

TROUBLESHOOTING ON WALK-IN-COOLER FREEZERS

Possible faults, observations and repair actions for cold rooms

Observations	Fault	Actions/suggestions
<ol style="list-style-type: none"> 1. WIC temperature high 2. Low suction pressure (good 20 unit) 3. Service valve leaks (Conduct soap test) 4. Evaporator pipe leaking 5. No liquid/bubbles in sight glass 6. Compressor stops/trips on HP/LP 7. Leakage in flare nut connection to HP/LP-1 8. Leakage in capillary tube 9. Leakage in from non-return valve on charging tube 	Gas leakage	Repair all leakage, conduct leakage test and recharge gas up to 20 psi suction pressure
<ol style="list-style-type: none"> 1. Excess noise while running 2. High ampere consumption (Max.20 amps) 3. Compressor too hot 4. Compressor not running/trips 	<ol style="list-style-type: none"> 1. Compressor defective 2. C-1 contactor defective 3. Starting relay/capacitor defective 	<ol style="list-style-type: none"> 1. Replace compressor and recharge the gas 2. Replace contactor 3. Replace relay/capacitor
<ol style="list-style-type: none"> 1. Unit trips-off often on HP 2. Running slow and sometime stops 	Condenser fan motor burnt/jammed	Repair the shaft and bush/lubricate the condenser motor fan or replace it
<ol style="list-style-type: none"> 1. Evaporator hot 2. More frost on evaporator 	Evaporator fan motor bunt/jammed	Repair/replace fan motor
1. WIC temperature falling down	1. faulty thermostat setting or Thermostat defected	Rest/Replace fan motor
Did not trip on low pressure (7psi)	HP/LP Pressostat defect	Check the setting. At 25 psi it should be cut off at just above 0 psi. Replace if

		required
Drier cold Suction line warm Current less (about 4 amps)	Drier chocked	Replace drier
Heavy Ice formation on evaporator	No auto defrosting	Check the heat limit and change the setting if required Defrost manually or by shorting the heat limit terminals in case of foster WIF Set or replace master log in case of Huurre WIF
Alarm on when WIC temperature OK, no effect of pressing reset button	Alarm circuit defective	1. Check T1 & its circuit and wiring
F-1 MCB trips when unit switched ON	Varistor R-7 defective/shorted	Replace
Temperature recorder not working	<ol style="list-style-type: none"> 1. Winding of transformer FB-1 burnt 2. Relay contact defective 3. 3. 3.4 volt cell low battery 4. Defect in circuit 	<ol style="list-style-type: none"> 1. Re-wound and refit 2. Replace contact relay or dry cell 4. Check circuit and repair
Alarm does not sound	A1 sounder defective or disconnected	Connect Replace sounder
Generator Engine difficult to start	<ol style="list-style-type: none"> 1. No fuel in tank 2. Loose/broken fuel pipe 3. Faulty fuel injector nozzle 	<ol style="list-style-type: none"> 1. Fill the tank 2. Tight or replace the fuel pipe 3. Grind and calibrate the injector or replace if required
Engine starts but fires intermittently or stops soon	Lack of fuel supply Water/dust in fuel Fuel filter chocked Faulty injector/fuel pump Low engine oil pressure	Tighten all fuel connections Drain the fuel tank and refill clean fuel Replace the filter Check and replace injector/Calibrate fuel pump
		Call service engineer
Engine lacks power with dirty exhaust:	Lack of fuel supply Chocked Exhaust Silencer	Fill the fuel tank Clean or replace if required clean silencer

Overheating	Over loading Failure of water supply Lubricating oil level low	Avoid over loading Check the system Check oil level and top up if necessary
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Source of information

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10. Service Manual of Kirloskar Green Gen Set 2006
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