

LEAK MONITORS AND LEAK DETECTORS





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

- 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. (1.7g)/yr. HCFC (R-22) 0.03 oz. (0.9 g)/yr. HFO (1234yf) 0.15 oz. (4.3 g)/yr.	Calibration: Automatic
Heated solid electrolyte sensor: Over 300 hours service life with minimal cleaning and no adjustments	Response time: Instantaneous
Maintenance required: None	Power: 4 AA alkaline batteries, 4.5 hours continuous life
Body length: 10.5" (270 mm)	Operating temperature range: 24° to 125°F (-4° to 52°C)
Probe length: 17" (430 mm)	Storage temperature range: -4° to 122°F (-20° to 50°C)
Weight: 17 oz. (480 g)	Humidity: 0 to 95% RH non-condensing
Warm up time: 20 seconds or less	Approvals: SAE J2791, CE marked, EN 14624

UPC#	Description
69336	AccuPROBE UV
69337	AccuPROBE UV - EU/UK plug
69338	AccuPROBE UV - Japan
69339	AccuPROBE UV - AU/NZ plug
69334	AccuPROBE UV with global power supply (US, EU, UK, AU, NZ)
69378	AC adapter – 230V/50-60 Hz AU/NZ plug (CE and TUV approved) (standard with 69339)
69380	AC adapter – 110-115Vac/50-60 Hz US plug (UL listed) (for use with 69336)
69381	AC adapter – 230V/50 Hz EU/UK plug (CE and TUV approved) (standard with 69337)

Accessories and parts	
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.	Probe length: 17" Weight: 15 oz.
Sensor life: Over 300 hours service life with minimal cleaning and no adjustments	Warm up time: 20 seconds or less
	Power: 4 AA alkaline batteries, 4.5 hours continuous life
	Approvals: SAE J2791, 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:

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 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.
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.

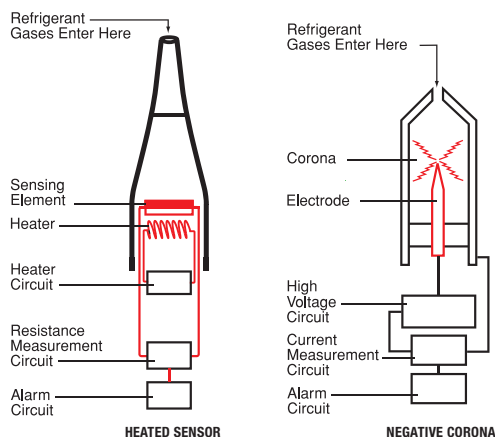
ELECTROLYTE SENSOR OR NEGATIVE CORONA?

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

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 (dispose of batteries via disposal practices in your area)
- 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

US Patent # 6,164,348

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

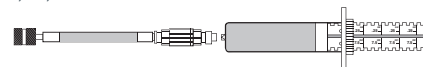
UPC#	Description
69559	1/4 oz. Oil injector
69560	1/2 oz. Oil injector
69561	2 oz. Oil injector
69562	4 oz. Oil injector
69563	"O" ring 1/4 and 1/2 oz. injector (5 pak)
69564	"O" ring 2 and 4 oz. injector (5 pak)
69722	Replacement hose

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.



US Patent # 6,164,348



Easy to use: connect to system, push in plunger, and 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

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CHARGING SYSTEMS
GAUGES
ELECTRONIC INSTRUMENTS
HEATING INSTRUMENTS
LEAK MONITORS AND DETECTORS
SYSTEM TOOLS

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 -40°F. Compatible with mineral, alkylbenzene, ester and PAG oil systems.

FLUORESCENT SCANNER SOLUTIONS

Technology to match refrigerant and system volume



Disposable pre-filled solution tubes.

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



AC/R bottles.

