

GLO-STICK® Capsule Instructions

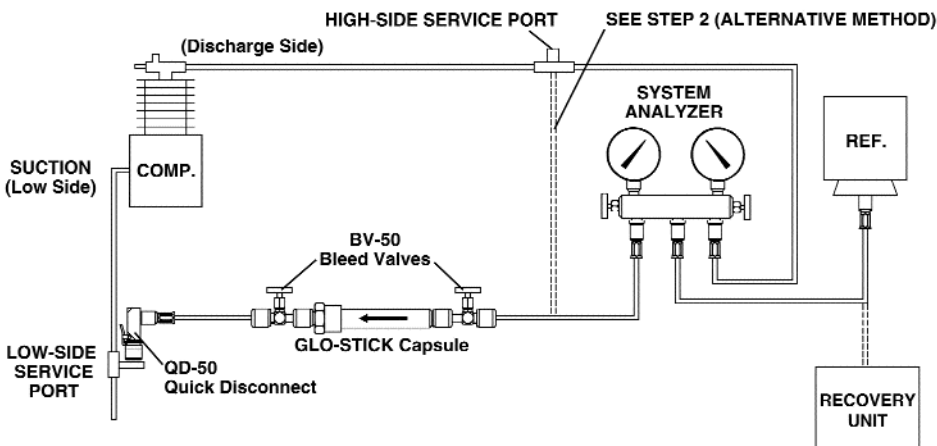
U.S. Patent No. 5,167,140

IMPORTANT: To get the best results from fluorescent leak detection, there must be enough refrigerant in the air conditioning or refrigeration system for the compressor to circulate the AR-GLO® fluorescent dye throughout the system. *However, refrigerant should be added to a known leaking system for the purpose of leak detection only and repairs should be made promptly.*

See the enclosed GLO-STICK® capsule selection chart to choose the proper capsule for each application. Besides service hoses, you will need **two** BV-50 bleed valves and **one** QD-50 quick disconnect to service the system. The capsules are disposable; all other items are reusable.

WARNING

GLO-STICK capsules are designated to be safe if used properly by qualified service technicians with knowledge of both the equipment and the system being serviced. Protective safety glasses or goggles should always be worn while working on an air conditioning or refrigeration system. UV-absorbing protective eyewear, such as Spectroline® UVG-50 goggles, is recommended for maximum protection from ultraviolet radiation.



PLEASE NOTE

Wipe all dye spills *immediately* to prevent damage to paints and finishes.
Dye may stain hands and clothing.

1



Connect one **closed** bleed valve to a service hose. Close the valve **finger tight only**. Do **not** force, as this will damage the valve seat. Attach the quick disconnect to the other end of the hose, then connect the quick disconnect to the low-side service port of the system.

2



For connection to **add refrigerant** to the system.

Connect the second **closed** bleed valve to the end of the hose leading to the low-side port on the manifold. Complete the other manifold connections as shown in the above diagram.

Alternative Method: For connection **without adding refrigerant** to the system.

Connect the second **closed** bleed valve to a second service hose. Connect the other end of the hose to the high-side service port of the system.

3

Evacuate or purge all the hoses of air and close both bleed valves **finger tight**.

4



Hold the GLO-STICK capsule so the arrow of the capsule points **up**.

Remove the black cap from the top and connect to the bleed valve of the hose that goes to the *low-side* service port.

Turn the capsule over so the arrow on the capsule points **down**.

Remove the remaining cap and connect to the bleed valve of the hose that goes to the *low-side valve of the manifold*. **If using Step 2 Alternative Method**, connect to the high-side service port of the system.

5



With the system **operating**, **slowly** open both bleed valves and the manifold valve to allow the refrigerant (*liquid* refrigerant works best) to flow through the GLO-STICK capsule and flush the AR-GLO dye into the system. **Add refrigerant slowly to avoid system damage**.

Once the GLO-STICK clears, close the valve *nearest* to the refrigerant source and allow all hoses to reach low-side pressure.

6

Remove the entire assembly (GLO-STICK capsule, bleed valves, quick disconnect and service hoses). Discard the empty capsule. **Retain the bleed valves, quick disconnect and hoses for future use**.

7

Run the air conditioning or refrigeration system to allow the AR-GLO dye enough time to circulate thoroughly. *For smaller systems and systems with large leaks*, this may take as little as 5-10 minutes. *For larger systems and systems with small leaks*, schedule a return visit after the system has been running for 1 to 2 days or more.

Inspect the system with an ultraviolet or UV/blue light lamp. Use a high-intensity Spectroline® lamp for best results. *All* leaks will show with a bright yellow-green fluorescent glow. The glow will show up best under low light conditions. Bright light reduces the visible fluorescent response.

8

After the repair is completed, it is important to clean off all fluorescent dye residue, otherwise the remaining dye could be mistaken for a leak indication. To clean, use Spectronics' water-based GLO-AWAY™ dye cleaner or a general-purpose shop cleaner. Follow the directions for the cleaner used.

After cleaning, check all areas with the inspection lamp to make sure that no dye residue remains. Run the system a second time and reinspect with the lamp. If there is no glow, *all* leaks have been found and repaired.

