QuietQube® Ice Machines Refrigeration Diagnostic Chart
Single 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 pattern 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	Ice formation is extremely thin on outlet of evaporator -or- No ice formation on the top of the evaporator.	Ice formation is extremely thin on outlet of evaporator -or- No ice formation on entire evaporator	Ice formation normal -or- Ice formation is extremely thin on inlet of evaporator -or- No ice formation on entire evaporator	Ice formation normal -or- No ice formation on entire evaporator
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 Middle End into cycle	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 Middle End into cycle	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 or Normal**	Suction pressure is **Normal or High**	Suction pressure is **High**
Harvest Valve	Audible refrigerant flow through valve in freeze cycle	No audible refrigerant flow through valve in freeze cycle	No audible refrigerant flow through valve in freeze cycle	No audible refrigerant flow through 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 (-12.2°C)** at the end of the freeze cycle	Suction line temperature at the suction shut-off valve is **greater than 10°F (-12.2°C)** at the end of the freeze cycle	Suction line temperature at the suction shut-off valve is **less than 10°F (-12.2°C)** at the end of the freeze cycle	Suction line temperature at the suction shut-off valve is **greater than 10°F (-12.2°C)** at the end of the freeze cycle
Final Analysis Enter total number of boxes checked in each column.	Harvest Valve Leaking	Low on Charge -or- TXV Starving	Refrigerant Overcharge -or- TXV Flooding	Compressor