

**Applicant: Carrin Electronics Co., Ltd.**

**FCC ID: Q9E-91527**

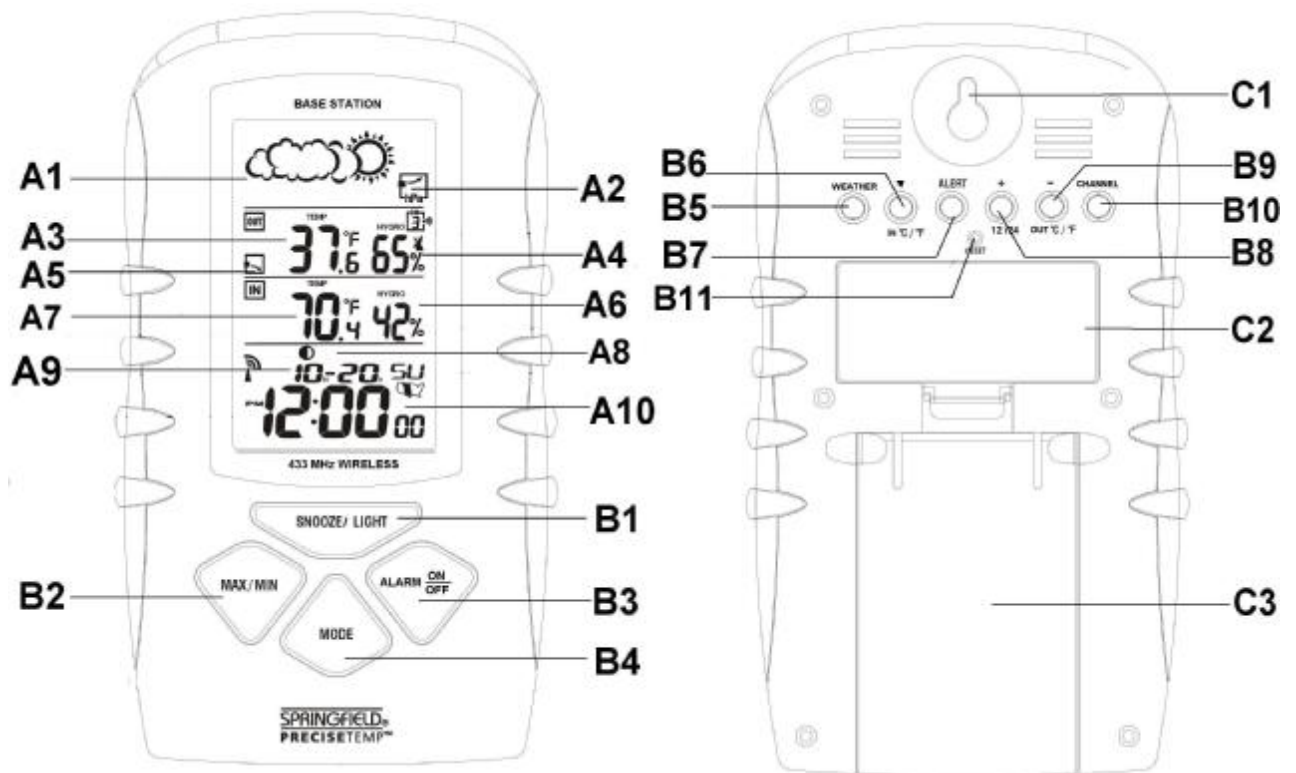
**91186 WWVB (CAR021 +CAR014)**

**Features:**

- Weather Forecast with Sunny, Slightly Cloudy, Cloudy, Rainy and Cloud Burst.
- Radio controlled time with manual setting option
- 433MHz RF receiving frequency.
- Maximum three selectable RF channels with wireless Thermo Sensor.  
(One Wireless Thermo Sensor Included)
- Transmission range: 100 ft. ( open area ).
- Measuring range:
  - Indoor temperature : 32°F ~ 122°F (0°C ~ 50°C)
  - Outdoor temperature : -58°F ~ 158°F (-50°C ~ +70°C)
  - Indoor Humidity : 20% ~ 90%
- With 10 feet Corded Outdoor Temperature Probe.
- Outdoor Temperature Alert function.
- Max/Min Memory for Outdoor Temperature.
- Low-battery indicator for Outdoor Remote Sensor.
- Perpetual Calendar Up to Year 2069.
- 12/24Hour time display selectable.
- Wall mount or Table Stand Selectable.
- Battery:
  - Main Unit : DC 1.5 V AA size x 2 pcs
  - Thermo & Hygro Sensor Unit : DC 1.5 V AAA size x 2 pcs
- Size:
  - Main Unit : 166 x 95 x 25 mm
  - Thermo & Hygro Sensor Unit : 98 x 77 x 20 mm

**Caution:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user authority to operate the equipment.  
This device complies with Part 15 of the FCC Rules. Operation is subject to the following 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.

