

#### CCL ELECTRONICS LTD

## Big Digit Multi-Channel Wireless Thermo-Hygrometer with Self-Calibration & Auto-Night Light

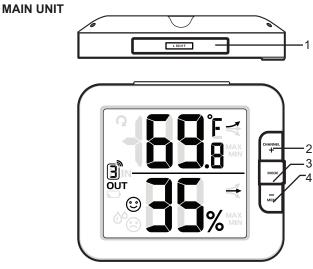
# Model: C2064A

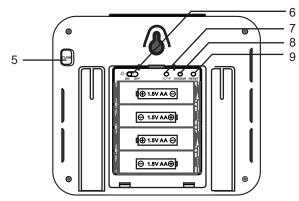
**User Manual** 



Thank you for purchasing this delicate Big Digit Multi-Channel Wireless Thermo-Hygrometer with Self-Calibration & Auto-Night Light. Utmost care has gone into the design and manufacture of the clock. This manual is used for US version. Please read the instructions carefully according to the version you purchased and keep the manual well for future reference.

# OVERVIEW





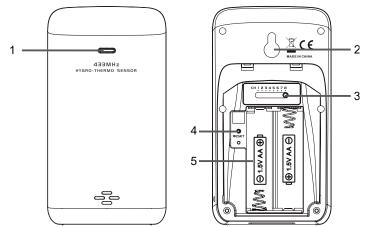
# 1. [LIGHT] key

- In normal mode, press once for 5-second backlight.
- When using the [LIGHT] key to activate the backlight, operating other function keys will re-time the 5-second backlight.
- 2. [CHANNEL / +] key
- In temperature and humidity calibration mode, press to increase the value.
- In normal mode, press to switch between INDOOR, Channel 1,2,3,4,5,6,7 and 8.
- In normal mode, press and hold for 2 seconds to enter auto-

cycle mode that Channel 1~8 and INDOOR's temperature and humidity readings will alternately be displayed at 4 second intervals. The " ? icon will display during auto-cycle mode.
During auto-cycle mode, press once to return to normal mode.

- 3. [MODE] key
- In temperature and humidity calibration mode, press once to switch between setting options.
- In temperature and humidity calibration mode, press and hold for 2 seconds to clear modified data in order to display sensor's data.
- 4. [MEM / -] key
- In temperature and humidity calibration mode, press to decrease the value.
- In normal mode, press once to check maximum and minimum temperature and humidity records. Press again to return to normal mode.
- When the maximum and minimum temperature and humidity records are displayed, press and hold for 2 seconds to erase the current records.
- 5. [TUNE] key
- In normal mode, press and hold for 2 seconds to enter temperature and humidity calibration mode.
- In temperature and humidity calibration mode, press and hold for 2 seconds to return to normal mode.
- 6. Auto night-light slide switch
- Slide to **[ ON ]** position to activate night-light function. When it is ON, the backlight will automatically turn on in dim and dark environment detected by the light sensor. The brightness of night-light is weaker than normal backlight.
- Slide to [ OFF ] position to turn off the night-light function
- 7. [°C/°F]key
- Press to switch between °C/°F.
- 8. [SENSOR] key
- In normal mode, press once to manually enter current channel's receiving mode. The unit will receive active sensor's signals for 5 minutes and erase the current channel's records
- 9. [RESET] key
- Press once to perform overall function and display option resets.
- In case of malfunction, the unit may be required to reset.

# WIRELESS HYGRO-THERMO SENSOR



- 1. Transmission status LED
- Flashes when the sensor is transmitting.
- 2. Wall mounting holder
- 3. [CHANNEL] slide switch
- Assign the sensor to Channel 1,2,3,4,5,6,7 or 8.
- 4. [RESET] key
- Press to restart the sensor.
- 5. Battery compartment
- Accommodates 2 x AA size batteries.

# GETTING STARTED

## WIRELESS SENSOR

- 1. Remove the battery door of the sensor.
- 2. Insert 2 x AA size batteries into the battery compartment. Make sure you insert them the right way according to the polarity information marked on the battery compartment.
- 3. Close the battery door.

### Note:

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

## MAIN UNIT

- 1. Remove the battery door of the main unit.
- Install 4 new AA size batteries according to the polarity information marked on the battery compartment and then press [RESET] key by using a metal wire to reset the unit.
- 3. Close the battery door.
- 4. Once the batteries are installed, all the segments of the LCD will be shown.

