

WIRELESS WEATHER STATION WITH WEATHER BOY
Model WS9620IT Instruction Manual

!!Please read carefully before operating!!

INTRODUCTION:

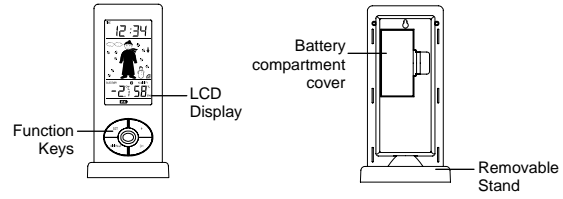
Congratulations on purchasing this Weather station with wireless 915MHz transmission. It not only displays the indoor temperature and humidity but also receives the outdoor data. With the totally 14 different weather forecast icons featured by "weather boy", users can easily observe the forecast weather condition and will no longer worry about the sudden weather change. This innovative product is ideal for use in the home or office.

« Instant Transmission+ » is the up and coming state-of-the-art new wireless transmission technology, exclusively designed and developed by LA CROSSE TECHNOLOGY.
"IT +" offers you an immediate update of all your outdoor data measured from the transmitters: follow your climatic variations in real-time!



FEATURES:

The Weather station



Manual setting options
12/24 hour display
Hour and minute display
Time zone option ± 12 hours
Wireless transmission at 915 MHz
Display indoor temperature and humidity
Display outdoor temperature and humidity (3 channels)
Outdoor Signal reception intervals at 16-second
Weather forecasting with 14 easy-to-read weather forecast signs featured by weather
boy
Weather forecasting icon sensitivity setting
Temperature display in degrees Celsius ($^{\circ}\text{C}$) or Fahrenheit ($^{\circ}\text{F}$) selectable

Outdoor temperature and humidity display with MIN/MAX recording
All MIN/MAX outdoor recordings show date, time and temperature received
All MIN/MAX recordings can be reset
Can take up to three outdoor transmitters
LCD contrast setting
Low battery indicator
Table standing/ Wall mounting

SETTING UP:

When one transmitter is used

1. First, insert the batteries into the Thermo-hygro transmitter. (see "**How to install and replace batteries in the Thermo-hygro transmitter**").

2. Immediately after and within 30 seconds, insert the batteries into Weather station (see "**How to install and replace batteries in the Weather station**"). Once the batteries are in place, all segments of the LCD will light up briefly. Following the time as 12:00 and the "weather boy" icon will be displayed. If these are not displayed after 60 seconds, remove the batteries and wait for at least 10 seconds before reinserting them.
3. After inserting the batteries into the transmitter, the Weather station will start receiving data from the transmitter. The outdoor temperature/ humidity and the signal reception icon should then be displayed on the Weather station. If this does not happen after 3 minutes, the batteries will need to be removed from both units and reset from step 1.
4. In order to ensure sufficient 915 MHz transmission however, this should under good conditions be a distance no more than 100 metres between the final position of the Weather station and the transmitter (see notes on "**Positioning**" and "**915 MHz Reception**").

When more than one transmitter is used

1. User shall remove all the batteries from the weather station and transmitters and wait 60 seconds if setting has been done with one transmitter before.
2. Insert the batteries to the first transmitter.
3. Within 30 seconds of powering up the first transmitter, insert the batteries to the Weather Station. Once the batteries are in place, all segments of the LCD will light up briefly. Following time as 12:00 and the "weather boy" icon will be displayed. If they are not shown in LCD after 60 seconds, remove the batteries and wait for at least 60 seconds before reinserting them.
4. The outdoor temperature and humidity from the first transmitter (channel 1) should then be displayed on the Weather station. Also, the signal reception icon will be displayed. If this does not happen after 2 minutes, the batteries will need to be removed from both units and reset from step 1.

5. Insert the batteries to the second transmitter immediately after **(within 10 seconds after)** inserting batteries to the weather station.
6. The outdoor temperature and humidity from the second transmitter and the "channel 2" icon should then be displayed on the Weather station. If this does not happen after 2 minutes, the batteries will need to be removed from all the units and reset from step 1.
7. Insert the batteries to the third transmitter immediately after **(within 10 seconds after)** inserting batteries to the second transmitter.
8. Then within 2 minutes, the channel 3 outdoor data from the third transmitter will be displayed and the channel icon will shift back to "1" once the third transmitter is successfully received. If this does not happen, user shall restart the setting up from step 1.

