DIAGNOSTIC CHECK LIST

CHILLER MODEL #: _____

CHILLER SERIAL #: _____

CUSTOMER : _____

START-UP DATE : _____

COMPRESSOR ELECTRICAL DIAGNOSTIC

3 Phase Power	DATA	3 Phase Power	DATA	Single Phase Power	DATA	Single Phase Power	DATA
Primary Contactor Voltage		**Compressor Amperage**		**Primary Contactor Voltage**		**Compressor Winding Resistance**	
L1-L2		L1-L2		L1-L2		C-S	
L2-L3		L2-L3		L1-Ground		C-R	
L1-L3		L1-L3		L2-Ground		R-S	
Contactor Coil Voltage		**Compressor Winding Resistance**		**Contactor Coil Voltage**		**Capacitor Testing**	
Secondary Contactor Voltage		L1-Ground		**Secondary Contactor Voltage**		***Start Capacitor***	
L1-L2		L2-Ground		L1-L2		MFD Range	
L2-L3		L3-Ground		L1-Ground		Tested Value	
L1-L3		L1-L2		L2-Ground		***Run Capacitor***	
Compressor Terminal Voltage		L2-L3		**Compressor Terminal Voltage**		MFD Range	
L1-L2		L1-L3		C-S(on startup)		Tested Value	
L2-L3		If compressor recently replaced was the contactor also changed?	Y N	C-R(after potential relay switches)		Compressor recently replaced were all start components also replaced?	Y N
L1-L3							

COMPRESSOR OPERATION DIAGNOSTIC

Does the compressor start?	Y N	With 45°F Fluid in System, what is the compressor suction pressure?	
At what suction pressure does it start?		What is the compressor suction line temperature?	
At what suction pressure does it stop?		What is the compressor suction superheat?	
What is compressor C.I. Setting on Pressure Control?		Is the compressor oil sight glass 1/4 to 1/2 Full?	Y N
What is compressor C.O. Setting on Pressure Control?		Is the compressor oil clear while running?	Y N
What is the Head Pressure?		Is the crankcase heater warm when compressor is off?	Y N

LIQUID LINE CONTROL DIAGNOSTICS

Step 1	Increase system setpoint so that compressor starts.	
Step 2	Hold the rest button on LP Freeze, suction psi drops?	Y N
Step 3	Let go of LP Freeze reset button, suction pressure rises?	
Step 4	Manually close the liquid line valve or receiver oultet.	
Step 5	Did compressor pump down and shut off?	Y N
Step 6	After shutting off, did the suction psi maintain?	Y N

CHILLER OPERATING DATA & QUESTIONS

Glycol Solution Temperature (Thermostat Display Temp.)		Pump Rotations are CW when viewed from motor end?	Y N
Suction Pressure (PSI)		Circulation Pump Amps	
Suction Line Temperature at Compressor		Process Pump Amps	
Liquid Line Pressure (PSI)		Glycol Concentration in Reservoir?	
Glycol Temp at Evaporator In		Glycol level in reservoir is at least 80% Full?	Y N
Glycol Temp at Evaporator Out		4' Clearance on all sides of system?	Y N
Water or Ambient Air Temperature Inlet to Condenser			
Water or Ambient Air Temperature Outlet to Condenser			
Complete Chiller System Amp Draw			

MECHANIC NOTES:

FAX: 253-735-2631

FAX OR EMAIL COMPLETED DOCUMENT TO PRO REFRIGERATION, INC TECHNICAL SUPPORT

Email: techsupportmajor@prorefrigeration.com