

Weather station with 433MHz thermo-hygro sensor and radio controlled clock
 Model: WSU601+THX201

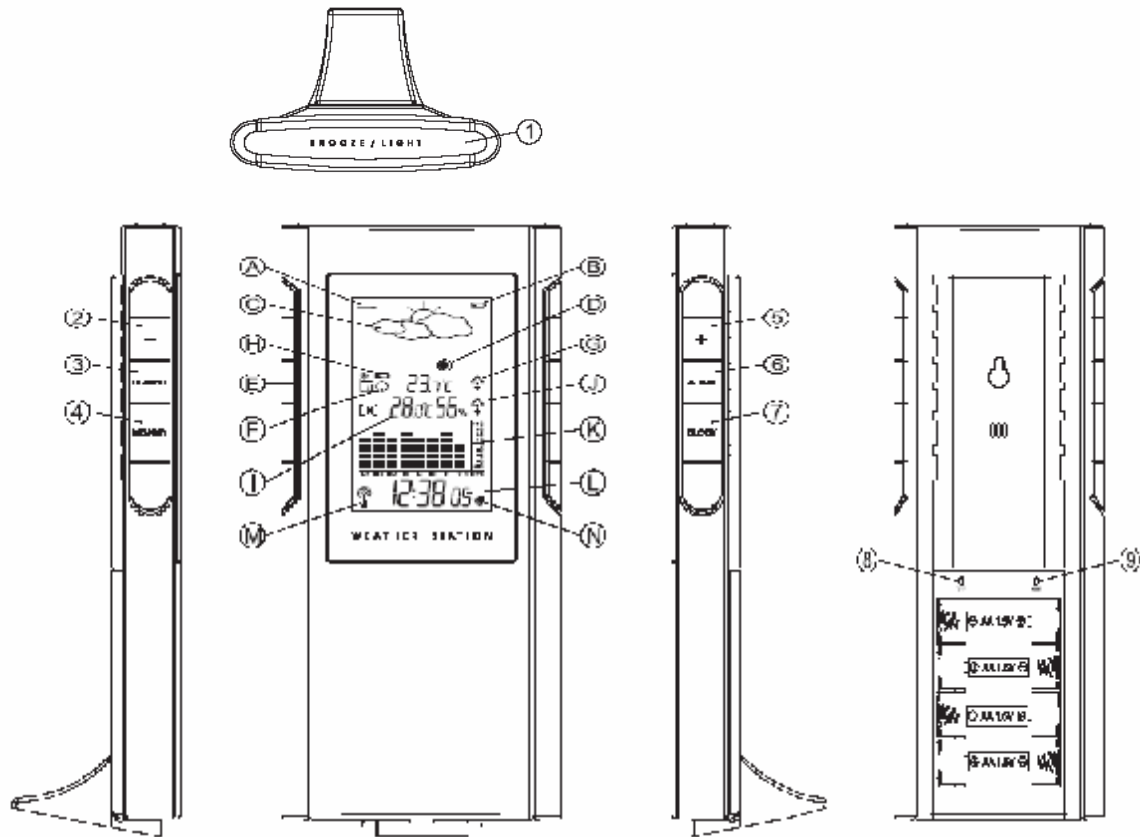
INSTRUCTION MANUAL

Congratulations on your purchase of this new Weather Station. This unique product is designed for everyday use for the home or office and is a definite asset of great use. To fully benefit from all the features and understand the correct operation of this product, please read this instruction manual thoroughly.

FUNCTIONS OF THE WEATHER STATION

This weather station measures the environment of its surrounding area and receives weather data transmitting from up to five outdoor thermo-hygrometers for temperature and humidity.

The data is continuously updated to bring you the latest weather information displayed on the LCD of the receiving unit. Its wireless 433MHz can transmit data over a distance of 50 meters (165 feet) in open space.



FEATURES: MAIN UNIT

A. Air pressure trend arrows

Indicate the trend of air pressure changes

B. Low battery indicator

Shown to indicate the battery in the main unit is low and all displayed information in LCD is no longer reliable. The user needs to change the batteries at once

C. Weather forecast window

Show weather forecast in animation with snowfall indicator and storm warning indicator

D. Moon phase

The animated running moon phase will pause for 5 seconds in place of current moon phase.

E. Outdoor remote sensor indicator

Indicates the current outdoor remote sensor signal received. It can display up to 5 different remote sensors, which are placed in 5 different places and within 50-meter distance from the main unit.

F. Auto scroll indicator

The animated rolling arrow icon is shown to indicate the auto scroll of 5 different remote channels.

