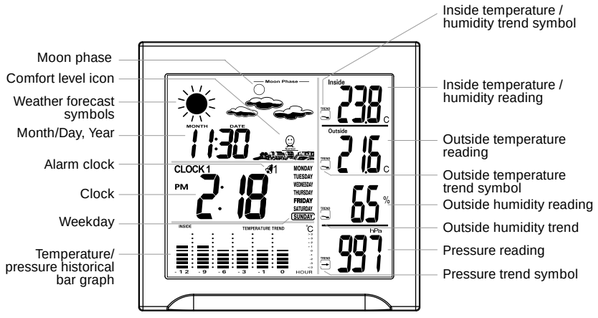
UPM OWNERS MANUAL

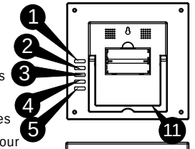
WS928 + WT440H
Wireless Weather Station



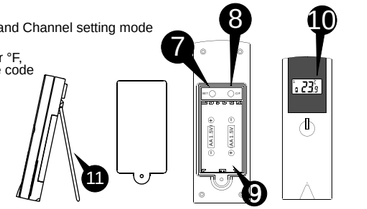
WS928 receiver

KNOW YOUR PRODUCT

button placement



1. Snooze/Mode: scrolls through Clock 1 & 2, Alarm 1 & 2, Date & Year, and Temperature Alarm(high & low) mode; snooze for alarm
2. Hour/+/Max: shows maximum temperature; adjusts clock, alarm, date & year and temperature alarm values
3. Minute/-/Min: shows minimum temperature; adjusts clock, alarm, date & year and temperature alarm values
4. **ON/OFF /(C/F):** toggles between C and F, 12 and 24 hour format, Alarm 1 & 2 on and off; disables (resets) high & low temperature alarms
5. Channel: scrolls through remote channels Outside, Outside 2 and Outside 3); scrolls through local and remote channels (Outside, Outside 2 and Outside 3) in (high & low) temperature alarm mode; activate learn process
6. LCD display
7. **SET:** enter to House code and Channel setting mode
8. **C/F:** change between °C or °F, change channel and house code
9. Battery compartment
10. LCD display
11. Wall mount holder & table stand

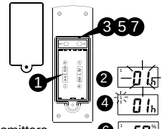


READ THIS BEFORE YOU BEGIN

For the best operation,

1. Insert batteries into the remote transmitter(s) first, and then the receiver.
2. Place the receiver and remote transmitter(s) close together. This will ensure that the receiver synchronizes with remote transmitter(s).
3. Place the remote transmitter(s) outdoors within an effective transmission range.
- Although remote transmitters are weather resistant, it is recommended to place it away from direct sunlight, rain or snow. This will help to make condition readings more accurate.
- The transmission range can be affected by the dense walls or electronic interference in between the receiver and transmitter. Try various set-ups for best results.

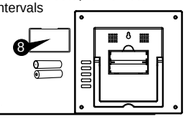
GETTING STARTED



STEP 1 : setting the remote transmitters

1. Remove battery cover and insert 2 AA size batteries to start setup.
2. The HOUSE CODE will flash for 8 seconds
3. Select the HOUSE CODE by pressing C/F
4. The range of House Codes are from "01" to "15". Make sure all transmitters in your system are set to the same House Code.
5. 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. If only one transmitter is available, it is recommended to leave the CHANNEL be "01"
6. Humidity & Temperature will display
7. Select °C or °F of Temperature by pressing C/F and pressing SET. Once setup of remote transmitter is completed, it will start transmitting at one minute intervals

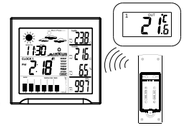
** Use a different house code if your weather station detects other signals from neighboring sources*
** Factory default: house code = 01 and channel = 01*



STEP 2 : setting the receiver

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

SYNCHRONIZATION



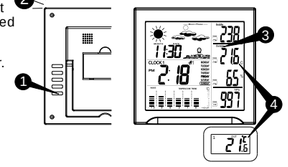
Automatic Learn Function:

1. The Learn function begins automatically and runs for 3 minutes when receiver batteries are first installed.
2. Within these 3 minutes, the receiver will beep and display the temperature & humidity signals from transmitter(s).
- If the signals are not received within this 3 minutes, the outside temperature and humidity will show "---". If this is the case, bring the units closer togther or try a different location. Then restart the auto learning function by temporarily removing the batteries from receiver.

