

# Procedure to Operate Thermo King Refrigerator

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Last modified on 2004-10-07 at 15:34:51

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The proper method to operate the Thermo King refrigerator.

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## CAUTIONARY NOTES:

You must be properly trained on the use of the refrigerator prior to accomplishing this procedure; see [training list](#).

THIS OPERATION CAN BE ACCOMPLISHED BY ONE PERSON.

**THE DEW POINT AND ENCLOSURE AIR TEMPERATURES MUST BE CLOSELY MONITORED. IF THE ENCLOSURE TEMPERATURE FALLS TO WITHIN 5 DEGREE C OF THE DEW POINT TEMPERATURE THE REFRIGERATOR MUST BE SHUT OFF.**

**THE REFRIGERATOR WILL NOT TURN ON IF THE ENCLOSURE HUMIDITY INTERLOCK DETECTS A HUMIDITY LEVEL ABOVE ITS SETPOINT, CURRENTLY 65%.**

## WEATHER CONDITIONS THAT GOVERN ENGAGING THE COOLER:

operate during the day whenever the temperature at telescope opening is expected to be below 32 degree F, or zero degree C.

The dew point and enclosure temperatures may be monitored with the TPM.

SAFETY WEAR: (recommended) rubber-soled shoes

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## EQUIPMENT INVOLVED IN THIS PROCEDURE

**Thermo King Refrigerator;** [Location](#): east wall of the enclosure: interior and one exterior below the roof line; Appearance: grey.

**Refrigerator control panel;** Location: southeast wall of the enclosure; Appearance: grey.

**Enclosure humidity interlock;** Location: southeast wall of the enclosure; Appearance: grey.

**Refrigerator timer control;** Location: southeast wall of the enclosure; Appearance: grey.

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## **PROCEDURE:**

If needed, the refrigerator should be turned on as early in the morning as possible, preferably when the telescope is closed for the day.

The unit is turned on at the left-most toggle switch on the control panel. The controller takes about five seconds to run its self-test, after which the display will show the return air temperature.

Adjust the set point for the expected temperature at opening.

Press the button with the circular arrows in the upper right corner of the temperature controller.

Use the up and down arrow buttons on the left to adjust the set point.

Press the "=" button in the lower right corner to enter the set point within five seconds.

The unit should be turned off in the afternoon before the building is opened for ventilation.

The unit has an external timer located to the right of the control panel. It allows the refrigerator to be run daily at predetermined times (currently on at 8am and off at 9am). Its manual bypass may be engaged by opening the clear plastic cover (depress the latch on the right side of the timer) and pressing the "enter" button once to turn the unit on, or twice to turn the unit off. The timer is re-engaged by pressing the "run" button once.

**END OF PROCEDURE**

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