G. Outdoor maximum/minimum indicator

Indicates the maximum/minimum outdoor temperature or humidity is displayed

H. Remote sensor battery low indicator

Appear when the batteries of the remote sensor are running dry and the temperature or humidity measured by this sensor is no longer reliable. The user must change the batteries at once.

I. Indoor indicator

Indicates the indoor temperature and humidity are displayed.

J. Indoor maximum/minimum indicator

Indicates the maximum/minimum indoor temperature is displayed.

K. Barometric pressure chart

Shows the barometric pressure trend chart for the past 24 hours.

L. Clock window

Display Clock-Second (HR-MIN-Sec), Clock-Weekday (HR-MIN-Weekday), calendar or alarm time.

M. Radio reception signal

Indicates the condition of WWVB radio controlled time reception.

N. Alarm on icon

Appears when alarm is activated.

DESCRIPTION OF BUTTONS

WSU601 has 7 major function buttons on top and both edges.

1. [SNOOZE/LIGHT]

Press once to activate the LCD backlight or snooze function.

2. [-]

Press to decrease the calendar date to view the MOON PHASE status of a specific day in Day-Month-Year (or Month-Day-Year depends on the date format setting).

Press once to decrease the setting in CLOCK, CALENDAR or ALARM setting mode.

3. [CHANNEL]

Select among channel 1, 2, 3, 4, 5 or to enter auto scroll mode.

Press and hold 2 seconds to activate or deactivate the sensor searching mode.

4. [MEMORY]

Toggle to view the Max/Min reading of the Indoor & Remote Temperature/humidity.

Press & hold 2 seconds to clear Indoor & all Remote temperature/humidity memories.

5. [+]

Press once to increase the date to view the MOON PHASE status of a specific day in Day-Month-Year (or Month-Day-Year depends on the date format setting).

Press once to increase the setting in CLOCK, CALENDAR or ALARM setting mode.

Press & hold 2 seconds to manually activate or deactivate the radio controlled function.

6. [Alarm]

Press once to switch from clock mode to alarm time display mode.

While in alarm display mode, press once to toggle between arm or disarm the daily alarm.

7. [Clock]

Toggle amongst display for Clock-Sec (HR-MIN-Sec), Clock-day (HR-MIN-Weekday), Calendar (Date-Month-Year) and repeat...

And 2 buttons inside battery compartment

8. [°C/°F]

Toggle the temperature unit °C <- -> °F

9. [Reset]

To activate system reset to the main unit during abnormal condition which will reset all settings back to factory values.

GETTING STARTED

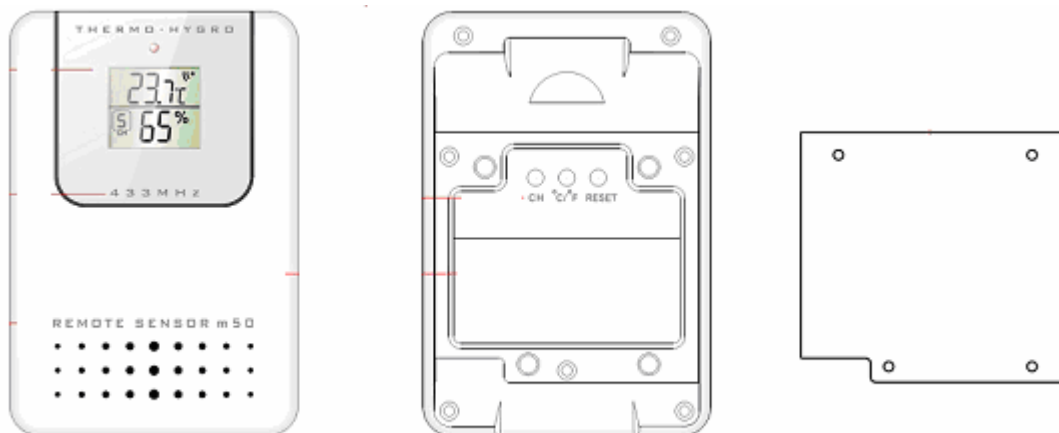
This Weather Station was designed for easy set up. For best operation, the following steps are required to be done in the proper sequence.

1. INSERT BATTERIES FOR MAIN UNIT BEFORE DOING SO FOR THE SENSOR UNITS.
2. RECEIVING UNIT CANNOT BE PROGRAMMED MANUALLY UNTIL THE WIRELESS REMOTE SENSOR UNIT REGISTRATION PROCEDURE HAS BEEN COMPLETED.
3. POSITION THE REMOTE UNIT AND MAIN UNIT WITHIN EFFECTIVE TRANSMISSION RANGE, WHICH, IN USUAL CIRCUMSTANCES, IS 165 FEET. Although the remote unit is weather resistant, it should be placed away from direct sunlight, rain or snow.