Manual-Learn Function *(Searching for Remote Signals):*

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

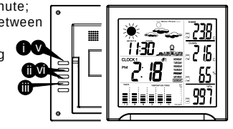
1. Press and hold Channel for 3 seconds in clock display mode
2. A beep sound indicates that learn function has started
3. The Outside symbol will flash and the unit will beep as each remote sensor is detected
4. Temperature & humidity readings of the remote sensor will display on the receiver.



MANUAL CLOCK SETTING

Clock 1 Setting

i. Press and hold MODE for 3 seconds to enter the clock setting mode (the CLOCK 1 symbol appears and the time will flash)
ii. Press HOUR to set the hour and MINUTE to set the minute;
iii. Press ON/OFF(C/F) during clock setting, to change between 12 and 24 hour display.
iv. Do not press any key for 1 minute to finish clock setting



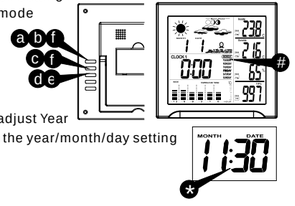
Clock 2 Setting

v. Scroll to Clock 2 mode using MODE
vi. Press + or - key to change the time

MONTH & DATE, YEAR SETTING

a. Press and hold MODE for 3 seconds to Clock Setting mode
b. Press MODE again to Month/Date setting mode
c. Press HOUR/+/MAX to set month
d. Press MINUTE/-/MIN to set date
- ** The colon symbol " : " appears if date value is 2-digit (e.g. 13, 26...)*

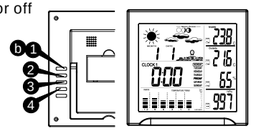
e. Press MODE to enter Year setting
f. Press HOUR/+/MAX or MINUTE/-/MIN to adjust Year
Weekday is automatically determined from the year/month/day setting



ALARM SETTING

Alarm 1and Alarm 2 setting

1. Scroll to Alarm1 mode (Alarm2 mode) using MODE
2. Press HOUR to set hour
3. Press MINUTE to set minute
4. Press ON/OFF/(C/F) to set alarm on or off
5. When the alarm is set ON, the bell symbol 🔔1 / 🔔2 will appear



When alarm sounds

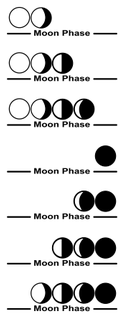
a. 🔔1 or 🔔2 will flash, and the sound volume will gradually from low to high
b. Press SNOOZE to snooze the alarm for 5 minutes, after that the alarm will sound again
c. Press ANY other key will shut off the alarm. Without interruption, the alarm will shut off automatically after one minute

MOON PHASE

The moon phase is automatically updated according to the year/month/day.

Moon Phase Display

1. New Moon
2. Young Crescent
3. First Quarter
4. Waxing Gibbous
5. Full Moon
6. Waning Gibbous
7. Last Quarter
8. Old Crescent



TEMPERATURE / PRESSURE HISTORICAL BAR GRAPH

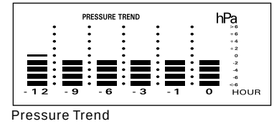
The bar graph lets you see the pressure trend over a period of 24 hours. (automatically resets at midnight). The bar graph will show the Pressure Trend (Default), or the Local or Remote Temperature by pressing ON/OFF(C/F) in Clock1 mode.

