

DuPont™ ISCEON® 9 Series

REFRIGERANTS

Product Information

DuPont™ ISCEON® MO49 Conversion Guidelines – Automobile Air-Conditioning Systems

- Before conversion, it is important to ensure the system is in good working order and leak free. Pay special attention to the compressor shaft seal when performing all leak checks. If possible, check typical evaporator and condensing pressures of the system.
- Recover the R-12 to a dedicated recovery cylinder. Do not vent and do not mix different types of refrigerant.
- Check the condition of the lubricant, e.g. water, acid, solids; and, if necessary, renew the contaminated oil with the same type of lubricant and dispose of the old oil responsibly. ISCEON® MO49 is compatible with mineral oil (MO), polyol ester (POE) and polyalkylene glycol (PAG) lubricants.
 - If required for proper oil return to the compressor, a small amount of approved PAG, of similar viscosity to the MO in the system should be added.
- It is considered good practice to change the filter dryer whenever the system is exposed to atmospheric air.
- Removal of R-12 from the system can result in the loss of some oil. If the oil level can be checked, add the quantity lost. Recheck after a period of running. If the oil level cannot be checked, it is advisable to add 5 to 10% of the oil charge to the system.
- Check the condition of hoses and replace if necessary. It is not necessary to use any different materials when converting to ISCEON® MO49.
- Install the new service fitting for ISCEON® MO49. See attached instructions.
- Pressure test the system with dry nitrogen at 25 bar and then evacuate to at least 500 mbar (if an oil change is performed, evacuate to at least 50 mbar).
- Charge the system with the new refrigerant—remove from the cylinder in the liquid phase. Do not charge liquid refrigerant directly into the compressor. The total charge of ISCEON® MO49 will be approximately 10% less than R-12. **Note:** It is not unusual for an occasional bubble to be seen in the liquid line sight glass. A small number of bubbles in the sight glass is not a reliable indication of an under charged system.
- Run the system and check the operating conditions. The pressure of ISCEON® MO49 is slightly higher than with R-12. **Note:** the pressure-temperature relationship of ISCEON® MO49 is different than that of R-12. Therefore, it is necessary to have the ISCEON® MO49 pressure table available.



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- Check and adjust any pressure switches that might be in the system.
- Carry out a thorough leak check paying special attention to the compressor shaft seal. Any electronic detection system suitable for detecting HFC refrigerants (e.g., R-134a) is suitable for detecting ISCEON® MO49.
- Clearly label the system as containing ISCEON® MO49 and type of lubricant.
- In the event of a leak from the system, it is possible to top-up the system with virgin product without detriment to performance.
- It is possible to recycle ISCEON® 49, but care must be taken to ensure the whole of the refrigerant charge is removed from the system. It is equally important to ensure that when recovered product is once again charged to a system the refrigerant is taken from the liquid phase.

Service Fitting – Installation Instructions

1. Screw the service adapter onto the existing R-12 service hose fitting. Ensure it is tight and sealed correctly.
2. Hand-screw the aluminum service fitting into the steel fitting tool.
3. Screw on the fitting over the existing ¼" charging port using the fitting tool – hand tighten only.
4. Unscrew the fitting tool and the aluminum service adapter will remain on the charging port.
5. The unit is now ready for servicing with ISCEON® MO49.

For Further Information: (800) 235-7882

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