BATTERY INSTALLATION FOR MAIN UNIT

1. Remove the battery door;
2. Insert 4 pieces AA size 1.5V alkaline battery as indicate by the polarity;
3. Close the battery door.

Note: Replace the batteries when the low battery indicator appears on the top-right corner of the LCD.



BATTERY INSTALLATION FOR REMOTE SENSOR UNIT

1. Lift off the bracket stand of the remote sensor unit by releasing the 2 fixing snaps at the bottom;
2. Use a small Philips type screwdriver to remove the battery cover screws;
3. Insert 2 pieces of AAA size batteries according to the ' + ' and ' - ' polarity marks shown in the battery compartment and then close the battery door.

WIRELESS REMOTE SENSOR REGISTRATION PROCEDURE

1. Insert x4 AA batteries first to the main unit. The temperature display shows - - . - while the wave icon will keep blinking for 2 minutes indicate the main unit is in sensor searching mode.
2. In a second step, insert the x2 AAA batteries into the sensor unit. The LED on the front panel will start flashing at a rate of one time per around 2 seconds indicates channel-1 is in use.
3. While the LED is flashing, press once the [CH] button will change the sensor channel setting to 2. Keep toggle on [CH] button can change channel setting up to 5. The LED is blinking at a frequency to indicate the channel setting. i.e. continuous blinks 2 times indicate channel-2 is selected.

Note: If user does not press any key for 10 seconds, it will exit the channel setting mode and transmit the RF signal. The main unit will register the temperature reading. (If the transmitter has the LCD display, the °C/°F button will toggle the temperature unit on the LCD.)

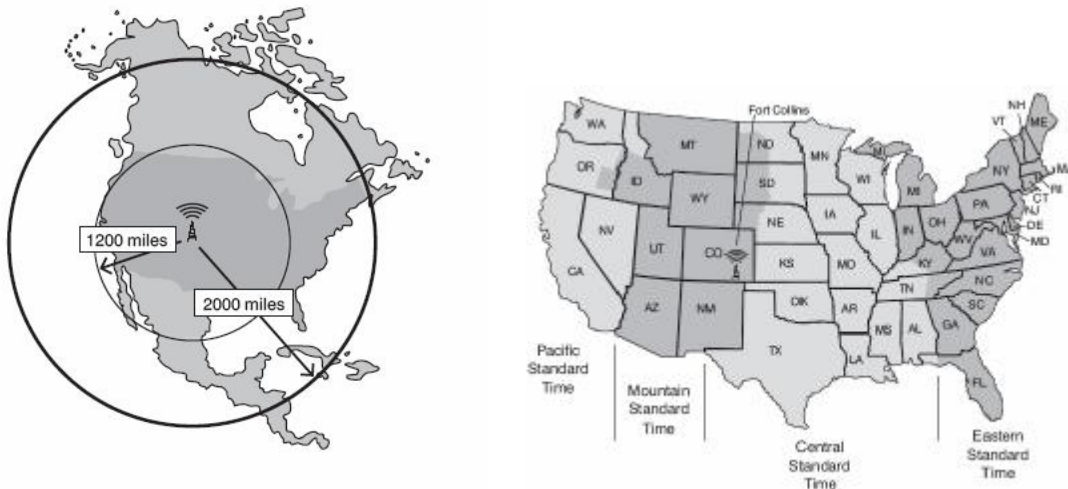
REMOTE CHANNEL AUTO-SCROLLING

This device is equipped with an auto-scroll function. While the auto-scroll function is set, the unit will automatically cycle to display the temperature of each remote sensor for 6 seconds.

1. To retrieve manually the specific sensor temperature reading, press [CHANNEL] button until desired channel number is displayed.
2. To enable auto-scroll function, use [CHANNEL] button to toggle channel 1,2,.. until auto scroll icon appears on the left hand side of the second line display.

WWVB Radio-Controlled Clock

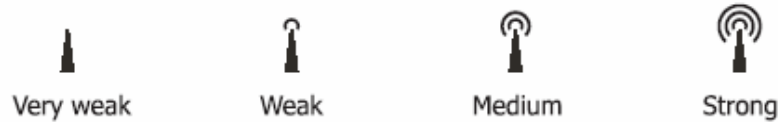
The atomic clock can receive the WWVB time signal transmitted by the National Institute of Standards and Technology (NIST), which is regulated by 3 atomic clocks and deviates less than 1 second without 3,000 years. The NIST broadcasts the time signal continuously from Fort Collins, Colorado. This signal can be received anywhere in the continental USA that the signal can cover a distance of over 2,000 miles from the transmitter. Therefore, your clock receives the signal within the broadcast range anywhere an AM signal can be received.



