

Operation – **SERVICE HMI ONLY**

Service HMI (Option)

Operating the Chiller

1. Turn ON the Circuit Breaker.
2. Connect the Service HMI.
3. Select the Pump Speed for required flow and pressure.
4. Select the Compressor maximum speed.
5. Enter Cooling Setpoint and Cooling Delta T (ΔT) (if desired).
6. Enter Heating Setpoint and Heating Delta T (ΔT) (if desired).
7. Select the Chiller Mode.
8. Turn the system On.

Service HMI Screens

The Service HMI (Human Machine Interface) contains the following screens:

- Main - Operates and displays the status of the chiller
- IO State - Displays the status of the chiller
- Setpoint – Adjusts and displays all setpoints
- Service – Displays component hours and cycles
- Configuration

Main Screen Overview

The Main screen is used to operate and display the status of the chiller, it contains the following:

- System Mode
 - On / Off
- Operational Mode
 - Off
 - CIRC – Operates pump only
 - Cool – Temperature control with refrigeration only
 - Heat – Temperature control with heater only
 - Auto - Temperature control with refrigeration system and heater as required
 - MaxCool – Operates refrigeration system only at maximum compressor speed setpoint
 - MaxHeat – Operates heater only at maximum heat
- Operational Mode Status
- Pump Speed Setpoint
- Maximum Compressor Speed Setpoint
- Cooling Setpoint
- Heating Setpoint
- Supply Temperature Display in °C
- Supply Pressure in bar
- Return Temperature Display in °C
- Return Pressure in bar
- Chiller Warning Status
- Chiller Fault Status
- Fault Reset
 - Use this Function to reset faults that latch.
- Pump Status

Operation – **SERVICE HMI ONLY**

- Compressor Status
- Heater Status
- Fan Status

Warnings and Faults

Chiller Warnings

If a chiller warning occurs the chiller will indicate the warning and continue to run. The warning resets when the warning condition is corrected.

Supply High Temperature Warning

A Supply High Temperature Warning (Sup Hi Temp Wrn) occurs when the Supply Temperature exceeds the Sup Hi T Wrn SP (Default 35.0°C).

Supply Low Temperature Warning

A Supply Low Temperature Warning (Sup Lo Temp Wrn) occurs when the Supply Temperature falls below the Sup Lo T Wrn SP (Default 5.0°C).

Supply High Pressure Warning

A Supply High Pressure Warning (Sup Hi Pres Wrn) occurs when the Supply Pressure exceeds the Sup Hi P Wrn SP (Default 2.75bar).

Chiller Faults

If a chiller fault occurs the chiller will indicate the fault and shut down. The chiller fault latches and can only be reset once fault condition is corrected. The Fault Reset is located on the Service HMI Main screen.

Main Contactor Fault (Main Cont Flt)

Heater Contactor Fault (HTR Cont Flt)

Pump Fault

Compressor High Discharge Fault (Hi Dis Flt)

Supply High Temperature Fault

A Supply High Temperature Fault (Sup Hi Temp Flt) occurs when the Supply Temperature exceeds the Sup Hi T Flt SP (Default 40.0°C).

Supply Low Temperature Fault

Supply Low Temperature Fault (Sup Lo Temp Flt) occurs when the Supply Temperature falls below the Sup Lo T Flt SP (Default -26.0°C).

Supply High Pressure Fault

A Supply High Pressure Fault (Sup Hi Pres Flt) occurs when the Supply Pressure exceeds the Sup Hi P Flt SP (Default 3.25bar).

Return Low Pressure Fault

Operation – **SERVICE HMI ONLY**

A Return Low Pressure Fault (Ret LoFloP Flt) occurs when the Return Pressure falls below the Ret LoFloP Flt SP (Default 0.345bar). The return low pressure fault is used to indicate and prevent a low flow condition.

Supply Temperature Sensor Fault

A Supply Temperature Sensor Fault (Sup Temp Sns Flt) occurs when a supply sensor fault is detected.

Return Temperature Sensor Fault

A Return Temperature Sensor Fault (Ret Temp Sns Flt) occurs when a return sensor fault is detected.

HMI

Below are the key designations of the HMI interface. Plug the HMI cable into the “HMI” connector located next to the main circuit breaker. The HMI has a magnetic backing that will allow convenient accessibility on any steel surface.

