

INSTRUCTION MANUAL

GLO-Stick® AC&R Dye Injection System & Capsules



English | ~~Français~~ | ~~Español~~ | ~~Deutsch~~ | ~~中文~~

 **SPECTRONICS**
CORPORATION

265 Spagnoli Road, #100, Melville, NY 11747 USA
516-333-4840 • www.spectroline.com

For small to medium AC&R systems, including high-pressure R-410A systems!

IMPORTANT!

For best inspection results, use a high-intensity Spectroline® ultraviolet or violet light leak detection lamp and wear fluorescence-enhancing glasses to protect your eyes and to make leaks clearly visible.

Lamp Operation

- **To Operate the SPE-HVL-CS violet light LED Leak Detection Flashlight:** Insert 3 AAA batteries (included). Press the button in the end cap once to turn the lamp on. Press it again to turn the lamp off.
- **To Replace Batteries:** Twist the end cap counterclockwise to open. Remove the battery carousel.

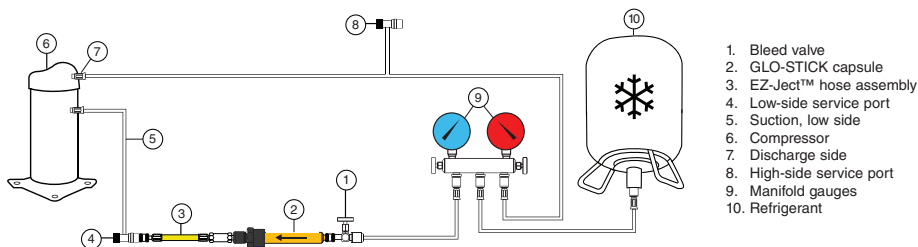
Insert 3 AAA batteries and reinstall the carousel (positive end toward the lamp head). Replace the end cap.

● Warranty:

To review the warranty policy: spectroline.com/warranty

Injection Tips

- The prefilled, disposable GLO-STICK® dye capsules allow AR-GLO® SE fluorescent dye to be injected into pressurized AC&R systems using refrigerant as a propellant.
- The system must contain enough refrigerant to operate the compressor and circulate the dye in order to find leaks.
- Wear protective glasses or goggles while working on any AC&R system.
- NOTE: Prior to injecting dye into any HVAC/R system, inspect service port(s) and valve cores for damage, and open any supplemental hand or solenoid valves.



Requires the use of: (1) RP-BV-50 bleed valve and (1) RP-EZ-25 hose —OR—

(2) RP-BV-50 bleed valves (for use on 1/4 inch (6,35 mm) flare hose fittings)

1. To purge the system, attach the purge capsule between the service hose and the bleed valve and connect it to a refrigerant source. Open the bleed valve slowly to use the system pressure to bleed the hose from the AC&R system to the valve. Tighten the bleed valve. **Remove and retain the purge capsule and purge fitting.**
2. Install the GLO-STICK capsule between the pressurized hoses, with the arrow pointing in the direction of the refrigerant flow, and connect the hose to the low side service port.
3. With the system **operating, slowly** open the bleed valve and the manifold valve to allow the refrigerant (liquid refrigerant works best) to flow through the GLO-STICK capsule. Flush the fluorescent dye into the system. **Add refrigerant slowly to avoid system damage.** Once the GLO-STICK clears, close the valve closest to the refrigerant source and allow all hoses to reach low-side pressure.
4. Remove the entire assembly and discard the empty capsule. Retain the bleed valve, purge capsule and fitting, and service hose for future use.
5. Run small AC&R systems for 15 to 30 minutes, or longer for larger systems, to circulate the dye. The dye needs time to mix with the oil and circulate to all the leak sites.
6. Inspect possible leak areas with the lamp. Leaks will show with a bright glow. The fluorescence will be brightest under low light conditions.
7. Large leaks will show immediately. To find smaller leaks, operate the AC&R system over the next 24 to 48 hours and reinspect.
8. After the leaks are repaired, clean the remaining dye from the leak sites with GLO-AWAY™ Plus or a shop cleaner. Check with the lamp to be sure all dye residue is removed. Residual dye could give a false leak indication. Run the AC&R system another 5 to 10 minutes and reinspect with the lamp. No glow means that all leaks have been repaired.

