



Fluorescent Leak Detection Products for HVAC/R Systems



Residential Systems



Commercial Systems



Refrigeration Systems



OEM-Approved AC&R Dyes



Powerful Inspection Lamps



Versatile Leak Detection Kits



AR-GLO® Fluorescent AC&R Dyes

All Spectrolin[®] fluorescent dyes can remain safely in the system, making it fast and easy to pinpoint leaks, confirm repairs and perform future preventive maintenance checks. AR-GLO[®] AC&R dyes are the only dyes that give you all these benefits:

- **Universal (POE)** – Dye is compatible with all refrigerants and lubricants
- **Lubricant-specific** – Dyes exactly match the lubricant in the system
- **Co-solvent free** – Dyes will not impair lubricant properties, which could lead to excessive wear or damage to system components

How It Works

Just add a small amount of dye to the system and let it circulate. The dye/fluid mixture escapes with the host fluid wherever there is a leak and glows brightly when inspected with a high-intensity UV or blue light lamp.

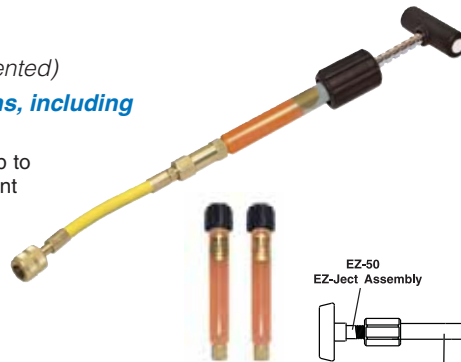
Small to Medium Size Systems

EZ-Ject™

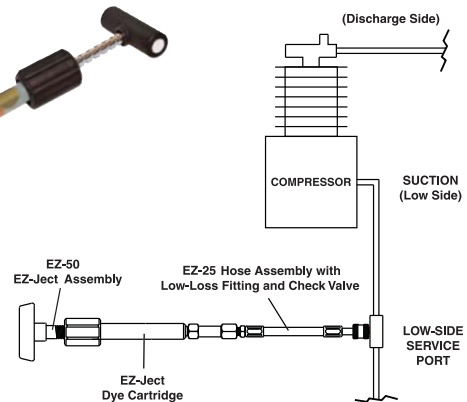
Multi-Dose Dye Injection System (Patented)

Convenient and economical. Works in all systems, including high-pressure R-410A systems!

- Each prefilled, disposable EZ-Ject dye cartridge treats up to 2 gallons (7.6 L) of lubricant, 25 lbs (11.3 kg) of refrigerant or 12 tons of cooling. No pouring and no refrigerant required for injection.
- One calibrated cartridge provides exact dosing for multiple systems
- Easily overcomes system pressure. Inject dye with a turn of the handle.



CONNECTION:

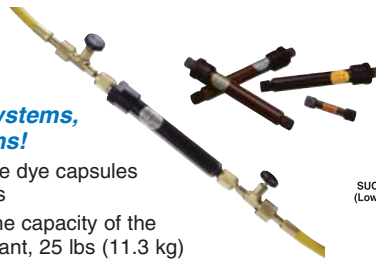


GLO-STICK®

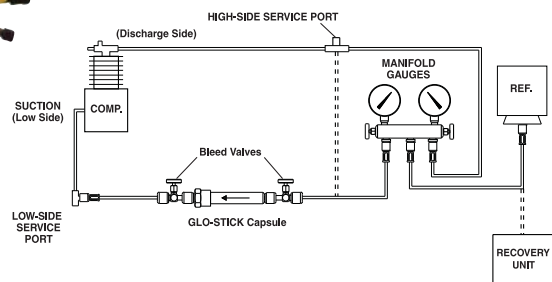
Dye Capsules (Patented)

Fast and easy servicing. Works in all systems, including high-pressure R-410A systems!

- Prefilled, single-dose, self-cleaning, disposable dye capsules eliminate measuring, pouring and messy spills
- Available in 4 sizes/concentrations to match the capacity of the system. Treats up to 2 gallons (7.6 L) of lubricant, 25 lbs (11.3 kg) of refrigerant or 12 tons of cooling.
- Inject dye while charging with refrigerant, or when connecting from the high side to the low side.
- Metering orifice prevents slugging of the compressor



CONNECTION:



