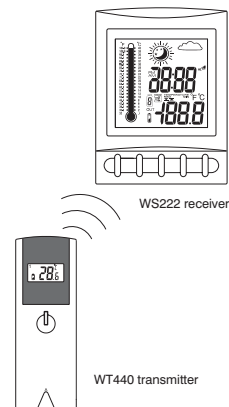# OWNER'S MANUAL

UPM

Congratulations on your purchase of this weather station set, WS222+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.

FEATURES

Main Display Unit WS222:
* clock and alarm clock function
* local temperature display
* receives and displays temperature readings from up to 4 remote transmitters via RF technology of 433MHz
* minimum/maximum temperature memory
* local/remote temperature alarms
* temperature trend indicator
* day/night icon
* user-selectable °C or °F
* battery type: 2 x AA

Remote Transmitter WT440:
* drip-proof design with LCD screen
* temperature display in user-selectable °C or °F
* transmission range: up to 40 metres in open area
* table stand or wall mountable
* battery type: 2 x AA

WS222 + WT440 Wireless Weather Station

WS222 receiver

WT440 transmitter

BUTTON PLACEMENT

1. **MODE/SNOOZE:** scrolls through the clock, alarm, and (upper & lower) temperature alarm modes; snooze for alarm

2. **HOUR/+/MAX:** shows maximum temperature; adjusts clock, alarm, and temperature alarm values

3. **MIN/-/MIN:** shows minimum temperature; adjusts clock, alarm, and temperature alarm values

4. **CHN:** scrolls through local and remote channels (1 to 4);

5. **ALARM /(°C/°F):** toggles between °C and °F, 12 and 24 hour format, and alarm ON and OFF; disables temperature alarms

6. **SET:** activates SET function

7. **C/F:** changes House Code and Channel Code; selects °C or °F

8. Battery Compartment

9. LCD Screen

10. Battery Cover

11. Wall Mount Bracket & Table Stand

GETTING STARTED

setting up the transmitter

* Set up the transmitter(s) **before** setting up the receiver

1. Remove battery cover

2. 2 AA size batteries (included)

3. Insert batteries into compartment, observing proper polarity

4. House code will blink for 8 seconds

5. Select House code (1-15) by pressing **C/F**
   * If you have multiple transmitters for a single receiver, set each transmitter to the **same** House code

6. Press **SET**

7. Channel code will blink for 8 seconds

8. Select Channel code (1-4) by pressing **C/F**
   * If you have multiple transmitters for a single receiver, set each transmitter to a **different** Channel code

9. Press **SET**

10. The temperature will appear on the LCD screen

11. Select temperature display in °C or °F by pressing **C/F**

12. Replace battery cover

setting up the receiver

1. Remove battery cover

2. 2 AA size batteries (included)

3. Insert batteries into compartment, observing proper polarity; replace cover

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WIRELESS TRANSMISSION

Automatic Learn Function:

1. The learn function starts automatically and runs for approximately 3 minutes when batteries are first installed in the receiver.

2. Within the 3 minutes, the receiver will pick up the temperature signal from the remote transmitter and display the reading.

Synchronized!!!

Manual Learn Function (Remote Signal Search):

If a new remote transmitter is added or if signal is lost (outdoor readout on the receiver is blinking), the learn function must be executed again.
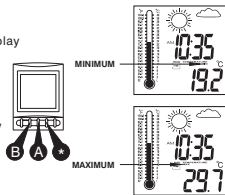
1. Press and hold **CHN** for 3 seconds to start.

2. Unit will beep to indicate that learn function has started.

3. Channel symbol will blink and unit will continue to beep as each remote transmitter is detected.

4. Within 3 minutes, the temperature reading of the remote transmitter will display on the receiver.

TEMPERATURE DISPLAY
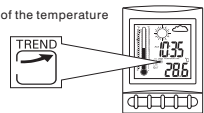
Min and Max Temperature

A. Press **MIN** in the Clock mode to display the minimum temperature**.** The MIN symbol will appear.

To return to normal temperature display, press **MIN** again.

