Trouble Shooting

NOTE: Should the OAM Purger shut down on a FAULT condition, DO NOT POWER OFF THE PURGER until you have first removed the electrical panel cover and recorded the status of the indicator LED's D1 through D5 located on the Logic Board. Knowing the particular LED(s) that are lighted will help you diagnose the cause of the problem. Once the unit is powered off, this information will be lost. Retain the record of the LED readings. Examine the purger for any apparent problems, check the troubleshooting section for possible causes of the fault. Check to see if all appropriate Dip Switches on SW1 & SW2 are off (see pages 23, 33 and 40), then if there is no readily apparent problem, you should *reset one time (and only one time)* to see if the fault repeats.

Trouble-shooting Chart

Symptom	Possible Cause	Solution
Power switch ON but switch Light is Off.	Main power to unit Off. Switch light defective.	Restore main power. Replace Switch.
Power switch ON and lighted but Logic Board LED's are all OFF.	Logic Board fuse blown. Logic Board defective.	Replace fuse. Replace Logic Board.
Red Fault LED **D6** ON and flashing with Green LED **D1** ON solid.	Indicates distillation temperature did not drop below 145 degrees F during the first 14 minutes of the fill phase.	Distillation heater stuck on. RLY-1 contacts stuck. Replace Logic Board. Temperature Sensor TS-1 defective. Replace sensor. Chiller's charging valve closed. Open valve. Oil Return Solenoid Valve SOL-2 defective and the purger has become oil logged. (See clearing oil logging procedure page 39.) Replace solenoid coil or valve. Or, RLY-4 relay defective. Replace Logic Board. Chiller's oil sump charging valve closed causing purger to become oil logged. Open Valve and see page 39 for clearing Oil logging.

Trouble-shooting Chart (continued)

Symptom	Possible Cause	Solution
Red Fault LED **D6** flashing with Green LED **D2** ON solid.	Indicates distillation temperature failed to reach 145 Degrees F within 4 hours after entering Primary Distillation Phase.	Distillation heater defective. Replace heater (see Maintenance Using Switch SW2 dip switch 4 as a diagnostic aid See page 40). Heater relay RLY-1 on Logic Board defective. Replace Logic Board. Temperature Sensor TS-1 defective. Replace Sensor.
Red Fault LED **D6** flashing with Green LED **D3** ON solid.	Indicates the purger Logic Board **did not see any activations** of Equalization Solenoid Valve SOL-1 during distillation phases. Dip Switches on Switches SW1 or SW2 may be set improperly. (See page 23, 33 and 40 for SW1 and SW2 information.) Refer to "Distillation Tank will not fill" Symptom below in troubleshooting section. Purger may be mounted to high. Fill Check Valve CK-2 stuck in open position. Refrigerant Charge low.	Distillation heater may be defective. (See Heater section under Symptoms below.) Oil Return Solenoid Valve Sol-2 failed open or closed. Replace valve. Or, relay RLY-4 contacts failed open or closed. Replace Logic Board. Pressure Equalization Solenoid Valve SOL-1 failed open or closed. Replace Valve. Or relay RLY-3 failed open or closed. Replace Logic Board. Differential Pressure Switch DPS-1 defective. Replace Switch. See Mounting Section Page 13, 14. Replace Check Valve CK-2. Correct Refrigerant Charge.
Red Fault LED **D6** flashing with Green LED **D4** ON solid.	Indicates the Logic Board **did not see at least 2 activations** of Equalization Solenoid Valve SOL-1 during the distillation Phases. Dip Switches on Switches SW1 or SW2 may be set improperly. (See page 23, 33 and 40 for SW1 and SW2 information.) Refer to "Distillation Tank will not fill" Symptom below in troubleshooting section. Purger may be mounted to high. Fill Check Valve CK-2 stuck in open position. Refrigerant Charge low.	Distillation Heater may be defective. (See Heater section under Symptoms.) Oil Return Solenoid Valve SOL-2 failed open. Replace Valve. Or, relay RLY-4 Contacts stuck. Replace Logic Board. Pressure Equalization Solenoid Valve SOL-1 failed open or closed. Replace Valve. Or RLY-3 contacts failed open or closed. Replace Logic Board. Differential Pressure Switch defective. Replace switch. See Mounting Section Page 13, 14. Replace Check Valve CK-2. Correct Refrigerant Charge.

Trouble-shooting Chart (continued)

Symptom	Possible Cause	Solution
Distillation Heater doesn't get hot.	Defective Heater.	Replace heater (See Maintenance Section on Using Switch SW2 DIP switch 4 as a diagnostic aid.)
	RLY-1 relay defective.	Replace Logic Board.
	Disconnected lead.	Reconnect lead.
	Defective Temperature Sensor TS-1. Contacts stuck closed.	Replace Sensor.
	Defective Logic Board.	Replace Logic Board.
Equalization Solenoid Valve SOL-1 fails to open or close.	Solenoid coil defective.	Replace coil.
	SOL-1 Solenoid Valve defective.	Replace valve.
	RLY-3 relay defective.	Replace Logic Board.
	Disconnected lead.	Reconnect lead.
	Differential Pressure Switch DPS-1 defective.	Replace switch.
Oil Return Solenoid Valve SOL-2 fails to open or close.	Solenoid coil defective.	Replace coil.
	SOL-2 Solenoid Valve defective.	Replace valve.
	RLY-4 relay defective.	Replace Logic Board.
	Disconnected lead.	Reconnect lead.
Distillation Tank will not fill.	Chiller's refrigerant charging valve closed.	Open Valve.
	Vapor return line isolation valve closed.	Open Valve.
	Distillation Heater stuck ON during Fill Phase.	Defective TS-1, Replace. Or RLY-1 contacts stuck. Replace Logic Board.
	Distillation Tank oil logged.	(See "Maintenance" section for procedure to clear oil logged distillation tank.
	Fill line kinked or obstructed.	Correct as needed.
	Fill line strainer clogged.	Replace Fill line Strainer.
	Fill Check valve CK-2 fails to open.	Replace Check Valve CK-2.
	Equalization Solenoid Sol-1 failed to energize.	Replace Equalization Solenoid Sol-1.
	Purger may be mounted to high.	See Mounting Section Page 13, 14.
	Fill line and connecting piping up to evaporator shell may not be insulated causing vapor lock.	Insulate, (see page 17 for warning information on insulating.)
	Refrigerant Charge low.	Correct Refrigerant Charge.