The users manual or instruction manual for an unintentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



### Part A- LCD

A1: Weather Forecast

A3: Outdoor Temperature

A5: Outdoor Temperature Trend

A7: Indoor Temperature

A9: Calendar

A2: Barometric Pressure Trend

A4: Outdoor Humidity

A6: Indoor Humidity

A8: Moon Phase Display

A10: Radio Controlled Time

### Part B- Buttons

B1: "SNOOZE/LIGHT" button

B3: "ALARM ON/OFF" button

B5: "WEATHER" button

B7: "ALERT" button

B9: "- OUT °C/°F" button

B11: "RESET" button

B2: "MAX/MIN" button.

B4: "MODE" button

B6: "▽ IN °C/°F" button

B8: "+ 12/24" button

B10: "CHANNEL" button

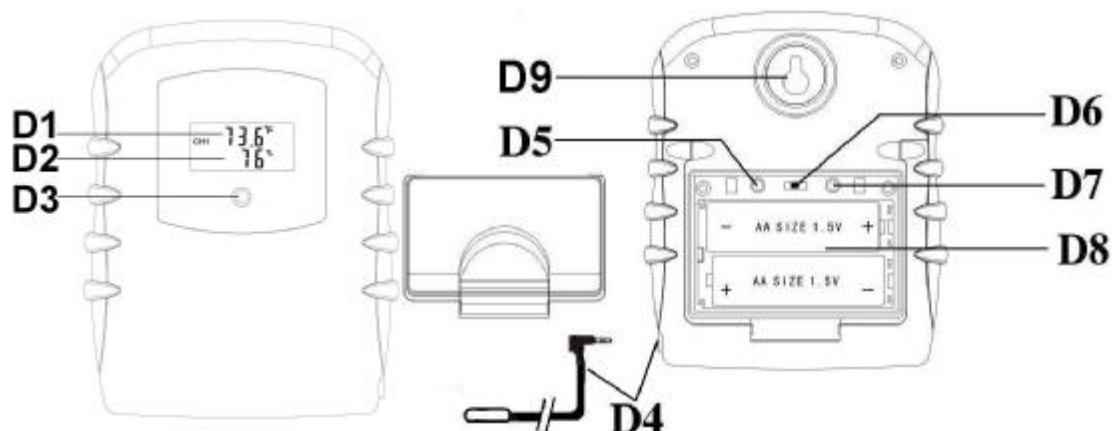
### Part C- Structure

C1: Wall Mount Hole

C3: Stand

C2: Battery Compartment

## Thermo & Hygro Sensor Unit Appearance.



D1: Outdoor Temperature

D2: Outdoor Humidity

D3: Transmission Indication LED

D4: Temperature Probe & Plug

D5: “C/F” button

D6: Channel Selecting Switch

D7: “TX” button

D8: Battery Compartment.


D9: Wall Mount Hole

### Set Up:

- Insert batteries.
- Use a pin to press the RESET (B11) button

### Radio Controlled Clock:

- The clock automatically starts scanning the RF 433MHz signal to register new Thermo Sensor Unit after new batteries inserted. After registered new channels or press “CHANNEL” button (B10) to stop scanning, the clock will then scan the WWVB time signal ( “📶” flashes on the LCD ). Buttons will not function while scanning for WWVB time signal or Thermo sensor’s signal unless they are well received or stopped manually.
- The clock automatically scans the time signal at 2.00 a.m. everyday to maintain accurate timing. For failed reception, scanning stops ( “📶” on the LCD disappear ) and repeats again at 3.00 a.m. 4.00a.m. and 5.00a.m.
- The clock manually scans the time signal by holding “-” button (B9) for 3 seconds. For failed reception, scanning stops. ( “📶” on the LCD disappear ).
- Hold “-” button (B9) for 3 seconds to stop scanning when receiving WWVB time signal.

“” flashes indicate now is receiving WWVB time signal

“” turns on indicate signal received successfully


### Manual Time Setting:

- Hold “MODE” button (B4) for 3 seconds to enter Clock/Calendar setting Mode when viewing the Time.
- Press “+” (B8) or “-” (B9) buttons to adjust the setting and press “MODE” button (B4) to confirm each setting.
- The setting sequence is shown as follow: Hour, Minutes, Second, Year, Month/Day sequence, Month, Day, DST on or off.
- The Time Setting Mode will automatically exit in 5 seconds without any adjustment.

### 12/24 Hour Display mode:

- Press “12/24” button(B8) to select 12 or 24 hours mode.


### Time Zone Setting:



- Hold “ALARM ON/OFF “ button (B3) for 3 seconds to select the 4 difference USA time zone. Indicated by“” on LCD

### Snooze Alarm Clock Function:

- Press “MODE” button (B4) to select to view:


Time → Alarm Time1 (“” Shown on the LCD) — Alarm Time 2

(“” Shown on the LCD)

- When viewing Alarm Time 1 or Alarm Time 2, hold “MODE” button (B4) for 3 seconds to enter that Alarm Time setting. Press “+” (B8) or “-” (B9) buttons to adjust the alarm time.
- When viewing Alarm Time 1 or Alarm Time 2, press “ALARM ON/OFF” (B3) button to switch that alarm on or off. If it is on, “” or “” shown on the LCD.
- When Alarming, press “SNOOZE / LIGHT” button (B1) to enable the snooze alarm. Snoozes alarm snoozes for 5 minutes, then it alarms again.
- Press any button to stop the snooze alarm.