However, there are many environment factors may affect the RCC reception, i.e. nearby

computer monitors or other electronic devices, if it is placed on any metal surface, surrounded by any tall buildings and so on.

The user should place the atomic clock near a window and position it toward the transmitter in Fort Collins, Colorado. Then, check the RCC strength indicator in the clock display to see if there is a wave icon above the reception tower. There are 3 wave icons that flash to indicate 4 levels of signal status:



If there is no wave above the reception tower, this means that the signal is very weak and the clock cannot be set by the RCC signal. Rotate the unit or position it at another window to obtain a better RCC reception location. Note that the RCC signal is the strongest at night. The user can manually set the clock to local time and leave it overnight to receive the RCC signal.

If nothing else works, take the clock outdoors at night, remove and re-install the batteries and leave it overnight to force it to search for the radio-controlled time signal. If the clock works outdoors but not indoors, you probably have a local interference problem inside your house or building.

Once the time signal is received, the wave icon remains on the LCD. The time and calendar is automatically updated.

Note: Within 10 minutes of time-signal reception, all manual settings are suspended. If setting is desired, press the [▲] button once to deactivate the reception. You can also press and hold the same button for 3 seconds to manually activate the reception when in Normal mode.

SET THE CLOCK, CALENDAR & LANGUAGE

1. Press & hold [CLOCK] button for 2 seconds to enter clock setting mode. Flashing 12 hours will appear.
2. Press [+] or [-] button to switch between 24 hours and 12 hours format, and then press [CLOCK] button to confirm.
3. The icon "P" that represents the Pacific Time zone in North America starts to flash. To select desired time zone: Pacific (P), Mountain (M), Central (C) or Eastern (E), press [+] or [-] button. Press [CLOCK] button to confirm.
4. The hour digits will flash. Use the [+] button to increase by one hour or [-] button to decrease by one hour to your desired hours. Holding down either button will change the increment rapidly. Press [CLOCK] button to confirm.
5. The minute digits will flash. Use the [+] button or [-] button to set your desired minutes. Holding down either button will change the increment rapidly. Press [CLOCK] button to confirm.
Note: Every change of minute digit will automatically reset the seconds to zero.
6. The "DS" digits indicate DST setting. To select daylight saving time to ON or OFF, press [+] or [-]. Press [CLOCK] button to confirm.
7. The year digit will flash and Yr icon appears. Press [+] or [-] button to set your desired year. Press [CLOCK] button to confirm.
Note: Year range is from 2000 to 2099.
8. M and D icons will flash. Press [+] or [-] button to select M D(Month Date) or D M

- (Date Month) format. Press [CLOCK] button to confirm.
- Month digits will flash. Press [+] or [-] button to set your desired month. Press [CLOCK] button to confirm. Do the same to set Date.
Note: The month phase and the weekday will be automatically calculated and displayed for the date set above.
 - E digit will flash. Press [+] or [-] button to switch 5 languages display of weekday (English/German/French/Spanish/Italian. See table 1). Press [CLOCK] button to confirm and exit setting mode

MULTI LANGUAGE DAY					
DISPLAY LANGUAGE					
	E	G	F	S	I
	ENGLISH	GERMAN	FRENCH	SPANISH	ITALIAN
SUNDAY	SU (SU)	SO (SO)	DI (DI)	DO (DO)	DO (DO)
MONDAY	MO (MO)	MO (MO)	LU (LU)	LU (LU)	LU (LU)
TUESDAY	TU (TU)	DI (DI)	MA (MA)	MA (MA)	MA (MA)
WEDNESDAY	WE (WE)	MI (MI)	ME (ME)	MI (MI)	ME (ME)
THURSDAY	TH (TH)	DO (DO)	JE (JE)	JU (JU)	GI (GI)
FRIDAY	FR (FR)	FR (FR)	VE (VE)	VI (VI)	VE (VE)
SATURDAY	SA (SA)	SA (SA)	SA (SA)	SA (SA)	SA (SA)

