

Providing the means to diagnose, locate repair and prevent leakage in Refrigeration & Air Conditioning systems



Primalec first supplied the refrigeration industry in the late 1980s when refrigerant leakage first became an environmental issue. Since then, Glo-Leak® UV and SealPro products have been successfully and safely used to find and repair refrigerant leaks quickly and reliably in every type of commercial, industrial, marine and mobile AC&R system, with all types of compressors. Now with NitroTrace™ gas pressure testing, Leaktronic™ sensors and USX ultrasonic detectors, Primalec provides a complete specialist programme for leakage control.

GloLeak® UV

Fluorescent Leak Detection



NitroTrace™

Pressure leak testing and sensing system



HVACR sealpro®

Leak sealants for HV-AC&R



USX2

Ultrasonic leak and fault detection and diagnosis



SmartSplice

No braze no flame Install and repair



Leaktronic

Electronic Refrigerant and N₂H Tracer Gas detectors



Primalec first supplied Glo-Leak® UV/AC&R to the marine refrigeration industry in the late 1980s when refrigerant leakage first became an environmental issue. Since then Glo-Leak® has been successfully and safely used to find refrigerant leaks quickly and reliably in every type of commercial, industrial, marine and mobile air conditioner and refrigeration system, and with all types of compressors.

Glo-Leak® for AC&R is engineered to give the brightest fluorescence at the smallest dosage rate with all common refrigerants and lubricants, when using a good UVA 365, UV400 or UV+Blue tracer lamp. Carefully packaged in our unique moisture barrier dispensing containers and hermetic cartridges, Glo-Leak® contains no added solvents.



For commercial A/C - all refrigerants

Glo-Leak® 1384 is for small to medium sized commercial AC&R systems, including those with hermetic electric compressors. Use one dose of 5ml for up to 1 litre of lubricant. Add it to the system via the oil sump if present, or with a Primalec injector.

Commercial/Industrial AC&R - all refrigerants

Glo-Leak® 1484 is for Commercial, Industrial and marine A/C & Refrigeration. At more than double the concentration of Glo-Leak® 1384, it is suitable for larger AC&R systems and for use with mini-dose injectors, such as RotaJect. Use 2.5ml per litre of lubricant.

Glo-Leak UV for CO₂ systems

Glo-Leak® 1744 and 2744 are for Refrigeration & Air Conditioning systems using R744 (CO₂) as a refrigerant. The very high operating pressures required for CO₂ need a leak tracer additive that can cope with those high pressures. GL1744 is for use in smaller commercial systems including mobile A/Cs. GL2744 is for use in larger commercial and industrial systems with its higher concentration of fluorescing power. For Extreme Performance PAG lubricants for CO₂.

Glo-Leak UV Vac-U-Can

GL1484J NEW easy application high concentrate dye

- Flashes into refrigerant as a mist
- Rapid distribution
- Very stable
- One can for all systems up to 20kW, more for larger systems
- Made in UK

INV2021UV4

Invictalux MkIII 3W UV-400 inspection torch



From the newly upgraded Invictalux-2 modular inspection system, this new UV400 torch gives the brilliant fluorescence to Glo-Leak® fluids.

- The latest 3W single chip UV-LED give brilliant fluorescence
- Brass contact on MkIII light head
- MkIII lamp handle in strong easy-grip Santoprene covered aluminium
- 3 premium brand AA batteries included
- Also available with flexible Swan Neck extender and in various cased kits



Code	Description	Pack	Applications	UV light	Fluoresces
GL1384A	Glo-Leak® 1384 For refrigeration and air conditioning service - all refrigerant types	250ml: Disp. bottle		365nm or 400nm	Yellow
GL1384-30Y		30ml: Concertina			
GL1384B		1 litre: Disp. bottle			
GL1484A	Glo-Leak® 1484 For refrigeration and air conditioning service - all refrigerant types - high strength	250ml: Disp. bottle		365nm or 400nm	Yellow
GL1484X		60ml: Concertina			
GL1484B		1 litre: Disp. bottle			
GL1484D		1 dose Vac-U-Can			
GL1744A	Glo-Leak® 1744/2744 For Refrigeration and air conditioning service - CO ₂	250ml: Disp. bottle		365nm or 400nm	Yellow
GL2744A		250ml: Disp. bottle			
GL2744B		1 litre: Disp. bottle			

UV2165

Mini Pro UV365 rechargeable tracer torch

This 365nm tracer light is a true blacklight at an accessible price, and is still small enough to fit in the pocket. Supplied either with a single slot charger and one Li-Ion battery or, as UV2165A, in our aluminium framed case no 5 with two batteries and a double slot charger.

