YELLOW JACKET®

**AccuProbe™ UV Leak Detector**

With electrolyte sensor, UV technology and Smart Alarm™ indicator, this is the only tool you need for fast, easy and certain leak detection.
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

**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)
- 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 J2791, CE marked, EN 14624

**Made in the USA**

**UpC# Description**

<table>
<thead>
<tr>
<th>UpC#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>69336</td>
<td>AccuProbe UV</td>
</tr>
<tr>
<td>69337</td>
<td>AccuProbe UV - EU/UK plug</td>
</tr>
<tr>
<td>69338</td>
<td>AccuProbe UV - Japan</td>
</tr>
<tr>
<td>69339</td>
<td>AccuProbe UV - AU/NZ plug</td>
</tr>
<tr>
<td>69343</td>
<td>AccuProbe UV with global power supply (US, EU, UK, AU, NZ)</td>
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<tr>
<td>69378</td>
<td>AC adapter – 230V/50-60 Hz</td>
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<td></td>
<td>AU/NZ plug (CE and TUV approved)</td>
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<tr>
<td>69380</td>
<td>AC adapter – 110-115Vac/50-60 Hz US plug (UL listed)</td>
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<td></td>
<td>(for use with 69336)</td>
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<tr>
<td>69381</td>
<td>AC adapter – 230V/50 Hz EU/UK plug</td>
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<tr>
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<td>(CE and TUV approved)</td>
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<td></td>
<td>(standard with 69337)</td>
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</table>

**Accessories and parts**

<table>
<thead>
<tr>
<th>UpC#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>69383</td>
<td>Kit – sensor, filters and bottle</td>
</tr>
<tr>
<td>69384</td>
<td>Replacement sensor and filter</td>
</tr>
<tr>
<td>69385</td>
<td>Sensor filters (5 pak)</td>
</tr>
<tr>
<td>69386</td>
<td>Leak sensor bottle</td>
</tr>
<tr>
<td>69387</td>
<td>Carrying case with inserts</td>
</tr>
<tr>
<td>69388</td>
<td>Battery cover/screw (AccuProbe UV)</td>
</tr>
</tbody>
</table>

**AccuProbe™ II LEAK DETECTOR**

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

- 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 J2791 certified, CE marked, EN 14624
- 18-month limited warranty
- Made in the USA

**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
- Maintenance required: None
- Probe length: 17" (430 mm)
- Weight: 17 oz. (480 g)
- 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: -4° to 125°F (-20° to 52°C)
- Storage temperature range: -4° to 122°F (-20° to 50°C)
- Humidity: 0 to 95% RH non-condensing
- Approvals: SAE J2791, CE marked, EN 14624

**UpC# Description**

<table>
<thead>
<tr>
<th>UpC#</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>69336</td>
<td>AccuProbe II leak detector</td>
</tr>
<tr>
<td>69383</td>
<td>Kit – sensor, filter and bottle</td>
</tr>
<tr>
<td>69384</td>
<td>Replacement sensor and filter</td>
</tr>
<tr>
<td>69385</td>
<td>Sensor filters (5 pak)</td>
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</tr>
<tr>
<td>69388</td>
<td>Battery cover/screw (AccuProbe UV)</td>
</tr>
<tr>
<td>69389</td>
<td>Zipper pouch</td>
</tr>
</tbody>
</table>
Tips for detecting system leaks with leak detector:

1. 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.
2. 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 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.
7. 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 OR NEGATIVE CORONA?**

**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.

**Negative Corona Leak Detectors**

In the sensor of a corona detector, high voltage applied to a pointed electrode creates a corona. When refrigerant breaks the corona arc, the degree of breakage generates the level of the alarm. Sensitivity decreases with exposure to dirt, oils and water. False alarms can be triggered by dust, dirt specks, soap bubbles, humidity, smoke, small variations in the electrode emission, high levels of hydrocarbon vapors and other non-refrigerant variables.

**H₂ DETECTOR**

**Detects 5% H₂ in 95% Nitrogen Tracer Gas**

Many countries are now adopting laws that ban the use of refrigerants for system testing. The YELLOW JACKET H₂ was developed for the H₂ (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 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.