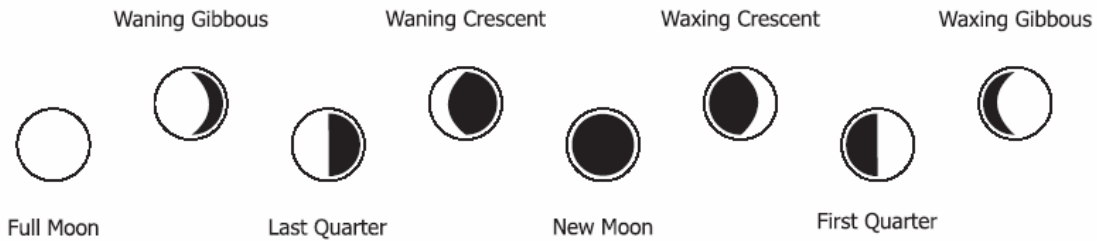
Note: If no key press during setting mode for 10 seconds, it will automatically keep the setting and exit to normal display.

To set daily alarm

- In clock time display mode, press [Alarm] button once to switch to display alarm time for 10 seconds.
- Press [Alarm] button again in alarm display mode to arm or disarm the daily alarm.
- Press and hold [Alarm] button for 2 seconds to enter alarm setting mode.
- The hour digits will flash, use [+] button to increase by one hour or [-] button to decrease by one hour to your desired hours. Holding down the button will change the increment rapidly. Press [Alarm] button to confirm.
- The minute digits will flash. Use [+] button to increase by one minute or [-] button to decrease by one minute to your desired minutes. Holding down the button will change the increment rapidly. Press [Alarm] button to confirm and finish the setting.

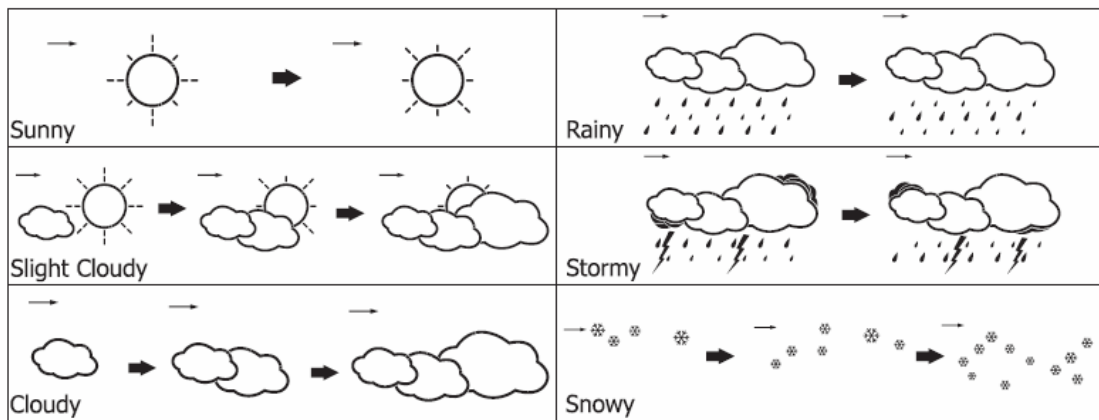
MOON PHASE

Our weather station is equipped with 8 moon phases display (i.e. from new moon to waning crescent) on the screen.



- The animated rolling moon phase will pause 5 seconds in the place of the current month phase calculated by the current calendar date.
- The user also can press [+] button or [-] button go through the calendar to check the moon phase for a specific date other than the current date.

WEATHER FORECAST



Our weather station is capable of detecting local barometric pressure changes, and based on the data collected, predicts the weather forecast for the next 12 to 24 hours.

Note:

1. The accuracy of a general pressure-based weather forecast is about 70 to 75%, and therefore, we cannot be held responsible for any inconveniences so caused by an inaccurate one.
2. The weather forecast is meant for the next 12 to 24 hours. It may not necessarily reflect the current situation.
3. The 'Sunny' forecast covering night hours indicates clear weather.

SPECIFICATIONS

Main Unit

Displayed IN temperature range : -10.0°C to +60.0°C (14°F to 140.0°F)
 Proposed operating range : 0°C to +50.0°C (32.0°F - 122.0°F)
 Temperature resolution : 0.1°C (0.2°F)

Remote Unit

Displayed range : -20.0°C to +60.0°C (-4.0°F to 140.0°F)
 Proposed operating range : -10.0°C to +60.0°C (14.0°F to 140.0°F)
 Temperature resolution : 0.1°C (0.2°F)
 Displayed Relative Humidity range : 25%RH to 95%RH
 RF Transmission Frequency : 433 MHz
 RF Transmission Range : 30 meters at open area

Statement of FCC compliance

Modifications not authorized by the manufacturer may void users authority to operate this device.

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 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.

FCC Label Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.