

## **RECOMMENDED PROCEDURES FOR CHARGING AIR CONDITIONING & REFRIGERATION SYSTEMS WITH HR12 REFRIGERANT.**

If the system is charged with HFC 134a or CFC R12, recover into a suitable container for storage or disposal.

Check the system thoroughly for leaks or faulty components; replace or repair as required. Determine that the compressor has the correct amount of lubricant as per manufacturers specifications.

NOTE: HR12 is completely compatible with the synthetic oils found in R134a systems and the mineral oils used in CFC R12 systems. No flushing or oil changes are required except for systems showing signs of contamination or if the receiver drier appears aged and contaminated. Fit new receiver driers.

Evacuation of the system is required, to normal industry standards; around 30 minutes for car air conditioners is satisfactory.

Although systems may be recharged using R12 equipment, digital scales are highly recommended to prevent wastage of time and refrigerant. Use only one third of the recommended fluorocarbon charge, (R12 or R134a) by weight. A chart listing HR12 charge weights for R12 and R134a systems for most makes and models is available from HYCHILL REFRIGERANTS, Ph: +61 3 97618788. Whilst overcharging may not cause damage to components, it wastes refrigerant and more importantly, your time. It will also cause a drop in efficiency.

After verifying that the pressures and temperatures are correct, close the cylinder valve, turn off the system, open both gauges and allow time for high and low pressures to equalise. Disconnect the high side hose first, run the system to extract oil and refrigerant from the hose and manifold set into the system, then disconnect the low pressure hose. Check the schrader valve cover nut, to see if the seal is good and refit. Check the system again for signs of leakage and check the system performance with a reliable thermometer in the dash outlet. You should also check the heater controls, the heater must turn off completely. On some vehicles, such as VL Commodore, Camira, BMW and some Mercedes Benz models, the condenser fan engages via a high pressure switch. On these vehicles, a relay should be fitted to bring the condenser fan in with the compressor clutch. If you are uncertain of this procedure consult your auto electrician.

Fix the refrigerant identification and system service label in a prominent position under the bonnet.

HR12 is a flammable gas and it should be leak tested with a suitable leak detector. Ultra Violet equipment is recommended, these kits are available from your parts supplier at prices similar to a good electronic R12 leak detector. The additives used with UV detectors are dedicated to different oils and care should be taken to comply with instructions. Halogen detectors as used with R12 and R134a are not effective. An LPG leak detector is satisfactory, as is the soapy water technique. No naked flame should be present when discharging HR12 refrigerant.

**DO NOT TOP UP ANY SYSTEM PREVIOUSLY CHARGED WITH ANY OTHER TYPE OF REFRIGERANT, INCLUDING SYSTEMS PREVIOUSLY CHARGED WITH HR12.**

On completion of the charging process, bubbles or foam may be present in the sight glass. This is normal with both HR12 and R134a refrigerants. Charge to one third of the fluorocarbon charge weight. From a dial-a-charge unit deduct only 15% of the volume recommended for fluorocarbon systems. If no charge weight or volume is known, charge to 30 lbs/sq" suction back pressure with car air conditioners, or 7 lbs/sq" suction back pressure on refrigerators.