

# INSTALLATION INSTRUCTIONS

## SMART VOV

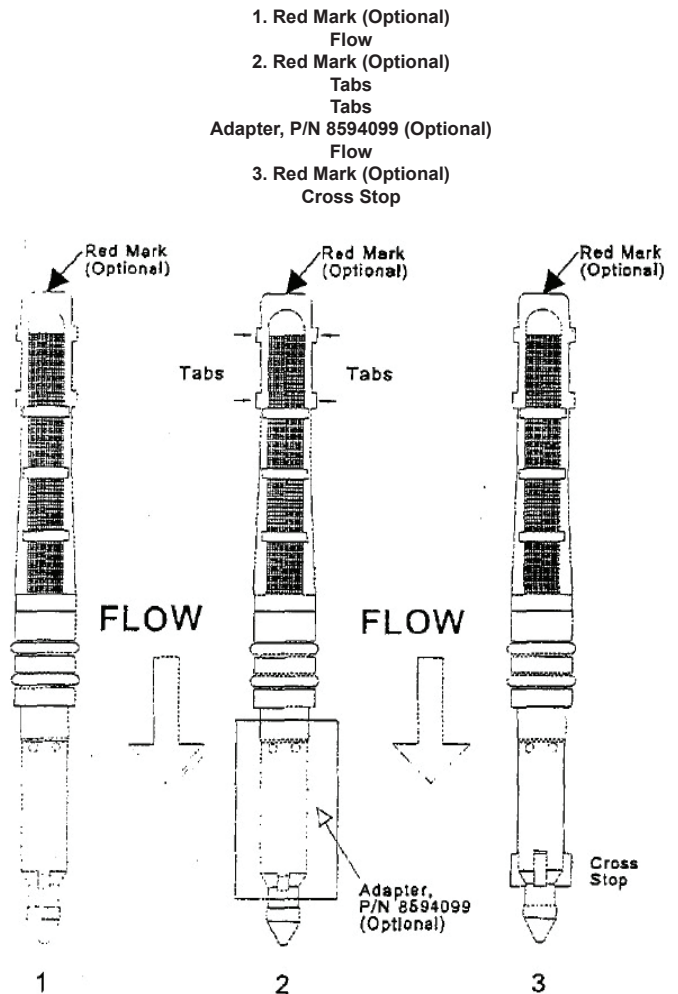
R12 to R134a Conversions and Factory R12 and R134a Systems (For Use with R12 and R134a Refrigerants Only)

For a specific application information, contact your Smart VOV distributor.

**Note:** Both standard duty and severe duty Smart VOVs are available for all vehicles. The severe duty Smart VOV is recommended for areas where the temperature normally exceeds 105oF, e.g., Phoenix, Arizona, and is identified by a red mark on the white filter end (see illustration below).

### Installation:

1. Evacuate, remove the OEM orifice tube, clean the system and install a new accumulator.
2. The Smart VOV is supplied with four tabs on the white filter (see illustrations). Remove the Smart VOV filter tabs to match the filter tab configuration of the removed orifice tube. Also verify that the black tip configuration matches that of the removed orifice tube, this will be either a cross stop as shown in illustration 3, or a non-cross stop as shown in illustrations 1 and 2.
3. Lubricate O-Rings with system manufacturer recommended refrigerant oil.
4. Install the Small VOV in the high-pressure line with the black end pointed towards the evaporator, minimum pipe ID is a slip fit for a 21/64" drill bit, minimum straight length past the crimp is 1.5". Note: if it appears that the tube ID is too small for the VOV to insert easily, replace the VOV O-rings with factory GM O-rings, which have a slightly smaller OD
5. Add an additional 2 oz. of recommended refrigerant oil to the system.
6. Close the system, evacuate and vacuum check for system integrity.



**\*\*ALL AIR AND MOISTURE MUST BE REMOVED FROM THE SYSTEM\*\***

### Installation:

- **R12 to R134a conversions:** add R134a charge following the vacuum integrity check. (R134a charge = 90% of the manufacturer recommended R12 charge)
- **Unconverted Systems:** charge system as recommended by manufacturer following the vacuum integrity check.

- **1988 and newer Cadillacs and other vehicles equipped with a temperature-sensing cycling clutch switch:** install Adapter, as shown. Adapter length may be reduced to accommodate bend requirements, always maintain at least 0.25 inches between the external thermistor and the pointed end of the VOV. ***False tripping of the “loss of refrigerant charge switch” will occur without the Adapter.***
- **These instructions must accompany each part to assure correct installation.**

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