INV2021X3R

AC&R leak detection kit X3

Invictalux INV2021UV4, 40cm flexible light extender, Glo-Leak GL1384A, Mini-RotaJect fluid injector, Extra-Glo safety glasses, aluminium framed case.





AC2685

Leaktronic™ 5 Refrigerant leak detector

The new microprocessor controlled leak detector with advanced digital signal processing.

Highly sensitive to most commonly used refrigerants - HFCs, HFOs, HCFCs and Hydrocarbons - Leaktronic-5 will detect small leaks down to 3g per year. Its air suction system gives fast response and higher sensitivity. It can even detect hydrogen, but Leaktronic™ 4 is recommended for tracer gases because its sensor is specifically tuned to H₂.



	AC2685 Leaktronic™ 5 Refrigerants HFC, HFO, HCFC, HC, and blends	AC2686 Leaktronic™ 4 Hydrogen and N ₂ H tracer gases, (NitroTrace™)
Sensor type	Heated semiconductor sensor with advanced digital signal processing	Heated semiconductor sensor with advanced digital signal processing
Sensitivity (on high setting)	3gm/yr	<5ppm; <2g/yr
Adjustable levels of sensitivity	3	3
Sensor life	> 1 year	> 1 year
Replacement sensor	AC2685-S	AC2686-S
Response time	Immediate	Immediate
Power supply	2 x C size Alkaline Batteries	2 x C size Alkaline Batteries
Battery life	Approx 16 hours normal use	Approx 12 hours normal use
Low battery indicators	Yes	Yes
Warm up time	45 seconds	45 seconds
Probe length	43cm (17")	43cm (17")
Auto power off	Yes - can be disabled	Yes - can be disabled
Automatic ambient reset	Yes	Yes
Audible leak alarm	Yes - Variable intensity audio	Yes - Variable intensity audio
Leak size indicator	Yes - tri-colour 7-LED bar indicator	Yes - tri-colour 7-LED bar indicator
Operating temperature range	0 to +40°C; <80% humidity	0 to +40°C; <80% humidity
Operating temperature range	-10 to +60°C; <80% humidity	-10 to +60°C; <80% humidity
Compliance according to	SAE J2791 & J2913; CE	EU Directive 2006/40; CE
Instrument housing	High impact ABS	High impact ABS
Carrying case	Yes - aluminium framed	Yes - aluminium framed
Weight without carrying case	450 gm (instrument only);	450 gm (instrument only);
Weight with carrying case	1,380 gm (with Primalect case 1)	1,380 gm (with Primalect case 1)
Warranty	1 year	1 year

Inspection lamps

Code	Description	Wave-length in nm Range	Peak(s)	Max Power (365nm) @38cm	Beam	Battery	Length mm	Head Ømm	Lamp Wt.*	Case included
Near UV inspection lamps and torches with a 400 peak wavelength										
INV2021UV4	Invictalux MkIII 3W UV-400 inspection torch	397 - 407	403	-	Reflector Spot	3x AA Alkaline	225	32	265g	No
INV2021X3R	Invictalux AC&R leak inspection kit	397 - 407	403	25000 µW/cm²	Reflector Spot	3x AA Alkaline	400	300	110g	Case 2
UV2168A	TracerPro ZS1 UV-400 zoom/strobe insp set	397 - 407	403	25000 µW/cm²	Spot-Flood zoom	1x 18650 Li-Ion	158	46.5	212g	Case 1
UVA inspection lamps and torches with a 365nm peak wavelength										
UV2165A	Mini Pro UV365 rechargeable tracer torch set	360 - 370	365	25000 µW/cm²	Reflector Spot	1x 18650 Li-Ion	135	31.5	136g	Case 1
UV2170A	TracerPro S4.1 UV365 rechargeable pistol torch	360 - 370	365	40000 µW/cm	Reflector Spot	4x 18650 Li-Ion	105x180	80	540g	Case 300C

We recommend our Extra-Glo glasses (SP301UV) to protect against UV light sources and enhances fluorescent contrast in leak detection (right).

NitroTrace™ pressure leak testing system

The use of dry Oxygen Free Nitrogen (OFN) is a long established means of pressure testing air conditioning and refrigeration systems. A drop in pressure on a test gauge indicates that there is a leak. The point of leakage can then be found by using a leak spray, such as Spray Test, or with an ultrasonic tester.