### Note:

To avoid the wireless sensor and main unit pairing failure, please power up the sensor/s first, and then press **[ RESET ]** key on the main unit (no need on sensors).

### INDOOR TEMPERATURE AND HUMIDITY FUNCTION

- Press [ °C / °F ] key to switch between °C / °F. Decimal point is effective for both settings.
- When the temperature is below -40°F or above 158°F, "Lo" or "Hi" will be displayed respectively. The humidity display will show "--".

Temperature below -40°C

Temperature above 70°C





3. When the humidity is below 1% or above 99%, "Lo" or "Hi" will be indicated respectively.

Humidity below 1%



Humidity above 99%



# **COMFORT INDICATION**

The comfort indication is a pictorial indication based on indoor air temperature and humidity in an attempt to determine comfort level.

8	$\odot$	0°C
Too cold	Comfortable	Too hot

#### Note:

- Comfort indication can vary under the same temperature, depending on the humidity.
- There is no comfort indication when temperature is below 0°C (32°F) or over 60°C (140°F).

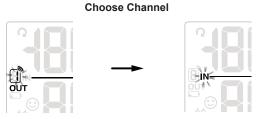
# **TEMPERATURE & HUMIDITY TREND**

The temperature & humidity trend indicator shows the trends of changes in the forthcoming few minutes. Arrows indicate a rising, steady or falling trend.

Arrow indicator	-	$\rightarrow$	~
Trend	Rising	Steady	Falling

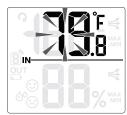
# TEMPERATURE AND HUMIDITY CALIBRATION

 In normal mode, press and hold [ TUNE ] key for 2 seconds to enter temperature and humidity calibration mode in which the current outdoor channel or "IN" icon will flash. Press [ CHANNEL / + ] or [ MEM / - ] key to choose for INDOOR or different CHANNEL.



- Press [ MODE ] key again to switch between temperature and humidity. Press [ CHANNEL / + ] or [ MEM / - ] key to adjust the value.
- 3. When finished, press **[ TUNE ]** key for 2 seconds or leave the unit for 60 seconds to return to normal mode.
- 4. Pressing [ MODE ] key for 2 seconds during temperature and humidity calibration mode will reset the value to the actual or uncalibrated measurement.
- 5. Reset the temperature and humidity values for each channel individually. There is no batch reset.
- 6. Calibration mode sequence: channel  $\rightarrow$  temperature  $\rightarrow$  humidity
- In temperature calibration mode, press [ CHANNEL / + ] key or [ MEM / - ] key to modify 0.1 °C or °F of the value. Long press to quick-adjust the value.

### Temperature calibration mode



 In humidity calibration mode, press [ CHANNEL / + ] or [ MEM / - ] key to modify 1% of the value. Long press to quickadjust the value.

#### Humidity calibration mode



- If the current reading of the selected channel displays the flashing "--", "Hi" or "Lo", it will be impossible to adjust. Pressing [CHANNEL / +] or [MEM / -] key will not change the value.
- If re-enter temperature and humidity calibration mode, the adjusted value will reset to the original value.
- 11. The comfort indication is based on calibrated temperature and humidity values to calculate.

### MAX/MIN TEMPERATURE AND HUMIDITY RECORD

The unit preserves the MAX/MIN temperature and humidity records since the last manual reset.

- In normal mode, press [ MEM / ] key once to show the current maximum temperature and humidity values; press again to show the minimum values; press the third time to return to normal mode.
- 2. When the MAX/MIN records are shown, the display will return to normal mode after leaving the unit for 5 seconds.

MAX record

**MIN record** 





3. Perform a manual reset or press and hold [ MEM / - ] key for 2 seconds when the unit is displaying MAX/MIN records or in normal mode to erase the records.

# WIRELESS SENSOR SIGNAL RECEIVING AND DISPLAY

1. In normal mode, press [ SENSOR ] key once to start receiving and reset the current displaying channel. The signal icon will flash along.

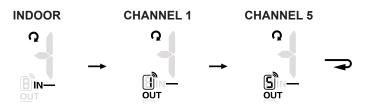
For example, when CH1 is displayed, pressing [ SENSOR ] key will start receiving for CH 1 only.

2. The signal icon will flash until the reception succeeded. If no signal is received within 5 mins the icon will disappear.