The sequence is:

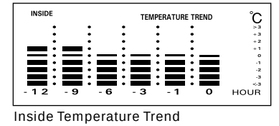
Pressure Trend
↓
Inside Temperature Trend
↓
Outside Temperature Trend
(OUTSIDE , 2 , 3)

Note: If you have multiple transmitters press CHANNEL to scroll through below sequence:

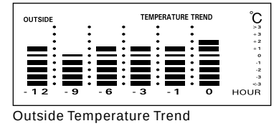
OUTSIDE Channel 1
↓
OUTSIDE 2 Channel 2
↓
OUTSIDE 3 Channel 3



Pressure Trend



Inside Temperature Trend



Outside Temperature Trend

TEMPERATURE & HUMIDITY DISPLAY

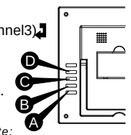
Check Inside Temperature & Humidity

✱ After inserting the batteries, the inside temperature and humidity readings will display alternately on the receiver.

Check Remote Temperature & Humidity

A Press Channel to toggle between outside channels :
Outside (channel 1) ➡ Outside 2 (channel2) ➡ Outside 3 (channel3)

B Temperature and humidity readings will display on the receiver.



°C or °F Temperature Display

Toggle between °C and °F by pressing C/F in Clock2 mode.

Min and Max Temperature & Humidity

C Press MIN in Clock1 mode to display minimum temperature and humidity

D Press MAX in Clock1 mode to display maximum temperature and humidity

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

If the outside temperature falls below -30°C or the outside relative humidity falls below 15%, the symbol "LO" will appear on the screen respectively; If the humidity rises above 95%, the symbol "HI" will appear on the screen. Both events are quite normal and do not mean that your weather station is defective.

Temperature, humidity & pressure trend

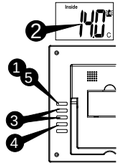
The trend indicator shows the trend of inside/outside temperature, inside/ outside humidity and pressure determined by the particular sensor in the past half hour interval.

Arrow Indicator			
Trend	Rising	Steady	Falling

TEMPERATURE ALARM

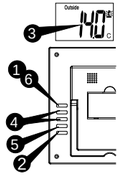
You can set the high or low temperature alarms for the local reading and for one remote channel

Local temperature alarm



1 Scroll to local temperature alarm mode by using MODE
2 The default value 14°C or the existing preset will flash
3 Press + or - key to set the temperature limit value
4 Press ON/OFF key continuously to scroll and select the high temperature alarm ( ), low temperature alarm ( ) or disable (blank) the alarm function
5 Press MODE to finish

Remote temperature alarm



1 Scroll to the remote channel temperature alarm mode by using MODE
2 Press CHANNEL to select a transmitter channel
3 The default value 14°C or the existing preset will flash
4 Press + or - key to set the temperature limit values
5 Press ON/OFF key continuously to scroll and select the high temperature alarm ( ), low temperature alarm ( ); or to disable the alarm function wait for the ( ) blank display.
6 Press MODE to finish

When temperature alarm sounds

✱ This alert indicates that the temperature has exceeded the preset temperature limit. The symbol will also flash

a Press any key to stop temperature alarm; or
b If no key is pressed, the temperature alarm will automatically stop itself after one minute. The temperature alarm will sound again 5 minutes later.
c Once triggered, the temperature alarm comes on as a distinctive sound, different to that of Alarm1 and Alarm2.

WEATHER FORECAST

Animated weather forecast symbols

This weather station is capable of detecting barometric pressure changes, and based on the data collected, can predict the weather for the next 12 to 24 hours. The effective range covers an area of 30 – 50km.

Sunny	Cloudy	Raining	Wind Alert
OR	OR		Wind

Snowing	Freeze Warning	Storm Alert
	<flashing snow>	< flashing thunderstorm and rain together >

Wind Alert
* Wind Symbol will display if the pressure has greatly changed in the past 3 hours.

Storm Alert
* Storm symbol will flash to warn of a potential thunderstorm.

About Snow Freeze Warning
* Snow symbol will flash to warn of 'snowing'.
* Activated when Outside channel (Channel 1) temperature is between -1.9 °C and +2.9 °C
* Snow will appear solid if and when Outside channel (Channel 1) temperature falls below -1.9 °C: the point of moisture freezing.

Note:
* Transmitter Channel 1 will be used for snow indication and freeze warning.