Alternative method without adding refrigerant:

1. Connect the GLO-STICK dye capsule between the system's high-side and low-side service ports. Use a bleed valve to meter the refrigerant slowly through the capsule.

Suggested Dye Dose

For best results use the amount of lubricant in the AC&R system to determine the dye dose.

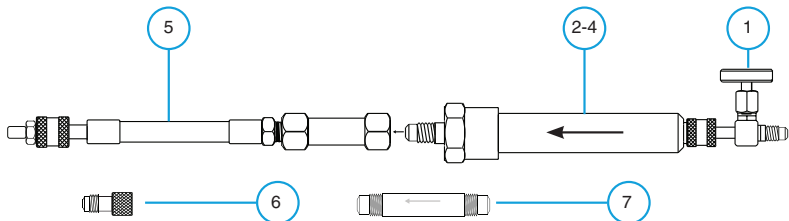
System type:	Residential Systems	Light Commercial and Large Residential	Commercial and Light Industrial
Lubricant	up to 1.6 qt (1,5 L)	1.7 - 3.2 qt (1,6 - 3 L)	3.3 qt - 2 gal (3,1 - 7,6 L)
Refrigerant charge	up to 4.9 lbs (2,2 kg)	5 - 9.9 lbs (2,3 - 4,5 kg)	10 - 25 lbs (4,6 - 11,3 kg)
Tons of cooling	up to 2 tons (7 kW)	2.1 - 6 tons (7,4 - 21,1 kW)	6.1 - 12 tons (21,5 - 41,2 kW)
Lubricant type:			
Universal/POE*	SPE-GS1E-CS	SPE-GS2E-CS	SPE-GS3E-CS
Universal/POE*	SPE-GS1E-P6	SPE-GS2E-P6	SPE-GS3E-P6
PVE	SPE-GS1PVE-P6	SPE-GS2PVE-P6	SPE-GS3PVE-P6

*Universal/POE-also compatible with mineral oil, PVE, and alkyl benzene lubricants

- Always use the refrigeration oil charge when it is known. Refrigerant charge and tonnage are approximations.
- Use SPE-GS3E Series with all split systems, including residential applications and hold less than 10 lbs (4,5 kg) of refrigerant.
- For 1/4" (6,35 mm) flare hose fittings, use (2) RP-BV-50 bleed valves

Parts/Assembly

NO.	PART NO.	DESCRIPTION
1	RP-BV-50	(1) Bleed valve for attaching GLO-STICK® capsule to service hose
2	SPE-GS1E	(1) 0.5 oz (15 ml) universal/POE GLO-STICK® dye capsule
3	SPE-GS2E	(2) 0.5 oz (15 ml) universal/POE GLO-STICK® dye capsule
4	SPE-GS3E	(1) 0.5 oz (15 ml) universal/POE GLO-STICK® dye capsule
5	RP-EZ-25	8 in (20 cm) EZ-Ject™ hose assembly, hose to connect to low-side service port, with purge fitting attached
6	RP-AD-410A	R-410a adapter/ purge fitting
7	N/A	Purge capsule
-	SPE-HVL-CS	Violet Light LED Leak Detection Flashlight
-	RP-GA-2	2 oz (60 ml) spray bottle of GLO-AWAY™ PLUS dye cleaner
-	RP-UVS-40	Fluorescence-enhancing glasses
-	Service Labels	Date of service and dye use indicator



⚠ WARNING

- KEEP OUT OF REACH OF CHILDREN
- WASH THOROUGHLY AFTER HANDLING
- WIPE ALL SPILLS TO AVOID STAINS
- STORE IN A COOL PLACE AWAY FROM SUNLIGHT
- STORE IN CLIMATE CONTROLLED, DRY AREA
- DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS



NSF Certified—GLO-Stick® universal/POE dye cartridges are registered to meet food-grade processing requirements for category codes HTX2 and HX-2.



For product information and technical assistance, call us at **1-800-274-8888**. Outside the United States, call 1-516-333-4840. For SDS information, visit spectroline.com/sds. Emergency # 1-800-424-9300 (24 Hours) CHEMTREC.



265 Spagnoli Road, #100, Melville, NY 11747 USA
516-333-4840 • www.spectroline.com