THERMCO PRODUCTS ACCRT8019UL Dual Data Logging Thermometer Ultra Low Freezer Instruction Manual

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THERMCO PRODUCTS ACCRT8019UL Dual Data Logging Thermometer Ultra Low Freezer

DUAL DATA LOGGING THERMOMETER Ultra Low Freezer

Monitor... 2 Ultra Low Freezers

FEATURES

- High accuracy
- About 24 million readings logging
- Dual Probe, monitor fridge and freezer simultaneously
- ACCRT8019UL Ultra Low can measure down to -80°C
- Minimum & Maximum reading maintained in memory
- User-Configurable low / high alarm limits setting
- Flashing LED alarm indicator

- °C or °F scale
- Real time display
- Waterproof external sensors
- Low battery indication
- Removable SD card
- CSV file data format
- Optional external power supply

Flip out desk stand

SPECIFICATION

- Measuring range -80~70°C (-112~158°F)
- Display accuracy
  ±0.3°C (±0.6°F) -20~50°C (-4~-58°F)
  ±0.5°C (±0.9°F) otherwise
- Display resolution 0.1°
- Display reading update 10 seconds
- Memory Removable 2G SD card
- Memory capacity About 24 million readings, 1500 files
- Data logging interval One minute to 720 minutes user-configurable
- default value is 5 minutes
- Alarm limit setting resolution 0.1°
- Default alarm value Low -10°C, High 50°C
- Time accuracy ±1 second per day
- Time display format 12 / 24 hours format user option
- Effective calendar period 2017~2099
- Battery 1.5 volt, type AA or equivalent x 3 pieces
- Battery life About 2,500 hours in continuous operation with no alarm
- Working ambient temperature 0~50°C (32~122°F)
- Display size 54(W) x 64(H) mm
- External sensor cable length 2 meters / 6 feet
- External sensor size Stainless Steel Temperature Probes 3.5(Φ) x 35(L) mm
- Product size 83(W) x 120(H) x 26(D) mm

Accessories

1. 1.5 volt, type AA battery x 3 pieces.
2. Sensor x 2 pieces.
3. Mini USB cable 1 meter / 3 feet length x 1 piece.
4. 100~240V power adapter x 1 piece.
5. SD card x 1 piece.
6. SD card reader x 1piece

SETUP:

INSTALLATION

1. Place sensors inside the fridge or freezer
   Wait 15 min for sensor to stabilize to temperature.
2. After the 15 min has passed, and all setting below have been completed, connect probes to the data logger.

POWER

1. Install the 3 AA backup batteries in compartment on back of unit observing direction.
2. Connect USB cable to power adapter and data logger then plug power adapter into wall outlet.
3. Press [ON/OFF] on back of unit to turn on. To turn off data logger press and hold [ON/OFF] button for about 3 seconds.

SET TEMPERATURE SCALE

Slide [°C/°F] switch to the desired temperature scale.

DATE AND TIME SETTING

1. Press [SET] and [▼] simultaneously until the display showing the hour format “12H”
2. Press[▲] or [▼] to select 12 or 24 hours time format.
3. Press [SET] to confirm hour format and start year setting. The last two digits of the year will be flashing (Default is “17”).
4. Press [SET] to confirm year and begin month setting. The month digit will be flashing (Default is “1”).
5. Press [▲] or [▼] to set the current month.
6. Press [SET] to confirm month and start date setting. The date digit will be flashing (Default is “1”).
7. Press [▲] or [▼] to set the current date.
8. Press [SET] to confirm date and begin hour setting. The hour digit(s) will be flashing.
9. Press [▲] or [▼] to set the current hour.
10. Press [SET] to confirm hour and begin minute setting. The minute digits will be flashing.
11. Press [▲] or [▼] to set the current minute.
12. Press [SET] to confirm minute and finish the date and time setting.
13. Press and hold the [▲] or [▼] button will increase or decrease the value automatically.

LOW / HIGH ALARM LIMIT and DATA LOGGING INTERVAL SETTING

1. Press and hold [SET] until the time display showing “SET” then release the button. The “P1” low alarm limit will be flashing (Default is -10.0 and “LO” flashes).
2. Press [▲] or [▼] to set the value.
3. Press [SET] to confirm “P1” low alarm limit and start high alarm limit setting. The “P1” high alarm limit will be flashing (Default is 50.0 and “HI” flashes).
4. Press [▲] or [▼] to set the value.