- 110,000+ hour LEDs
- Constant ON switch
- Sealing locks out moisture
- AA Alkaline battery included
- Aluminum body
- Limited lifetime warranty

**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.

**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**

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

**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

**UNIVERSAL A/C DYE INJECTORS AND HOSE**

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
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

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
69805 5 gal. (18.92 L) Universal A/C
69806 55 gal. (208.19 L) Universal A/C

Oil/fluid and coolant dyes available on page 75.

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 -40ºF.
Compatible with mineral, alkyl benzene, ester and PAG oil systems.

FLUORESCENT SCANNER SOLUTIONS
Technology to match refrigerant and system volume

Different concentrations of fluorescent solutions are available to match the refrigerant volume in a system.
• Operating temperature is -40°F for all solutions and -100°F for alkylbenzene systems
• When working on split systems, use solution 3 even if system has 10 lbs. or less of gas

Disposable pre-filled solution tubes.

<table>
<thead>
<tr>
<th>System size</th>
<th>Solution concern</th>
<th>Self-infusing injector tubes</th>
<th>Bottles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>MINERAL OIL SYSTEM</td>
<td>ESTER OIL SYSTEM</td>
</tr>
<tr>
<td>0.03 oz.</td>
<td>up to 2.9 lbs.</td>
<td>69610</td>
<td>69620</td>
</tr>
<tr>
<td>0.5 oz.</td>
<td>up to 4.9 lbs.</td>
<td>69611</td>
<td>69621</td>
</tr>
<tr>
<td>0.5 oz.</td>
<td>up to 9.9 lbs.</td>
<td>69612</td>
<td>69622</td>
</tr>
<tr>
<td>0.5 oz.*</td>
<td>up to 25 lbs.</td>
<td>69613</td>
<td>69623</td>
</tr>
<tr>
<td>2 oz.</td>
<td>Large**</td>
<td>69614</td>
<td>69624</td>
</tr>
<tr>
<td>16 oz.</td>
<td>Large**</td>
<td>69615</td>
<td>69625</td>
</tr>
</tbody>
</table>

* Use on all split systems.
** Only bottles are available for systems with over 75 lbs. of refrigerant.
For large systems add 1/4 oz. #4 solution per gallon of oil.

AC/R bottles.

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
4 – Large systems use 1/4 oz. per gallon of oil in system

Injectors sold as 6 paks.
Bottles of solution sold as 12 paks.
#4 solution sold as individual bottles.
FLUORESCENT SOLUTIONS
For non-refrigerant applications

The oil and fluid dye solution is for finding leaks in oil-based 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

H₂O (water) solution glows blue at leak sources in large closed-loop water systems. Use one pint per 1,000 gallons of water.
- Detect leaks in storage tanks and other high volume containers, as well as associated piping, valves, condensers, sprinkler systems, pumps, etc.

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

CLEANERS

Coolant dye glows blue to pinpoint leak sources in antifreeze-based automotive water systems. Use 1 oz. per gallon of coolant.

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.

COMBUSTIBLE GAS DETECTOR
With 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 replaceable after full service life
- Smart Alarm LED shows how big or small a leak is on a scale of one to 9.
- 18-month limited warranty (12-month warranty on sensor)
- Made in USA

APPLICATIONS:
- Internal gas lines/pipes
- Propane filling stations
- Gas heaters
- Combustion appliances
- Hydrocarbon refrigerant
- Heat exchangers
- Marine bilges
- Manholes
- Air quality
- Arson 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
--- | ---
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)

UPC# | Description
--- | ---
69373 | Combustible gas detector with case
69371 | Replacement sensor
69374 | Carrying case – blow molded
69379 | Battery cover and screw (2003-2011)
69347 | Battery cover and screw (2011)
69379 | Battery cover and screw (2003-2011)
69347 | Battery cover and screw (2011)
CONFIGURING FIXED MONITORING SYSTEMS

YELLOW JACKET fixed monitoring systems allow you to configure controllers and remote sensors to help you meet requirements for point or perimeter detection of refrigeration leaks. Available for most common refrigerants or ammonia.