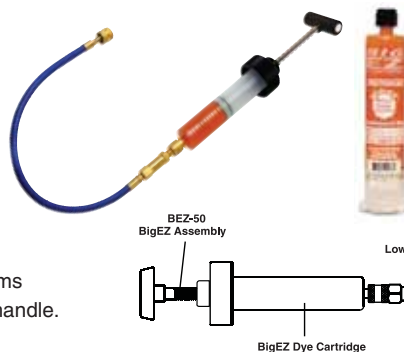
Medium to Large Size Systems

BigEZ™

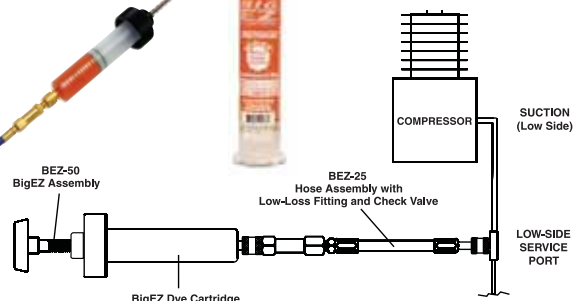
Multi-Dose Dye Injection System (Patented)

Most economical for larger systems. Works in all systems, including high-pressure R-410A systems!

- Each prefilled, disposable 4 oz (118 ml) BigEZ dye cartridge treats up to 16 gallons (60.8 L) of lubricant, 400 lbs (180 kg) of refrigerant or 150 tons of cooling. No pouring and no refrigerant required for injection.
- One calibrated cartridge provides exact dosing for multiple systems
- Easily overcomes system pressure. Inject dye with a turn of the handle.



CONNECTION:



➤ See back cover for recommended dosages

Blue Light LED Leak Detection Lamps



CE U

OPD-500CS

Dual-Max™ Cordless, Multi-Function LED Flashlight

Two Powerful LEDs! One Lightweight Lamp!

- Features a super-bright blue light LED for leak detection, plus a white light LED for general component inspection
- Power comparable to high-intensity 75W lamps
- Inspection range of up to 6 feet (1.8 m) or more
- Compact design allows easy access into tight spaces
- 100,000-hour LED life
- Instant-on operation; no warm-up time required
- Powered by 3 "AAA" batteries
- UVS-40 fluorescence-enhancing glasses and belt holster



CE U

OPX-500CS

OPTIMAX Jr™ Cordless, Ultra-Compact, Blue Light LED Leak Detection Flashlight

Portable and Affordable!

- Perfect for tight spaces
- Power comparable to high-intensity 75W lamps
- Inspection range of up to 6 feet (1.8 m) or more
- Compatible with all leak detection dyes
- 100,000-hour LED life
- Instant-on operation; no warm-up time required
- Powered by 3 "AA" batteries
- Fluorescence-enhancing glasses



CE U

OPX-3000

OPTIMAX™ 3000 Cordless, Rechargeable, Blue Light LED Leak Detection Flashlight

Most Powerful Cordless!

- 15 times brighter than regular LED lights
- Power comparable to super-high intensity 150W lamps
- Inspection range of up to 20 feet (6.1 m) or more
- Compatible with all leak detection dyes
- 50,000-hour LED life
- Instant-on operation; no warm-up time required
- Powered by rechargeable NiMH battery (included)
- Smart AC and DC chargers
- Fluorescence-enhancing glasses



Also available: OPK-300 OPTIMAX™ 3000 Lamp Kit
Features all of the above in a rugged carrying case

Complete Leak Detection Kits



OPK-50EZ/E

Complete EZ-Ject™ Kit

Features the OPX-500CS OPTIMAX Jr™ ultra-compact, cordless, blue light LED flashlight

FOR SMALL TO MEDIUM SIZE AC&R SYSTEMS, including high-pressure R-410A systems!

Kit contains:

- EZ-50 EZ-Ject dye injector assembly
- EZ-25 hose assembly with check valve and low-loss fitting
- (2) EZ-4/ECS 0.5 oz (14.8 ml) Universal/POE cartridges
- (3) Drip plugs for hose/coupler



OPK-50GS/E

Complete GLO-STICK® Kit

Features the OPX-500CS OPTIMAX Jr™ ultra-compact, cordless, blue light LED flashlight

FOR SMALL TO MEDIUM SIZE AC&R SYSTEMS, including high-pressure R-410A systems!

Kit contains:

- (1) BV-50 bleed valve for attaching GLO-STICK capsule to service hose
- (1) PC-0249 purge capsule
- (1) 119567 hose to connect to low side service port
- (1) GS-1/E universal/POE GLO-STICK dye capsule
- (2) GS-2/E universal/POE GLO-STICK dye capsules
- (1) GS-3/E universal/POE GLO-STICK dye capsule

Fluorescence-enhancing glasses (UVS-40), 8 oz (237 ml) bottle of GLO-AWAY™ dye cleaner (CR-800) and rugged carrying case (CC-110) are included in above kits.



