

UPM

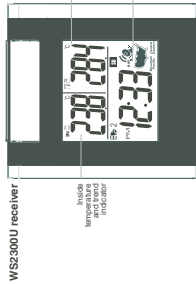
WS2300U+ WT440 Wireless Thermo-Station with transmitter

Congratulations on your purchase of this weather station set, WS2300U+ WT440. Please take the time to read and understand this manual so you can begin to enjoy the convenience and features this product has to offer.

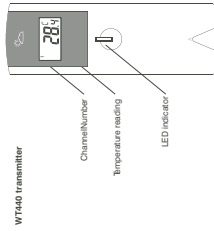
OWNERS MANUAL

FEATURES

- Main Display Unit: WS2300U
- Radio controlled clock (NWSWB)
- Clock with date display
- Clock alarm
- Receives and monitors outside temperature from up to 4 remote sensors via RF technology of 433MHz
- Maximum/minimum temperature records
- Temperature trend indicator
- Temperature alarm
- User-selectable C or F
- Backlight illumination
- Battery type: 2 x AA



WS2300U receiver
Inside wireless receiver
Outside channel
radio transmitter



WT440 transmitter
Channel Number
Temperature reading
LED indicator

Remote Transmitter WT440

- Drip-proof design with LCD
- User-selectable C or F
- Channel number display
- Transmission range: up to 40 meters in open area
- Battery type: 2 x AA

SYNCHRONIZE OUTDOOR TEMPERATURE

Automatic learn function:

- Learn function executes automatically and runs for approximately 3 minutes when batteries are first installed in the receiver.
- Within these 3 minutes, receiver will beep and picks up the temperature signals from transmitter(s) and displays the readings.

* If the signals are not received within this 3 minutes, the outside temperature will show "---". During this time, bringing the unit close together or try different location and restart the auto learning function by removing and replacing the batteries for receiver.

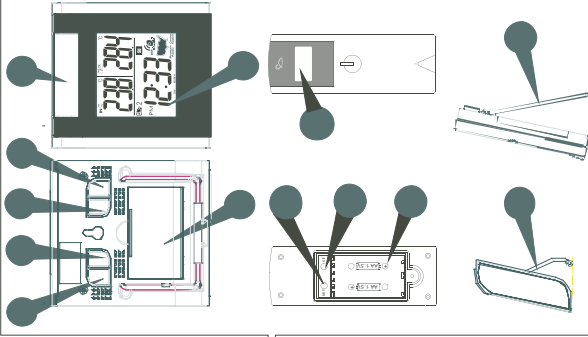
Manual-Learn Function (Searching for Remote Signals):

If a new transmitter is added or if signal is lost (outdoor display blinking), learn function must be executed again.

- Press and hold Channel for 3 seconds in clock display mode
- Beep sound indicates that learn function has started
- It will beep as each remote sensor is detected
- Temperature readings of remote sensor display on the receiver.

* Learn function executes automatically and runs for approximately 3 minutes
* If that fail, make sure the transmission within range or try different location.

KNOW YOUR PRODUCT



- Mode:** scrolls through clock, alarm, and temperature alarm mode
- Hour/+/Min/Max:** show minimum or maximum temperature; adjust clock, date and temperature alarm; clear temperature alarm
- Minute/-:** Toggle between clock and date mode; adjust clock, date and temperature alarm; activate manual synchronization of radio-control clock
- Channel:** scrolls through remote channels (1 to 4); turn on/off the clock alarm; toggle between C and F; adjust weekday format; activate different mode in temperature alarm; enable/disable backlight function
- Snooze:** snooze for alarm; toggle 12 or 24 hour format; activate different mode in temperature alarm; enable/disable backlight function
- SET:** enter to House code and Channel setting mode
- C/F:** change between C or F; change channelland house code
- Battery compartment
- LCD display
- Wall Mount Holder & Table Stand

READ THIS BEFORE YOU BEGIN

- For the best operation,
- Insert batteries for remote transmitter(s) first, and then the receiver.
 - Place the receiver and remote transmitter(s) close together. This will ensure that the receiver can synchronize with remote transmitter(s).
 - Place the remote transmitter(s) within effective transmission range.

* Although remote transmitter are weather proof, it is recommended to place it away from direct sunlight, rain or snow. This will help to make measurement more accurate.
The building materials and where the receiver and remote transmitter are positioned vastly affect the effective range. Try various set-ups for best result.