Primalec provides an added dimension with NitroTrace™ gas, a combination of OFN with Hydrogen. Hydrogen has the smallest atom of all gases, and will leak through the tiniest of leak sources, and as it can be detected using electronic hydrogen sensing technology, the leak location can be pinpointed with Leaktronic™ 3 detector. (see below). Leak spray may be also used for added assurance of the leak source.



NitroTrace™ gas

Offered in portable non-refillable 1 litre and 2.2 litre cylinders. Also included in the choice of two standard kits containing all you need. Regulators, hoses and adapters are also available separately.

AC2088 2.2 litre NitroTrace™ cylinder

AC2098 1 litre NitroTrace™ cylinder

AC2686

Leaktronic™ 4 NitroTrace leak detector

Leaktronic™ 4 is a microprocessor controlled leak detector with a Hydrogen specific sensor. NitroTrace leak detection gas, which is a blend of 95% nitrogen and 5% hydrogen. Hydrogen is used because it has the smallest molecule of all gasses and will find the smallest leak.

Nitrogen is 80% of ambient air, so it cannot be detected electronically hence the addition of detectable hydrogen.

Leaktronic™ 4 is essential when regularly leak testing with NitroTrace™ or other 95/5 forming gases



AC2312

NitroTrace™ kit for high pressure systems

For higher pressure applications where tests must be carried out at up to 50 bar. This includes many commercial AC&R and other pressure testing operations.

This kit contains:

- Pressure Regulator - 300 Bar in, 50 Bar out - AC2093
- 90cm Hose with 1/4" SAE female swivel fittings - AC2302Y
- N2 Pressure testing gauge unit - AC2094
- Portable 1 litre NitroTrace™ cylinder - AC2098
- Primalec aluminium case 4

AC2312B also includes Automotive LP service couplers for R1234yf and R134a.

Also available as AC2312E with Leaktronic™ 3 Hydrogen sensitive leak detector

AC2686

Leaktronic™ 4 Hydrogen detector for NitroTrace™ gas

Leaktronic™ 4 is a microprocessor controlled leak detector with a Hydrogen specific sensor. NitroTrace leak detection gas is a blend of 95% nitrogen and 5% hydrogen. Hydrogen is used because it has the smallest molecule of all gasses and will find the smallest leak.

Nitrogen is 80% of ambient air, so it cannot be detected electronically hence the addition of detectable hydrogen.

Leaktronic™ 4 is essential when regularly leak testing with NitroTrace™ or other 95/5 forming gases.

AC2312E

NitroTrace™ kit with Leaktronic™ 4

NitroTrace™ kit AC2312 with the addition of Leaktronic™ 3 tracer gas detector

Please see our main catalogue for our range of nitrogen regulators and electronic leak detectors

SealPro Advanced - the permanent micro leak sealant for static AC&R



SealPro Advanced for Refrigeration and Air Conditioning systems permanently and quickly seals refrigerant leaks up to 300 microns. It gives HVACR engineers a powerful chemical tool, especially when repairing older installations in which small persistent leaks cannot be identified.

SealPro

SealPro keeps systems running without leakage. The permanent seal will also prevent any new leaks as it remains active in the system.

Sealpro contains no refrigerant, no propellant and no dyes in its hermetic long life vacuum can. So it works with all common refrigerants HFCs, HCs, HFOs, and blends including R410a & R32.

Engineered to HVACR industry standards, SealProTM Advanced is easily installed into a fully-charged system, with NO pump down or recovery. Recommended for systems losing no more than 15% of the entire charge over a four-week period.

Now with ExtraDry to eliminate moisture, boost its Type P sealant performance and help prevent waxing and acid formation, SealPro is faster and more compressor-friendly than ever.

It is ideal for older systems, in which small persistent leaks cannot be identified, extending their lifetime.

So when you can find the leak, you can repair it conventionally,
BUT...

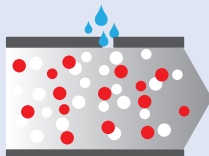
- when you can't find that micro leak and/or
- when the cost of replacement parts is uneconomical and/or
- when the parts are just not available when you need them

THEN – you should use SealPro

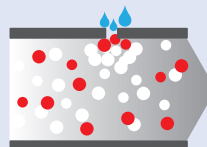


How it works

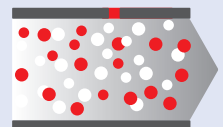
White represents refrigerant, red is **SealPro** and blue is condensation forming at the leak exit point externally.



SealPro finds the exit point and reacts with the condensation to start the repair.



Once the **SealPro** has fully formed the leakage stops and the seal is complete. It will resist even deep vacuum from inside.



There are three versions available according to the size of the system being treated.