OPK-300EZ/E

Complete EZ-Ject™ Kit

Features the OPTIMAX™ 3000 cordless, rechargeable, blue light LED flashlight

FOR SMALL TO MEDIUM SIZE AC&R SYSTEMS, including high-pressure R-410A systems!

Kit contains:

- EZ-50 EZ-Ject dye injector assembly
- EZ-25 hose assembly with check valve and low-loss fitting
- (2) EZ-4/ECS 0.5 oz (14.8 ml) EZ-Ject Universal/POE dye cartridges
- (3) Drip plugs for hose/coupler



OPK-300BEZ/E

Complete BigEZ™ Kit

Features the OPTIMAX™ 3000 cordless, rechargeable, blue light LED flashlight

FOR MEDIUM TO LARGE SIZE AC&R SYSTEMS, including high-pressure R-410A systems!

Kit contains:

- BEZ-50 BigEZ dye injector assembly
- BEZ-25 hose assembly with check valve and low-loss fitting
- (1) BEZ-4/ECS 4 oz (118 ml) Universal/POE dye cartridge
- (3) Drip plugs for hose/coupler

Fluorescence-enhancing glasses (UVS-40), smart AC charger (RB-300), DC charger with cigarette lighter adapter (RB-300DC), 8 oz (237 ml) bottle of GLO-AWAY™ dye cleaner (CR-800) and rugged carrying case (CC-130) are included in the above kits.

Attractive, Full-Color Hanging Display Packaging

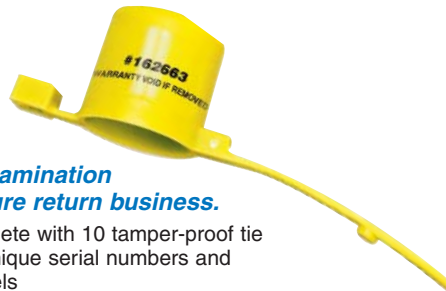
NEW



TES-31 Tamper-Evident Straps

Protect AC&R systems against refrigerant cross-contamination and unqualified repairs. Warranty your work and ensure return business.

- Fast and easy to use
- No special tools required
- Packaged in convenient zip-lock storage bag
- Comes complete with 10 tamper-proof tie straps with unique serial numbers and matching labels



AB-100CS ACID-BUSTER™ Injection Kit

Acid Scavenging Solution
— prevents compressor burnout!

Contains:

- EZ-50 EZ-Ject injector assembly
- EZ-25 hose assembly with check valve and 1/4 inch flare low-loss fitting
- (2) AB-5CS 0.5 oz (14.8 ml) EZ-Ject cartridges filled with ACID-BUSTER acid scavenging solution

Also available: **AB-400CS ACID-BUSTER™ Injection Kit.** Features BEZ-50 BigEZ injector assembly, BEZ-25 hose assembly with check valve and 1/4 inch flare low-loss fitting and (1) 4 oz (118 ml) AB-4CS BigEZ cartridge filled with ACID-BUSTER acid scavenging solution.

ACID-BUSTER™ Cartridges



**AB-4CS
ACID-
BUSTER**
4 oz
(118 ml)
cartridge

**AB-5CS
ACID-
BUSTER**
0.5 oz
(14.8 ml)
cartridge



EZ-100/ECS Universal Dye Injection Kit

For all AC&R systems, including high-pressure R-410A systems!

Compatible with Mineral Oil, Polyol Ester and Alkyl Benzene Lubricants

Contains:

- EZ-50 EZ-Ject dye injector assembly
- EZ-25 hose assembly with check valve and 1/4 inch flare low-loss fitting
- (2) EZ-4/ECS 0.5 oz (14.8 ml) EZ-Ject universal/POE dye cartridges
- Service labels

EZ-Ject™ Dye Cartridges



EZ-4/ECS
(Universal/POE)
0.5 oz (14.8 ml)
cartridge

Also available:
EZ-4CS (Mineral Oil)



BEZ-400/ECS Universal Dye Injection Kit

For all AC&R systems, including high-pressure R-410A systems!

Compatible with Mineral Oil, Polyol Ester and Alkyl Benzene Lubricants

Contains:

- BEZ-50 dye injector assembly
- BEZ-25 hose assembly with check valve and 1/4 inch flare low-loss fitting
- (1) 4 oz (118 ml) BEZ-4/ECS universal/POE dye cartridge
- Service labels

BigEZ™ Dye Cartridges



BEZ-4/ECS
(Universal/POE)
4 oz (118 ml) cartridge
Also available:
BEZ-4CS (Mineral Oil)
BEZ-4/LTCS (Alkyl Benzene)

GLO-STICK® Dye Capsules



GS-101/ECS
(Universal/
POE)

GS-1/ECS
(Universal/
POE)

GS-2/ECS
(Universal/
POE)

GS-3/ECS
(Universal/
POE)

Note: Available in other sizes/formulations.