GETTING START

Step 1: Setting remote transmitters

- Remove battery cover and insert 2 AA size batteries to start setup
- Insert between terminals observing proper polarity then replace cover
- HOUSE CODE will flash for 8 seconds
- Select HOUSE CODE (1 to 15) by pressing OF
- Make sure all transmitters in your system are set to the same House Code.
- Press SET to complete HOUSE CODE setting, Channel will flash for 8 seconds
- Select CHANNEL (1-4) by pressing C/F. This number will be confirmed upon pressing the SET button, or if no key is pressed for 10 seconds.
- Temperature will display
- Toggle between C and F of Temperature by pressing C/F

Once setup of remote transmitter is completed, it will start transmission in one minute interval.
* Use a different house code if your weather station detect other signals from neighboring sources
* Factory default: house code = 01 and channel = 01



Step 2: setting the receiver

- Remove battery cover and insert 2 AA size batteries. Insert between terminals observing proper polarity then replace cover

RADIO CONTROLLED CLOCK

MANUAL CLOCK & DATE SETTING

Clock 1 Setting:

- Press and hold Mode for 3 seconds to enter the clock setting mode, Time will flash.
- Press Hour/+/Min/Max to set Hour
- Press Minute/- to set the Minute
- Press Channel to clear second
- Press Snooze during clock setting, to change between 12 and 24 hour display.
- Do not press any key for 1 minute to finish clock setting, or press Mode to enter Date setting

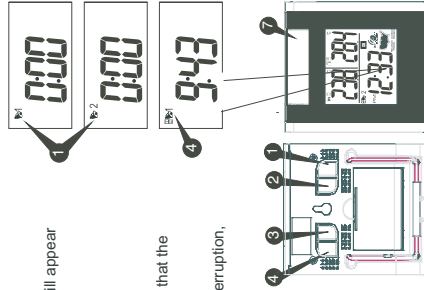
Date Setting:

- Press Mode at clock setting mode, Month and Day will flash
- Press Hour/+/Min/Max to set day
- Press Minute/- to set month
- Press Channel to select weekday
- * February will have 29 days
- Do not press any key for 1 minute to finish date setting, or press Mode to exit the date setting mode.

CLOCK ALARM SETTING

Alarm 1 & Alarm 2 Setting

- Scroll to Alarm 1/ Alarm 2 mode using Mode
 - Press Hour/+/Min/Max to set hour
 - Press Minute/- to set minute
 - Press Channel to toggle alarm on and off
When the alarm is set ON, the bell symbol will appear
- When Alarm Sounds
- 1 or 2 will flash
 - Press Snooze to snooze the alarm for 5 minutes. After that the alarm will sound again.
 - Press ANY other key will shut off the alarm. Without interruption, alarm will shut off automatically after one minute.



TEMPERATURE DISPLAY

Check Inside Temperature.

- After insert batteries, inside temperature will display in top-left pane of LCD.
- Check Outside Temperature.
- Press Channel to toggle between Channel 1, 2, 3 and 4, outside temperature will display in top-right pane of LCD.
- You can press and hold Snooze for 3 seconds to activate/ deactivate auto scroll display mode (Channel 1, 2, 3 and 4).

Auto scroll function is suspended during outside temperature synchronization (manual learn and power up learn).

°C or °F Temperature Display.

- Toggle between °C and °F by pressing Channel in Inside Temperature Alarm mode.

Min. and Max. Temperature Record.

- Press Hour+/Min/Max to toggle between current temperature, minimum temperature and maximum temperature.
- Press and hold Hour+/Min/Max for 3 seconds in clock display mode to clear maximum/ minimum temperature record.

Note: Min/Max readings are automatically cleared daily at 00:00

Inside/Outside	Temperature	Display
Inside	> +5°C	/2
Outside	> +7.0°C	/+
Outside	< -3.0°C	/2

HI & LO Display.

"Hi" and "Lo" display on screen means temperature is outside the range of specification.

Temperature Trend Indicator.

The trend indicator shows the trend of temperature determined by the particular sensor in the past half-hour interval.

Arrow Indicator	Rising	Steady	Falling
Trend	↗	→	↘

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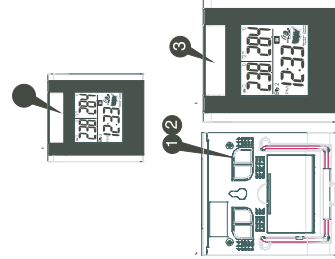
BACKLIGHT ILLUMINATION

This Weather Station is equipped with Backlight function.

- Press Snooze to turn on backlight. Backlight will be illuminated for 8 seconds.

To save energy, you can select to Turn Off the backlight by executing the following steps:

- 1 Press and hold Mode for 3 seconds to Clock setting
- 2 Press Mode again to enter Date setting mode;
- 3 Press Snooze key to enable/ disable the backlight



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TEMPERATURE ALARM

You can set temperature alarms to alert temperature has exceeded the preset temperature limit.

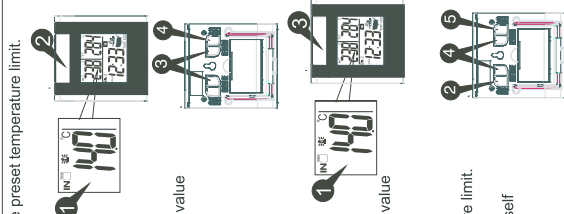
- Inside temperature alarm.
- Scroll to inside temperature alarm mode by using Mode, the symbol "i" will display and the preset value will blink at inside temperature display box
- Press Snooze to select the high temperature alarm (→)
- low temperature alarm (←) or disable the alarm function (blank)
- Press Hour+/Min/Max or Minute/- key to set the temperature limit value
- Press Mode to finish

Outside temperature alarm.

