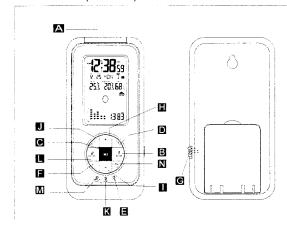
INSTRUCTION MANUAL

Locations of Control

Main Unit (Receive)

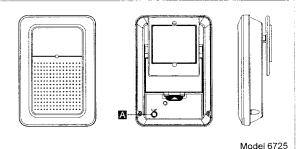


- A SNOOZE/LIGHT BUTTON
- **I** TEMP MIN/MAX BUTTON
- SET BUTTON
- **D** WAVE BUTTON
- °C/°F BUTTON
- CLEAR BUTTON
- SNOOZE/ALARM ON/OFF SWITCH
- + (Forward Set) BUTTON
- - (Backward Set) BUTTON
- **II** RE-SYNC BUTTON
- **K** RESET BUTTON
- **HUMIDITY MAX/MIN BUTTON**
- M PRESURE UNIT BUTTON
- IN TIME ZONE/DST BUTTON

Model 4570

Remote Unit (Transmitter)

A RESET Button



- The configuration of your clock may differ somewhat from that shown in the illustration.
- "AA" or "AAA" size battery. This clock may use more than one piece of battery. Please refer to the engraved battery marks inside the battery compartment for the correct battery type.

The RADIO-CONTROLLED CLOCK

With the Radio-Controlled Clock, you have the most accurate timepiece within the continent. It can receive the time signal transmitted by the National Institute of Standards and Technology (NIST), which is regulated by 3 atomic clocks and deviate less than 1 second within 3,000 years.

The NIST broadcasts the time signal (WWVB, 60kHz) continuously from Fort Collins, Colorado. This signal can be received anywhere in the continental USA that long wave (AM) radio reception is possible with a portable radio. It is expected that the signal can reach a distance of 2,000 miles from the transmitter. Therefore, your clock will receive the signal within the broadcast range anywhere an AM signal can be received; generally the signal cannot be picked up in massive metal and concrete structures unless near a window. In addition, some environmental effect (see below) may affect the transmitting distance.

For more information, please study the WWVB WEB page of NIST at: http://www.boulder.nist.gov/timefreq/





Feature

- Receive 60kHz WWVB signal transmitted by NIST at Fort Collins, Colorado
- · Automatic time adjustment after signal reception
- Calendar with day of the week display
- · Hour, minute and second display
- · 12 or 24-hour format
- · Indoor temperature and remote temperature
- Centigrade or Fahrenheit readout
- Indoor, Outdoor temperature measurement range from -58°F \sim 158°F (-50°C \sim 70°C)
- Temperature resolution 0.2°F (0.1°C)
- Indoor hygrometer
- Indoor hygrometer measurement range from 1%~99%
- Humidity resolution 1%
- · Weather forecast with barometer reading
- Bar chart for last 12 hours barometer
- · inHg or mbar readout for barometer



- Clock operation temperature from $32^{\circ}F \sim 122^{\circ}F$ ($0^{\circ}C \sim 50^{\circ}C$)
- Time acc uracy (Atomic clock): better than I second in 3,000 years
- Time acc uracy (free run): within ±30second per month

Attention

The Radio-Controlled Clock obtains the accurate time with wireless technology. Same as all wireless devices, the receiving ability may be affect by, but not limited to, the following conditions:

- Long transmitting distance
- Nearby mountains and valleys
- Among tall buildings
- · Near railway, high voltage cable, etc.
- Near free way, airport, etc.
- · Near construction site
- Inside cornerete buildings
- · Near elec trical appliances
- · Bad weat her
- Inside moving vehicles
- Nearby metallic structures

Location Precautions

This clock receives a radio wave much like a TV or a radio. Be sure to locate it near a window or some other locations where reception is good. Avoid the following locations, which can interfere with proper reception.









Before You Begin

To ensure proper functioning of the Weather forecast station, please follow this set up procedure.

- Insert batteries for the main unit (Refer to section of Battery Installation)
- · Place the main unit as close as possible next to the remote unit and insert batteries for the remote unit.
- Position the remote unit and main unit within effective transmission range, which in usual circumstances is 20 to 30 meters.

Note that the effective range is affected by the building materials and where the main and remote unit are positioned, try various setup for the best results.

Battery Installation

Battery Installation of the main unit

- · Open the battery door
- · Remove whole set of old batteries
- Load full set (4pcs AAA size batteries) of new batteries in polarity (+) and (-) as indicated
- · Close the battery door
- · Press RESET button once

Battery Installation of the remote unit

- · Open the battery door
- · Remove whole set of old batteries
- Load full set (2pcs AA size batteries) of new batteries in polarity (+) and (-) as indicated
- · Close the battery door
- · Press RESET button once

Warning: Do not mix old and new batteries

Do not mix alkaline, standard (carbon-zinc) or rechargeable (nickel cadmium) batteries.

Do not touch any other button or setting on your main unit. It will automatically receive the remote temperature and time signal after batteries inserted.

