

# Spectroline

## Fluorescent Leak Detection

coil cleaners

leak detection & monitoring

recovery machines

vacuum pumps

weighing platforms

acid treatment

fragrances & odour control

flame retardants

tools & accessories

### KEY BENEFITS

**Finds leaks undetectable by other methods**

**Easy to use**

**Extremely accurate**

**Used in over 50 million AC&R systems worldwide**

**OEM approved by major compressor manufacturers**

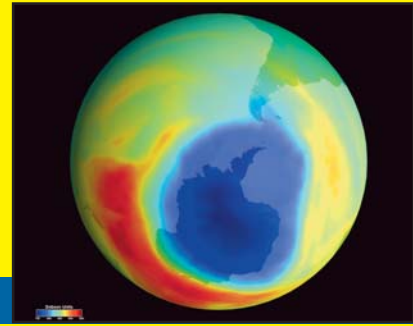
**Ideal for preventative maintenance**

**Qualifies for BREEAM credits**

**advanced**  
engineering



# Why is refrigerant leak detection important?



**Under EU regulations all precautionary measures practicable, must be taken in order to prevent and minimise leakage.**

Fixed equipment containing ozone depleting substances, which have a refrigerant fluid charge greater than 3 kg, must be checked annually for leakage.

It is also best practice to prevent and minimise leaks. This ensures systems run at optimum efficiency and that potentially environmentally damaging greenhouse gases aren't released into the atmosphere.

## The Spectroline UV leak detection system



**The Spectroline UV leak detection system works because fluorescent dye is soluble in the oil which in turn is miscible with the refrigerant. When the refrigerant leaks, a trace of the oil/Spectroline also escapes and remains at the leak site.**

OEM approved AR-GLO<sup>®</sup> ester dye is completely universal, working with all common lubricants and refrigerants. AR-GLO<sup>®</sup> dyes will work in any sized AC&R system.

Unlike other UV leak detection dyes, Spectroline AR-GLO<sup>®</sup> is completely solvent free. It will not

change the lubricant properties and will have no other adverse effects on the system.

The Spectroline system has a number of benefits over other methods of refrigerant leak detection. It is able to detect intermittent and very small leaks which could be missed by electronic leak detectors. It is effective, even when the system isn't running and will not give false alarms. It will remain on guard in the system 24/7, for the life of the fluid, making regular inspections quick and simple. The dye will remain at all leak sites even when the system has lost all refrigerant.

## Directions for use

- 1. A small amount of fluorescent dye is added to the system and allowed to circulate. In the event of a leak, the dye escapes with the system's refrigerant or fluid and remains at all leak sites.**



Fluorescent dye is added to the system



The system is run allowing the dye to circulate

- When the system is scanned with either the Spectroline ultraviolet or UV/blue light inspection lamps, the dye will fluoresce a brilliant yellow-green colour to pinpoint the exact source of every leak.



The system is scanned with either a Spectroline ultraviolet or UV/blue light inspection lamp



Every leak will fluoresce a brilliant yellow-green pinpointing the exact source of every leak

- To check that the repairs have been successful, the residual dye is removed from leak sites with dye cleaner/remover (supplied). The sites are then re-inspected with the lamp. No glow means that all leaks were repaired, it is that easy! The dye can remain safely in the system until the fluid is spent or changed.



Once repaired residual dye is removed from leak sites.



The site is then re-inspected with the lamp. No glow means that all leaks were repaired successfully

## Dosing the system

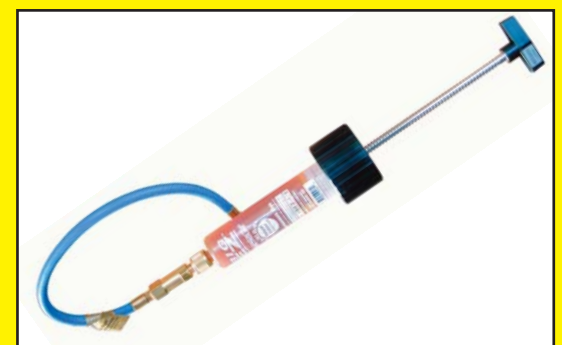
All cartridges sold, unless specifically requested, contain AR-GLO ester dye which is universal and compatible with all common lubricants and refrigerants.

