QuietQube® Ice Machines Refrigeration Diagnostic Chart
Dual Expansion Valve

Operational Analysis	1	2	3	4
Ice Production	Published 24 hour ice production_____ Calculated (actual) ice production_____ NOTE: The ice machine is operating properly if the ice fill patterns is normal and ice production is within 10% of charted capacity.			
Installation and Water System	All installation and water related problems must be corrected before proceeding with chart.			
Ice Formation Pattern **Left side** _____ **Right side** _____	Ice formation is thin on top of one evaporator -or- No ice formation on bottom half of one evaporator	Normal -or- Ice formation is extremely thin on top of one or both evaporators -or- No ice formation on one or both evaporators	Ice formation normal on both evaporators -or- Ice formation is extremely thin on bottom of one evaporator -or- No ice formation on one evaporator	Ice formation normal -or- No ice formation on both evaporators
Safety limits Refer to "Analyzing Safety Limits" to eliminate all non-refrigeration problems.	Stops on safety limit: 1 or 2	Stops on safety limit: 1 or 2	Stops on safety limit: 1 or 2	Stops on safety limit: 1
Freeze Cycle Discharge Pressure _____ _____ _____ 1 minute into cycle Middle End	If discharge pressure is high or Low refer to freeze cycle high or low discharge pressure problem checklist to eliminate problems and/or components not listed on this table before proceeding.			
Freeze Cycle Suction Pressure _____ _____ _____ 1 minute into cycle Middle End	If suction pressure is High or Low refer to freeze cycle high or low suction pressure problem checklist to eliminate problems and/or components not listed on this table before proceeding.			
	Suction pressure is High	Suction pressure is Low	Suction pressure is High	Suction pressure is High
Cool Vapor Valve	Audible refrigerant flow through left or right valve in freeze cycle	No audible refrigerant flow through left or right valve in freeze cycle	No audible refrigerant flow through left or right valve in freeze cycle	No audible refrigerant flow through left or right valve in freeze cycle
Suction Line Temperature Attach a temperature probe on the suction line within 6" of the shut-off valve outlet. Record the low event at the end of the freeze cycle.	Suction line temperature at the suction shut-off valve is **greater than 10°F** at the end of the freeze cycle	Suction line temperature at the suction shut-off valve is **greater than 10°F** at the end of the freeze cycle	Suction line temperature at the suction shut-off valve is **less than 10°F** at the end of the freeze cycle	Suction line temperature at the suction shut-off valve is **greater than 10°F** at the end of the freeze cycle
Final Analysis Enter total number of boxes checked in each column.	Cool Vapor Valve Leaking	Low on Charge -or- TXV Starving	TXV Flooding	Compressor