Getting Started

Therometer

Upon power up of the remote unit (or pressing the RESET button), the temperature RF signal is immediately sent to the main unit. The main unit attempts to search the RF temperature signal for 5 minutes after power up (or pressing the RESET button).

If the RF signal is received within the first 5 minutes after power up of the main unit, the temperature will shown on the remote temperature display, otherwise it will showing blank "--.-°F".

After the remote unit temperature is shown on the remote temperature display, the synchronization of main unit and remote unit is established, place the remote unit outside in a shaded, dry area to protect it as if under an umbrella.

If the RF temperature signal is not received within the first 5 minutes, press the RE-SYNC button on the main unit, the main unit will attempt remote temperature for another 6 minutes.

Radio Controlled Clock

As long as batteries are supplying power to the main unit, it receives the time signal and adjust time automatically. No manual adjustment is required after power up. Accurate adjustment of the clock based on the time signal is supported in the continental USA.

You are recommended to leave the clock overnight for searching time signal since night time allows better transmission of time signal.

Signal Receive Operation

The main unit automatically receive the time signal 8 times everyday at 2:00am, 5:00am, 8:00am, 11:00am, 2:00pm, 5:00pm, 8:00pm, 11:00pm and make any required adjustment to the time setting.

The WAV E OK indicator and the antenna tower icon appears on the display if the time signal is successfully received at 2:00am or after manual pressed WAVE button.

Important: Do not perform any button or switch operation while a signal receive operation is in progress

Triggering a Receive operation Manually

You can trigger a signal receive operation at any time by pressing the WAVE button, which cause the main unit to perform an immediate signal receive operation.

Unsucces sful Signal Reception

If the automatic update other than 2:00am are unsuccessful, the wave on top of the antenna tower will be disappear. If the automatic update at 2:00am or manually triggered reception are unsuccessful, both of the wave icon and the WAVE OK icon will be disappeared.

If unsuccessful signal reception after battery installation or after reset, the main unit keep trying for 10 minutes every hour until time signal reception successful.

Manually Set the Clock

To Set the Calendar

- 1. Press SET button to active calendar set mode
- 2. Press + or button sequentially to set year
- 3. Holding down either + or button change the year at high speed
- 4. Press SET button to confirm year set and goes to date set
- 5. Press + or button sequentially to set date
- 6. Holding down either + or button change the date at high speed

To Set the Time

- 1. Press SET button after calendar set mode.
- 2. Press + or button sequentially to set minutes, when you press the + or button once, the seconds count reset to 00.
- 3. Holding down either + or button change the time at high speed.
- 4. Press SET button after desire time set and goes to time format set mode.
- 5. Press + or button to toggle between 12hr and 24 hr time display format.
- 6. Press SET button to confirm and quit the set mode.

DST and TIME ZONE

To Set DST

- 1. Press and hold the DST/TIME ZONE button until DST and ON icon shown.
- 2. Press + or button to set DST on or off.
- 3. Press DST/TIME ZONE button again to confirm and quit.

To Set Time Zone

Press the TIME ZONE button until your desire time zone shown on the display

Using Alarm

To Set Alarm Time

- 1. Press + or button sequentially to set the alarm time, the alarm time will be shown at time display with ALARM icon turned on.
- 2. Holding down either + or button change the alarm time at high speed.

To Active Alarm Function

- 1. Slide the SNZ/ALARM ON/OFF switch to ON position, the sign $\frac{3}{2}$ will appear on the time display. The alarm function is activated.
- 2. When the alarm sounds, press the SNOOZE/LIGHT button. The alarm will sound the same time of the next day.
- 3. To deactive the alarm function, slide the SNZ/ALARM ON/OFF switch to OFF position.

To Active the Snooze Alarm

- 1. Slide the SNZ/ALARM ON/OFF switch to SNZ position. The sign $\frac{3}{2}$ and **Zz** will appear on the time display.
- 2. When the alarm sound, press the SNOOZE / LIGHT button. The alarm will sound again in approximately 5 minutes.
- 3. To deactivate the snooze alarm, slide the SNZ/ALARM ON/OFF switch to OFF position.

Check IN / REMOTE Temperature

The indoor temperature is displayed on the INDOOR temperature field and the REMOTE temperature will be shown on the REMOTE temperature field.

Maximum and Minimum Temperature

The maximum and minimum recorded temperature reading will automatically be stored in the memory.

Press the TEMP MAX/MIN button once to display the INDOOR maximum and minimum record. Press the button again to show the REMOTE maximum and minimum record. The respective indicator, INDOOR and REMOTE will be displayed.

To clear the memory, press CLEAR button when the maximum and minimum temperature records are shown, it will clear the record of the shown temperature field

Maximum and Minimum Humidity

The maximum and minimum recorded humidity reading will automatically be stored in the memory.

Press the HUMIDITY MAX/MIN button once to display the INDOOR maximum record. Press the button again to show the INDOOR minimum record. The respective indicator. MAX and MIN will be displayed.

To clear the memory, press CLEAR button when the maximum or minimum humidity records are shown, it will clear the record of the shown field

Weather Forecast and Barometer

The Weather forecast is displayed with easy understanding icon, there are five condition of predicted weather condition with following icon animation:











sunny

sunny&cloudy

cloudy

rainy

heavily rainy

Note: Once resetting the base unit, the reliable weather data can be obtained after 24 hours.

