## WIRELESS WEATHER STATION C-8123/C-8153

**USER'S INSTRUCTIONS** 





The multifunctional weather station is equipped with many functions providing thorough weather information to you. The receiver unit has a clear, easy-to-read display that shows weather forecast, indoor temperature, relative humidity, pressure, moon phase, time and date, as well as the temperature and relative humidity measured and transmitted by the sensor. It is able to receive and display readings from up to 3 remote sensors.

The receiver unit retains the minimum and maximum temperatures and relative humidity readings measured at various locations. The 433 MHz technology means no wire installation is required and you can place the sensors anywhere you like.

With radio controlled function, the current time and date are automatically synchronized with the time signal transmitted from Frankfurt Germany (DCF77) / UK (MSF) / US (WWVB). The signal can cover a distance of about 1500 km from the related transmitter.

### Note:

C-8153 is without humidity.

### FCC Remarks:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

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RF transmission frequency: 433MHz
No of remote unit: up to 3 units

RF transmission range: Maximum 30 meters Temperature sensing cycle: around 60 ~ 64

seconds

Pressure measuring range: 800mb to 1050mb

Pressure sampling cycle: 15 minutes

Moon phase scanner range: From 2000 to 2050 Radio controlled signal: DCF77, MSF, WWVB

Power:

Main unit: 4.5 V, use 3 x AA 1.5V

alkaline battery

Remote sensor: 3 V, use 2 x AAA 1.5V

alkaline battery

Weight

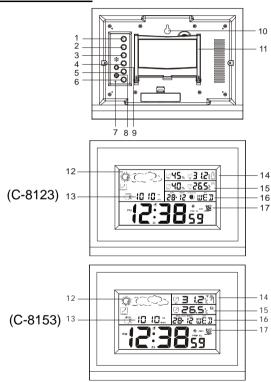
Main unit: 650gm Remote sensor: 53gm

Dimension

Main unit: 306x224x24mm

Remote sensor: 65(W)x93(H)x 27(D)mm

## MAIN FEATURES: WEATHTER STATION:



### 1. TIME:

- Press it once to view the year.
- Press and hold it for 2 seconds to enter the time setting mode.

### 2. ALARM:

- Press it to switch to alarm and temperature alarm.
- In alarm mode, press and hold it for 2 seconds to enter the alarm and pre-alarm setting mode.

### 3. UP:

- In normal time mode, press it to choose between channel (1), (2) and (3).
- In setting mode, press it to increase the setting value.
- In alarm mode, press it to turn on/off alarm and snooze.

### 4. DOWN:

- Press and hold it for 3 seconds, release, then press it to change the weather indicator.
- In alarm mode, press it to turn on/off alarm and snooze.

### 5. HISTORY:

- Check the past 24 hours pressure records.

### 6. MAX/MIN:

- Press it once to check max./ min. temperature record.
- Press and hold it for 3 seconds to delete the max. and min. record.

### 7. RESET:

- Press it to set all values to factory value.

### **SPECIFICATIONS**

(The humidity data and moon phase is for C-8123 only)

### **MAIN UNIT**

Indoor temperature measuring range: -5 °C to +50 °C Recommended operating range: 0 °C to +45 °C

Temperature resolution: 0.1 °C/1°F (above 0 °C)

1 °C / °F (below 0 °C)

Indoor relative humidity measuring range: 20% RH to 90% RH Recommended operating range: 20% RH to 90% RH

Resolution: 1% RH

### **REMOTE SENSOR**

Temperature measuring range:

Recommended operating range:

-20 °C to +60 °C

-20 °C to +55 °C

-20 °C to +55 °C

0.1 °C/1°F (above 0 °C)

1 °C/°F (below 0 °C)

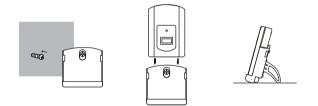
Remote relative humidity measuring range: 20% RH to 90% RH Recommended operating range: 20% RH to 90% RH

Resolution: 1%RH

### **USING THE TABLE STAND OR WALL MOUNTING**

The receiver has both desk-top and wall-mounting structure. Fix the separate wall-mounting stand on the wall by screws. Push the stand of the clock upward, hang it on the wall-mounting stand by its recessed holes.

For the transmitter, fix the wall-mount holder on the wall or simply place it on the table.