WEATHER FORECAST

REMARKS:

* After set up, allow 12-24 hours for the Weather Station to operate at a steady state as this will result in a more accurate forecast.

* Common to weather forecasting, absolute accuracy cannot be guaranteed.

* If the Weather Station is moved from a location to another location, which is significantly higher or lower than its initial standing point (e.g from the ground floor to 1st floor of a house), remove the batteries and reinsert them after about 30 seconds. Then re-synchronize with the transmitter with the receiver (see synchronization section) A change in location may affect the transmitter readings of heat and air pressure. Also readings may be inaccurate due to heat escaping from areas of your home with less insulation.

COMFORT LEVEL ICON

The comfort level will be shown based on the data collected from inside temperature / humidity. An indicator will display to show if the level is *Comfortable*, *Normal* or *Uncomfortable*.

Comfort Level	Description
Comfort	It shows that the current environment is at the ideal range for the inside temperature and relative humidity
Normal	It shows that the current environment is acceptable
Uncomfort	It shows that the current environment contains excessive or inadequate moisture; or is too hot or cold

LOW BATTERY INDICATION

RECEIVER:

1 If the low battery symbol " " displays (in the Inside weather display area) then the receiver batteries are low. A low battery may affect the units performance, for example:
- the LCD display appears faint;
- the transmission range is reduced;
- the data may not display from remote transmitter(s)

2 You will need 2 x AA batteries for the receiver.
* Note: *Changing the batteries in the* reciever *will cause all settings to be erased.*

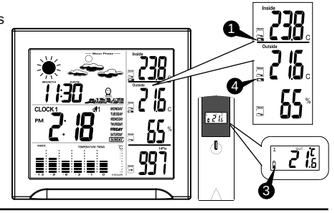
TRANSMITTER:

3 If the low battery symbol " " is displayed in LCD display of transmitter, then the remote transmitter batteries are low.

4 The low battery symbol " " for the transmitter will also display on the reciever (in the Outside weather area)

5 The transmitter takes 2 x AA batteries

✱ If a transmitter is exposed to very low or high temperatures for an extended period of time, the batteries may lose power, which may cause reduced transmission range.



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 my 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.

WARRANTY

Limited 5-year Warranty

This product carries a five (5) year repair warranty against defects in workmanship and materials. At their discretion, retailers may replace the unit within the stated warranty period, when returned with proof of purchase. This product is not guaranteed against wear or breakage due to misuse and/or abuse.

If the product is defective,
(i) return it, with a dated proof of purchase, to the retailer from which you purchased it.

TROUBLESHOOTING

	Problem	Solution
i	The temperature measurement of transmitter and receiver do not match.	Wait for about 1-2 minutes to ensure the units are not in a phase change. Otherwise, re-synchronize receiver by holding Channel button for 3 seconds until a beep is heard.
ii	Transmitter temperature readings seem to high.	Ensure the remote sensor is out of direct sunlight, and away from other sources of heat.
iii	Receiver is no longer receiving remote data or the display is incorrect.	- Repeat the learn procedures. (see sychronization section) - Temperature may be below -30°C. - Batteries in transmitter may need changing. - Move the transmitter closer to the receiver. - Make sure transmitter is away from sources of electrical disturbance.
iv	Operation is not normal or certain functions do not perform	Reset the unit (to default mode) by removing the batteries in both the receiver and transmitter(s). Then re-insert the batteries and re-enter your settings.

SPECIFICATIONS

Weather Station Receiver WS928
Battery Type: 2 X 1.5V AA batteries
Temp. Range: -20°C to +55°C
Temp. Range: -4°F to +131°F
Measurement Accuracy: +/- 1°C within measuring range of 0° to 40°C
Resolution: 0.1°C
Humidity Range: 15% to 95% RH
Measurement Accuracy: +/- 5%
Resolution: 1%

Weather Station Transmitter WT440H

Battery Type:	2 X 1.5V AA batteries
Temp. Range:	-30°C to +55°C
Temp. Range:	-22°F to +131°F
Humidity Range:	15% to 95%
Transmission Frequency:	433.92 MHz
Transmission Range:	up to 40 meters in open area

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