INJECTORS AND 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

		Self-infusing injector tubes				Bottles		
Solution concern	System size	Mineral oil system	Ester oil system	Alkylbenzene system	PAG oil system	Mineral oil system	Ester oil system	Alkylbenzene system
01 (0.03 oz.)	up to 2.9 lbs.	69610	69620	69600	69590			
1 (0.5 oz.)	up to 4.9 lbs.	69611	69621	69601		69451		
2 (0.5 oz.)	up to 9.9 lbs.	69612	69622	69602		69452		
3 (0.5 oz.)*	up to 25 lbs.	69613	69623	69603		69453		
4 (2 oz.)	Large**					69454	69624	69604
4 (16 oz.)	Large**					69455	69625	69605

* 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.

Injectors sold as 6 paks. Bottles of solution sold as 12 paks. #4 solution sold as individual bottles.



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VACUUM AND CHARGING HOSES
HOSE ADAPTERS, VALVES AND PARTS
CHARGING SYSTEMS
GAUGES
ELECTRONIC INSTRUMENTS
HEATING INSTRUMENTS
LEAK MONITORS AND DETECTORS
SYSTEM TOOLS

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.**

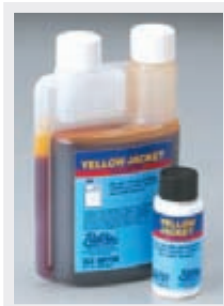
- Pin point leaks in milling machines and hydraulic systems such as cherry pickers

- 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.

- Detect water leakage in any enclosed circulatory system or static system that can be pressurized or agitated
- Made in the USA



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

UPC#	Description
69584	16 oz. Fluorescent H ₂ O solution
69733	1 oz. (30 ml) Oil and fluid dye (6 pak)
69734	1 oz. (30 ml) Oil and fluid dye (24 pak)
69735	8 oz. (240 ml) Oil and fluid dye
69737	1 oz. (30 ml) Coolant dye (6 pak)
69738	1 oz. (30 ml) Coolant dye (24 pak)
69739	8 oz. (240 ml) Coolant dye

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

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)

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 replacable 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)

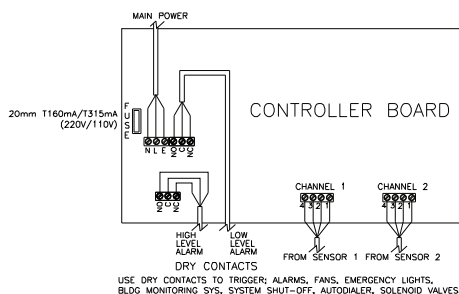
UPC#	Description
69373	Combustible gas detector with case
69371	Replacement sensor
69387	Carrying case – blow molded
69379	Battery cover and screw (2003-2011)
69347	Battery cover and screw (2011)

For a list of frequently asked questions on leak monitors and scanner solutions, go to www.yellowjacket.com.

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



Typical two sensor, two level installation.

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



68004



68008

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 122°F (-29 to 50°C).
- 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

Controller: 7.6" x 4" x 3" (193 mm x 102 mm x 76 mm), 2.8 lbs. (1.3 kg)
 Relays: Dry contact switch; 10 amp at 120/250V max
 Sensor: 4.3" x 2.2" x 0.9" (109 mm x 56 mm x 23 mm)
 Sensors can be hard wired up to 200' from controller
 Power LED: Green
 Audible alarm: Not included; has terminals for external sounder
 Sensor cable: Use 4 conductor, unshielded cable, 22 AWG or larger*
 Power: 120V/60 Hz or 230V/50-60 Hz
 Operation: Constant power-on and fault monitoring
 Reset: On two level unit, automatic on low level; manual on high level

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

UPC# 12V	UPC# 120V	UPC# 230V	Description
68010	68004	68104	Single sensor monitor with two levels of detection
68011	68008	68108	Two sensor monitor with two levels of detection
—	68091	68191	Refrigerant sensor for two level monitor
—	68099	—	Monitor key switch set

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FOUR AND SIX SENSOR MONITORING SYSTEMS