### Weather Forecast Function:

- After Batteries inserted, or holding “WEATHER ” button (B5) for 3 seconds, weather icon Flash (**LCD-A1**). Enter the current weather by pressing “ “ buttons (B6). Press “WEATHER” button (B5) to confirm the setting. The weather forecast may not be accurate if the current weather entered is not correct.
- Totally 5 different weather in the weather forecast.

“  ” means **Sunny** .

“  ” means **Slightly Cloudy**.

“  ” means **Cloudy**.

“  ” means **Rainy**

“  ” means **Cloudburst**.

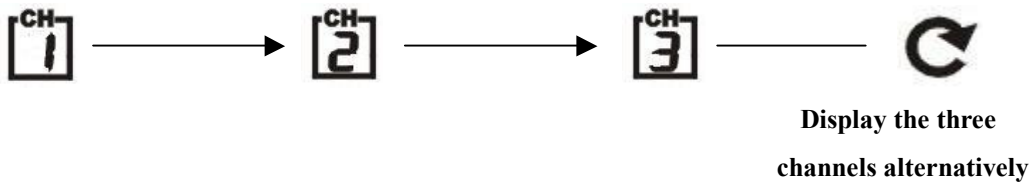
- If there is any inconsistency of weather forecast between Local Weather Station and this unit, the Local Weather Station's forecast should prevail.
- The trend pointer displayed on the LCD indicates the trend of the Barometric pressure.

“  ” indicates the barometric pressure trend is increasing.

“  ” indicates the barometric pressure trend is steady.


“  ” indicates the barometric pressure trend is decreasing.






- Hold “ CHANNEL” button (B10) for 3 seconds to cancel unused channel manually. It will automatically register a new channel again if a new channel is received.  
If there is no temperature and humidity displayed in existing channel ( “ - - . -“ is displayed on the LCD ), hold “CHANNEL” button (B10) for 3 seconds to cancel that channel and receive the channel again, a “BI” sound can be heard.

- The trend pointer displayed on the LCD indicates the trend of the outdoor temperature.

“  ” indicates the outdoor temperature is increasing.

“  ” indicates the outdoor temperature is steady.

“  ” indicates the outdoor temperature is decreasing.

- Press “ °C /°F” button (D5), on the Thermo Sensor unit, to select Thermo Sensor displayed in Celsius mode or Fahrenheit mode.

#### **The use of 10 feet cord Temperature Probe:**

- Insert the probe to the plug on the right hand side of the Thermo and Hydro Sensor Unit.
- Put the metal casing outside and leave the Thermo and Hydro Sensor Unit in a indoor area to avoid freezing up the battery when the outdoor temperature is below -20 °C.
- Always use the temperature probe to sense the temperature when the temperature is between the following range:  
-50 °C ~ 0°C and +50°C ~ + 70°C


#### **Outdoor Temperature Alert Function:**

- Hold “ ALERT” button (B7) for 3 seconds to enter Temperature Alert setting, Temperature’s digits flash.
- Press “ +” (B8) or “ -” (B9) button to select setting the Outdoor CH1, CH2 and

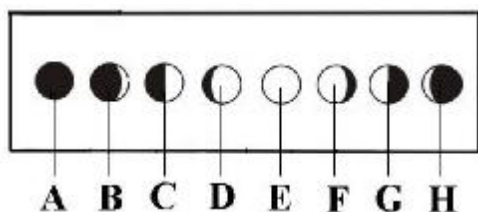
CH3 temperature alert. Press “ALERT” button (B7) to confirm the setting.

- Press “+” (B8) or “-” (B9) button to set the upper “ $\overline{\Delta}$ ” and lower “ $\underline{\Delta}$ ” limit of the temperature. Press “ALERT” button (B9) to confirm the setting.
- Press “ALERT” button to set the Temperature Alert function on or off (“ $\overline{\Delta}$ ” appears on the LCD if this function is on).

### Low batteries indicator:

- Low battery icon “” appear at outdoor temperature row in particular channel indicating the external transmitter of the channel in low battery status. Batteries should be replaced.

### Moon Phase Indication



The Moon Phase of each day is shown on the LCD.

- |                   |                    |                   |
|-------------------|--------------------|-------------------|
| A: New Moon       | B: Waxing Crescent | C: First Quarter  |
| D: Waxing Gibbous | E: Full Moon       | F: Waning Gibbous |
| G: Last Quarter   | H: Waning Crescent |                   |

### Back Light:

- Press “SNOOZE/LIGHT” button, back light states for 5 seconds.

### Note:

- Use a pin to press the reset button if the Unit does not work properly.
- Avoid placing the clock near interference sources/metal frames such as computer or TV sets.
- The clock loses its time information when the battery is removed.
- Buttons will not function while scanning for WWVB time signal or Thermo sensor's signal unless they are well received or stopped manually.
- All Setting Mode will automatically exit in 5 seconds without any adjustment.