- In case of mal-function, the unit may be required to reset.
- 8. °C / °F:
  - Switch between °C / °F.
- 9. mb/hPa · inHg:
  - Switch between mb/hPa or inHg.
- 10. WALL-MOUNTING HOLE:
  - Use to support the main unit on wall.
- 11. TABLE STAND
  - use to stand on desktop
- 12. WEATHER FORECAST WINDOW:
  - Displays the weather forecast indicator.
- 13. ATMOSPHERE PRESSURE WINDOW:
  - Displays the current atmospheric pressure data and indicates the last 24 hours pressure history.
- 14. OUTDOOR TEMPERATURE AND HUMIDITY WINDOW:
  - Shows the outdoor temperature-trend, humidity-trend, current temperature, current humidity or the maximum or minimum recorded temperature and humidity.
  - (For C-8153, only temperature is displayed).
- 15. INDOOR TEMPERATURE AND HUMIDITY WINDOW:
  - Shows the indoor temperature-trend, humidity-trend,

current temperature, current humidity or the maximum or minimum recorded temperature and humidity. (For C-8153, only temperature is displayed)

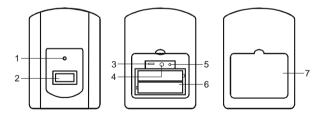
#### 16. CALENDAR WINDOW:

- Displays the date, year, day of the week and moon phase. (C-8153 is without moon phase)

### 17. CLOCK WINDOW:

- Displays the time and radio controlled signal.

## **TRANSMITTER:**



### **LOW BATTERY INDICATOR**

When the battery does not have enough power to operate the unit, the low battery indicator will appear to remind you to replace with new batteries.

Transmitter's low battery indicator ( shows on transmitter )

Transmitter's low battery indicator ( shows on the main unit)





Receiver's low battery indicator



## NOTE:

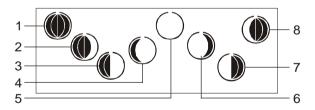
Atlention should be drawn to the environment aspects of battery disposal  $\overline{\mathbf{X}}$ 

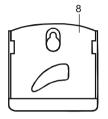
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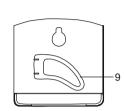
## **ABOUT THE MOON PHASE (C-8123 ONLY):**

The unit has 8 different moon phases. It will change according to the lunar calendar.

- 1. New moon
- 2. Waxing crescent
- 3. First quarter
- 4. Waxing Gibbous
- 5. Full moon
- 6. Waning Gibbous
- 7. Last quarter
- 8. Waning crescent







### 1. LED indicator:

- Flashes when the remote unit transmits a reading.

### 2. LCD:

- Displays the current temperature and humidity monitored by the remote unit alternatively. (For C-8153, only temperature record is displayed).

### 3. Channel slide switch:

- Assign the transmitter to Channel 1, Channel 2 or Channel 3.

### 4. °C / °F:

- Switches between °C / °F.

### 5. RESET:

- Return all values to default value.

### 6. Battery compartment:

- Accommodates 2 AAA size batteries.

### 7. Battery door

- 8. Wall mount holder:
  - Supports the transmitter in wall mounting.
- 9. Folding table stand

# BEFORE YOU BEGIN TRANSMITTER:

- Remove the removable stand, unscrew the screws of the back cover and lift the cover off.
- 2. Insert 2 x AAA batteries into the battery compartment. Be sure to insert them the right way round (see polarity information +/- in the battery compartment).
- The receiver can receive humidity and temperature data from up to 3 transmitters. Assign the channel to each transmitter, Channel 1, 2 or 3 respectively by sliding the switch besides the battery compartment.
- 4. Press the reset key of the transmitter individually by a pin to confirm the channel setting.

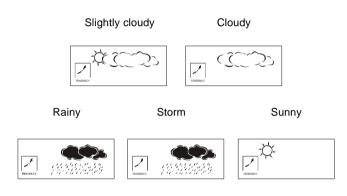
Comfort level	Icon displayed	Temperature Range	Humidity Range	Current Environment
COMFORT	0	20 °C to 25 °C (68 °F to 77°F)	40% RH ~ 70% RH	Ideal range for both temperature and relative humidity
WET	<b>6</b> 6	-5 °C to 50 °C (23 °F to 122°F)	Over 70% RH	Excess moisture
DRY	(3)	-5 °C to 50 °C (23 °F to 122°F)	Below 40% RH	Insufficient moisture
	No Indicator	Less than 20 °C (68 °F ) or more than 25 °C (77°F)	40% RH to 70% RH	No comment

### **PAST 24 HOURS PRESSURE RECORDS**

The current and historical barometric pressure is shown on the atmospheric pressure window. The atmospheric pressure can be displayed in mb/hPa or inHg by selecting the atmospheric pressure slide switch at the case back.

Checking the pressure history for a particular hour during the past 24 hour's pressure, press the HISTORY button. Each press on the button will go back by an hour. The recorded atmospheric values for the past 24 hours are displayed in the atmospheric pressure window.

- 2. The weather forecast is meant for next 12 to 24 hours. It may not necessarily reflect the current situation.
- The "Sunny" icon, when applies to nighttime, implies clear weather.



### NOTE: THE COMFORT-LEVEL ICONS (C-8123 ONLY)

The comfort level icons COMFORT, DRY and WET will tell you what the current environment is.

- 5. Select the temperature unit by sliding the °C / °F switch besides the battery compartment.
- Re-fix the battery door, and secure its screws evenly and diagonally.

### NOTE:

- Once the channel is assigned to a transmitter, you can only change it by removing the batteries or resetting the unit.
- Avoid placing the transmitter in direct sunlight, rain or snow.

### **WEATHER STATION:**

- Remove the battery door and insert 3 x AA batteries into the battery compartment. Make sure you insert the batteries the right way round (see polarity information +/in the battery compartment).
- 2. Close the battery compartment.
- 3. Press reset button to re-start the clock and it will synchronise the channels of the transmitter automatically.

### NOTE:

 If extra transmitter is added in the future, press reset button to re-start the clock and synchronise the channel once again.

- The building material and the position of the receiver and transmitter affect the effective range. So try various locations will help to obtain the best result.
- 3. Place the units away from metal objects and electrical appliances to minimize the interference. Position the receiver and the transmitter within effective transmission range: 30 meters in usual circumstances.

### SETTING WEATHER INDICATOR

Important: To get a better result of weather forecast indicator, please set the weather forecast icon according to the current weather condition.

- In normal time mode, press and hold DOWN key for 3 seconds, weather indicator flashing.
- Press DOWN key to change the weather indicator in this order:
  - Slightly cloudy Cloudy Rainy Storm Sunny
- 3. Choose the suitable indicator according to the current weather.
- 4. Press TIME key to return to the normal mode or let it automatically return to normal mode after 30 seconds without pressing any keys.

Arrow indicator	1		**
Temperature trend	Rising	Steady	Falling
Arrow indicator	1.8		1
Humidity trend	Rising	Steady	Falling
Arrow indicator	1		1
Pressure trend	Rising	Steady	Falling

### **WEATHER FORECAST**

The built-in barometer can notice atmospheric pressure changes. Based on the data collected, it can predict the weather condition in the forthcoming 12-24 hours. The effective covers area ranges from 30 to 50 km.

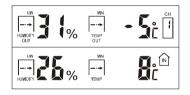
### NOTE:

 The accuracy of a general pressure-based weather forecast is about 70 to 75%, and therefore, cannot be held responsible for any inconvenience caused by an inaccurate data.

### MAX. Temperature / humidity record



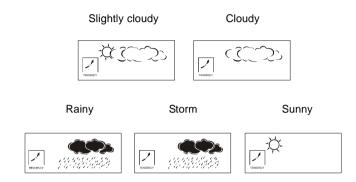
MIN. Temperature / humidity record



### **WEATHER TREND**

The temperature-trend, humidity-trend and pressure-trend indicators show the trends of changes for the last few minutes. Arrows indicate a rising, steady or falling trend.

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### NOTE:

- Do not set the weather indicator when it is raining. Raining will give unstable data.
- 2. Do not set the weather indicator in night time.

## RECEPTION OF RADIO CONTROLLED TIME SIGNAL

The time and date are radio-controlled. The current time and date are automatically synchronized with the time signal transmitted from Frankfurt, Germany (DCF77), UK/ (MSF) / US (WWVB) provided the device is within about of 1500 km range of the transmitter.

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When used for the first time (after inserting the batteries or pressing RESET), the clock starts receiving time signals and the reception display flashes.

### SIGNAL STRENGTH INDICATOR

The signal indicator displays signal strength in 3 levels. Wave segment flashing means time signals are being received. The signal quality could be classified into three types:









NOTE:

- 1. Everyday the unit will automatically search for the time signal at 2:00, 8:00, 14:00 and 20:00.
- 2. Always place the unit away from interfering sources such as TV set, computer, etc.
- 3. Avoid placing the unit on or next to metal plate.
- 4. Closed area such as airport, basement, tower block or factory is not recommended.
- 5. Do not start reception on a moving article such as vehicle or train.