MINIMUM

B. Press **MAX** in Clock mode to display the maximum temperature. The MAX symbol will appear.

To return to normal temperature display, press **MAX** again.

MAXIMUM

NOTE: Min/Max readings are automatically cleared daily at **00:00**

* Press **CHN** to view the minimum or maximum temperatures of the local and remote channels 1 to 4.

Temperature Trend

The trend indicator shows the trend of the temperature in the past half-hour interval.

Example:
The following indicates that the temperature is rising.

TREND

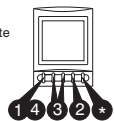| Arrow Indicator			
Trend	Rising	Steady	Falling

TEMPERATURE ALARM

The **temperature alarm** is an ideal feature to be used for greenhouses and wine cellars, or any place that you require controlled temperature. Once activated, the temperature alarm would sound when the room gets too warm or too cold depending on your settings.

* You can set both an upper and lower temperature alarm for the local temperature (main receiver unit) and/or for each of the remote (outdoor) channels of 1 to 4.

* **UPPER TEMPERATURE LIMIT:** If the temperature gets too **warm** and reaches the upper temperature limit, the alarm would sound.

* **LOWER TEMPERATURE LIMIT:** If the temperature gets too **cold** and reaches the lower temperature limit, the alarm would sound.

Setting the Upper Temperature Alarm

1. Scroll to the Upper Temperature Alarm Setting mode by pressing **MODE**. You should see the ▲ symbol and dotted lines (- - -) or pre-existing setting blink.

2. Select the desired channel, local or remote channels (1 to 4) using **CHN**.

3. Press + or - key to set the desired value for the upper temperature limit.

* To disable the particular alarm, press **ALARM**. The dotted lines (- - -) would reappear to indicate that the alarm has been disabled.

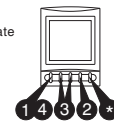4. Press **MODE** to finish; or repeat steps for all other channels if desired.

TEMPERATURE ALARM

Setting the Lower Temperature Alarm

1. Scroll to the Lower Temperature Alarm Setting mode by pressing **MODE**. You should see the ▼ symbol and dotted lines (- - -) or pre-existing setting blink.

2. Select the desired channel, local or remote channels (1 to 4) using **CHN**.

3. Press + or - key to set the desired value for the lower temperature limit.

* To disable the particular alarm, press **ALARM**. The dotted lines (- - -) would reappear to indicate that the alarm has been disabled.

4. Press **MODE** to finish; or repeat steps for all other channels if desired.

NOTE: In the normal clock display, when either the upper or lower temperature alarm has been set for a particular channel, the ▲ or ▼ symbol will show up solid on the LCD screen when that channel is displayed.

When the Temperature Alarm Sounds

* The temperature alarm will sound when the actual temperature has reached (or exceeded) the upper or lower temperature limit.

* ▲ or ▼ symbol and temperature limit will blink

* The temperature alarm has a distinctive tone different to that of the clock alarm.

* Press ANY key to stop the temperature alarm. Or without interruption, the temperature alarm will automatically stop after one minute.
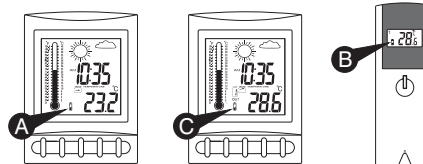

LOW BATTERY INDICATION

WS222 Receiver

A. Replace the batteries when the Low Battery Indication lights up on the LCD screen by the local (indoor) temperature display.

WT440 Remote Transmitter

B. Replace the batteries when the Low Battery Indication lights up on the bottom-left corner of the WT440 transmitter.

C. When the batteries are low on a transmitter, a Low Battery Indication will also light up on the LCD screen of the WS222 receiver for that particular channel.