- System first emits an intermittent siren and constant orange illumination at the low level, about 100 ppm
- At the high level, usually 1,000 ppm*, the siren is continuous and the LED is red to signal a condition that requires immediate action
- All systems wait until “certain” of gas in the air before signaling to help minimize false alarms
- Voltage-free relay switch can activate ventilation or remote alarms, or report to control systems
- Sensors will not be poisoned by prolonged exposure to refrigerant

APPLICATIONS:
- Refrigerant storage areas
- Supermarkets
- Refrigeration machinery rooms
- Cold storage facilities
- Walk-in coolers
- Marine and fishing fleets
- Delis, ice cream parlors or quick service stores

ONE AND TWO SENSOR MONITORING SYSTEMS

Semi-conductor technology makes YELLOW JACKET monitoring systems an attractive alternative to electrochemical or infrared systems.

- Factory calibrated for R-404A (call factory for other refrigerants)
- Controllers and sensors mount to any flat vertical surface
- For point detection, mount sensor(s) near the most likely leak source
- For perimeter detection, sensors surround the potential leak area
- Operating temperature range of -20 to 122ºF (-29 to 50ºC).
- Refrigerant monitors and sensors for most common CFCs, HFCs and HCFCs, plus R-134a, R-404A, R-410A and R-407C
- Should not be used with refrigerants that have an Occupational Exposure Limit of less than 300ppm

Specifications

<table>
<thead>
<tr>
<th>UPC# 12V</th>
<th>UPC# 120V</th>
<th>UPC# 230V</th>
<th>Description</th>
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<tbody>
<tr>
<td>68010</td>
<td>68004</td>
<td>68104</td>
<td>Single sensor monitor with two levels of detection</td>
</tr>
<tr>
<td>68011</td>
<td>68008</td>
<td>68108</td>
<td>Two sensor monitor with two levels of detection</td>
</tr>
<tr>
<td>—</td>
<td>68009</td>
<td>68191</td>
<td>Refrigerant sensor for two level monitor</td>
</tr>
<tr>
<td>—</td>
<td>68099</td>
<td>—</td>
<td>Monitor key switch set</td>
</tr>
</tbody>
</table>

*Check your local building code for additional requirements specific to your application.
FOUR AND SIX SENSOR MONITORING SYSTEMS

Four and six sensor monitors provide all of the benefits of the one and two sensor systems, but increase area and level of coverage with more sensors at greater distances from the controller. Cost per channel are lower. You can locate four or six sensors up to 500\' from the controller.

Specifications
- Controller: 10.3\" x 10\" x 3.2\" (262 mm x 254 mm x 81 mm), 6.3 lbs. (2.9 kg)
- Power LED: Green
- Alarm: 80 dB at 3\' (92 cm)
- Sensor: 4.3\" x 2.2\" x 0.9\" (109 mm x 56 mm x 23 mm) Sensors can be hard wired up to 500\' from controller
- Sensor cable: Use 4 conductor, unshielded cable, 22 AWG or larger*
- Power: 120V/60 Hz or 230V/60 Hz
- Operation: Constant power-on and fault monitoring
- Reset: Automatic on one level unit. On two level unit, automatic on low level; manual on high level

*Check your local building code for additional requirements specific to your application.

<table>
<thead>
<tr>
<th>UPC# 120V</th>
<th>UPC# 230V</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>68016</td>
<td>68116</td>
<td>Refrigerant four sensor monitor with two levels of detection</td>
</tr>
<tr>
<td>68024</td>
<td>68124</td>
<td>Refrigerant six sensor monitor with two levels of detection</td>
</tr>
<tr>
<td>68091</td>
<td>68191</td>
<td>Refrigerant replacement sensor for two level refrigerant monitor</td>
</tr>
</tbody>
</table>

RELAY EXPANDER BOX

Enables the four or six sensor controller to individualize response to each sensor, e.g. sensor one is set to activate a fan and auto dialer while other sensors activate different response systems. If sensor one detects a leak, only its corresponding systems are activated. The other sensors remain in monitoring mode and will respond individually if a leak is detected in their specific area.