Note:

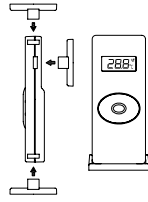
After the three transmitters have been set up, user may need to check the readings displayed on the weather station against those being shown on the transmitter displays, in order to recognize on which channel each transmitter is being presented.

IMPORTANT:

Transmission problems will arise if the setting for additional transmitters is not followed as described above. Should transmission problems occur, it is necessary to remove the batteries from all units and start again the set-up from step 1.

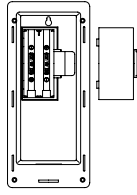
9. Press the SET key to manually enter a time initially.

The Outdoor Thermo-hygro Transmitter



Remote transmission of outdoor temperature and humidity to Weather Station by 915 MHz
Displays alternately the measured temperature and humidity readings on LCD
Shower proof casing
Wall mounting case
Mounting at a sheltered place. Avoid direct rain and sunshine

HOW TO INSTALL AND REPLACE BATTERIES IN THE WEATHER STATION



The Weather station uses 2 x AAA, IEC LR3, 1.5V batteries. To install and replace the batteries, please follow the steps below:

1. Remove the cover at the back of the weather station.
2. Insert batteries observing the correct polarity (see marking).
3. Replace compartment cover.

HOW TO INSTALL AND REPLACE BATTERIES IN THE THERMO-HYGRO TRANSMITTER



The Thermo-hygro Transmitter uses 1 x 3.0V, CR2032, Lithium battery. To install and replace the batteries, please follow the steps below:

1. Pull out the battery holder at the bottom of the transmitter.
2. Insert the batteries, observing the correct polarity (see marking).
3. Replace the battery holder on the unit.

Note:

In the event of changing batteries in any of the units, all units need to be reset by following the setting up procedures. This is because a random security code is assigned by the transmitter at start-up and this code must be received and stored by the Weather station in the first 3 minutes of power being supplied to it



BATTERY CHANGE:

It is recommended to replace the batteries in all units regularly to ensure optimum accuracy of these units. (Battery life –see **Specifications**)

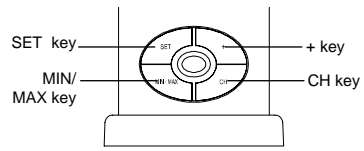


Please participate in the preservation of the environment. Return used batteries to an authorised depot.

FUNCTION KEYS:

Weather station:

The weather station has four easy to use function keys.



SET key (Setting):

To enter the set mode for the following functions: LCD contrast, Time zone, DST ON/OFF, Time Reception ON/OFF, 12/24 hour display, Manual time, Year, Month, Date, °C/°F, and Weather forecast sensitivity settings.
Press to reset at the maximum or minimum temperature and humidity records of the indoor or the currently selected outdoor channel (will reset all records to current level)

MIN/ MAX

To toggle between the maximum/ minimum indoor and outdoor temperature and humidity data

Note: The Time/date shown is corresponding to MIN/MAX temperature data.

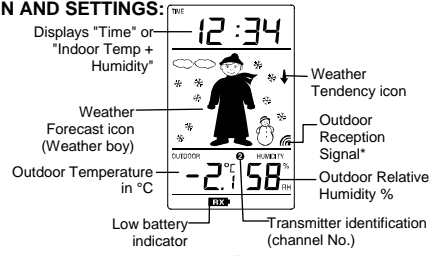
+ key

To toggle between the current time and current "Indoor Temp + Humidity" display
To make adjustment for various settings

CH key

To toggle between the Outdoor transmitters 1, 2 and 3 (if more than 1 transmitter is used)
To exit from the manual setting mode

LCD SCREEN AND SETTINGS:



*When the signal from the transmitter is successfully received by the Weather station, this icon will be switched on. (If not successful, the icon will not be shown on the LCD). User can therefore easily see whether the last reception was successful ("ON" icon) or not ("OFF" icon). On the other hand, the short blinking of the icon shows that a reception is being done at that time.

For better distinctness the LCD screen is split into 3 sections displaying the information for time and indoor data, weather forecast, and outdoor data.

Section 1 - TIME / INDOOR TEMPERATURE AND INDOOR HUMIDITY

Display the quartz time

Display "Indoor temp + Indoor humidity" when the "+" key is pressed

Section 2 - WEATHER ICON (FEATURED BY WEATHER BOY)

Display of the weather to be expected in form of 14 fancy weather symbols (featured by Weather boy) which change their appearance depending on the air pressure development (past air pressure change) and the current outdoor temperature.

