



Basic System

The Program Module provides the following features:

- Converts the digital thermometer on the Control unit into a Min/Max recording thermometer in addition to its normal function.
- Provides an output for an audible alarm which will sound if either or both set points are exceeded.
- Provides high and low temperature set points which can be used for an alarm or to control additional heating/cooling devices when used with an On/Off Power Module.
- Allows the addition of an Auto-dialer to your System, which will dial up to 3 different phone numbers (including pagers) if either temperature set point is exceeded.
- When added to the Helix Super System, allows a pre-mature "dusk" sequence to occur if the "Max" temperature set point is exceeded.
- Provides a battery back-up for the Control Module so that the Min/Max feature will record the lowest temperature reached (in the event of a power failure). This feature also allows the Control Module to be used as a portable thermometer.

INSTALLATION

The Program Module plugs directly into the top of the Control Module. Remove the self-adhesive cover from the top of the Control Module. Align the pins on the Control Module with the socket on the Program Module at one end first and gently plug in. When connected press the "Memory" button, "MEM" will appear in the display, press "Memory" again and "MEM" will disappear. To check the batteries unplug the Control Module from the Power Module and check that the display remains on. The unit is now ready for programming.

OPERATION

Min/Max Temperature

To reset the Min/Max feature press and hold the "Max Temp" then press the "Memory" button. This resets the maximum temperature reading to the current temperature.

To recall the min and max temperatures reached since resetting, press "Memory" (MEM will appear at the left hand side of the display) then press the "Max Temp" button. The maximum temperature will be displayed along with a flashing "MAX" below "MEM" in the display. Press "Min Temp" to reach the minimum temperature reached. Press the "Memory" button again to return to normal temperature read-out.

II. Setting High/Low Temperature Points

Press and hold the "Min Temp" button, -40 F. will be displayed. Press and hold the "Temp Set" button. After a pause, the display will change continuously and read a higher temperature. Release the "Temp Set" button just below the display of the desired temperature – say 5 F. With the "Min Temp" button still depressed, the temperature can now be advanced 1 degree at a time by repeated pressing and releasing of the "Temp Set" button.

Repeat the procedure using the "Max Temp" and "Temp Set" buttons to set the upper limit – 122 F. will initially be displayed and then -40 F. 122 F. is the highest temperature you can set. If you overshoot the desired set point keep the buttons depressed and the display will start over at -40 F. when 122 F. is reached.



The set points can be verified at any time by pressing the "Max Temp" or "Min Temp" button. To turn on the set points to sound an alarm, press "Max Temp" and "Alarm Set" buttons. "Max" will appear in the display. Similarly, pressing "Min Temp" and "Alarm Set" button will turn on the Min Set point and "MIN" will appear in the display. Either set point can be turned off by repeating the turn-on procedure. The alarm will beep for one minute then sound a continuous tone when either set point is reached. This tone will continue until the alarm is turned off which is done by pressing any button.

The alarm may also be set (by means of an internal jumper) to sound when only one set point is reached. The reason for this is that the Program Module also provides a second output for an On/Off Power Module so that when either set point is reached additional heaters, lights or cooling devices such as an air conditioner can be turned on. For example, in exceptionally cold weather or when one of the normal heating elements fails, the low temperature set point can be used to activate the On/Off Power Module which would turn on additional heaters. This back-up heater will then operate on an on/off basis until the ambient room temperature returns to normal or the defective heater is replaced.

The minimum set point is normally set for outside control but like the alarm, either set point may be selected by means of an internal jumper. Both jumpers can be set by the user. An additional instruction sheet is provided to cover this as it involves taking the unit apart.