

Thermostat Information

This label describes use and adjustment for the thermostats used in your machine. A Thermostat circuit checks or controls the temperature in one area of the machine. It uses a type "J" thermocouple sensor input. When the sensed temperature is below the operator adjustable set point, an internal relay energizes. When the temperature is above the set point, the relay de-energizes. Its contacts open and close the circuit connected to its output terminals. Refer to manual for further description and troubleshooting procedures.

Indicators

POWER – a red LED, lit when power applied to unit.

LOAD – a yellow/green LED, lit with the thermostat output relay energized. When the temperature at the sensor is below the set point, the load light is ON. When above the set point, the load light is OFF.

SPAN and OFFSET (OFST) – factory adjusted pots, should not require calibration.

High Limit Controls – Manual Reset - Used for areas of safety (SVC, LTC and HTC)

In normal operation, the load light is ON. The closed "NO" contacts create a series circuit for the heaters. If the temperature at the sensed area increases above the set point, the contacts open the circuit (load light OFF) and turn off the heaters. Correct the condition causing the trip. After the temperature returns to a normal value, press the manual reset switch (back of enclosure) and hold for a few seconds. This will reset the thermostat. Its relay energizes (load light ON).

Safety Vapor Control (SVC)

Turns off the heat if the solvent vapors rise above the solvent condensing coils (reduce emissions). It trips if these coils do not maintain a temperature cold enough to condense the solvent vapors. Clean refrigeration condenser coils, check fan and gas charge of system.

Adjust set point: approx. 15°F below sbt* **Sensor location:** top of cooling coils

High Temperature Control (HTC)

Turns off the heat if the solvent level drops below the top of the heater elements (protects elements) or with increased solvent contamination. Check this level daily. Drain and clean sump. Clean element and probe. Tip of sensor probe must be clean and in close contact with element.

Adjust set point: approx. 20°F above sbt* **Sensor location:** clamped to top of heat element

Liquid Temperature Control/Sensor (LTC/S) – optional equipment

Turns off the heat if temperature of the liquid solvent increases. This is due to a build-up of alcohol or other contaminations in the boil sump. When using an alcohol-blended solvent, the alcohol level could increase to a flammable point. This control turns off the heat before the solvent blend becomes flammable. Drain the sump and recharge with fresh solvent.

Adjust set point: approx. 7°F above sbt* **Sensor location:** in liquid of boil sump

ON-OFF Control - Automatic reset.

Used for circuit control (RT and VU or TH). Used to turn respective circuits on and off automatically, in response to temperature at the sensor.

Refrigeration Thermostat (RT)

During nighttime mode (heat OFF), this control causes the refrigeration compressor to turn on and off. This maintains a consistent temperature at the cooling coils. It automatically resets as the sensed coil temperature goes above and below the set point temperature. During machine operation (heat ON), the heat of vapors at the coil (and sensor) causes the compressor to remain on.

Adjust set point: 45-50°F **Sensor location:** clamps to cooling coil

Vapor Up Thermostat (VU/TH) – optional equipment

After you turn heat ON (press Operate switch), the solvent will boil into a vapor. When the vapors fill the tank to proper level (midway up cooling coils), the VU light illuminates. This shows the machine is ready to operate. This circuit also disables the spray circuit until vapor is up (DO NOT spray above vapor level). The vapor level may drop (light OFF) when you lower parts into unit. It should re-establish (light ON) within 5 minutes or less.

Adjust set point: 5-15°F below sbt* **Sensor location:** below cooling coils

*sbt – Solvent Boil Temperature (per specifications for type solvent used in system)

45-075 Manual Reset, no hysteresis (SVC, HTC, LTC/LTS); 45-086 Automatic Reset, slight hysteresis (VU or TH); 45-076 Automatic Reset, adjustable hysteresis (RT); Type "J" Thermocouple, 45-077 for 6" long, 45-078 for 36" long