If the readings go above or below the specified range, the receiver and transmitter will keep show the last record within the operation range.

### NOTE:

- 1. If no signals are received or the transmission is interfered with, "---" appears in the display.
- 2. Locate the clock in other position and make sure the transmission is within the effective range of 30 meters approx.
- 3. After several trials but in vain, please reset the clock thoroughly. Try out where your multifunctional alarm clock receives the signals best.

## CHECKING AND DELETING MAX./MIN. **TEMPERATURE & HUMIDITY REOCRDS**

(For C-8153, only temperature is displayed)

- 1. Press MAX/MIN key to check Maximum temperature and humidity records. Press it twice to check the Minimum records. Press it thrice to exit.
- 2. Press and hold MAX/MIN key for 3 seconds to delete the records.

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2. Press and hold the ALARM key for 2 seconds, pre-alarm time flashing, press UP or DOWN key to change its value.

### NOTE:

To activate pre-alarm function, ALARM must be on.

Temperature alarm ON Pre-alarm mode Pre-alarm 15 minutes







## **VIEWING THE CHANNEL**

The default channel is channel 1. In normal time mode, press UP key to view the channel from 1 to 3.

## HOW TO READ INDOOR AND OUTDOOR TEMPERATURE & HUMIDITY RECORDS

Change the temperature unit by sliding  ${}^{\circ}C$  /  ${}^{\circ}F$  slide switch to  ${}^{\circ}C$  for Centigrade or  ${}^{\circ}F$  for Fahrenheit.









## SELECT THE TIME ZONE (FOR WWVB VERSION ONLY)

The default time Zone is PACIFIC Zone, if your location is out of Pacific, set the time zone as the following:
In normal time mode, press DOWN button to change it:
P=Pacific M=Mountain C=Central E=Eastern

## **MANUAL TIME SETTING**

If you are out of the reach of the Radio Controlled Tranmsitter or if the reception is not reachable, the time can be set manually. As soon as the transmitter is received again, the clock will automatically synchronise with the received time.

- In normal time mode, press and hold TIME key for 2 seconds, hour flashing, press UP or DOWN key to change its value.
- Press TIME key again, minute flashing, press UP or DOWN key to change its value.
- Repeat the above operation to set the time in this order: Hour - Minute - Second - 12/24 hour - Year - Month - Date - Day language.
- 4. 5 languages weekday setting sequence is : English-GB / French-FR / German-DE / Spanish-ES / Italian-IT.

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After setting completed, press TIME key to exit setting mode, or let it exit automatically in 30 seconds without pressing any key.

English	Germany	French	Spanish	Italian
SUN	SON	DIM	DOM	DOM
MON	MON	LUN	LUN	LUN
TUE	DIE	MAR	MAR	MAR
WED	MIT	MER	MIE	MER
THU	DON	JEU	JUE	GIO
FRI	FRE	VEN	VIE	VEN
SAT	SAM	SAM	SAB	SAB

## **ALARM AND SNOOZE SETTING**

- In normal time mode, press ALARM key once to enter the alarm mode. Press UP or DOWN key once, alarm is on with the bell indicator displayed. Press UP or DOWN key again to turn on SNOOZE with Zz displayed. Press UP or DOWN key to turn off ALARM and SNOOZE.
- In normal mode or alarm mode, press and hold ALARM key for 2 seconds, hour flashing. Press UP or DOWN key to set the value. Repeat the same operation to set the alarm minute.
- After setting completed, press ALARM key to return to normal mode, or let it exit automatically 30 seconds later without pressing any key.

### NOTE:

- The alarm will automatically turn on when setting the alarm time
- The EL backlight will keep on for 5 seconds when the alarm is sounding.
- Once the snooze is turn on, the 4-step crescendo alarm will sound 4 times in 5-minute interval. The alarm duration is 120 seconds.

Alarm OFF Alarm ON Alarm and Snooze ON

## **SETTING THE TEMPERATURE ALARM**

Use this function to be woken up at a determined period of time earlier (1-30 minutes), if one of the transmitter's temperatures is below -1°C.

 In normal time mode, press ALARM key twice to enter pre-alarm mode, press UP or DOWN key to turn pre-alarm on.