

FREEZE 12[®] TROUBLESHOOTING GUIDE

AREAS TO CHECK

COMMENTS

VEHICLE MFG.	
YEAR MODEL	
METERING DEVICE TYPE	ORIFICE TUBE, TXV (THERMOSTATIC EXPANSION VALVE), EXPANSION BLOCK, VIR (VALVES IN RECEIVER)
IF TXV, IS SENSING BULB INSULATED?	SOME TXV SENSING BULBS ARE INSULATED, SOME ARE NOT. IF ORIGINAL BULB WAS INSULATED FROM FACTORY, IT MUST BE REINSULATED WHEN REPLACED OR CONVERTED TO FREEZE 12.
IS CONVERSION DUE TO COMPRESSOR REPLACEMENT?	IF COMPRESSOR IS REPLACED DUE TO MECHANICAL FAILURE, SYSTEM MUST BE FLUSHED, EXPANSION DEVICE AND A/D OR F/D REPLACED.
METERING DEVICE REPLACED OR CLEANED?	RECOMMEND INSPECTION BEFORE CONVERSION AND REPLACEMENT IN THE EVENT OF COMPRESSOR FAILURE. ON SUBURBANS W/DUAL AIR, REPLACE WHITE .071 ORIFICE TUBE WITH FORD BLUE .067 AND ADJUST REAR TXV CLOCKWISE ¾ OF A ROUND.
SYSTEM FLUSHED?	RECOMMEND BEFORE CONVERSION IN THE EVENT OF COMPRESSOR FAILURE OR IF OVERCHARGE OF OIL IN A/C SYSTEM IS SUSPECTED.
AMBIENT TEMPERATURE	OUTSIDE TEMPERATURE ONE TO TWO FEET IN FRONT OF CONDENSER
SUCTION PRESSURE	WITH ENGINE @ 1500 RPM, SUCTION WILL BE SLIGHTLY LOWER THAN WHAT IT WAS WITH R-12.
DISCHARGE PRESSURE	WITH ENGINE @ 1500 RPM, DISCHARGE WILL BE APPROXIMATELY THE SAME OR LOWER THAN WHAT IT WAS WITH R-12.
DUCT TEMPERATURE	WITH ENGINE @ 1500 RPM, DUCT TEMPERATURES SHOULD BE APPROXIMATELY WITHIN THREE TO FOUR DEGREES OF WHAT IT WAS WITH R-12.
ENGINE RPM	WHEN DIAGNOSING, ADJUST TO 1500 RPM.
INSTALLED NEW ACCUMULATOR/DRIER OR FILTER/DRIER?	RECOMMEND DURING CONVERSION IN THE EVENT OF COMPRESSOR FAILURE OR IF SYSTEM HAS BEEN EXPOSED TO ATMOSPHERE FOR EXTENDED PERIOD OF TIME OR IF EXISTING DRIER IS OVER 12 MONTHS OLD.
TYPE OF LUBRICANT IN SYSTEM	ESTER LUBRICANT IS RECOMMENDED IF LUBRICANT IS TO BE ADDED.
TOTAL AMOUNT OF LUBRICANT IN SYSTEM	TOO MUCH OR TOO LITTLE LUBRICANT IN THE A/C SYSTEM MAY BE HARMFUL TO OVERALL OPERATION. REMEMBER, WHEN INSTALLING A NEW COMPRESSOR, A FULL LUBRICANT CHARGE IS TYPICALLY INCLUDED. WHEN LUBRICANT AMOUNT IS IN QUESTION, FLUSH ENTIRE SYSTEM AND INSTALL PROPER AMOUNT.
LUBRICANT INSTALLED DURING CONVERSION?	RECOMMEND ADDING THREE OZS. OF ESTER DURING CONVERSION TO OFFSET ANY LUBRICANT LOSS DURING RECOVERY OR OTHER COMPONENT REPLACEMENT. IF INSTALLING NEW COMPRESSOR CONTAINING ESTER LUBRICANT, OMIT THIS STEP.
CONDENSER CLEAN, FINS STRAIGHT, SIZED PROPERLY?	DEBRIS IN CONDENSER (BUGS, ROCKS, ETC.), OR BENT FINS RESTRICT AIR FLOW AND MAY RESULT IN HIGHER THAN NORMAL HIGH SIDE PRESSURES. IF AN AFTERMARKET CONDENSER IS INSTALLED IT MAY BE NECESSARY TO REPLACE WITH OEM TYPE TO RESTORE ORIGINAL PERFORMANCE.
CONDITION OF FAN SHROUD / CONDENSER SEALS?	DAMAGED OR MISSING FAN SHROUDS AND/OR CONDENSER SEALS MAY CONTRIBUTE TO HIGHER THAN NORMAL HIGH SIDE PRESSURES.
FAN CLUTCH OPERATING PROPERLY? (RWD ONLY)	IMPROPER FAN CLUTCH OPERATION MAY RESULT IN HIGHER THAN NORMAL HIGH SIDE PRESSURES. DOES NOT APPLY TO FWD VEHICLES.
ELECTRIC FAN(S) OPERATING PROPERLY?	IMPROPER ELECTRIC FAN OPERATION (MOTOR BURNOUT, FAN LOOSE, ETC.) MAY RESULT IN HIGHER THAN NORMAL HIGH SIDE PRESSURES.
ELECTRIC FAN(S) PRESSURE SWITCH OPERATING PROPERLY?	ELECTRIC FAN PRESSURE SWITCH FAILURE MAY DISABLE OR HINDER ELECTRIC FAN OPERATION AND RESULT IN HIGHER THAN NORMAL HIGH SIDE PRESSURES.
HEATER VALVE WORKING PROPERLY?	IF HEATER VALVE IS STUCK OPEN, THE AMOUNT OF HEAT RADIATED FROM HEATER CORE INTO PLENUM MAY RESULT IN HIGHER THAN NORMAL DUCT TEMPERATURES.
AIR MIXING DOORS IN CORRECT POSITION?	IF AIR MIXING DOORS ARE NOT IN PROPER POSITION, HIGHER THAN NORMAL DUCT TEMPERATURES MAY RESULT.
SYSTEM ADEQUATELY EVACUATED BEFORE CHARGING?	NON-CONDENSABLE GAS (AIR) OR THE NON-REMOVAL OF EXISTING R-12 MAY RESULT IN HIGHER THAN NORMAL HIGH SIDE PRESSURES.
FACTORY CHARGE OF R-12	IF FACTORY SERVICE LABEL IS NO LONGER ON VEHICLE, REFER TO OEM SERVICE MANUAL OR AFTERMARKET GUIDES FOR FACTORY CHARGE DATA.
AMOUNT OF FREEZE 12 CHARGED INTO SYSTEM	SUCCESSFUL CONVERSIONS HAVE BEEN PERFORMED WITH 80 TO 100% OF THE FACTORY R-12 CHARGE.