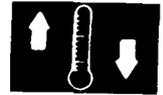


# Compressor



## Troubleshooting

TEST RESULTS	RELATED SYMPTOMS	PROBABLE CAUSE	REMEDY
Discharge (high) pressure abnormally high (Test on page 15-74)	After stopping compressor, pressure drops to about 196 kPa (28 psi) quickly, and then falls gradually	Air in system	Evacuate system; then recharge Evacuation: page 15-87 Recharging: page 15-88
	No bubbles in sight glass when condenser is cooled by water	Excessive refrigerant in system	Discharge refrigerant as required
	Reduced or no air flow through condenser.	<ul style="list-style-type: none"> <li>· Clogged condenser or radiator fins</li> <li>· Condenser or radiator fan not working properly.</li> </ul>	<ul style="list-style-type: none"> <li>· Clean</li> <li>· Check voltage and fan rpm</li> </ul>
	Line to condenser is excessively hot	Restricted flow of refrigerant in system	Expansion valve
Discharge pressure abnormally low (Test on page 15-74)	Excessive bubbles in sight glass; condenser is not hot	Insufficient refrigerant	<ul style="list-style-type: none"> <li>· Charge system</li> <li>· Check for leak</li> </ul>
	High and low pressures are balanced soon after stopping compressor	<ul style="list-style-type: none"> <li>· Faulty compressor discharge or inlet valve</li> <li>· Faulty compressor seal</li> </ul>	Replace compressor Repair
	Outlet of expansion valve is not frosted, low pressure gauge indicates vacuum	<ul style="list-style-type: none"> <li>· Faulty expansion valve</li> </ul>	Repair or replace
Suction (low) pressure abnormally low (Test on page 15-74)	Excessive bubbles in sight glass; condenser is not hot	Insufficient refrigerant	Check for leaks. Charge as required. Replace expansion valve
	Expansion valve is not frosted and low pressure line is not cold. Low pressure gauge indicates vacuum.	<ul style="list-style-type: none"> <li>· Frozen expansion valve</li> <li>· Faulty expansion valve</li> </ul>	
	Discharge temperature is low and the air flow from vents is restricted	Frozen evaporator	Run the fan with compressor off then check the thermostat and capillary tube.
	Expansion valve frosted	Clogged expansion valve	Clean or replace
	Receiver dryer is cool (should be warm during operation)	Clogged receiver drier	Replace
Suction pressure abnormally high (Test on page 15-74)	Low pressure hose and check joint are cooler than around evaporator	<ul style="list-style-type: none"> <li>· Expansion valve open too long</li> <li>· Loose expansion valve</li> </ul>	Repair or replace
	Suction pressure is lowered when condenser is cooled by water	Excessive refrigerant in system	Discharge refrigerant as necessary
	High and low pressures are balanced too equalized as soon as the compressor is stopped	<ul style="list-style-type: none"> <li>· Faulty gasket</li> <li>· Faulty high pressure valve</li> <li>· Foreign particle stuck in high pressure valve</li> </ul>	Replace compressor
Suction and discharge pressures abnormally high (Test on page 15-74)	Reduced air flow through condenser	<ul style="list-style-type: none"> <li>· Clogged condenser or radiator fins</li> <li>· Condenser or radiator fan not working properly</li> </ul>	<ul style="list-style-type: none"> <li>· Clean condenser and radiator</li> <li>· Check voltage and fan rpm</li> </ul>
	No bubbles in sight glass when condenser is cooled by water	Excessive refrigerant in system	Discharge refrigerant as necessary.
Suction and discharge pressures abnormally low (Test on page 15-74)	Low pressure hose and metal end areas are cooler than evaporator	Clogged or kinked low pressure hose parts	Repair or replace
	Temperature around expansion valve is too low compared with that around receiver-dryer.	Clogged high pressure line	Repair or replace
Refrigerant leaks (Test on page 15-74)	Compressor clutch is dirty	Compressor shaft seal leaking	Replace compressor shaft seal
	Compressor bolt(s) are dirty	Leaking around bolt(s)	Replace compressor
	Compressor gasket is wet with oil	Gasket leaking	Replace compressor