JOHNSON THERMAL SYSTEMS

Daily Preventative Maintenance Checklist

Model Number:	**Serial Number:**
Company Performing Service:	
Technician Service:	
Phone Number:	
Email Address:	

**** This Checklist is intended to be completed in accordance with the Preventative Maintenance Shedule in the Installation Operation and Maintenance (IoM) Manual****

	Daily Task List	Check
1	Are alarms present on unit controllers? **Circle: Yes No**	
2	List all alarms in Alarms Section Below	
3	Listen for abnormal vibrations rattles, or sounds	
4	Check hydronics system pressure guages for adequate supply pressure	
5	Visually inspect around chiller unit for signs of fluid or oil leakage	
6	List and explain discrepancies in the Comments Section below	

Alarm List: _____

Comments: _____

Completed By: _____ **Date:** _____

JOHNSON THERMAL SYSTEMS

Monthly Preventative Maintenance Checklist

Model Number:	**Serial Number:**
Company Performing Service:	
Technician Service:	
Phone Number:	
Email Address:	

**** This Checklist is intended to be completed in accordance with the Preventative Maintenance Shedule in the Installation Operation and Maintenance (IoM) Manual****

	Monthly Task List	Check
1	Are alarms present on unit controllers? **Circle: Yes No**	
2	List all alarms in Alarms Section Below	
3	Listen for abnormal vibrations rattles, or sounds	
4	Check hydronics system pressure guages for adequate supply pressure	
5	Visually inspect around chiller unit for signs of fluid or oil leakage	
7	Visually inspect condenser coils oil, or signs of refrigerant leakage	
8	Inspect refrigerant piping and components for oil or signs of leakage	
9	Check hydronic system piping for any signs of leaks	
10	Chek that the condenser fans are operating properly	
11	Throughly blow out condenser coils with compressed air	
12	On open type hydronic systems check for proper glycol/water levels	
13	On closed type hydronic systems check that the static hydronic pressure is above 12psig	
14	Verify the chiller is meeting temperature setpoint and maintaining thermal load	
15	List and explain discrepancies in the Comments Section below	

Alarm List: _____

Comments: _____

Completed By: _____ **Date:** _____

JOHNSON THERMAL SYSTEMS

Quarterly Preventative Maintenance Checklist

Model Number:	**Serial Number:**
Company Performing Service:	
Technician Service:	
Phone Number:	
Email Address:	

**** This Checklist is intended to be completed in accordance with the Preventative Maintenance Shedule in the Installation Operation and Maintenance (IoM) Manual****

Quarterly Task List		
Section 1 General		**Check**
1	Are alarms present on unit controllers? **Circle: Yes No**	
2	List all alarms in Alarms Section Below	
3	Inspect unit for loose or missing hardware (I.e, door hinges, screws, fasteners)	
4	Clean out control and high voltage panels	
5	Clean out all debris from in and around the chiller	
6	Note any discrepancies or observations in Comments Section below	
Section 2 Hydronics		**Check**
1	Check and record hydronic pressure, record on Data Sheet	
2	For open hydronic systems check tank level, record on Data Sheet	
3	For closed hydronic systems check static pressure, record on Data Sheet	
4	Inspect hydronic plumbing and components for leaks	
5	Pull and clean all wye strainers	
6	Check glycol/water mixture and record on Data Sheet	
7	Measure line voltages of all hydronic pumps, record on Data Sheet	
8	Measure amperage draw of all hydronic pumps, record on Data Sheet	
9	Top off hydronic system with proper water/glycol mix(As necessary)	
10	Note any discrepancies or observations in Comments Section below	
Section 3 Refrigeration		**Check**
1	Visually inspect refrigeration components for signs of oil, refrigerant leaks	
2	Check oil level in each compressor, and ensure oil is returning during operation	
3	Clean condenser coils with aluminum microchannel safe condenser cleaner	
4	Record suction and discharge pressures for each refrigeration circuit on Data Sheet	
5	Record EEV position for each refrigeration circuit under load on Data Sheet(As Appicable)	
6	Measure line voltage of each compressor, record on Data Sheet	
7	Measure amperage draw of each compressor, record on Data Sheet	
8	Check for proper function of each condenser fan	
9	Measure line voltage for each condenser fan, record on Data Sheet	
10	Measure Amperage draw of each condenser fan, record on Data Sheet	
11	Note any discrepancies or observations in Comments Section below	
Section 4 Final		**Check**
1	Close up, or reinstall all doors and access panels	
2	Verify chiller is meeting setpoint and maintaining thermal loads	
3	Note any discrepancies or observations in Comments Section below	