	Treats (per cartridge)		Treats (per graduation)	
	Oil	Refrigerant	Oil	Refrigerant
Ez Cartridge	7.6 Litres	11.3kg	543ml	0.81kg
BigEz Cartridge Size 2	23 Litres	70kg	720ml	2.1kg
BigEz Cartridge Size 4	61 Litres	180kg	1.9 Litres	5.6kg

### The BigEz injection kit

The BigEz injection kit is an efficient dye injector for large capacity refrigeration systems such as chillers, supermarkets, refrigerated warehouses and industrial refrigeration plants.

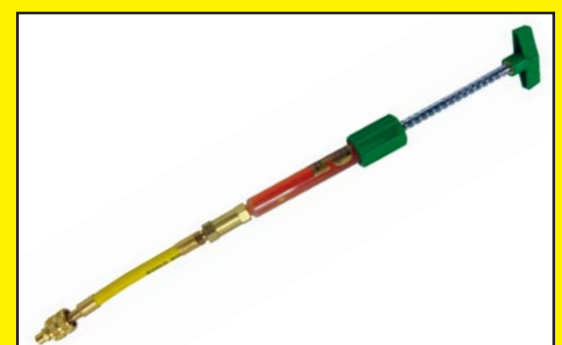
The BigEz is a flexible dye injector system with one cartridge treating up to 23 litres of lubricant. The cartridges have 32 divisions - each increment treating 720ml of oil making this injector useful for both large and small systems.



### The Ez injection kit

The Ez-Ject is an efficient dye injector system which comes complete with two cartridges of universal dye.

Each Ez cartridge of universal dye will treat up to 7.6 litres of lubricant. The Ez-Ject cartridge has 14 graduations with each one treating approximately 543ml of oil making this injector useful for systems of all sizes



# Scanning the system

UV Lamp	Inspection	Bulb Range	Battery Type	Equivalent Lamp Power	Weight	Operating Time
Optimax Pro	6.1 Meters	LED	Rechargeable	100W	454 gm	Over 6 hours
Optimax Jr	61cm	LED	3 x AA	50W	135 gm	Over 4 hours

## Optimax Pro

The Optimax Pro is ideal for medium and larger systems and utilises super high intensity LED technology which is ten times brighter than regular LED lights. It is completely cordless and uses a rechargeable battery which provides over 6 hours operation between charges. Whilst being far more convenient and sturdy than previous 100W lamps, it is just as powerful, with an inspection range of up to 6.1 meters. The Optimax is quite simply the definitive UV inspection lamp currently available on the market.



## Optimax Jr

The ultra portable Optimax Jr inspection lamp features state of the art LED technology with a 100,000 hour bulb life. It is an incredibly sturdy lamp which utilises AA batteries that are simple to source and replace. The Optimax Jr provides over 4 hours of peak performance per battery change and offers the choice of continuous or momentary illumination.



# Complete starter kits

## Optimax Pro Complete Starter Kit

Introducing the Spectroline Optimax Pro complete UV leak detection starter kit which comes with everything you need to find refrigerant leaks.

The complete starter kit comes with:-

- Optimax Pro UV LED lamp
- BEZ-200/E dye and injector kit
- UVS-40 Spectacles
- Carry case
- UV dye cleaner/remover



## Optimax Jr Complete Starter Kit

The Spectroline Optimax Junior complete UV leak detection starter kit comes with everything you need to get started at a break through price.

The complete starter kit comes with:-

- Optimax Jr UV LED lamp
- EZ-4/ECS dye and injector kit
- UVS-40 Spectacles
- Carry case
- UV dye cleaner/remover



Distributors:  
**Advanced Engineering Limited**,  
 Guardian House,  
 Stroudley Road, Basingstoke, Hampshire, RG24 8NL.  
 Tel: +44 (0)1256 460300 Fax: +44 (0)1256 462266  
 email: sales@advancedengineering.co.uk  
 web: www.advancedengineering.co.uk

