POWERBLANKET® THERMOSTATIC CONTROLLER INSTRUCTIONS

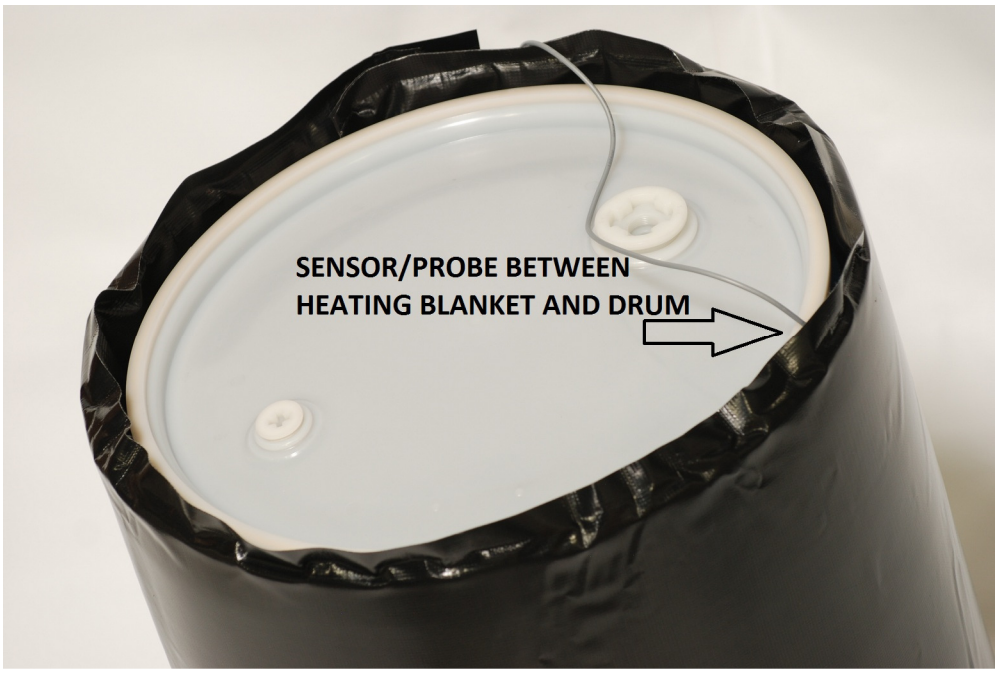
Thank you for purchasing a Powerblanket® GHT2002J Thermostatic Controller.

Please read and understand these instructions before continuing. Please retain these instructions and the A419 Series instruction set (Johnson Controls use A419AEC within) for future reference.

GHT2002J Thermostatic Controller. From left to right, please note the input power supply cord (~6' long) with plug, gray temperature sensor lead (~6' long) with steel encased temperature sensor/probe at the end, hanger kit installed and the output 2' long cord with connector (a k a receptacle).

The GHT2002J controller plugs into your GFCI protected power supply (wall, etc.). The controller will power up when you plug in its power supply cord.

Your Powerblanket® heating blanket plugs into the output receptacle cord of the GHT2002J. The controller turns on and off the power to the receptacle depending upon the temperature of the probe/sensor versus the set point (SP) you have programmed into the controller (more information below).



VERY IMPORTANT: Place the temperature sensor between the heating blanket and that which is to be heated, for example, your barrel or tote.

CAUTION Improper probe placement can result in unsatisfactory performance and/or damage to your vessel, product or heating blanket.

CAUTION Do not submerge the temperature sensor - it is not waterproof.

Here is an example application where the system is completely setup.

Please note:

i) The controller is plugged into an approved GFCI circuit protector which is plugged into an approved extension cord (not shown).

ii) The temperature sensor is placed between the heated wrap and the outside of the poly barrel.

iii) The heated wrap is plugged into the output receptacle of the controller.

iv) The controller is hanging from the top strap of the heated wrap.

v) The system is positioned on a solid wood-topped pallet to reduce heat loss out of the bottom of the barrel.

The GHT2002J controller is programmed at the Powerblanket® factory to be in its heating mode and to turn the heating blanket OFF at the SP and turn it back ON when the temperature of the probe/sensor is less than the SP minus the differential (dIF). Unless in the programming mode, the display shows the current temperature of the probe.

The green light will glow when there is power to the output receptacle and go off when the power is not connected to the receptacle. There should be an audible click as the controller turns the power to the output receptacle on or off. (You are hearing the internal relay operate.)

To program the thermostatic controller to a new set point temperature, SP, press and hold the MENU button until "SP" flashes on the screen, then release the MENU button. The controller is now in programming mode. With SP flashing, if you push MENU again, it will start flashing the temperature that is currently the SP. Use the UP or DOWN arrow buttons to increase or decrease the temperature set point, one degree per button push. When the correct set point temperature is flashing on the display, press MENU again. That temperature is now programmed in as the new SP and the display will revert to a steady display of the present temperature of the probe/sensor.

CAUTION Do not program the controller to SP > 170°F (77°C) as this may damage the heating blanket, your vessel and/or your product.

A Quick Look at Programmable Control Functions:

SP, Set Point temperature, possible values from -30F to +170F, this is the temperature at which the controller will turn off the heating blanket. Please see CAUTION above.

dIF, Differential temperature, the degree(s) drop below the SP you desire before the heating blanket starts heating again. Powerblanket presets this to 1°F. It can be increased to as much as 30°F.

ASd, Anti-Short Cycle Delay, Powerblanket presets this to zero minutes. It is the time you want the controller to wait BEFORE it does anything after power is applied to the controller (after you plug it in or after the power comes back on in the case of a temporary power outage). ASd is useful when running, for example, a cooling pump where a quick power outage will stall the compressor and it won't safely restart until the pressure has equalized in the system – which can take several minutes. For heating blankets, there is no reason to wait to restart the system.

OFS, Temperature Offset, this is an option used in some controller applications but it has no effect on controlling heating blankets without specialized external components (please see A419 Electronic Temperature Control … Installation Instructions for more information).

SF, Sensor Failure Operation, Powerblanket presets this to zero which has the effect of turning off the heating blanket in the rare case of sensor failure. Should you decide you want the blanket to run full power without temperature control if the sensor malfunctions, which Powerblanket does not recommend, set it to one.

F or C, Temperature Units, the units can be switched from Fahrenheit to Celsius or back by pressing the UP and DOWN arrows simultaneously.

To change the values of any of these variables (except "F or C"), press and hold MENU until "SP" flashes on the screen then release MENU. The controller is now in the programming mode. Use the UP or DOWN arrow to scroll to the function you wish to program. Push MENU again to show the present value of that function. Use the arrow buttons to select the new value then press MENU again to make that the new value in memory. If this last press of the MENU key is not performed within 30 seconds, the controller will exit the programming mode and the value will not be changed.

Other Controller Information:

NEMA 4X – Watertight enclosure.
120VAC GHT2002J (A419AEC), 15 Amps max for heating blankets.
240VAC GHT2002J-240V (A419AEC), 10 Amps max for heating blankets.
More information via "A419 Series Electronic Temperature Controls with NEMA 1 or NEMA 4X Watertight Enclosures" also included with the GHT2002J controller.