The Barometer measure the atmosphere pressure and display in numerical display accompany with a tendency indicator, when the pressure is going up, the up arrow will shown and a down arrow indicate a going down condition of atmosphere pressure.

Display Unit

The default unit for temperature is °F, press °C/°F button will toggle the display unit of temperature between °C and °F.

The default unit for atmosphere pressure is inHg, press PRESSURE UNIT button will toggle the display unit of atmosphere pressure between inHg and mb (mini-Bar).

Receiver Stage Indicator

The RF signal indicator in the base unit remote temperature window will show the following:

)	NO SIGNAL DETECTION
3 m(£	SIGNAL DETECTION
₽ ₽}}	SUCCESSFUL RECEPTION

Losing Synchronization of the wireless thermometer

If the base unit displayed a proper remote temperature in the past but now displays blank "--", the remote unit and the main unit may have lost synchronization. If this occurs, press the RE-SYNC button of the main unit. The main unit will attempt outdoor temperature reception for another 6 minutes and reinitiate synchronization with the remote unit. If the remote temperature cannot be received, check:

- 1. The distance of the main unit or remote unit should be at least 3-4 feet away from any interfering sources such as computer monitors or TV sets.
- 2. Avoid placing the main unit onto or in the immediate proximity of metal window frames.
- 3. Using other electrical products such as headphones or speaker operating on the same signal frequency (433MHz) may prevent correct signal transmission and reception.
- Neighbors using electrical devices operation on the 433MHz signal frequency can also cause interference.

Note: When the 433MHz signals is received correctly, do not re-open the battery cover of either the remote unit or the main unit, as the batteries may spring free from the contacts and force a false reset. Should this happen accidentally then reset both unit otherwise transmission problems may occur.

The maximum transmission range is 100 feet from the remote unit to the main unit (in open space). However, this depends on the surrounding environment and interference levels. The temperature signal travels in a straight line from the remote unit to the clock. The signal will not curve around blocking object. If no reception is possible despite the observation of these factors, all unit have to be reset.

Interfere nce

Signals from other household devices, such as entry controls, door bells and home security systems, may temporarily interfere with the units and cause reception failure. This is normal and does not affect the general performance of the product. The transmission and reception of temperature reading will resume once the interference has stopped.

Trouble Shooting / FAQ (Frequent Ask Question)

There is **m**10 outdoor temperature shown on the unit?

A: Press the RE-SYNC button on the main unit and the outdoor temperature will shown within minutes. If no temperature is shown after 6 minutes of RE-SYNC button pressed, the remote unit is either too far away of there is some interference between the remote and main unit. Bring the remote unit to the main unit and re-synchronizes. Then move the remote unit to a new location closer and in direct line with the main unit.

The weat her outside is raining and the unit shows sunny?

 Λ : The unit measure barometric pressure changes and is showing that the weather will improve in the next 12~24 hours. It is set to show changes either up or down in trends and not what is going on at the exact time you view the icon.

The weat her icon is incorrect for an extended period.

A: The unit may have been reset during a period of high barometric pressure or low barometric pressure. Wait unit a partly cloudy day and reset the unit and it will acclimate to the correct level of pressure.

The remote temperature is reading 105°F when the temperature is in the 60°F

A: The remote unit is in direct sunlight. Move it to a shaded protected area.

Care of Your Clock

- Avoid exposing your clock to extreme temperatures, water or severe shock.
- Avoid contact with any corrosive materials such as perfume, alcohol or cleaning agents.
- Do not subject the clock to excessive force, shock, dust, temperature or humidity. Any of these
 conditions may shorten the life of the clock.
- Do not tamper with any of the internal components of this clock. This will invalidate the warranty and may cause damage.

Correct Usage of the Batteries

- Use 2 new AA batteries and 4 AAA batteries
- · Do not mix standard and rechargeable batteries
- · Do not mix new and old batteries
- When the low battery mark appears on the display, replace all batteries with new ones, when the low battery mark appears on the REMOTE temperature field, replace all batteries of remote unit with new ones.

Specification

Temperature measuring range

Receiver : -50°C to $+70^{\circ}\text{C}$ with 0.1°C resolution

-58°F to 158°F with 0.2°F resolution

Transmitter : -50°C to $+70^{\circ}\text{C}$ with 0.1°C resolution

-58°F to 158°F with 0.2°F resolution

Temperature checking interval

Receiver : every 16 seconds
Transmitter : every 16 seconds

Transmission distance: maximum 100 feet in open field, depending upon surrounding structures, mounting location and possible interfering sources.

Power source (Alkaline batteries recommended)

Receiver : 4 "AAA" batteries, 1.5V batteries
Transmitter : 2 "AA" batteries, 1.5V batteries

Battery life : about 12 months

Dimension (LxWxH)

Receiver : 195 x 33 x 103 mm Transmitter : 100 x 30 x 70 mm This device complies with Part 15 of the FCC rules. Operation is subject to the following two condition s: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.