

Fluorescent Dye Leak Detection - Vehicles With: R134A Refrigerant

Special Tool(s) / General Equipment

UV Leak Detector
Electronic Leak Detector

Leak detection

Vehicles with air conditioning

1. Review next note for important refrigerant system dye information.

NOTE: Fluorescent refrigerant system dye is added to the refrigerant system at the factory to assist in refrigerant system leak diagnosis using a Rotunda-approved UV lamp. Do not add dye to the refrigerant system before diagnosing leaks or after repairs, even if a significant amount of refrigerant has been removed from the system. Replacement suction accumulators, receiver driers, receiver drier elements and service condensers are shipped with a fluorescent dye wafer included in the desiccant bag which dissolves after approximately 30 minutes of continuous A/C operation. Do not add dye after flushing the refrigerant system because a new suction accumulator, receiver drier or receiver drier element is installed as part of the flushing procedure.

Fluorescent Dye Leak Detection

NOTE: Ford Motor Company vehicles are produced with R-134a fluorescent dye installed in the refrigerant system from the factory. The location of leaks can be pinpointed by the bright yellow-green glow of the fluorescent dye under a UV lamp. Since more than one leak can exist, inspect each component, line and fitting in the refrigerant system for a leak.

NOTE: Use of dye-enhancing glasses or goggles greatly improves the detection of the dye under the UV lamp.

NOTE: Not all UV lamps will fluoresce the dye used in Ford vehicles. All Rotunda UV lamps are optimized to fluoresce the dye.

NOTE: If the system has been out of refrigerant through the winter the dye at the leak point may have oxidized and may not fluoresce. If this happens, recharge and operate the A/C system to circulate the oil and allow any residual dye to show up at the leak point. It is important to understand that dye adheres to the oil not the refrigerant; the refrigerant carries the oil out of the leak point.

2. Check for leaks using a Rotunda-approved UV lamp and dye enhancing glasses.
3. Inspect all components, lines and fittings of the refrigerant system.
4. After the leak(s) is repaired, remove any traces of fluorescent dye with a general purpose oil solvent.
5. Verify the repair by running the vehicle for a short period of time and rechecking the area of the leak with a Rotunda-approved UV lamp.
Use the General Equipment: UV Leak Detector
6. If it is a small leak the dye may take awhile to reappear a Rotunda-approved electronic leak detector is also suggested to use. REFER to general procedures Electronic Leak Detection.
Use the General Equipment: Electronic Leak Detector