Display the weather tendency indicator

Format of the weather boy icons refers to the "WEATHER FORECAST AND TENDENCY"

Section 3 - OUTDOOR TEMPERATURE AND HUMIDITY

Display the current outdoor temperature and humidity.

By pressing the MIN/ MAX key, display the stored MIN/MAX outdoor temperature and humidity, with simultaneous display of MIN/ MAX icon.

By pressing the CH key, display outdoor sensor data (up to three outdoor transmitters).
The channel number 1, 2 or 3 will be shown.
A signal reception symbol will be shown indicating that receiver is receiving outdoor temperature.

MANUAL SETTINGS:

The following manual settings can be done in the setting mode:

- LCD contrast setting
- Time zone setting
- DST ON/OFF
- Time reception ON/OFF setting
- 12/24-Hour setting

- Manual time setting
- Calendar setting
- °C/ °F setting
- Weather forecasting icon sensitivity setting

Press the SET key to advance to the setting mode:

LCD CONTRAST SETTING



The LCD contrast can be set to 8 different levels to suit the users needs (default LCD contrast setting is LCD 4). To set the desired contrast level:

1. The above display will be seen. Press the + key to select the level of contrast desired.
2. Press the SET key to confirm and enter the **"Time Zone setting"** or exit the setting mode by pressing the CH key

TIME ZONE SETTING:

-5h flashing

The time zone default of the Weather station is -5h. To change to another time zone:

1. Press the SET key after completing the LCD contrast setting in order to enter the time zone setting (flashing).
2. Using the + key, set the time zone. The range runs from 0 to +12 and then runs from -12 back to 0 in consecutive 1hour intervals.
3. Press the SET key to confirm and enter the DST ON/OFF or exit the setting mode by pressing the CH key

DST ON/OFF SETTING

Note: This facility is not available in Australia and New Zealand.

TIME RECEPTION ON/OFF SETTING

Note: This facility is not available in Australia and New Zealand.

Please press the SET key to enter the "12/24-Hour Display setting" or exit the setting mode by pressing the CH key.

12/24 HOUR TIME DISPLAY SETTING

12h —flashing

1. After setting time reception to OFF, press the SET key, "12h" or "24h" flashes in the LCD. (default: 12 h)
2. Press the + key to select the "12h" or "24h" display mode.
3. Press the SET again to confirm and to enter the "**Manual Time setting**" or exit the setting mode by pressing the CH key.

Note: When 24h mode display is selected, the calendar format will be date and month display.
When 12h mode display is selected, the calendar format will be month and date display.

MANUAL TIME SETTING

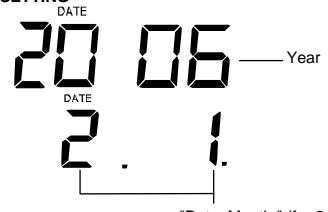
The time can be manually set. The clock works as a normal Quartz clock.

TIME
Hours (flashing) — 12 : 34 — Minutes (flashing)

To set the clock:

1. The hour digits start flashing in the time display section.
2. Use the + key to adjust the hours and then press SET key to go to the minute setting.
3. The minute will be flashing. Press the + key to adjust the minutes.
4. Confirm with the SET key and enter the **“Calendar Setting”** or exit the setting mode by pressing the CH key

CALENDAR SETTING



"Date. Month." (for 24h time display)
"Month. Date." (for 12h time display)
27

The date default of the Weather station is 1. 1. of the year 2006 after initial set-up. The date can be set manually. To do this:

1. Using the + key, set the year required. The range runs from 2003 to 2029 (default is 2006).
2. Press the SET key to enter the month setting mode.
3. The month digit will be flashing. Press the + key to set the month and then press the SET key to go to the date setting.
4. The date digit will be flashing. Press the + key to set the date.
5. Confirm with the SET key and enter the "**C/F TEMPERATURE UNIT SETTING**" or exit the setting mode by pressing the CH key.

°C/°F TEMPERATURE UNIT SETTING

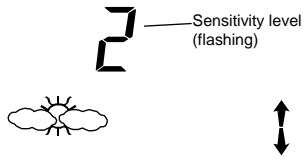


The default temperature reading is set to °F (degree Fahrenheit). To select °C (degree Celsius):

1. The "°F" will be flashing, use the + key to toggle between "°C" and "°F".
2. Once the desired temperature unit has been chosen, confirm with the SET key and enter the "**Weather Forecast Icon Sensitivity setting**" or exit the setting mode by pressing the CH key.