NOTE: After replacing the batteries, you will need to perform the Setup and Learn Function procedures again. Refer to the GETTING STARTED and WIRELESS TRANSMISSION sections.

WIRELESS TRANSMISSION

Environmental factors and signals from other household devices, such as remote entry controls, security systems, and computers, may interfere with the wireless transmission of this product and cause temporary reception loss. This is normal and does not affect the general performance of this product. Stable reception will resume once the interference ends.

For optimal performance:

- Place the receiver and remote transmitter side by side about 1 metre apart, and allow the receiver and remote transmitter to synchronize for 10 minutes before you place the remote transmitter outdoors.

- The remote transmitter should be placed in a dry shaded area. NOTE: Fog and mist will not harm the remote transmitter but direct rain must be avoided.

- Mount the remote transmitter upright avoiding metallic objects and frames, such as window sills. Verify that there are no obstacles like a transmission tower or steep hill that can cause interference and blockage between the remote transmitter and receiver.

- Place the receiver unit at least 2 metres away from any electrical devices, such as your television set, computer, cordless phone, or any radio controlled equipment.

- You may need to reposition the remote transmitter to a different location and/or closer to the receiver for the best transmission.

- Replace unit(s) with fresh batteries when the Low Battery Indicator lights up. Refer to the LOW BATTERY INDICATION section.

CLOCK SETTING

1. Press and hold **MODE** for 3 seconds to enter the Clock Setting mode. You will hear a beep and the time will blink.

2. Press **HOUR** to set the hour.

3. Press **MIN** to set the minute.

4. Press **ALARM/(°C/°F)** during clock setting to change between 12 and 24 hour display.

5. Press **MODE** or no key press for one minute will end clock setting.

DAY/NIGHT ICON

The day/night icon will change automatically depending on the time of day.

DAY ICON:
The day icon is represented by a blinking sun, and a cloud.
- The day icon will be displayed between 6:00am to 5:59pm.

NIGHT ICON:
The night icon is represented by a half-cresent moon with stars and a cloud.
- The night icon will be displayed between 6:00pm to 5:59am.

ALARM SETTING

1. Scroll to the Alarm mode using **MODE**. The **AL** symbol will appear.

2. Press **HOUR** to set the hour.

3. Press **MIN** to set the minute.

4. Press **ALARM** to toggle alarm on and off.

5. When the alarm is set ON, the symbol will appear and the unit will beep.

6. In the normal clock display, if the alarm is set ON, the symbol will also appear on the display.

Alarm Setting   Clock Display

TEMPERATURE DISPLAY

Local (Indoor) Temperature

The local (indoor) temperature is displayed in two locations.

1. **GRAPHICAL** - the local (indoor) temperature is shown as a bar graph on the left of the LCD screen.

2. **NUMERICAL** - the local (indoor) temperature can be viewed at the bottom-right of the LCD screen.

NOTE: The remote (outdoor) temperatures are also shown here. You can scroll through the local and remote channels 1 to 4 by pressing **CHN**.

EXAMPLE:

Local (Indoor) Temperature   Remote (Outdoor) Temperature

Remote (Outdoor) Temperature

A. If the Learn Function is performed successfully (refer to the WIRELESS TRANSMISSION section), the remote (outdoor) temperatures will display in the bottom-right corner of the LCD screen.

B. Press **CHN** to toggle between channels 1, 2, 3 and 4.

EXAMPLE:

Remote (Outdoor) Temperature

Selecting °C or °F Temperature Display

C. Toggle between °C and °F by pressing **°C/°F** in the Clock mode.

TROUBLESHOOTING

PROBLEM	SOLUTION
The temperature data on the remote transmitter does not match the data displayed on the receiver.	This may occur when you move the remote transmitter from one environment to another. For example, when you bring the transmitter from inside the warm house out to the cold exterior. In such a case, there will be a big change in temperature. The transmitter will record this change in temperature much quicker than it is able to transmit the data to the receiver (which is done once every minute). Therefore, you will temporarily get a difference in reading between the remote transmitter and receiver. The solution is to allow the remote transmitter some time to sit in its new location to reach equilibrium. This may take several minutes. Once the data is stable, the data displayed on the remote transmitter should match that displayed on the receiver.
The temperature data on the remote transmitter does not match the data displayed on the receiver.	This may also be the result of a temporary loss of reception due to interfering sources. Normal reception should resume once the interference ends. Refer to the WIRELESS TRANSMISSION section.
The remote (outdoor) readout on the receiver is blinking.	Re-synchronize the remote transmitter and receiver by pressing and holding **CHN** on the receiver for 3 seconds until a beep is heard. The temperature data from the remote transmitter will display on the receiver within 3 minutes. Refer to the WIRELESS TRANSMISSION (Manual Learn Function) section.
The remote (outdoor) readout on the receiver is blinking. The receiver will not detect or receive the temperature data from the remote transmitter, even after the Manual Learn Function has been executed.	Ensure the remote transmitter is away from any possible source of interference and electrical disturbances. You may try to reposition the remote transmitter in a different location and/or closer to the receiver. The remote transmitter does have a maximum range of 40 metres, but any walls or windows the signal has to pass through will reduce the distance. Due to the nature of the batteries, extreme cold temperatures may also affect the transmission range. Refer to the WIRELESS TRANSMISSION section and repeat the Manual Learn Function with the remote transmitter in a new location.

FCC COMPLIANCE

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.

SPECIFICATIONS

WS222 - WEATHER STATION RECEIVER
- Battery Type: 2 X 1.5V AA batteries
- Operating Temperature: -5°C to 50°C
- Temperature Range: -20°C to 55°C
- Measurement Accuracy: Max. +/- 1°C within measuring range of 0°C to 40°C
- Resolution: 0.1°C
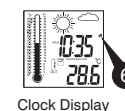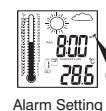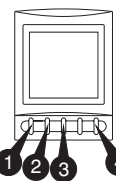
WT440 - WEATHER STATION TRANSMITTER
- Battery Type: 2 X 1.5V AA batteries
- Operating Temperature: -20°C to 60°C
- Temperature Range: -30°C to 70°C
- Temperature Resolution: 0.1°C for above -10°C / 1°C for below -10°C
- Measurement Accuracy: Max. +/- 1°C within measuring range of 0°C to 40°C
- Transmission Frequency: 433.92 MHz
- Transmission Range: up to 40 metres in open area

CUSTOMER SUPPORT HOTLINE: 1-888-468-6876

LIMITED TWO-YEAR WARRANTY

UPM warrants this product, excluding battery, to be free from defects in the materials or workmanship, under normal use and service, for a period of two (2) years from the date of purchase by the consumer.

If, at any time during the warranty period, the product is defective or malfunctions, UPM shall repair or replace it (at UPM's discretion) within a reasonable period of time.

If the product is defective,
(i)   return it, with a dated proof of purchase, to the retailer from which you purchased it, or
(ii) package it carefully, along with a dated proof of purchase and a short description of the malfunction, and mail it, postage prepaid, to the following address:

UPM Marketing Inc.
Return Goods
Unit 10B - 250 Shields Court
Markham, Ontario
L3R 9W7

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by UPM that the defect or malfunction was caused by damage which occurred while the product was in the possession of the consumer.

UPM's sole responsibility shall be to repair or replace the product within the terms stated above. UPM SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY UPM MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE TWO YEAR DURATION OF THIS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which may vary from state to state.

If you have any questions concerning this warranty, please write to:

UPM Marketing Inc.
Customer Service Department
Unit 10B - 250 Shields Court
Markham, Ontario
L3R 9W7

Or call 1-888-GO-TO-UPM (1-888-468-6876), Monday to Friday, from 9:00am to 5:00pm eastern.

INSTRUCTION TO THE USER

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.

In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.