JOHNSON THERMAL SYSTEMS

Quarterly Maintenance Data Sheet

	Hydronic			
1	Operating Hydronic Pressure	Psig		
2	Open System Hydronic Tank Level	%		
3	Closed System Static Hydronic Pressure	Psig		
4	Water/Glycol Mixture Ratio	%		
5	Pump 1 Line Voltage	Vac	Vac	Vac
6	Pump 1 Amp Draw	Amps	Amps	Amps
7	Pump 2 Line Voltage	Vac	Vac	Vac
8	Pump 2 Amp Draw	Amps	Amps	Amps
9	Pump 3 Line Voltage	Vac	Vac	Vac
10	Pump 3 Amp Draw	Amps	Amps	Amps
11	Pump 4 Line Voltage	Vac	Vac	Vac
12	Pump 4 Amp Draw	Amps	Amps	Amps

	Refrigeration			
1	Circuit 1 Suction Pressure	Psig	Circuit 1 Discharge Pressure	Psig
2	Circuit 2 Suction Pressure	Psig	Circuit 2 Discharge Pressure	Psig
3	Circuit 3 Suction Pressure	Psig	Circuit 3 Discharge Pressure	Psig
4	Circuit 4 Suction Pressure	Psig	Circuit 4 Discharge Pressure	Psig
5	Circuit 1 EEV Position	%	Circuit 2 EEV Position	%
6	Circuit 3 EEV Position	%	Circuit 4 EEV Position	%
7	Compressor 1 Line Voltage	Vac	Vac	Vac
8	Compressor 1 Amp Draw	Amps	Amps	Amps
9	Compressor 2 Line Voltage	Vac	Vac	Vac
10	Compressor 2 Amp Draw	Amps	Amps	Amps
11	Compressor 3 Line Voltage	Vac	Vac	Vac
12	Compressor 3 Amp Draw	Amps	Amps	Amps
13	Compressor 4 Line Voltage	Vac	Vac	Vac
14	Compressor 4 Amp Draw	Amps	Amps	Amps
15	Condenser Fan 1 Line Voltage	Vac	Vac	Vac
16	Condenser Fan 1 Amp Draw	Amps	Amps	Amps
17	Condenser Fan 2 Line Voltage	Vac	Vac	Vac
18	Condenser Fan 2 Amp Draw	Amps	Amps	Amps
19	Condenser Fan 3 Line Voltage	Vac	Vac	Vac
20	Condenser Fan 3 Amp Draw	Amps	Amps	Amps
21	Condenser Fan 4 Line Voltage	Vac	Vac	Vac
22	Condenser Fan 4 Amp Draw	Amps	Amps	Amps

JOHNSON THERMAL SYSTEMS

Alarm List:

Comments:

Completed By: _____ **Date:** _____

Annual Preventative Maintenance Checklist

Model Number:	**Serial Number:**
Company Performing Service:	
Technician Service:	
Phone Number:	
Email Address:	

**** This Checklist is intended to be completed in accordance with the Preventative Maintenance Shedule in the Installation Operation and Maintenance (IoM) Manual****

Annual Task List		
Section 1 General		**Check**
1	Are alarms present on unit controllers? **Circle: Yes No**	
2	List all alarms in Alarms Section Below	
3	Inspect unit for loose or missing hardware (I.e, door hinges, screws, fasteners)	
4	Clean out control and high voltage panels	
5	Clean out all debris from in and around the chiller	
6	Note any discrepancies or observations in Comments Section below	
Section 2 Electrical		**Check**
1	Inspect unit wiring for break, loose connections, and frayed wires	
2	Inspect electrial contactors for signs of wear(I.e chattering/pitting or arcing)	
3	Re torque all high voltage connections to proper component torque	
4	Re torque all Low voltage connections to proper component torque	
Section 2 Hydronics		**Check**
1	Check and record hydronic pressure, record on Data Sheet	
2	For open hydronic systems check tank level, record on Data Sheet	
3	For closed hydronic systems check static pressure, record on Data Sheet	
4	Inspect hydronic plumbing and components for leaks	
5	Pull and clean all wye strainers	
6	Check glycol/water mixture and record on Data Sheet	
7	Measure line voltages of all hydronic pumps, record on Data Sheet	
8	Measure amperage draw of all hydronic pumps, record on Data Sheet	
9	Top off hydronic system with proper water/glycol mix(As necessary)	
10	Note any discrepancies or observations in Comments Section below	