WEATHER FORECASTING ICON SENSITIVITY SETTING

For locations with rapid changes of weather conditions, the threshold can be set to a different level for faster display of changing weather conditions.













1. Using the + key to set the weather sensitivity level. There are 3 levels of setting: 2, 3 and 4 (hPa). It is the threshold value of pressure change that will activate a change in weather icon. For example, when "2" is selected, it means that a change in 2 hPa will make the weather icon change. So "2" is the most sensitive setting, "4" is the least sensitive setting (default setting is "3").
2. Confirm with the SET key and exit the **Manual settings**.






WEATHER FORECAST AND TENDENCY:

The weather forecast icons (Weather boy):

One of the 14 different weather icons (featured by Weather boy with different clothing) is displayed in the centre of LCD, which indicate the different forecast weather condition due to air pressure level (Sunny, Sunny + Cloudy or Cloudy + Rainy) and the current outdoor temperature (Temperature value detected by Transmitter channel 1) :

	78.8 F (26 C)	66.2 to 78.6 F (19 to 25.9 C)	50 to 66 F (10 to 18.9 C)	32 to 49.8 F (0 to 9.9 C)	< 32 F (0 C)
Sunny					

	78.8 F (26 C)	66.2 to 78.6 F (19 to 25.9 C)	50 to 66 F (10 to 18.9 C)	32 to 49.8 F (0 to 9.9 C)	< 32 F (0 C)
Sunny + Cloudy					

	78.8 F (26 C)	66.2 to 78.6 F (19 to 25.9 C)	50 to 66 F (10 to 18.9 C)	32 to 49.8 F (0 to 9.9 C)	< 32 F (0 C)
Cloudy + Rainy					

For every sudden or significant change in the air pressure, the weather icons will update accordingly to represent the change in weather. If the icons do not change, then it means either the air pressure has not changed or the change has been too slow for the Weather Station to register. However, if the icon displayed is a sun or raining cloud, there will be no change of icon if the weather gets any better (with sunny icon) or worse (with rainy icon) since the icons are already at their extremes.

The icons displayed forecasts the weather in terms of getting better or worse and not necessarily sunny or rainy as each icon indicates. For example, if the current weather is cloudy and the rainy icon is displayed, it does not mean that the product is faulty because it is not raining. It simply means that the air pressure has dropped and the weather is expected to get worse but not necessarily rainy.

Note :

After setting up, readings for weather forecasts should be disregarded for the next 12-24 hours. This will allow sufficient time for the Weather Station to collect air pressure data at a constant altitude and therefore result in a more accurate forecast.

Common to weather forecasting, absolute accuracy cannot be guaranteed. The weather forecasting feature is estimated to have an accuracy level of about 75% due to the varying areas the Weather Station has been designed for use in. In areas that experience sudden changes in weather (for example from sunny to rain), the Weather Station will be more accurate compared to use in areas where the weather is stagnant most of the time (for example mostly sunny).

If the Weather Station is moved to another location significantly higher or lower than its initial standing point (for example from the ground floor to the upper floors of a house), remove the

batteries and re-insert them after about 30 seconds. By doing this, the Weather Station will not mistake the new location as being a possible change in air-pressure when really it is due to the slight change of altitude. Again, disregard weather forecasts for the next 12 to 24 hours as this will allow time for operation at a constant altitude.

THE WEATHER TENDENCY INDICATOR

Working together with the weather icons are the weather tendency indicators (the upward and downward arrows located on the right hand side of the weather boy icon). When the indicator points upwards, it means that the air-pressure is increasing and the weather is expected to improve, but when indicator points downwards, the air-pressure is dropping and the weather is expected to become worse.

Therefore, user may see how the weather has changed and is expected to change. For

example, if the indicator is pointing downwards together with cloudy icons, it means that the last noticeable change in the weather was when it was sunny (the sunny icon only). Therefore, the next change in the weather will be the cloudy icons since the indicator is pointing downwards.

Note:

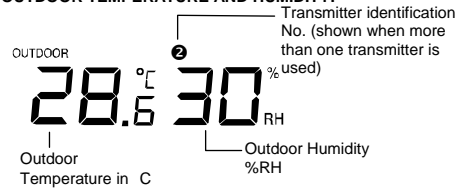
Once the weather tendency indicator has registered a change in air pressure, it will remain permanently visualized on the LCD.

DISPLAY OF INDOOR TEMPERATURE AND HUMIDITY READING:

The indoor temperature and humidity are measured and displayed on the first section of the LCD when the + key is pressed.

