

Instruction Summary: WS2010PC Professional Wireless Weather Computer Center

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1.0 Set Up

1.1. Installing Batteries and Magnets:

1.1.1. **IMPORTANT:** Set up sensors first. Install batteries into receiver only when all sensors have been operating for at least ten minutes. Failure to do this may result in poor reception. If this occurs, remove batteries and magnets for at least one minute and follow set up instructions.

1.1.2. Plug the PC Interface into the computer

1.1.3. Install the program by inserting the CD and following instructions (if program does not automatically run, double-click D:/Setup.exe)

1.2. Test Mode: After installing batteries and magnets in the sensors and receiver, they will go into test mode. During this time, **no buttons should be pressed.**

1.2.1. The display on your computer will cycle through the indoor temperature, humidity and pressure, outdoor temperature and humidity, rainfall amount, and wind speed/direction. At first, the cycle will last for only a few seconds on each display. During this time, it is recommended that you place the sensors in desired locations to assure reception.

1.2.2. After several successful cycles, the receiver will display each reading for one minute. Once all data has been received, usually after ten minutes, you may end the test mode. It will automatically end after 30 minutes.

1.3. Calibration (To be done *after* the completion of the test mode—approximately 10 minutes.)

1.3.1. Select **File Calibr.** to enter the calibration mode. ("Calibration" is displayed)

1.3.2. "0000" is displayed under the air pressure display

1.3.2.1. Choose the unit of measurement; inHg or hPa (millibars)

1.3.2.2. Set the height (in meters) above sea level. The WS2010PC shows absolute pressure. To measure relative pressure, the height above sea level needs to be set. Multiply feet by .305 to get meters.

1.3.3. "370" is displayed under the rainfall display

1.3.3.1. This is the "Rain-volume-measurement". This normally doesn't need to be adjusted. See instruction manual (4.2) for directions.

1.3.3.2. Choose the unit of measurement--inches or mm.

1.3.4. Time & Date Setting:

1.3.4.1. Set the time and date

1.3.5. A "7" is displayed in the indoor temperature, wind speed and rainfall displays

1.3.5.1. These should always be set to "7" unless there happens to be two WS2010PC in operation near one another (i.e. a neighbor has a WS2010PC). If this is the case, please call La Crosse Technology for directions. If the number is not "7", information from that sensor will not be displayed.

1.3.5.2. Select °F to °C.

1.4. Normal Operation: Press the **Store** key to return to normal operation. If no button is pressed for one minute, the display will return to the normal operating mode. ***The Weather Station is now operational. If any problems occur, see section 6 of the instruction manual.***

2.0 Mounting Instructions

Mounting hardware is included: (4) u-bolts; (8) 2¼" screws; (8) 1¼" screws; (2) 9/16" screws; (2) 5/16" machine screws; (2) 5/16" sheet metal screws; (8) washers; (8) wall spacers for 2¼" screws (beige); (8) wall spacers for 1¼" screws (green).

2.1. Location of Sensors

2.1.1. It is easiest to locate sensors while the receiver and sensors are in the test mode. Mount only after good reception is achieved in desired location. Be sure the receiver can pick up the signals from different locations if desired.

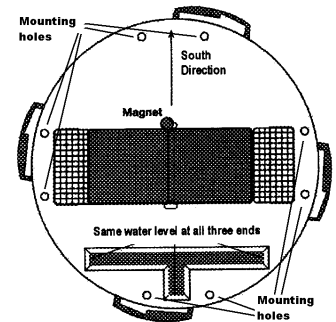
2.2. Rain Gauge Mounting

2.2.1. Locate away from anything that could interfere with the collection of rain. Keep away from buildings, downspouts, trees, and sprinklers. The solar sensor should receive as much light as possible.

2.2.2. It is important to mount the rain gauge level to achieve accuracy.

2.2.2.1. One method of leveling the sensor is as follows: Position sensor in desired location. Take off cover. Fill the "T"-shaped depression in the base with water. The rain gauge is level when all three water levels are equal. Be sure to replace cover correctly with magnets facing each other.

2.2.3. The rain sensor can be permanently mounted to wood (i.e. a deck railing or piece of 2"x6" board) using screw holes and included (8) 1¼" screws. If necessary, drill ¼" holes, tap in green spacers, and insert screws.



2.3. Wind Sensor Mounting

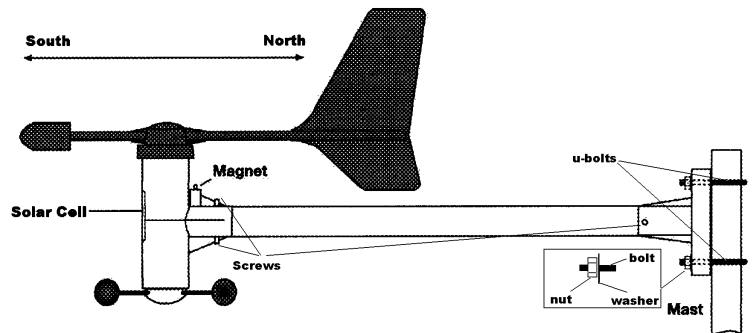
2.3.1. Ideally should be mounted on a 1¼" mast on rooftop or mounted on a wall.

2.3.2. The solar sensor must face due south to register the correct direction. Mount wind sensor away from obstacles that will block the wind. The 14" aluminum post must also be completely horizontal.

2.3.3. Attach the included 14" aluminum post to the wind sensor using included (2) 9/16" screws. Attach mounting bracket to other end of post using the included (2) 5/16" sheet metal screws.

2.3.4. Attach assembly to mast using u-bolts or to wall using included 2¼" screws. If necessary, use beige spacers for wall mounting with screws.

2.3.5. The solar cell must be facing due south for proper reading of wind direction.



2.4. Outdoor Temperature & Humidity Sensor Mounting

2.4.1. Can be mounted on a mast or a wall. It should be out of direct sunlight; under a roof gable is ideal.

2.4.2. The mounting bracket is the same as the one for the wind sensor. Use (2) u-bolts for mounting on a mast or (4) 2¼" screws (use beige spacers if necessary) for wall mounting.

2.4.3. Mount the bracket on vertical surface then attach sensor using (2) 5/16" machine screws. The rain cap must be on the top of the sensor.

2.5. Indoor Temperature, Humidity & Pressure Sensor Mounting

2.5.1. Can be mounted on a wall or simply placed on a shelf.

2.5.2. This sensor transmits the temperature, humidity, and the pressure.

2.5.3. Do not place the sensor in direct sunlight or high humidity location (bathroom), or expose to water.

2.5.4. The indoor sensor can be hung by the mounting hole located on the back or placed on a stable surface.

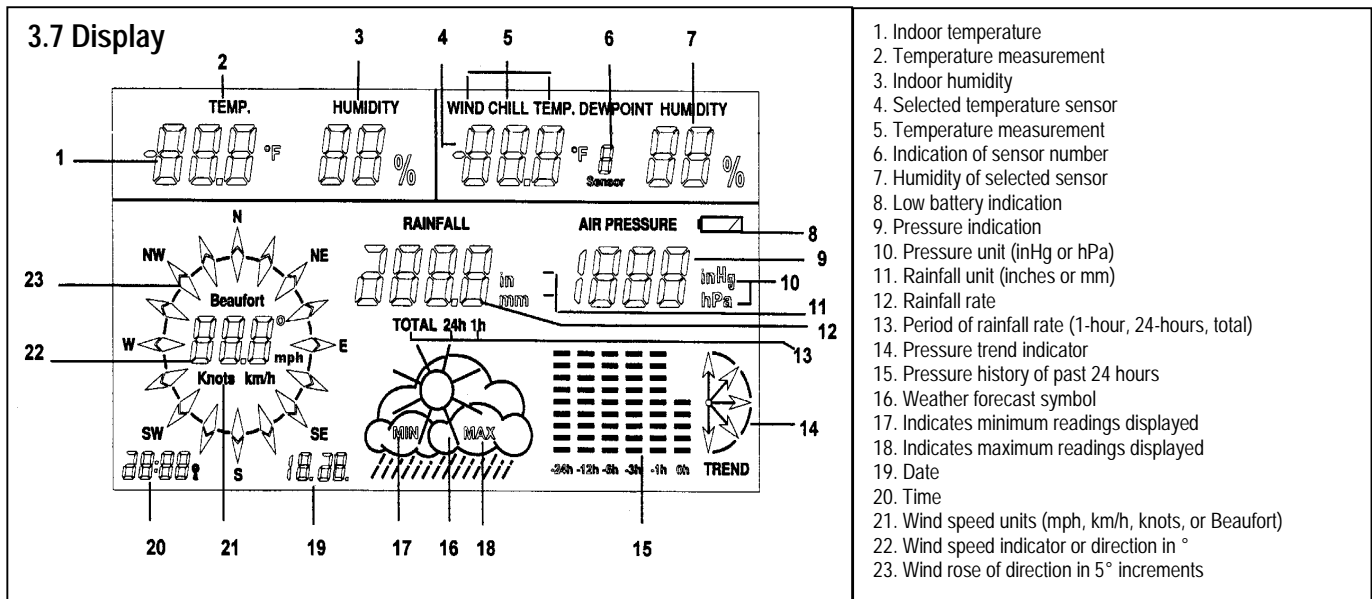
2.5.5. Since this sensor's data is continually displayed, it is ideal to locate it in the main living area.

2.6. Receiver Mounting

2.6.1. This can be placed anywhere reception is good. It is not necessary to keep the receiver plugged in to the computer. The receiver will store data until it is loaded. It can remain attached to the computer.

3.0 General Operation

- 3.1. Once the program is started, you can view all information by selecting View-Weather Display
- 3.2. **Current information** is displayed simultaneously in normal operation.
 - 3.2.1. Indoor temperature, humidity, outdoor temperature, humidity, pressure, pressure trend, 24-hour pressure history bar chart, rainfall rate, forecast icon, wind speed and direction, time and date.
- 3.3. **Indoor temperature and humidity** are displayed in the upper left.
- 3.4. **Outdoor temperature and humidity** are displayed in the upper right.
 - 3.4.1. Press **Outd.** key once to view dewpoint, twice to view wind chill, three times to view normal temperature
 - 3.4.2. If you have more than one outdoor sensor (note that additional sensors are available for indoor as well, but will be displayed in the "outdoor" display), press the **Sensor** key to cycle through (up to eight).
- 3.5. **Air pressure** information is displayed on the right side
 - 3.5.1. Current air pressure is displayed under the outdoor humidity
 - 3.5.2. Pressure trend indicator is in lower left corner (\uparrow quickly rising, \rightarrow steadily rising, \rightarrow steady, \rightarrow steadily falling, \downarrow quickly falling)
 - 3.5.3. The 24-hour history bar chart is to the left of the trend indicator. This indicates graphically the history of the pressure for the past 24 hours. Current pressure ("0h") is always shown with five bars. The other bars will be more or less depending on the past pressure. Fewer bars indicates the pressure was lower, more bars indicates the pressure was higher. Each bar represents a change of 2 millibars (hPa).
 - 3.5.4. The weather forecast icon is to the left of the bar chart. It will indicate rainy, cloudy, partly cloudy or sunny. This forecast is based on the pressure trend. Rising pressure generally indicates fair weather. Falling pressure generally indicates cloudy or rainy weather. The amount of pressure change and the period it occurs in determines the forecast. Actual weather is based on many other variables; thus, a forecast by pressure trend is about 75% accurate.
- 3.6. **Rainfall rate** is displayed in the center of the LCD.
 - 3.6.1. Pressing the **Rain** key cycles through the totals of rain for last hour, last 24 hours, or total since last reset.
 - 3.6.2. To view the time and date of the last reset, press the **Reset** key briefly. The time and date will display in the lower left corner. It will display for five seconds, then display the current time and date.
 - 3.6.3. To reset the total accumulated rainfall, press and hold the **Reset** key for four seconds. There will be an audible beep and the screen will blink once. The total rainfall amount is now "0.0". The 24-hour and last hour totals cannot be reset.
- 3.7. **Wind speed and direction** is on the left side of the LCD.
 - 3.7.1. The average wind direction between transmissions is displayed as arrows on the wind rose.
 - 3.7.2. In the middle of the wind rose is the wind speed or direction. Pressing the **Wind** key cycles through the measurement options. Mph \rightarrow Knots \rightarrow m/s \rightarrow km/h Beaufort \rightarrow Direction in 5° increments.



4.0 Minimum and maximum options.

- 4.1. Press the **Min/Max** key once to view all minimum values, and twice to view all the maximum values.
- 4.2. Minimum and maximum values are stored for indoor temperature, indoor humidity, outdoor temperature, outdoor humidity, and pressure. Rainfall and wind speed maximums are also stored. If the wind or rain maximums do not display, press the **Rain** or **Wind** key.
- 4.3. Press the **Sensor** key to scroll through all outdoor temperature/humidity sensors (if available).
- 4.4. Press the **Outd.** key to switch between outdoor temperature, dewpoint, and windchill.
- 4.5. Press the **←** or **→** key to scroll through each individual value and view the time and date of occurrence.
 - 4.5.1. The order is as follows for pressing the **←** key (the **←** key reverses the order):
 - 4.5.1.1. Indoor temperature
 - 4.5.1.2. Indoor humidity
 - 4.5.1.3. Outdoor temperature. Press the **Sensor** key to select another sensor, if available. Press the **Outd.** key to view dewpoint and windchill.
 - 4.5.1.4. Outdoor humidity
 - 4.5.1.5. Wind speed (maximum only). Press the **Wind** key to change unit of measurement.
 - 4.5.1.6. Rainfall amount (maximum only). Press the **Rain** key to switch to 1-hour or 24-hours.
 - 4.5.1.7. Air pressure
 - 4.5.1.8. All values.
 - 4.5.2. Corresponding time and date are displayed for individual minimum values.
 - 4.5.3. To switch between minimum and maximum values, press the **Min/Max** key at any time.
 - 4.5.4. To exit, press the **←** or **→** key until all values are displayed, then press the **Min/Max** key.
 - 4.5.5. If no button is pressed for one minute, the display will return to the normal operating mode.
- 4.6. **Minimum & Maximum Reset:** To reset minimum and/or maximum values, press and hold the **Reset** key for three seconds. A tone will beep and the display will show "- -". *If this is done while viewing all minimum (or maximum) values, all minimum (or maximum) values will be reset. If this is done while viewing an individual value, only that value will be reset.*

5.0 Alarm Function

- 5.1. **Alarm Description:** The alarm function on the WS2010 enables the user to set up to 39 alarms (if the maximum of nine temperature/humidity sensors are used) to sound when a chosen value rises above the set maximum or below the set minimum. (For example, set the alarm to sound when the temperature falls below freezing.)
 - 5.1.1. The alarm can be set for each temperature, humidity, pressure, and wind speed (maximum only) values.
- 5.2. **Alarm Programming Mode:** Press the **←** and **→** keys simultaneously to enter the alarm programming mode.
 - 5.2.1. "Program Mode" will be displayed below the temperature display
 - 5.2.2. The minimum alarm values are displayed. To view the maximum values, press the **Min/Max** key.
 - 5.2.3. Press the **←** or **→** key to view each value. Use the **-** or **+** key to increase or decrease the set value. To advance more rapidly, press the **Fast** key at the same time as the **-** or **+** key.
 - 5.2.4. The following is the order by pressing the **←** key (the **←** key reverses the order):
 - 5.2.4.1. Indoor temperature.
 - 5.2.4.2. Indoor humidity.
 - 5.2.4.3. Outdoor temperature. Press the **Sensor** key to select the desired sensor, if available.
 - 5.2.4.4. Outdoor humidity. Press the **Sensor** key to select the desired sensor, if available.
 - 5.2.4.5. Wind speed (maximum only). The measurement unit (mph, km/h, etc.) cannot be changed from the alarm programming mode; it must be changed from the normal operating mode (see section 3.6.2).
 - 5.2.4.6. Air pressure. The measurement unit can only be changed in the calibration mode (section 1.3.2.1).
 - 5.2.4.7. All alarm values are displayed.
 - 5.2.4.8. To store set alarm values, press the **Store** key or wait for one minute. The alarm is automatically active.
 - 5.2.5. To reset press and hold the **Reset** key for three seconds. An audible tone will beep and the display will display "- -". *If this is done while viewing all minimum or maximum alarm values, all corresponding values will be reset. If this is done while viewing an individual alarm value, only that value will be reset.*
- 5.3. **Alarm Occurrence:** When a value rises above or falls lower than a set value, the receiver will beep five times twice.
 - 5.3.1. The receiver will only display "AL" in the lower left corner and the value of the alarm (i.e. "32° F")
 - 5.3.2. To deactivate the alarm, press the **Alarm** key. The display returns to the normal operating mode.
 - 5.3.2.1. The alarm will sound again if another value rises above or falls below the set alarm value.
 - 5.3.2.2. To view which values are above or below the alarm values (if any), press the **Alarm** key. Press the **Alarm** key to return to the normal operating mode.