DP-25 Drip Plugs



Made of special absorbent foam to soak up residual dye in low-side hose coupler. Prevents messy toolboxes. Keeps hands dye-free! Come 25 to package



QMP-400CS Quad Max Pro™

Flexible, Multi-Function LED Leak Detection Lamp

Gets into tight spots other lamps can't reach!



OPX-500CS OPTIMAX Jr™

Ultra-Compact LED Leak Detection Flashlight

Power comparable to high-intensity 75W lamps!

Dosage Charts

EZ-Ject™ A/C Dye Cartridges

SYSTEM TYPE ①	Small systems, e.g., ice machines, window A/C units and refrigerators	Residential systems ^②	Light commercial and large residential systems ^②	Commercial and light industrial, including all split systems ^②
Refrigeration Oil Charge	Up to 15 fl oz (450 ml)	Up to 1.6 qt (1.5 L)	1.7 to 3.2 qt (1.6 to 3.0 L)	3.3 qt to 2 gal (3.1 to 7.6 L)
Refrigerant Charge	Up to 2.9 lb (1.3 kg)	3 to 4.9 lb (1.4 to 2.2 kg)	5 to 9.9 lb (2.3 to 4.5 kg)	10 to 25 lb (4.6 to 11.3 kg)
Tons of Cooling	Up to 1 ton	1.1 to 2 tons	2.1 to 6 tons	6.1 to 12 tons
Horsepower	Up to 1 Hp	1.1 to 4 Hp	4.1 to 10 Hp	10.1 to 25 Hp
No. Graduations on EZ-Ject	1	2	6	8-14

Treatment: One graduation treats one pint of refrigeration oil; two graduations treat one quart.

① Always use the **refrigeration oil charge** when it is known. Refrigerant charge, tonnage and horsepower are approximations.

② One full cartridge is recommended for **all** split systems, including residential applications, even if they hold less than 10 pounds of refrigerant.

GLO-STICK® A/C Dye Capsules

SYSTEM TYPE ①	Small systems, e.g., ice machines, window A/C units and refrigerators	Residential systems ^②	Light commercial and large residential systems ^②	Commercial and light industrial, including all split systems ^②
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Tons of Cooling	Up to 1 ton	1.1 to 2 tons	2.1 to 6 tons	6.1 to 12 tons
Horsepower	Up to 1 Hp	1.1 to 4 Hp	4.1 to 10 Hp	10.1 to 25 Hp
LUBRICANT TYPE				
Polyol Ester (Universal)	GS-101/ECS	GS-1/ECS	GS-2/ECS	GS-3/ECS
Mineral Oil	GS-101CS	GS-1CS	GS-2CS	GS-3CS
Alkyl Benzene	GS-101/LT	GS-1/LT	GS-2/LT	GS-3/LT
PAG	GS-101/PAG ^③			

① Always use the **refrigeration oil charge** when it is known. Refrigerant charge, tonnage and horsepower are approximations.

② Use GS-3 series with **all** split systems, even if they are being used for residential applications and they hold less than 10 lbs of refrigerant.

③ Most GLO-STICK capsules require the use of two BV-50 bleed valves (for use on 1/4 inch flare hose fittings). The exception is the GS-101/PAG, designed for automotive R-134a/PAG A/C systems, which requires two BV-75 bleed valves. The BV-75 is used on 1/2 inch Acme hose fittings.

BigEZ™ A/C Dye Cartridges

Dye Dose for BEZ-4 Series	System Size
1 line, 1/8 oz (3.7 ml)	1/2 gal (1.9 L) of lubricant, 12.5 lb (5.7 kg) of refrigerant or 5 tons of cooling

ACID-BUSTER™ Acid Scavenging Solution

Product Number	Injector	Cartridge Size	Dosage ①
AB-5CS	EZ-Ject™	0.5 oz (14.8 ml)	4 lines, 1/8 oz (3.7 ml) per 8 oz (237 ml) of refrigerant oil. One cartridge treats up to 1 qt (946 ml) of oil.
AB-4CS	BigEZ™	4 oz (118 ml)	1 line, 1/8 oz (3.7 ml) per 8 oz (237 ml) of refrigerant oil. One cartridge treats up to 2 gal (7.6 L) of oil.

① On severely acidic systems, double the dosage shown



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