- Scroll to outside temperature alarm mode by using Mode, the symbol "o" will display and the preset value will blink at outside temperature display box
- Press Channel to select one desired channel of transmitter
- Press Snooze to select the high temperature alarm (→)
- low temperature alarm (←) or disable the alarm function (blank)
- Press Hour+/Min/Max or Minute/- key to set the temperature limit value
- Press Mode to finish

When temperature alarm sounds.

- * It is to alert that the temperature has exceeded the preset temperature limit.
- Press ANY key to stop temperature alarm; or
- If no key is pressed, the temperature alarm will automatically stop itself after one minute.
- Once triggered, temperature alarm comes on as a distinctive sound, different to that of Alarm 1 and Alarm 2.



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FCC / Industry Canada COMPLIANCE

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. 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.

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.

NOTICE:

Changes or modifications made to this equipment not expressly approved by UPM may void the FCC authorization to operate this equipment.

The statement required by ICES - 003 is as follows:

NOTICE:
This Class B digital apparatus complies with Canadian ICES-003.

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LOW BATTERIES INDICATION

RECEIVER:

- 1 If the symbol "b" is displayed below the bottom box at clock display section, then the receiver batteries have run dry. However, it will direct drop down its performance, for example:
 - the LCD display is faint,
 - may cause the transmission range to be limited and lose the data from remote transmitter(s)

- 2 You will need 2 x AA batteries for the receiver.

* Changing the batteries in the base station will cause all settings to be erased.

TRANSMITTER:

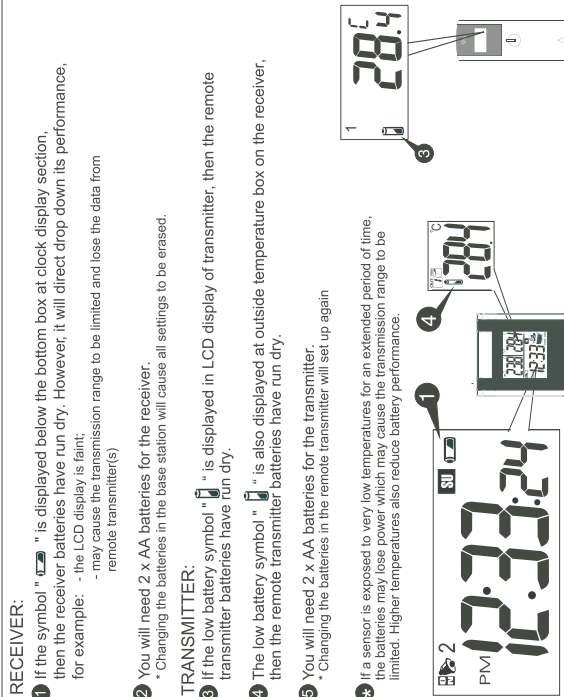
- 3 If the low battery symbol "b" is displayed in LCD display of transmitter, then the remote transmitter batteries have run dry.

- 4 The low battery symbol "b" is also displayed at outside temperature box on the receiver, then the remote transmitter batteries have run dry.

- 5 You will need 2 x AA batteries for the transmitter.

* Changing the batteries in the remote transmitter will set up again

* If a sensor is exposed to very low temperatures for an extended period of time, the batteries may lose power which may cause the transmission range to be limited. Higher temperatures also reduce battery performance.



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TROUBLE SHOOTING

Problem:

- The temperature measurement of remote sensor and receiver does not match.

Solution:

Wait for about 1-2 minute to ensure the remote sensor and receiver are in phase. Otherwise, re-synchronize receiver by holding Channel for 3 seconds until a beep is heard.

- Temperature reading of outdoor remote sensor seems to high.

Ensure the remote sensor is out of direct sunlight, and away from sources of heat.

- Receiver is no longer receiving remote sensor signals or display

- Repeat the learning procedures.
- Temperature may be below -30°C.
- Batteries in remote sensor may need changing.
- Move remote sensor closer to the receiver.
- Make sure remote sensor is away from sources of electrical disturbance.

- Operation is not normal or certain functions do not perform

Device requires reset. Reset the device by replacing new batteries in both transmitters and receiver.

SPECIFICATIONS

Weather Station Receiver: WS2300U

Battery Type : 2 X 1.5V AA batteries
Temp. Range : -9.9 °C to +55 °C

Weather Station Transmitter: WT440

Battery Type : 2 X 1.5V AA batteries
Temp. Range : -30 °C to +70 °C
Transmission Frequency : 433.92 MHz
Transmission Range : up to 40 meters in open area

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