser removes scanner solution from system.

Hand Cleaner

Cleans solution from hands.

UPC#	Description
69698	19 oz. Natural degreaser #01020
69699	16 oz. Hand cleaner
69696	8 oz. Scan-off solution
69697	8 oz. Scan-off solution (12 pak)

APPLICATIONS:

- Internal gas lines/pipes
- Propane filling stations
- Gas heaters
- Combustion appliances
- Hydrocarbon refrigerant
- Heat exchangers
- Marine bilges
- Manholes
- Air qualityArson residue
- (accelerants)

Specifications

Warm up time: 25 seconds

Power battery: 4 AA alkaline batteries, 20 hours continuous life

Probe length: 17" (43.17 cm) Sensor life: 500 hours Body length: 10.5" (26.67 cm) Weight: 16 oz. (0.45kg)

Operating temperature range: 32° to 110°F

(0° to 43°C)

UPC#	Description
69371	Replacement sensor
69372	Replacement sensor cover
69373	Combustible gas detector with case
69387	Carrying case – blow molded
69379	Battery cover and screw (2003-2011)