JOHNSON THERMAL SYSTEMS

Section 3 Refrigeration		Check
1	Visually inspect refrigeration components for signs of oil, refrigerant leaks	
2	Check oil level in each compressor, and ensure oil is returning during operation	
3	Clean condenser coils with aluminum microchannel safe condenser cleaner	
4	Record suction and discharge pressures for each refrigeration circuit on Data Sheet	
5	Record EEV position for each refrigeration circuit under load on Data Sheet(As Appicable)	
6	Measure line voltage of each compressor, record on Data Sheet	
7	Measure amperage draw of each compressor, record on Data Sheet	
8	Check for proper function of each condenser fan	
9	Measure line voltage for each condenser fan, record on Data Sheet	
10	Analize oil from each compressor for acid. Using industry standard test proceedures	
11	Measure Amperage draw of each condenser fan, record on Data Sheet	
12	Make and record any refrigeration charge changes as required	
13	Note any discrepancies or observations in Comments Section below	
Section 4 Final		**Check**
1	Close up, or reinstall all doors and access panels	
2	Verify chiller is meeting setpoint and maintaining thermal loads	
3	Note any discrepancies or observations in Comments Section below	

Alarm List: _____

Comments: _____

Completed By: _____ **Date:** _____

JOHNSON THERMAL SYSTEMS

Annual Maintenance Data Sheet

	Hydronic			
1	Operating Hydronic Pressure	**Psig**		
2	Open System Hydronic Tank Level	**%**		
3	Closed System Static Hydronic Pressure	**Psig**		
4	Water/Glycol Mixture Ratio	**%**		
5	Pump 1 Line Voltage	**Vac**	**Vac**	**Vac**
6	Pump 1 Amp Draw	**Amps**	**Amps**	**Amps**
7	Pump 2 Line Voltage	**Vac**	**Vac**	**Vac**
8	Pump 2 Amp Draw	**Amps**	**Amps**	**Amps**
9	Pump 3 Line Voltage	**Vac**	**Vac**	**Vac**
10	Pump 3 Amp Draw	**Amps**	**Amps**	**Amps**
11	Pump 4 Line Voltage	**Vac**	**Vac**	**Vac**
12	Pump 4 Amp Draw	**Amps**	**Amps**	**Amps**

	Refrigeration			
1	Circuit 1 Suction Pressure	**Psig**	Circuit 1 Discharge Pressure	**Psig**
2	Circuit 2 Suction Pressure	**Psig**	Circuit 2 Discharge Pressure	**Psig**
3	Circuit 3 Suction Pressure	**Psig**	Circuit 3 Discharge Pressure	**Psig**
4	Circuit 4 Suction Pressure	**Psig**	Circuit 4 Discharge Pressure	**Psig**
5	Circuit 1 EEV Position	**%**	Circuit 2 EEV Position	**%**
6	Circuit 3 EEV Position	**%**	Circuit 4 EEV Position	**%**
7	Compressor 1 Line Voltage	**Vac**	**Vac**	**Vac**
8	Compressor 1 Amp Draw	**Amps**	**Amps**	**Amps**
9	Compressor 2 Line Voltage	**Vac**	**Vac**	**Vac**
10	Compressor 2 Amp Draw	**Amps**	**Amps**	**Amps**
11	Compressor 3 Line Voltage	**Vac**	**Vac**	**Vac**
12	Compressor 3 Amp Draw	**Amps**	**Amps**	**Amps**
13	Compressor 4 Line Voltage	**Vac**	**Vac**	**Vac**
14	Compressor 4 Amp Draw	**Amps**	**Amps**	**Amps**
15	Condenser Fan 1 Line Voltage	**Vac**	**Vac**	**Vac**
16	Condenser Fan 1 Amp Draw	**Amps**	**Amps**	**Amps**
17	Condenser Fan 2 Line Voltage	**Vac**	**Vac**	**Vac**
18	Condenser Fan 2 Amp Draw	**Amps**	**Amps**	**Amps**
19	Condenser Fan 3 Line Voltage	**Vac**	**Vac**	**Vac**
20	Condenser Fan 3 Amp Draw	**Amps**	**Amps**	**Amps**
21	Condenser Fan 4 Line Voltage	**Vac**	**Vac**	**Vac**
22	Condenser Fan 4 Amp Draw	**Amps**	**Amps**	**Amps**