Trouble-shooting Chart (continued)

Symptom	Possible Cause	Solution
Oil will not transfer from Distillation Tank to oil sump.	Oil Return Solenoid Valve SOL-2 Solenoid coil defective.	Replace coil.
	SOL-2 Solenoid Valve defective.	Replace valve.
	Oil Sump valve closed.	Open Valve.
	Oil return line kinked or blocked.	Correct as necessary.
	Oil Filter blocked.	Replace oil filter.
	RLY-4 relay defective.	Replace Logic Board.
	NO PRESSURE IN DISTILLATION TANK TO PUSH OIL to oil sump:	
	Equalization Solenoid Valve SOL-1 stuck open or leaking past valve seat..	Replace valve.
	RLY-3 relay contacts welded closed.	Replace Logic Board.
	Differential Pressure Switch DPS-1 defective.	Replace DPS-1.
	Fill Check Valve CK-2 stuck open.	Replace Fill Check Valve CK-2.

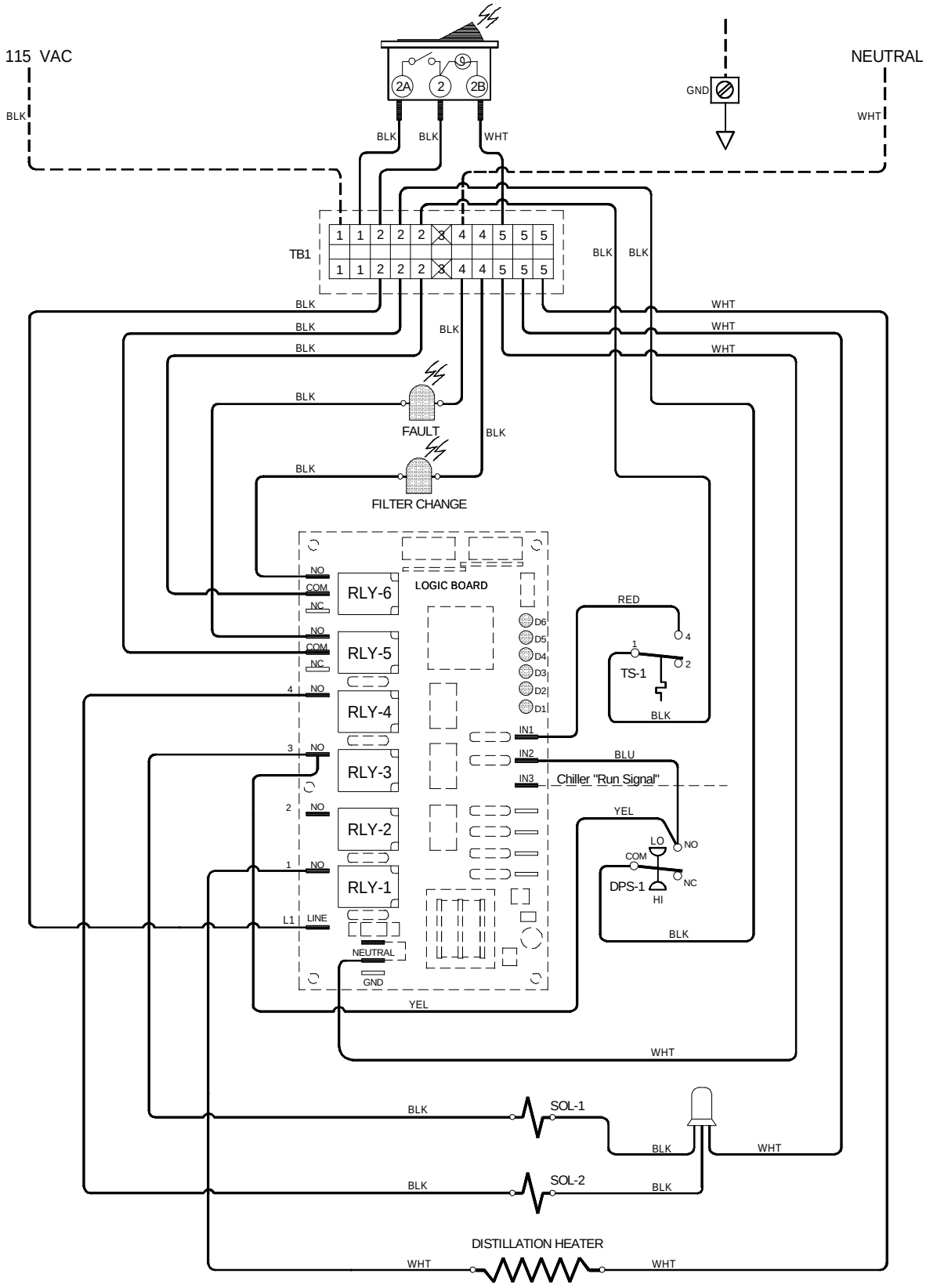

Figure 9. - ***Electrical wiring diagram***