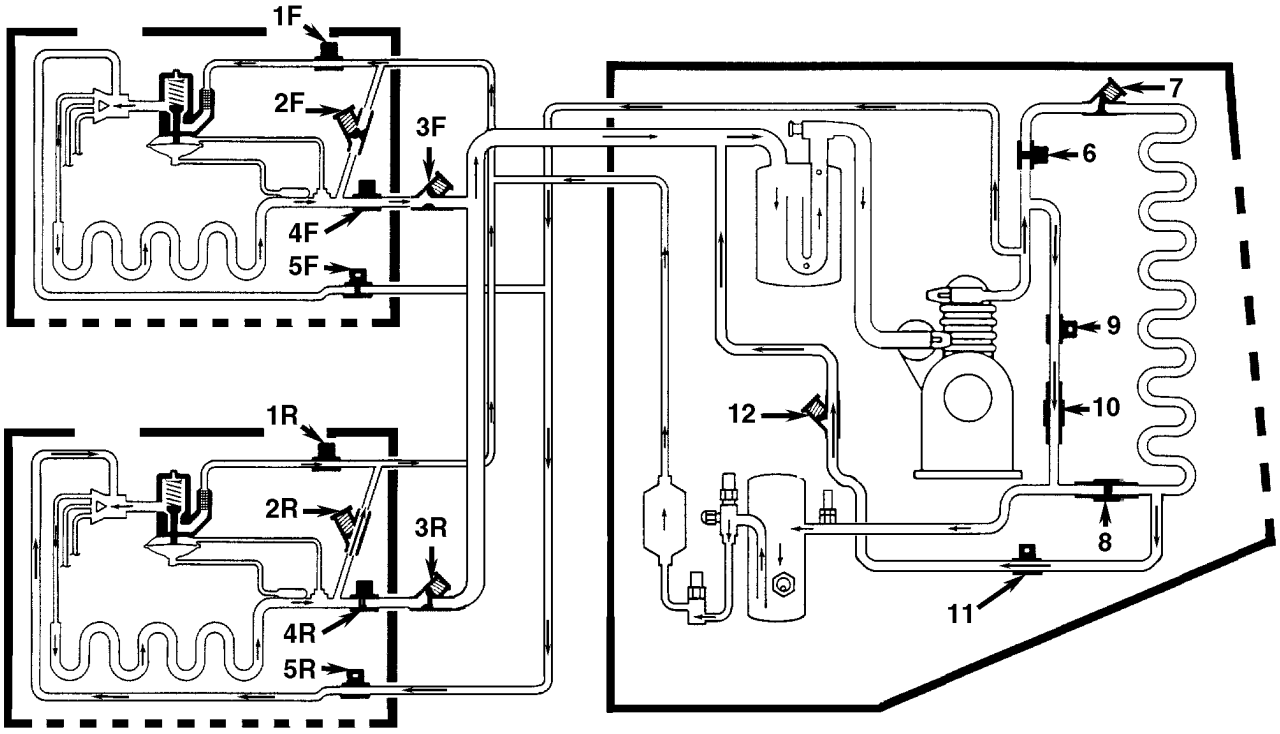

Ttcizch2

Typical Multi-temperature System—Front (Zone 1) Evaporator Cool and Rear (Zone 2) Evaporator Heat

Front (Zone 1) Evaporator

1F. Liquid Line Solenoid (LLS)—Open
2F. Liquid Return Check Valve (LRCV)—Closed
3F. Suction Line Check Valve (SLCV)—Open
4F. Suction Line Solenoid (SLS)—Open
5F. Hot Gas Solenoid (HGS)—Closed

Rear (Zone 2) Evaporator

1R. Rear Liquid Line Solenoid (RLLS)—Open
2R. Rear Liquid Return Check Valve (RLRCV)—Open
3R. Rear Suction Line Check Valve (RSLCV)—Closed
4R. Rear Suction Line Solenoid (RSLS)—Closed
5R. Rear Hot Gas Solenoid (RHGS)—Open

Host Unit

6. Condenser Inlet Solenoid (CIS)—Closed
7. Condenser Inlet Check Valve (CICV)—Closed
8. Condenser Check Valve (CCV)—Closed
9. Receiver Tank Pressure Solenoid (RTPS)—Open
10. Receiver Tank Pressure Check Valve (RTPCV)—Open
11. Purge Valve (PV)—Open for the first 60 seconds, then Closed
12. Purge Check Valve (PCV)—Open

Front (Zone 1) Evaporator Cool and Rear (Zone 2) Evaporator Heat

See the previous refrigeration system diagram. The condenser inlet solenoid is closed so high pressure refrigerant vapor leaves the compressor and flows through the rear (Zone 2) hot gas line and the open rear hot gas solenoid to the rear (Zone 2) evaporator. There the refrigerant heats the rear

(Zone 2) evaporator and condenses into high pressure liquid. Because the rear suction line solenoid is closed, the liquid refrigerant flows through the rear liquid return check valve and liquid line to the liquid line solenoid.

The liquid line solenoid is open so the refrigerant flows through the front expansion valve into the front (Zone 1) evaporator. There the liquid refrigerant cools the front (Zone 1) evaporator as it evaporates into low pressure vapor. The refrigerant returns to the compressor through the suction line check valve and the accumulator.

Mode of Operation Charts

Reading Mode of Operation Charts

The mode of operation charts use the status of the 1K and 2K relays (or the R1K and R2K relays) to show the thermostat demand: