# Contents

Language	Page
English	1
French	35 37
Spanish	

### **TABLE OF CONTENTS**

Topic	Page
Inventory of Contents	3
Features	4
Setting Up	6
Battery Installation	8
Function keys	10
LCD Screen and Settings	12
Atomic time -WWVB Radio Controlled Time	14
Manual Settings	15
Weather Forecast and Tendency	20
Display of Indoor Temperature and Humidity Reading	22
Display of Outdoor Temperature Reading	22
Display of Outdoor Minimum and Maximum records	23
Display of Indoor Minimum and Maximum records	24
Ice Alarm	26
915 MHz Reception	27
Mounting	28
Care and Maintenance	31
Specifications	32
Warranty Information	33

### This product offers:



INSTANT TRANSMISSION is the state-ofthe-art new wireless transmission technology, exclusively designed and developed by LA CROSSE TECHNOLOGY. INSTANT TRANSMISSION offers you an immediate update (every 4 seconds!) of all your outdoor data measured from the transmitters: follow your climatic variations in real-time!

### INVENTORY OF CONTENTS

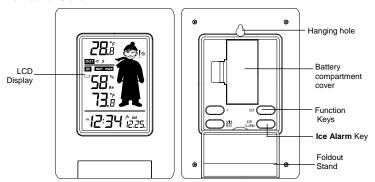
- 1. Wireless Weather Station
- 2. Wireless Temperature Sensor (TX29U) and mounting bracket.
- 3. Instruction Manual and Warranty Card.

# ADDITIONAL EQUIPMENT (not included)

- 1. 2 Fresh "AAA" IEC LR3, 1.5V Alkaline Batteries
- 2. 2 Fresh "AA" IEC LR6, 1.5V Alkaline Batteries.

### **FEATURES:**

### The Weather Station



- Atomic time function (WWVB Radio controlled time) with manual setting options
- Daylight Saving Time ON/OFF
- Hour and minute display
- Calendar display
- Time zone option 0 to 12 hours
- Wireless transmission at 915 MHz
- Outdoor signal reception intervals at 4-second
- Weather forecasting with 8 easy-to-read weather forecast icons featuring

#### Oscar Outlook Forecaster

- Temperature display in Fahrenheit (°F) or Celsius (°C) selectable
- Indoor and Outdoor temperature display with MIN/MAX recording
- All MIN/MAX recordings can be reset
- · Low battery indicator
- · Wall hanging or free standing

# The Outdoor Temperature Sensor



- Remote transmission of outdoor temperature to Weather Station by 915 MHz
- Weather-resistant casing
- Wall mounting case
  - Mount in a sheltered place. Avoid direct rain and sunshine

#### SETTING UP:

- First, insert the batteries into the temperature sensor. (see "Install and replace batteries in the temperature sensor").
- Immediately after and within 2 minutes, insert the batteries into Weather Station (see "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 "Oscar Outlook" icon will be displayed. If these are not displayed after 60

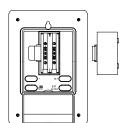
- seconds, remove the batteries and wait for at least 10 seconds before reinserting them
- After inserting the batteries into the sensor, the Weather Station will start receiving data from the sensor. The outdoor temperature and the signal reception icon should then be displayed on the Weather Station. If this does not happen after 5 minutes, the batteries will need to be removed from both units and reset from step 1.
- In order to ensure sufficient 915 MHz transmission there should be no more than 330 feet (100 meters) between the final position of the Weather Station and the sensor (see notes on "Mounting" and "915 MHz Reception").

### Note:

- The Weather Station will receive **one** outdoor sensor only.
- If the signal reception is not successful on the first frequency (915MHz) for 22 seconds, the frequency is changed to 920MHz and the learning is tried another 22 seconds. If still not successful the reception is tried for 22 seconds on 910MHz. This will also be done for re-synchronization.
- If after 10 minutes, the Atomic time (WWVB time) signal has not been received, press the SET key to manually enter a time initially.
- Daily WWVB reception is attempted at full hour between 12:00 am to 6:00 am. If the
  reception is successful, there will no reception attempt until the following day. When this
  is successful, the received time will override the manually set time. The date is also
  updated with the received time. (Please refer also to notes on "Atomic auto-set time WWVB Radio controlled Time" and "Manual Time Setting").

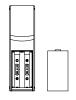
# BATTERY INSTALLATION INSTALL AND REPLACE BATTERIES IN THE WEATHER STATION

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



- 1. Remove the cover at the back of the Weather Station.
- Insert batteries observing the correct polarity (see marking).
- 3. Replace compartment cover.

# INSTALL AND REPLACE BATTERIES IN THE TEMPERATURE SENSOR



The temperature sensor uses 2 x AA, IEC LR6, 1.5V Alkaline battery. To install and replace the batteries, please follow the steps below:  $\frac{1}{2}$ 

- 1. Pull out the battery holder at the bottom of the sensor.
- 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

sensor 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** below).

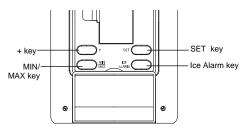


Please participate in the preservation of the environment. Return used batteries to an authorized depot.

#### **FUNCTION KEYS:**

### Weather Station:

The Weather Station has four easy to use function keys.



# SET key (Manual Setting):

 Press to enter the set mode for the following functions: Time zone, Daylight saving time ON/OFF, Manual time, Year, Month, Date, Weekday and °C/°F settings.

### MIN/ MAX key

- To toggle between the maximum/ minimum outdoor temperature and maximum/ minimum indoor temperature data
- Press to reset at the maximum or minimum temperature records of the indoor and the outdoor channel (will reset all records to current level)
- Press to exit the setting mode

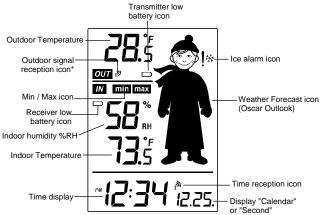
# + key

- To make adjustment for various settings
- In normal display, press to toggle between the display of the calendar and second of time in the time display of LCD

### Ice Alarm kev

- To activate / deactivate the Ice Alarm (alarm will be triggered once the outdoor temperature has dropped to 39.2°F)
- To exit from the manual setting mode

#### LCD SCREEN AND SETTINGS:



\*When the outdoor signal is successfully received by the Weather Station, this icon will be switched on. (If not successful, the icon will not be shown in LCD) So user can easily see whether the last reception was successful (icon on) or not (icon off). On the other hand, the short blinking of the icon shows that a reception is currently taking place.

For easy viewing, the LCD screen is divided into 3 sections displaying the information for time and indoor data, weather forecast, and outdoor data.

#### Section 1 - OUTDOOR TEMPERATURE

- Display the current outdoor temperature.
- By pressing the MIN/ MAX key, display the stored MIN/MAX outdoor temperature, with simultaneous display of MIN/ MAX icon.
- A signal reception symbol will be shown indicating that outdoor temperature signal is received.

### Section 2 - INDOOR DATA AND WEATHER ICON (FEATURED BY WEATHER MAN)

- Display indoor temperature and indoor humidity
- The weather forecast is displayed in form of one of eight icons, featuring Oscar Outlook, which change in appearance according to the current outdoor temperature.
- Format of the Oscar Outlook icons refers to the "WEATHER FORECAST AND TENDENCY"

#### Section 3 - TIME

- In normal mode, display the time and calendar.
- A signal reception symbol is shown indicating that Atomic time (WWVB time) signal is received.

### ATOMIC TIME - WWVB RADIO CONTROLLED TIME

The NIST (National Institute of Standards and Technology—Time and Frequency Division) WWVB radio station is located in Ft. Collins, Colorado, and transmits the exact time signal continuously throughout the United States at 60 kHz. The signal can be received up to 2,000 miles away through the internal antenna in the Weather Station. However, due to the nature of the Earth's lonosphere, reception is very limited during daylight hours. The wireless weather station will search for a signal every night when reception is best.

The WWVB radio station receives the time data from the NIST Atomic clock in Boulder, Colorado. A team of atomic physicists is continually measuring every second, of every day, to an accuracy of ten billionths of a second per day. These physicists have created an international standard, measuring a second as 9,192,631,770 vibrations of a Cesium-133 atom in a vacuum. For more detail, visit http://www.boulder.nist.gov/timefreq.htm. To listen to the NIST time, call (303)499-7111. This number will connect you to an automated time, announced at the top of the minute in "Coordinated Universal Time", which is also known as Greenwich Mean Time (GMT). This time does not follow Daylight Saving Time changes. After the top of the minute, a tone will sound for every second. It is possible that your wireless weather station may not be exactly on the second due to the variance in the quartz. However, the clock will adjust the quartz timing over the course of several days to be very accurate; under 0.10 seconds per day.

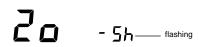
### MANUAL SETTINGS:

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

- Time zone setting
- Daylight Saving Time ON/OFF setting
- Manual time setting
- Calendar setting
- °C/ °F setting

Press and hold the SET key for about 3 seconds to advance to the setting mode:

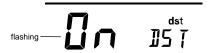
### TIME ZONE SETTING:



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

- Press and hold the SET key for about 3 seconds to enter the time zone setting (flashing).
- 2. Using the + key, set the time zone. The range runs between 0 to -12 hr, in consecutive 1hour intervals.
- Press the SET key to confirm and enter the "Daylight Saving time ON/OFF setting" or exit the setting mode by pressing the CH key

#### DAYLIGHT SAVING TIME ON/OFF SETTING



- The digit "ON DST" will start flashing on the LCD.
- 2. Use the + key to turn On or OFF the daylight saving time function.
- Confirm with the SET key and enter the "Manual Time setting" or exit the setting mode by pressing the CH key.

#### MANUAL TIME SETTING

In case the Weather Station is not able to detect the Atomic time (WWVB) signal (disturbances, transmitting distance, etc.), the time can be manually set. The clock will then work as a normal Quartz clock.



#### 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 just the minutes.
- Confirm with the SET key and enter the "Calendar Setting" or exit the setting mode by pressing the CH key

### Note:

- The unit will still try to receive the signal at each full hour despite it being manually set. When it does receive the signal, it will change the manually set time into the received time.
- The time format is fixed to "12-hr" time display. "PM" will be shown in hours from noon to midnight.

#### CALENDAR SETTING







The date default of the Weather Station is 1. 1. of the year 2006 after initial set-up. Once the radio-controlled time signals are received, the date is automatically updated. However, if the signals are not received, the date can also be set manually. To do this:

- Using the + key, set the year required. The range runs from 2000 to 2029 (default is 2006).
- 2. Press the SET key to enter the month setting mode.
- 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.
- Confirm with the SET key and set the weekday.
- 6. Press + key to select the weekday, "MO", TU", "WE" etc.
- Confirm with SET key and enter the "FFC TEMPERATURE UNIT SETTING" or exit the setting mode by pressing the CH key.

# °F/°C TEMPERATURE UNIT SETTING



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

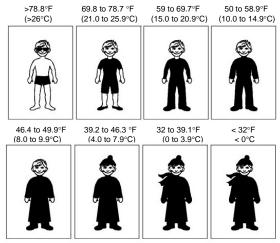
1. The "°F/ °C" will be flashing, use the + key to toggle between "°F" and "°C".

Once the desired temperature unit has been chosen, confirm with the SET to exit the setting mode.

### WEATHER FORECAST AND TENDENCY:

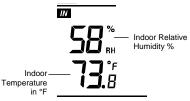
### The Weather Forecast Icons (Oscar Outlook):

One of the 8 different weather icons (featuring Oscar Outlook with different clothing) is displayed in the centre of LCD, which indicates the different forecast weather condition due to the current outdoor temperature (temperature value detected by outdoor sensor):



#### DISPLAY OF INDOOR TEMPERATURE AND HUMIDITY READING:

The indoor temperature and humidity are measured and displayed on the second section of the LCD.



# **DISPLAY OF OUTDOOR TEMPERATURE READING:**

The first LCD section shows the outdoor temperature.



### DISPLAY OF OUTDOOR MINIMUM AND MAXIMUM RECORDS:

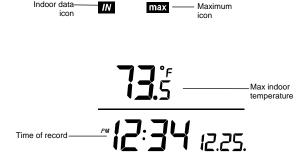
 In normal display mode, Press the MIN/MAX button once, the outdoor MIN temperature and the time of recording this temperature will be displayed.



- Press the MIN/MAX button once more, the outdoor max temperature and the time of recording this temperature will be displayed.
- 3. Press the MIN/ MAX button once more to advance to the indoor MIN/ MAX display.

### DISPLAY OF INDOOR MINIMUM AND MAXIMUM RECORDS:

- In normal display mode, press the MIN/ MAX key three times, the minimum indoor temperature will be shown in LCD. Also the time of recording this temperature will be displayed.
- Then press the MIN/MAX button one more time, the minimum indoor temperature will be shown in LCD. Also the time of recording this temperature will be displayed.



3. Press the MIN/ MAX button once more to go back to the normal display.

#### RESETTING THE INDOOR AND OUTDOOR MINIMUM AND MAXIMUM RECORDS

- In normal display mode, press the MIN/ MAX button to advance to the MIN/MAX records display.
- Press and hold the MIN/MAX key for about 2 seconds, this will reset all the indoor and outdoor MIN and MAX temperature records to the current temperature and time.

### Note:

The indoor and outdoor records will be reset at the same time.

# Ice Alarm (ALARM AT 4°C)

This Weather Station has a unique Ice Alarm feature. User may choose to turn it On or Off. User may press the Ice Alarm key to activate the alarm (the Ice Alarm icon will then be displayed to indicate that the alarm is "on"). After the alarm is switched on, and the measured outdoor temperature has dropped below 39.2°F, the Ice Alarm will be triggered. The alarm will then sound and the Ice Alarm icon will be blinking on the LCD. The alarm duration will be about 1.5 minutes.

#### HYSTERESIS OF Ice Alarm

To compensate for the fluctuation of the measured outdoor temperature, which may cause the Ice Alarm to sound constantly if the measured reading is close to 39.2°F, a hysteresis function has been implemented for the alarm.

If the current value drops to 39.2°F, the alarm will be activated (if it has been enabled). Then when the temperature rises to 40.3°F and thereafter again drops to below 39.2°F, the data will be blinking, but no alarm will be activated. With the pre-set hysteresis of 33.8°F, it has to rise back to above 41°F and drop below 39.2°F to trigger the alarm again.

#### 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:

- The distance of the Weather Station or sensor should be at least 5 to 6.5 feet away from any interfering sources such as computer monitors or TV sets.
- Avoid positioning the Weather Station onto or in the immediate proximity of metal window frames.
- Using other electrical products such as headphones or speakers operating on the same signal frequency (915MHz) may prevent correct signal transmission and reception.
- Neighbors 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 sensor 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 330 ft. (100 m) from the sensor 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**).

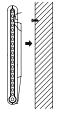
#### MOUNTING

### POSITIONING THE WEATHER STATION:

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

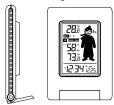
### To wall mount

Choose a sheltered place. Avoid direct rain and sunshine. Before wall mounting, please check that the outdoor temperature values can be received from the desired locations.



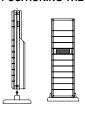
- Fix a screw (not supplied) into the desired wall, leaving the head extended out the by about 5mm.
- Remove the stand from the Weather Station by pulling it away from the base and hang the station onto the screw. Make sure that it locks into place before releasing.

# Free standing



With the stand, the Weather Station can be placed onto any flat surface.

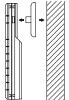
#### POSITIONING THE TEMPERATURE SENSOR:



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

#### To wall mount:

- Secure the bracket onto a desired wall using the screws and plastic anchors.
- 2. Clip the sensor onto the bracket.



### Note:

Before permanently fixing the sensor 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 sensors or move them slightly as this may help the signal reception.

#### CARE AND MAINTENANCE:

- Extreme temperatures, vibration and shock 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 unit in water.
- 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 : 14.1°F to +139.8°F with 0.2°F resolution

(-9.9°C to +59.9°C with 0.1°C resolution,

"OF.L" displayed if outside this range)

Outdoor : -39.8°F to +139.8°F with 0.2°F resolution

(-39.9°C to +59.9°C with 0.1°C resolution,

"**OF.L**" displayed if outside this range)

Relative humidity measuring range:

Indoor : 1% to 99% with 1% resolution (displays "- -" when outside this

range)

Indoor temperature checking interval: every 17 seconds

Indoor humidity checking interval : every 17 seconds

Outdoor data reception : approximately every 4 seconds

Power supply:

Weather Station : 2 x AAA, IEC, LR3, 1.5V
Temperature Sensor : 2 x AA, IEC, LR6 1.5V

Battery life cycle (Alkaline batteries recommended)

Weather Station : Approximately 12 months
Sensor : Approximately 24 months

Dimensions (L x W x H)

Weather Station : 3.74" x 0.74" x 5.35" Temperature Sensor : 1.50" x 0.83" x 5.05"

# WARRANTY

La Crosse Technology, Ltd provides a 1-year limited warranty on this product against manufacturing defects in materials and workmanship.

This limited warranty begins on the original date of purchase, is valid only on products purchased and used in North America and only to the original purchaser of this product. To receive warranty service, the purchaser must contact La Crosse Technology, Ltd for problem determination and service procedures. Warranty service can only be performed by a La Crosse Technology, Ltd authorized service center. The original dated bill of sale must be presented upon request as proof of purchase to La Crosse Technology, Ltd or La Crosse Technology, Ltd's authorized service center.

La Crosse Technology, Ltd will repair or replace this product, at our option and at no charge as stipulated herein, with new or reconditioned parts or products if found to be defective

during the limited warranty period specified above. All replaced parts and products become the property of La Crosse Technology, Ltd and must be returned to La Crosse Technology, Ltd. Replacement parts and products assume the remaining original warranty, or ninety (90) days, whichever is longer. La Crosse Technology, Ltd will pay all expenses for labor and materials for all repairs covered by this warranty. If necessary repairs are not covered by this warranty, or if a product is examined which is not in need or repair, you will be charged for the repairs or examination. The owner must pay any shipping charges incurred in getting your La Crosse Technology, Ltd product to a La Crosse Technology, Ltd will pay ground return shipping charges to the owner of the product to a USA address only.

Your La Crosse Technology, Ltd warranty covers all defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (including the lack of reasonable and necessary maintenance); (2) damage occurring during shipment (claims must be presented to the carrier); (3) damage to, or deterioration of, any accessory or decorative surface; (4) damage resulting from failure to follow instructions contained in your owner's manual; (5) damage resulting from the performance of repairs or alterations by someone other than an authorized La Crosse Technology, Ltd authorized service center; (6) units used for other than home use (7) applications and uses that this product was not intended or (8) the products inability to receive a signal due to any source of interference.. This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, claims based on misrepresentation by the seller or performance variations resulting from installation-related circumstances.

LA CROSSE TECHNOLOGY, LTD WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS PRODUCT. THIS PRODUCT IS NOT TO BE USED FOR MEDICAL PURPOSES OR FOR PUBLIC INFORMATION. THIS PRODUCT IS NOT A TOY. KEEP OUT OF CHILDREN'S REACH.

This warranty gives you specific legal rights. You may also have other rights specific to your State. Some States do no allow the exclusion of consequential or incidental damages therefore the above exclusion of limitation may not apply to you.

For warranty work, technical support, or information contact:

La Crosse Technology, Ltd 2809 Losey Blvd. S. La Crosse, WI 54601 Phone: 608.782.1610 Fax: 608.796.1020

e-mail: support@lacrossetechnology.com (warranty work)

sales@lacrossetechnology.com (information on other products) web:

www.lacrossetechnology.com

Question? Instructions? Please visit: www.lacrossetechnology.com/9640

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