SERVICE BULLETIN

Title: 19XL PSIO Software Version 9
Models Affected: 19XL

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Situation:

Version 9 19XL PSIO Software Is In Production.

There has now been a new release to 19XL software, which is version 9. This software has many improvements and upgrades which can be a sellable item! All 19XL machines shipped week 38 and later have this software version. These changes are improvements, and should not be considered as warranty claims. Noted below are the changes and additions with a small explanation. More details on how to set up these features will be sent out through future service bulletins and the next edition of the Start-up, Operation and Maintenance manual, due out in January '95.

1. **Two Chiller Lead/Lag Feature:** A two chiller lead/lag feature will now be standard built into the PSIO. The set-up is similar to the 32MP ESP lead/lag along with a feature that allows the use of a third unit as a standby chiller in case one of the other two units goes into a fault. Lead/Lag is a control system process that will automatically start and stop a lag or 2nd chiller on a two chiller system. On any machines that have PSIO software with a LEAD/LAG configuration table (*), it is possible to utilize the PIC controls to perform the lead/lag function on two machines. A third machine can be added to the lead/lag system as a standby chiller, to start up in case the lead or the lag chiller in the system has shut down on an alarm condition, and additional cooling is required.

*19XL PSIO software version 9 or higher, 23XL PSIO software version 13 or higher, and 19EX/FA/EF software version 2 or higher.

System Requirements For A Lead/Lag System:

- All machines must have PSIO software capable of lead/lag function.
- The water pumps MUST be energized from the PIC controls.
- The water flows should be constant.
- The CCN time schedules for all machines should be identical.

Operation Features:

- 2 chiller lead/lag
- Third chiller can be used as a backup.
- Manual rotation of the lead chiller
- Load balancing, if configured
- Staggered restart of the chillers after a power failure
- Chillers may be piped in parallel or in series chilled water flow.

2. **Ice Build Feature:** If you have a machine that requires two chilled water setpoints, one for regular chilled water duty, and another for ice building, then this new software is the answer. A third time schedule is added (OCCPC02), which allows an ice mode setpoint to be used. (The CCN time schedule is now OCCPC03)
3. **Condenser Freeze Protection Added:** If the condenser pressure falls below a user configured setpoint, then the freeze protection alert will activate the condenser water pump, if wired to the PIC.
4. **Excessive Recycle Alert:** If more than 5 recycle shutdowns in four hours occur, an alert will occur on the alarm history.

5. **Addition Of Soft Stop Unloading:** When the stop button is pressed or the remote contacts open, if this feature is active, the guide vanes will close to a configured amperage level and the machine will then shut down. The display will indicate 'shutdown in progress'.
6. **Water Flow Verification Time:** The minimum time for water flow verification at start-up is now 30 seconds, rather than one minute, to reduce the time from start initiated to actual compressor start.
7. **Stop To Start Timer Change:** The stop to start timer is now set at one minute, instead of three minutes.
8. **Refrigerant Override Setpoint:** The refrigerant override delta temperature setting is now defaulted at 3 F (1.7 C).
9. **Compressor Discharge Temperature Reset:** The reset algorithm that helps to open the guide vanes when the discharge temperature is high will now start to occur at 160 F, (71.1 C) instead of 180 F (82.2 C).
10. The oil sump temperature control is now set to maintain the temperature at 150 F (65.6 C) OR the refrigerant temperature plus 70 F (38.9 C) whichever is higher.
11. **For Those International Personnel:** The addition of a language translation table for point names.
12. **Water System Manager Compatibility Added:** The Water System Manager, which is a CCN module, is compatible with this version of software. Water System Manager is a module which

communicates with other PIC equipped cooling and heating equipment to enable or disable, and control setpoints of these devices in response to temperature and time schedule conditions within spaces being served.