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TEMPCHECK OPERATING INSTRUCTIONS

PURPOSE:

The TEMPCHECK was developed to assist laboratory personnel in quickly determining temperature of bags or containers of red cells, plasma and other materials. Non-invasive, accurate temperature readings are provided in seconds.

DESIGN:

The TEMPCHECK is an electronic instrument which incorporates a thermocouple, insulated pad and four character digital readout.

MODEL & RANGE:

MODEL
TC-12

RANGE
0 to 40 °C.

ELECTRICAL:

The TEMPCHECK uses a wall plug-in 12 VDC power supply and has a built-in rechargeable NiMH battery

OPERATION:

For best results, the product which you are sensing should be placed on the sensor, located in the center of the insulated pad, with the labels up. If there are labels on the back, peel enough of the label back so that when the product is placed on the sensor, no part of the label is touching it. Labels act as an insulator and give either a false reading or take longer to sense the correct temperature.

Operation below 0 °C is problematical, because the bag is hard, and thus might not make good contact with the sensor. Also, melting frost will cause a reading that is too high.

PORTABLE OPERATION:

When you wish to use the Model TC-12 for portable operation, press the button on the upper left hand side of the case. The display will light and stay on for 2 minutes. When the unit is fully charged you may do this 100 times. To recharge the battery, plug unit into an outlet for 8 hours.

PLASMA:

Plasma taken out of a water bath should have all water drops removed from the part of the bag that comes in direct contact with the sensor. Water acts as an insulator and may give false readings. Units taken from a microwave plasma defroster can be placed directly on the sensor.

TIME:

Once you have placed the plasma unit on the sensor, you should have an accurate reading in about 20 - 30 seconds.

CALIBRATION CHECK:

To do a simple calibration check at 0°C, use a plastic bag with ice cubes and water, well agitated.

Place bag on the insulated pad, constantly agitating it by rolling the bag around so that the ice and water are a good mix, keeping the temperature close to 0°C. The TEMP CHECK should reach 0°C within about 30 seconds. Ideally, the TEMP CHECK readout should be flickering from 000 to -000.

Placing a precision thermometer tip on the sensor pad, covering with some insulation, and allowing the thermometer and TEMP CHECK to equilibrate, can provide additional temperature reference points.

If you determine that the TEMP CHECK is out of calibration, return unit to Hampshire Controls Corp. for recalibration.

Hampshire Controls Corp. recommends calibration check once a year.