INDOOR
Indoor Temperature in °C 25.6 °C 50% RH Indoor Relative Humidity %

DISPLAY OF OUTDOOR TEMPERATURE AND HUMIDITY:



The last LCD section shows the outdoor data and a channel number above the temperature will also show if more than one transmitter has been used.

DISPLAY OF INDOOR MAXIMUM AND MINIMUM RECORDS:

1. In normal display mode, press the MIN/ MAX button five times. The maximum indoor temperature and humidity will be shown in the bottom section of LCD. Also the time of recording this temperature will be displayed.

TIME 12:34 — Time of recording the max temperature

Max temperature — INDOOR °C 29.6 — HUMIDITY % 33 — Max humidity
RH — Maximum icon

2. Press the MIN/ MAX button once more to display the date of recording of this temperature reading.
3. Then press the MIN/MAX button one more time, the minimum indoor temperature and humidity will be shown in the bottom section of LCD. Also the time of recording this temperature will be displayed
4. By pressing the MIN/MAX button one more time, the date of recording this temperature will be shown.
5. Press one more time the MIN/ MAX button to go back to the normal display.

RESETTING THE INDOOR MAXIMUM/ MINIMUM RECORDS

1. In normal display mode, press the MIN/ MAX button to advance to the indoor MIN/ MAX display.
2. Press the SET key once, this will reset the currently shown indoor minimum or and

maximum data recorded to the current time, date, temperature and humidity.

Note:

The indoor minimum and maximum record is to be reset separately.

DISPLAY OF OUTDOOR MAXIMUM AND MINIMUM RECORDS:

1. In normal display mode, press the CH button to select the desired channel. The channel ID will be displayed above the outdoor temperature reading.
2. Press the MIN/MAX button once, the max data of the selected channel will be displayed. Also the time of recording this temperature will be displayed.
3. Press the MIN/MAX button once more, the date of recording this reading will be shown.
4. By pressing MIN/MAX button once more, the min data of the selected channel will be shown. Also the time of recording this temperature will be displayed.

2:34 — Time of recording the min temperature

Min temperature — 28.5 °C
Minimum icon — 
Humidity — 30% RH
Min humidity

6. By pressing the MIN/MAX button one more time, the date of recording this temperature will be shown.
7. Press one more time the MIN/ MAX button to advance to the indoor Max/ Min display

RESETTING THE OUTDOOR MAXIMUM/ MINIMUM RECORDS

Note:

It is required to reset the outdoor max/ min records for different channels separately. The outdoor minimum and maximum record of each channel is to be reset separately.

1. In normal display mode, press the CH button to select a channel. The channel Identification No. (channel No.) will be displayed above the outdoor temperature reading.

Note: The transmitter number will only be displayed if more than one transmitter is applied.

2. Press the MIN/ MAX button once. The "max" icon will be displayed.
3. Press the SET button, this will reset the outdoor maximum temperature and humidity record to the current value.
4. Press MIN/ MAX button twice more to show the minimum data. The "min" icon will be displayed.
5. Press the SET button, this will reset the outdoor minimum temperature and humidity record to the current value.
6. Press six more times the MIN/MAX key to return to the normal display.

THERMO-HYGRO TRANSMITTER:

The range of the Thermo-hygro Transmitter may be affected by the temperature. At cold temperatures the transmitting distance may be decreased. Please bear this in mind when placing the transmitter.

915 MHz RECEPTION

The Weather station should receive the temperature data within 5 minutes after set-up. If the temperature data is not received 5 minutes after setting up (not successfully continuously, the outdoor display shows "- - -"), please check the following points:

1. The distance of the weather station or transmitter should be at least 1.5 to 2 metres away from any interfering sources such as computer monitors or TV sets.
2. Avoid positioning the Weather station onto or in the immediate proximity of metal

- window frames.
3. Using other electrical products such as headphones or speakers operating on the same signal frequency (915MHz) may prevent correct signal transmission and reception.
 4. Neighbours using electrical devices operating on the 915MHz signal frequency can also cause interference.

Note:

When the 915MHz signal is received correctly, do not re-open the battery cover of either the transmitter or Weather station, as the batteries may spring free from the contacts and force a false reset. Should this happen accidentally then reset all units (see **Setting up** above) otherwise transmission problems may occur.
The transmission range is about 100 m from the transmitter to the Weather station (in open space). However, this depends on the surrounding environment and interference levels. If no

reception is possible despite the observation of these factors, all system units have to be reset (see **Setting up**).