AC2947B

SealPro 1

SMALL systems 0.07 kW up to 5.2 kW
(up to 1.5 tonnes)



AC2944B

SealPro 2

MEDIUM systems 5 kW up to 18 kW
(1.5 to 5 tonnes)



AC2948B

SealPro 3

LARGE systems over 18 kW
(5 tonnes)



Airco Flush cleans A/C systems internally

Flushing internal pipework and heat exchangers of AC&R systems removes any moisture, excess oil, gummy deposits and small metallic or carbon debris. It is important for three reasons:

1. Optimum A/C performance requires the correct amounts and proportions of both refrigerant and oil: flushing lets you start the recharge with an empty system.
2. Whenever the system is opened to replace a part, moisture and other impurities can enter. Flushing eliminates these contaminants.
3. When replacing a failed compressor, any remaining metal and carbon debris can result in the expensive new component also failing. Your component supplier may not honour the warranty if there is no evidence that a proper flushing has been carried out.

Whenever an AC&R system is opened for repair, we recommend internal flushing to optimise performance and prevent damage.

AC2141B

Airco Bio Flush
1 litre

AC2141C

Airco Bio Flush
5 litres



A single treatment internal coil cleaner and flush with the advantageous characteristics:

- Low odour, non-hazardous, non-toxic
- Non-flammable - flash point 70°C
- Bio-degradable, non-polluting
- Compatible with all refrigerants, refrigerant oils
- Oil soluble surfactants clean all internal surfaces
- Neutralises and removes organic and mineral solvents

AC2320

Airco Flush
cylinder kit



This kit enables individual components, hoses and pipelines to be cleansed with ease. Designed to work with Airco Bio Flush or any light flushing agent with pressurised oxygen free nitrogen (OFN) or very dry compressed air to chase it round the system. This kit includes:

- 1 litre flushing cylinder
- Flexible hose with Teflon washers
- Pistol operated flush gun

USX2 Hear the inaudible with USX-2 Ultrasonic

With USX-2 you can actually hear the inaudible ultrasonic frequencies that are tell-tale early signs of developing faults and minor leaks. The converted sound you hear in the headphones mimics the "natural" sound made by the defect in the inaudible ultrasonic range. If you can already hear it without USX-2's superheterodyning technology, it's too late for preventive maintenance.

USX-2 does not pick up audible ambient noise, so can be used to good effect in noisy industrial environments. That lets you detect the faults and leaks in good time for preventive action. And that saves money.

Better to spot and fix minor faults before they become problematic.

With its wide range of diagnostic uses USX2 helps you to detect:-



- Refrigerant Leaks, for all types
- Irregular refrigerant flow
- Vacuum leaks
- Electrical discharge due to insulation breakdown
- Fine cracks and leaks in sealed containers
- Mechanical Wear in bearings, shafts, gears, cam and tappet assemblies
- High pressure steam leakage
- ...and much more

USX2-K1

USX-2 Ultrasonic

Receiver, transmitter, headphones, hollow probe, air probe, 9V batteries, case



AC2050

Eye-See Diagnostic sight glass set

Check the condition of system refrigerant
Monitor progress during your flushing cycle.