Ribbon cable connects the relay expander box to the controller.

<table>
<thead>
<tr>
<th>UPC# 120V</th>
<th>UPC# 230V</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>68028</td>
<td>68128</td>
<td>Four sensor expander box</td>
</tr>
<tr>
<td>68029</td>
<td>68129</td>
<td>Six sensor expander box</td>
</tr>
</tbody>
</table>
INTEGRATED AREA MONITOR

Sensor and controller are combined into a single, compact unit that can be hard wired into any outlet or power supply to detect leaks in the area.

The unit emits a continuous siren and constant red LED illumination at about 1000 ppm. This early warning allows time to find the leak while refrigerant concentration is still low. With adjustable delay, the monitor waits up to 15 minutes to avoid false alarms before signaling. Siren can be switched off.

Two voltage-free relays can activate ventilation or remote alarms, or report to control systems. The monitor can also be connected to dedicated 16-unit panel (indefinitely expandable by connecting control panels).

- 3.4” x 5.8” x 2.4” (86 mm x 147 mm x 61 mm)
- For use in living spaces, marine and mechanical rooms

EVALUATING REFRIGERANT MONITORS

There are two major types of refrigerant monitoring systems – Fixed and infrared (IR). Following is a summary of the differences:

<table>
<thead>
<tr>
<th>UPC#</th>
<th>Description</th>
<th>Fixed Monitoring System</th>
<th>IR Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>68050</td>
<td>Integrated area monitor 115V</td>
<td>Measures a broad band of most common CFCs, HFCs, and HCFCs, such as: R-11, R-12, R-13, R-22, R-113, R-134a, R-407C, R-410A, R-500, R-502 and R-507</td>
<td>A single sensor must be used for each specific refrigerant</td>
</tr>
<tr>
<td>68051</td>
<td>Integrated area monitor 220/240V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>68052</td>
<td>Control panel 115V</td>
<td></td>
<td></td>
</tr>
<tr>
<td>68053</td>
<td>Control panel 220/240V</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Once you’ve chosen between a Fixed Monitoring System or an IR System for your application, you’ll have to evaluate the features that a monitor might include.

- **Flexibility in size of controls** – Controllers available for one, two, four or six sensors allow you to buy what you need now and plan to expand in the future
- **Two levels of response** – A system can emit an intermittent alarm at a low level, about 100 ppm, indicating that maintenance is required, and a continuous siren at a high level, usually about 1000 ppm indicating that immediate action is required
- **Designed to minimize false alarms** – Waiting until “certain” that gas is in the air before signaling
- **Individualized response by “zone”** – Relay expander panel allows a four or six sensor system to be “zoned” for fast, individualized response in a larger application. If one sensor detects a leak, only its corresponding system is activated. Other sensors remain in monitoring mode
- **Sturdy protective housing** – Coated steel housing for controller circuitry and ABS casing for sensors help protect the system and keep it maintenance-free
- **Protection in harsh environments** – An optional vented environmental sensor enclosure protects a sensor that is mounted in an area of high condensation, low temperature to -40°F or direct airflow to avoid a false alarm

Guidelines on Mounting Sensors

Sensors must be powered according to the instruction manual and be within the cable length from the control unit.

- Do not mount in areas of high heat, direct solar heat, wetness, dampness or where condensation may form on the sensor
- Do not mount to piping or any structure subject to vibration
- For perimeter detection, place sensors around the area in question to monitor the entire space
- For point detection, place sensor(s) at a point where you are concerned about a leak, i.e. at the compressor

- For heavier than air gases, place sensors close to the ground
- To help prevent false alarms from stray gas particles such as Volatile Organic Compounds (VOCs), mount sensors 16” to 20” from the floor
- For lighter than air gases, place sensors high on the walls or ceiling, but convenient for maintenance. Note: Ammonia is lighter than air at normal temperature but heavier in a cold room
- Take room shape into consideration and mount sensors downstream of any air flow
- In hot rooms, hot air rises to form a barrier below the ceiling and prevents gas from getting to a ceiling-mounted sensor
- Mount sensors out of traffic flow areas to prevent bumping

Contact customer service for detailed suggestions.