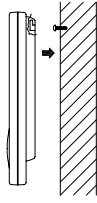
POSITIONING THE WEATHER STATION:

The Weather Station has been designed to be hung onto wall or free standing.

To wall mount

Choose a sheltered place. Avoid direct rain and sunshine.

Before wall mounting, please check that the outdoor temperature and humidity values can be received from the desired locations.



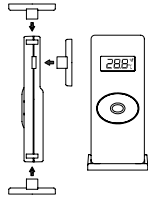
1. Fix a screw (not supplied) into the desired wall, leaving the head extended out by about 5mm.
2. Remove the stand from the Weather Station by pulling it away from the base and hang the station onto the screw. Remember to ensure that it locks into place before releasing.

Free standing



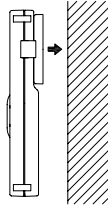
With the detachable stand, the weather station can be placed onto any flat surface.

POSITIONING THE THERMO-HYGRO TRANSMITTER:



The Transmitter is supplied with a holder that may be attached to a wall with the two screws supplied. The Transmitter can also be positioned on a flat surface by securing the stand to the bottom of the Transmitter.

To wall mount:



1. Secure the bracket onto a desired wall using the screws and plastic anchors.
2. Clip the remote temperature/humidity sensor onto the bracket.

Note:

Before permanently fixing the transmitter wall base, place all units in the desired locations to check that the outdoor temperature reading is receivable. In event that the signal is not received, relocate the transmitters or move them slightly as this may help the signal reception.

CARE AND MAINTENANCE:

Extreme temperatures, vibrations and shocks should be avoided as these may cause damage to the unit and give inaccurate forecasts and readings.

When cleaning the display and casings, use a soft damp cloth only. Do not use solvents or scouring agents as they may mark the LCD and casings.

Do not submerge the units in water. Furthermore, fix all parts in place where the units are adequately protected against moisture and rain.

Immediately remove all low powered batteries to avoid leakage and damage. Replace only with new batteries of the recommended type.

Do not make any repair attempts to the unit. Return them to their original point of purchase for repair by a qualified engineer. Opening and tampering with the unit may invalidate their guarantee.

Do not expose the units to extreme and sudden temperature changes, this may lead to rapid changes in forecasts and readings and thereby reduce their accuracy.

SPECIFICATIONS:

Temperature measuring range:

Indoor : -9.9°C to +59.9°C with 0.1°C resolution (14.1°F to +139.8°F with 0.2°F resolution, "OF.L" displayed if outside this range)

Outdoor : -39.9°C to +59.9°C with 0.1°C resolution (-39.8°F to +139.8°F with 0.2°F resolution, "OF.L" displayed if outside this range)

Relative humidity measuring range:

Indoor : 1% to 99% with 1% resolution (displays "--" when lower than 1 %; displays "99" % if higher than 99 %)

Outdoor: 1% to 99% with 1% resolution (displays "1" when lower than 1 %; displays

"99"% if higher than 99 %)

Indoor temperature checking interval : every 15 seconds
Indoor humidity checking interval : every 20 seconds
Outdoor data reception : every 16 seconds
Power supply:
Weather station : 2 x AAA, IEC, LR3, 1.5V
Thermo-hygro Transmitter : 1 x CR2032, 3.0V
Battery life cycle (Alkaline batteries recommended)
Weather station : Approximately 24 months
Thermo-hygro Transmitter : Approximately 12 months
Dimensions (L x W x H)
Weather station : 58.2 x 17.6 x 131.9 mm
Thermo-hygro Transmitter : 36.6 x 13.5 x 87.9 mm

LIABILITY DISCLAIMER:

Please ensure that all discarded packaging and unwanted electrical items are discarded in a correct and responsible manner. All recyclable material should be deposited at relevant recyclable waste collection points.

As stated on the gift box and labelled on the product, reading the "User manual" is highly recommended for the benefit of the user. This product must however not be thrown in general rubbish collection points.

The manufacturer and supplier cannot accept any responsibility for any incorrect readings and any consequences that occur should an inaccurate reading take place. This product is designed for use in the home only as indication of the temperature and other weather data.

This product is not to be used for medical purposes or for public information. The specifications of this product may change without prior notice.

This product is not a toy. Keep out of the reach of children.
No part of this manual may be reproduced without written authorization of the manufacturer.
This product is guaranteed for the period of 12 months from date of purchase against failure to operate correctly to its listed specifications due to any manufacturing defects.

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