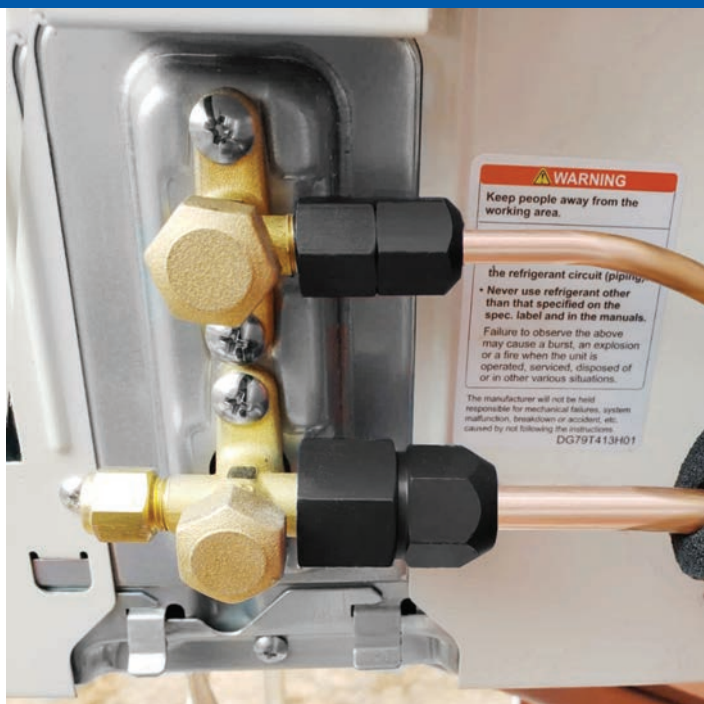
AC29170 & AC29175

Airco Shield Purifier

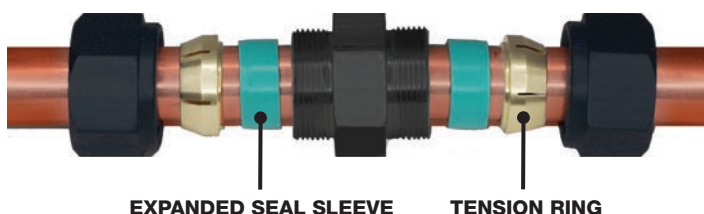
Sanitise & deodorise your vehicle fleet.
Also great for small spaces.

HVACR – install, modify, repair Speed up Mini-Split installations too

Smart Splice helps you get many new installations, such as mini-splits, done with minimal or even no brazing. Smart Splice also allows line modifications to a system and can easily repair pipe leaks. The only tool you need is a spanner to tighten the threads.



10x more sealing power
PATENTED anti-vibration technology

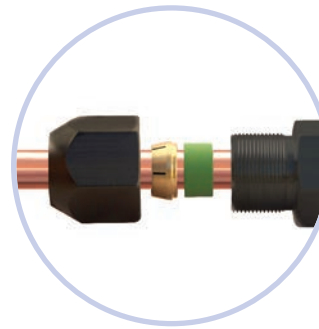
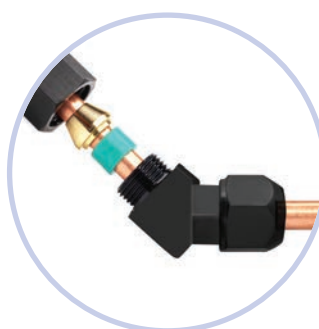
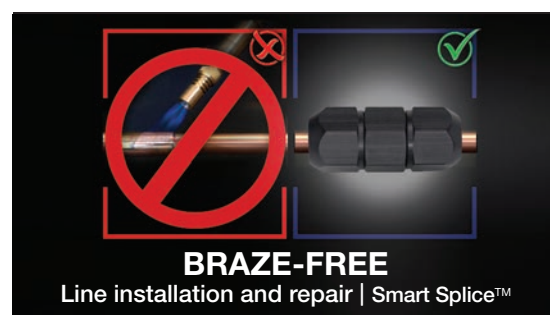


What Smart Splice does for you:

- Repairs leaking pipes in minutes
- Connects 2 lines – straight, 45°, 90°
- Connects lines to expanded tube/ King valves
- Fast installation of Mini-Splits
- Line terminations
- Add service port connectors
- Good for copper, aluminium, and steel lines

Why you need Smart Splice:

- Avoids brazing - no flame required
- Avoids flammability hazards
- Safer and faster - easy installation with just a spanner
- Eliminates flaring
- Works with flare to line connections
- Anti-corrosive
- Compensates for out-of-round pipes
- Certified leak-free
 - Burst-tested to 2600 psi, 179 bar
 - Vacuum tested to 340 microns, pull tested to 1500 Pounds / 680KG
 - 10x more sealing area with our expanded HNBR seal sleeve
 - High-tech anti-vibration ring prevents vibration leaks





Great Chemistry, brought to you in partnership with **Shrieve**



Snow Leopard Extreme Performance PAGs for CO₂

CO₂ (R744) is a leading natural refrigerant in an advanced state of adoption as a primary non-ozone depleting technology. CO₂ based systems are now widely used for commercial and industrial applications, most notably in commercial refrigeration and heat pumps.

Snow Leopard EP PAGs are Extreme Performance double end-capped lubricants, which have been developed to retain their superior lubricity at the very high pressures and temperature found in CO₂ systems. EP PAGs are used in commercial refrigeration CO₂ systems, and are also required for some vehicle air conditioners.

EP PAGs do not suffer the decrease in viscosity that POEs experience under dilution, and so maintain excellent wear properties. EP PAGs are significantly less hygroscopic than uncapped PAGs, having high chemical, thermal and hydrolytic stability with excellent lubricity. These CO₂ PAGs are OEM approved by leading manufacturers.

AC56068

Snow Leopard EP-PAG68 for CO₂

The most used grade for CO₂. Also available in ISO 46 and ISO100.

We also supply a full range of Automotive PAGs and POE oils