Receiving wireless signal after manual reset or the <b>[ SENSOR ]</b> key is pressed	OUT
When waiting for signals, "" will display in the readings field	OUT
Fair wireless sensor signal	OUT

- 3. In normal mode, press [ CHANNEL / + ] key to switch the display between INDOOR and CHANNEL 1~8.
- 4. In normal mode, press and hold [ CHANNEL / + ] key for 2 seconds to toggle auto-cycle mode, which alternately displays the channels at 4 second intervals. The " $\Omega$ " icon will show on the display.
- 5. During auto-cycle mode, press [ CHANNEL / +] key once to stop auto-cycle and display the current channel.
- 6. To check the validity of the signals from each wireless sensor. press [ CHANNEL / + ] key repeatedly in normal mode to display each channel. Using auto-cycle mode will only display the communicated channels.

For example, when CHANNEL 1 and 5 have received the signals from the corresponding sensors, you can press and hold [CHANNEL / +] key for 2 seconds to display the readings of INDOOR, CHANNEL 1 and 5.



- 7. If the signal for Channel 1~8 has discontinued and does not recover within 1 hour, the signal icon will disappear. The temperature and humidity will display "Er" for the corresponding channel.
- 8. If the signal does not recover within 48 hours, the "Er" display will become permanent. You need to replace the batteries of the "Er" channel's sensors and then press [ SENSOR ] key to pair up with the sensors per each "Er" channel again.

# Signal discontinued



#### Note:

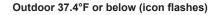
Erase MAX/MIN

records

You need to press [ SENSOR ] key to manually receive the sensor's signal after you've placed the new batteries to the wireless sensor, or the main unit fail to receive the wireless sensor's signal.

## THE LOW TEMPERATURE ICON

When the outdoor temperature is 37.4°F or below, the low temperature icon " LO " will display.





#### THE LOW BATTERY ICON

If the main unit or sensor is low in battery, the low battery icon " will display. The icon will only appear when the corresponding channel is displayed.

For example, the sensor of CHANNEL 1 is low in battery. When **CHANNEL 1** is displayed, the icon " rwill show.

### **IMPORTANT NOTE**

- Attention! Please dispose of used unit or batteries in an ecologically safe manner.
- Always place the unit away from interfering sources such as TV set, computer, etc.
- Avoid placing the unit on or next to metal plates.
- Technical specifications and user manual contents for this product are subject to change without notice.

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### SPECIFICATION

### MAIN UNIT

Indoor operating temperature range	23°F ~ 122°F (-5°C ~ 50°C)
Humidity display range	1% ~ 99 %
Resolution of temperature	0.1°C/°F
Resolution of humidity	1%
Wireless SENSOR	
Outdoor operating temperature range (based on Lithium battery)	-40°F ~140°F ( -40°C ~ 60°C)
Outdoor operating humidity range	1% ~ 99 %
Resolution of temperature	0.1°C/°F
Resolution of humidity	1%
Wireless sensor signal	433MHz
No. of remote sensor	Up to 8 units
RF transmission range	Maximum 30 meters

#### POWER

Main unit	1.5V AA X 4 (alkaline battery
Wireless sensor	1.5V AA X 2 (alkaline battery

#### DIMENSION

Main unit	130(W) x 112 (H) x 27.5(D)mm
Wireless sensor	61(W) x 113.6 (H) x 39.5(D)mm

Warning: Changes or modifications to this unit not expressly approved by the partyresponsible 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 ClassB 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 notinstalled and used in accordance with the instructions, may cause harmful interference radio communications.

However, there is no guarantee that interference will not occur in a particularinstallation. If this equipment does cause harmful interference to radio or televisionreception, 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 experienced radio/TV technician for help

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

"This radio transmitter (identify the device by certification number, or model number if Category II) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device."

"Caution: To maintain the compliance with the RF exposure guideline, place the unit at least 20 cm from nearby persons."

Le présent appareil est conforme aux CNR d' Part 15 of the FCC applicables aux appareils radio exempts de licence. Le fonctionnement est autorisé aux deux conditions suivantes :

 l'appareil ne doit pas produire de brouillage;
 l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le

fonctionnement. Le présent émetteur (identifier l'appareil par son numéro d'homologation ou par son numéro de modèle, s'il s'agit d'un appareil de catégorie II) a été approuvé par Industrie Canada pour fonctionner avec les types d'antennes énumérées ci-dessous et ayant un gain admissible maximal. Il est strictement interdit d'utiliser les types d'antennes non incluses dans cette liste, et dont le gain est supérieur au gain maximal indiqué, avec cet appareil.

Mise en garde : Pour assurer la conformité aux lignes directrices concernant l'exposition aux RF, placer l'appareil à au moins 20 cm des personnes.