5. Press [SET] to confirm “P1” high alarm limit and start “P2” low alarm limit setting. The “P2” low alarm limit will be flashing (Default is -10.0 and “Lo” flashes).
6. Press [▲] or [▼] to set the value.
7. Press [SET] to confirm “P2” low alarm limit and start high alarm limit setting. The“P2” high alarm limit will be flashing (Default is 50.0 and “HI” flashes).
8. Press [▲] or [▼] to set the value.
9. Press [SET] to confirm “P2” high alarm limit and start data logging interval setting. The default value “5” (5 minutes) would flash.
10. Press [▲] or [▼] to set the value.
11. Press [SET] to confirm data logging interval and finish the settings.
12. When the reading is lower or higher than the alarm limit,
    1. The alarm will sound for 1 minute. And after 1 minute, the alarm will sound 2 seconds for every minute.
    2. The LED will flash.
       The alarm sound will stop if the reading falls within the alarm limits or any button is pressed. But the “Lo” or “HI” icon and the LED will still be flashing which indicates that an alarm has been triggered.
13. If the alarm has triggered, the month, date and time and “ON” icon would be displayed for 5 seconds for every 5 seconds.
14. To cancel the icon and red light flashing, press [CLEAR] and hold for 3 seconds.
    Once the alarm values were set, the alarm function would be started automatically and the icon a will be displayed.
    * Press and hold the [▲] or [▼] button will increase or decrease the alarm limit value automatically.

OPPERATION:
DATA LOGGING ON/OFF

1. Make sure that the SD card is placed in the slot. “Sd” and current time would be displayed by turns.
2. Press and hold [SET] for about 6 seconds to start or stop data logging.
3. “ON / rEc” display means the data logging is on . “rEc” and current time would be displayed by turns.
4. “OFF / rEc” display means the data logging is off. “Sd” and current time would be displayed by turns.
   * When data logger is connected to computer by USB cable. data logging will be stop automatically.

ALARM ON/OFF

1. Press [ON/OFF] <1 second, to switch the audible and led alarm on or off.
   Solid bell displayed in upper left comer of screen indicates alarm on. No bell, alarm off.

DATA RETRIEVAL (2 Methods)

1. Press and hold [SET] for about 6 seconds to stop data logging until “OFF / rEc” is display.
   Open the SD card slot cover, push card in slightly till you hear a click then remove card. Place SD card in the SD card reader and plug reader into the computer usb port.
2. Open USB drive on the computer.

3. Open folder “TEMPDATA” to view .csv files. Recommended to copy and paste all .csv files to PC for backup.

RESET MINIMUM / MAXIMUM READINGS

1. Press CLEAR button and hold for 3 seconds to reset the maximum / minimum memory and then record the memory to the CSV file. Record the LOW/HIGH alarm and minimum/maximum value to the CSV file at the same time, and then generate new data files.
2. Always reset the memory once before taking new readings.

OTHER:

POWER INDICATION

The battery power capacity will be record for each log in the CSV file. Note Low battery voltage symbol below.

FACTORY RESET

Press [RESET] on the back to reset the unit to factory default settings.

NOTE

1. Do not operate the thermometer in the environmental temperature lower than 0°C / 32°F or higher than 50°C / 122°F otherwise incorrect readings or damage to the thermometer may result.
2. If the thermometer is not in use for a long period of time then remove the batteries from battery compartment to avoid battery leakage.
3. Do not use SD Cards larger than 8GB.

SYMBOLS

Symbol	Description	Action required
	Low battery voltage	Replace the batteries with the same type.
NO PROBE	1) Probe not connected. 2) Sensor open circuit.	1) Connect the probe. 2) Return the thermometer for repair.
LL.L	The reading is out of lower limit (-50°C).	Keep the measurement above lower limit.
HH.H	1) Sensor short circuit. 2) The reading is out of upper limit (70°C).	1) Return the thermometer for repair. 2) Keep the measurement below upper limit.
Sd	SD card installed.	NA
rEc	Data logging is on.	NA
FuLL	Memory capacity of SD card is full. Data log ging would be turned off automatically.	Clear the memory in existing SD card or replace a new SD card.
FILE FuLL	Data files quantity is full, out of range about 1500 pieces.	Cancel the useless files.
Sd & Err	SD card is removed while data logging is tur ned on.	Replace the SD card immediately.

Documents / Resources

	**THERMCO PRODUCTS ACCRT8019UL Dual Data Logging Thermometer Ultra Low Freezer** [pdf] Instruction Manual ACCRT8019UL Dual Data Logging Thermometer Ultra Low Freezer, ACCRT8019UL, Dual Data Logging Thermometer Ultra Low Freezer, Logging Thermometer Ultra Low Freezer, Thermometer Ultra Low Freezer, Ultra Low Freezer, Low Freezer, Freezer