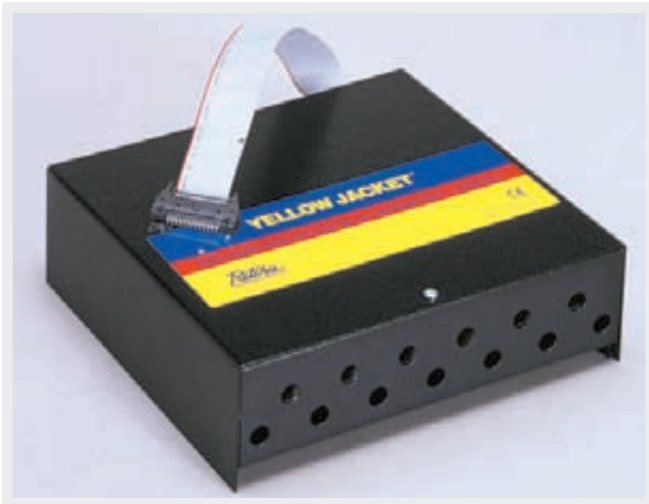
Four and six sensor monitors provide all of the benefits of the one and two sensor systems, but increase area and level of coverage with more sensors at greater distances from the controller. Cost per channel are lower. You can locate four or six sensors up to 500' from the controller.

Specifications	
Controller: 10.3" x 10" x 3.2" (262 mm x 254 mm x 81 mm), 6.3 lbs. (2.9 kg)	
Relays: Dry contact switch; 10 amp at 120/250V max.	
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	

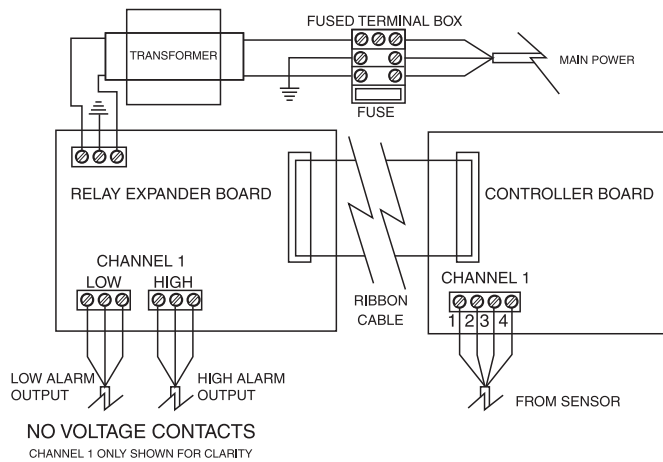
*Check your local building code for additional requirements specific to your application.

UPC# 120V	UPC# 230V	Description
68016	68116	Refrigerant four sensor monitor with two levels of detection
68024	68124	Refrigerant six sensor monitor with two levels of detection
68091	68191	Refrigerant replacement sensor for two level refrigerant monitor

RELAY EXPANDER BOX



Typical Installation



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.

UPC# 120V	UPC# 230V	Description
68028	68128	Four sensor expander box
68029	68129	Six sensor expander box

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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.

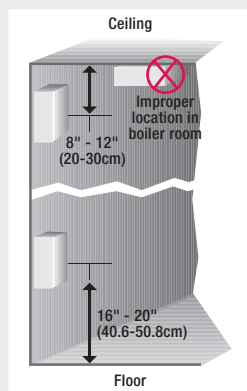
Two voltage-free relays can activate ventilation or remote alarms, or report to control systems. The monitor can also be connected to dedicated 16-unit panel (indefinitely expandable by connecting control panels).

- 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

UPC#	Description
68050	Integrated area monitor 115V
68051	Integrated area monitor 220/240V
68052	Control panel 115V
68053	Control panel 220/240V

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.

EVALUATING REFRIGERANT MONITORS

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

	Fixed Monitoring System	IR Systems
Gases Measured	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, R500, R-502 and R-507	A single sensor must be used for each specific refrigerant
Cost	Less than \$500 per sensor to measure a broad range of refrigerants	\$1000 and more per sensor for each refrigerant
Installation	Controllers mount on any flat surface and cable is run from the controller to the sensor(s)	Plumbing tube is used to reach sensing points. An additional tube for exhaust is required

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. The 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

