



TOYOTA TECHNICAL SERVICE BULLETIN

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ALTERNATE REFRIGERANTS AND A/C RETROFIT

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The E.P.A. has officially banned the manufacture of Refrigerant 12 (Freon) after January 1, 1996. As a result, surplus supplies of R-12 will begin to dwindle over the next several years until, eventually, R-12 will no longer be available.

This uncertainty about the availability of R-12 has caused significant concerns for Toyota dealers when servicing HVAC systems not using R-134a refrigerant. Similarly, the reduced availability of R-12 has prompted demands for R-134a retrofit kits and/or alternate refrigerants. This TSB will clarify Toyota's current recommendations for servicing and retrofitting HVAC systems on Toyota vehicles using R-12 refrigerant.

ALTERNATE REFRIGERANTS:

Previously, the E.P.A. has endorsed other alternative refrigerants. These endorsements, combined with the uncertain future availability of R-12, have led to a limited acceptance of using alternative refrigerants when servicing or retrofitting R-12 HVAC systems. Use of these refrigerants can lead to several service related problems, including:

- Poor system performance and leak detection capabilities.
- Contamination of R-12 and R-134a during refrigerant recovery and recycling.

Recently the E.P.A. released a statement clarifying that approval of alternative refrigerants relates only to the toxicology, flammability, ozone depletion and global warming characteristics. The approval **does not imply acceptability of alternative refrigerants** use with respect to serviceability or performance.

TOYOTA MOTOR SALES, U.S.A. ENDORSES THE USE OF R-134A AS THE ONLY ACCEPTABLE ALTERNATIVE REFRIGERANT FOR VEHICLES USING R-12.

R-12 AVAILABILITY:

It is estimated that existing R-12 supplies will meet market demand in 1996. Beyond that, Toyota will supply R-12 to its dealers from a strategic reserve. These strategic reserves are allocated specifically for distribution to Toyota dealers for repair of their customers' R-12 HVAC systems. TMS projects these reserves may meet dealer demand through early 1998. After that, we believe R-12 will no longer be readily available and dealers will begin to retrofit customer vehicles with R-134a.

RETROFIT ISSUES:

Toyota has completed development of retrofit parts for all later model Toyota vehicles using R-12 refrigerant. These parts will be produced in harmony with market demand, based on R-12 availability.

The parts necessary for a typical retrofit will generally include:

- Receiver Dryer
- O-Rings
- Fittings
- Labels
- Oil

A TSB outlining retrofit procedures will be released when the retrofit kits become available.

For additional information, contact the Toyota Environmental Assistance Network Hotline at 1-800-542-3914.

