Ambient Weather WS-01 Intelligent Color Changing Temperature Night Light with Ambient Backlight User Manual

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1 Introduction

Thank you for your purchase of the Ambient Weather WS-01 Intelligent Color Changing

Temperature Night Light with Ambient Backlight. The following user guide provides step by step instructions for installation, operation and troubleshooting. To download the latest manual and additional troubleshooting tips, please visit:

http://ambientweather.wikispaces.com/ws01

2 Warnings

This product is UL rated and has been designed to meet UL safety standards. However, proper safety guidelines must be followed:
- **DO** plug into an exposed wall outlet where the night-light is well ventilated.
- **DON'T** install where bed coverings, curtains, or other materials may touch the night-light or outlet; this will present a fire hazard.
- **DON'T** plug into an extension cord, surge protector strip, outlet strip, or other movable types of outlets.
- **DO** keep out of the reach of children. For adult use only.
    This product is **NOT A TOY** and is **NOT** intended for use by children.
- **DO** keep out of the reach of pets.
- **DON'T** place outside. The night light is designed for indoor use only.

3 Getting Started

3.1 Parts List

QTY	Item
1	Night Light Frame Dimensions (LxHxW): 2.6 x 2.3 x 2.4 in LCD Dimensions (LxW): 1.9 x 1.9 in
1	CR2032 Battery
1	Manual

3.2 Power-Up Sequence

1. Plug the night light into the wall outlet. Watch for the backlight to change colors. Indoor Temperature will be displayed after AC ON is displayed temporarily in the time field.
2. Release the Pull Tab to energize the back-up battery, as shown in Figure 1.
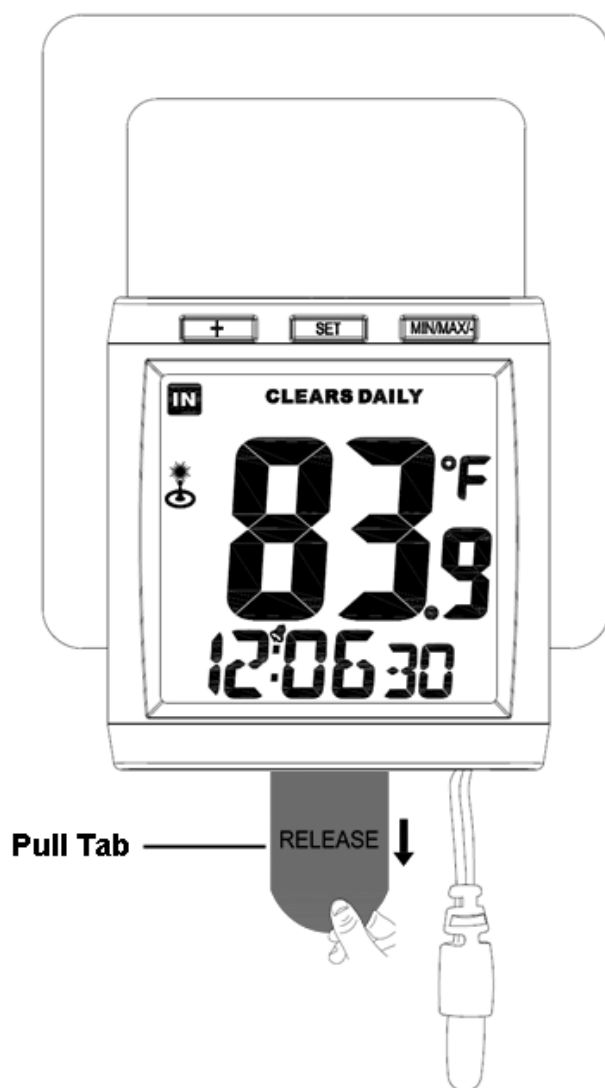
Figure 1

3.3 Battery Replacement

To replace the battery, push the battery release tab with one finger and pull the battery holder with a second finger, as shown in Figure 2 A and B.

Insert the new battery (+ terminal up, as shown in Figure 2 C). Push the battery holder into the night light.

Note: The battery door mechanism prevents small children from accessing the battery compartment. **Warning: Keep the battery away from children. If infant happens to swallow the battery, consult a doctor immediately.**
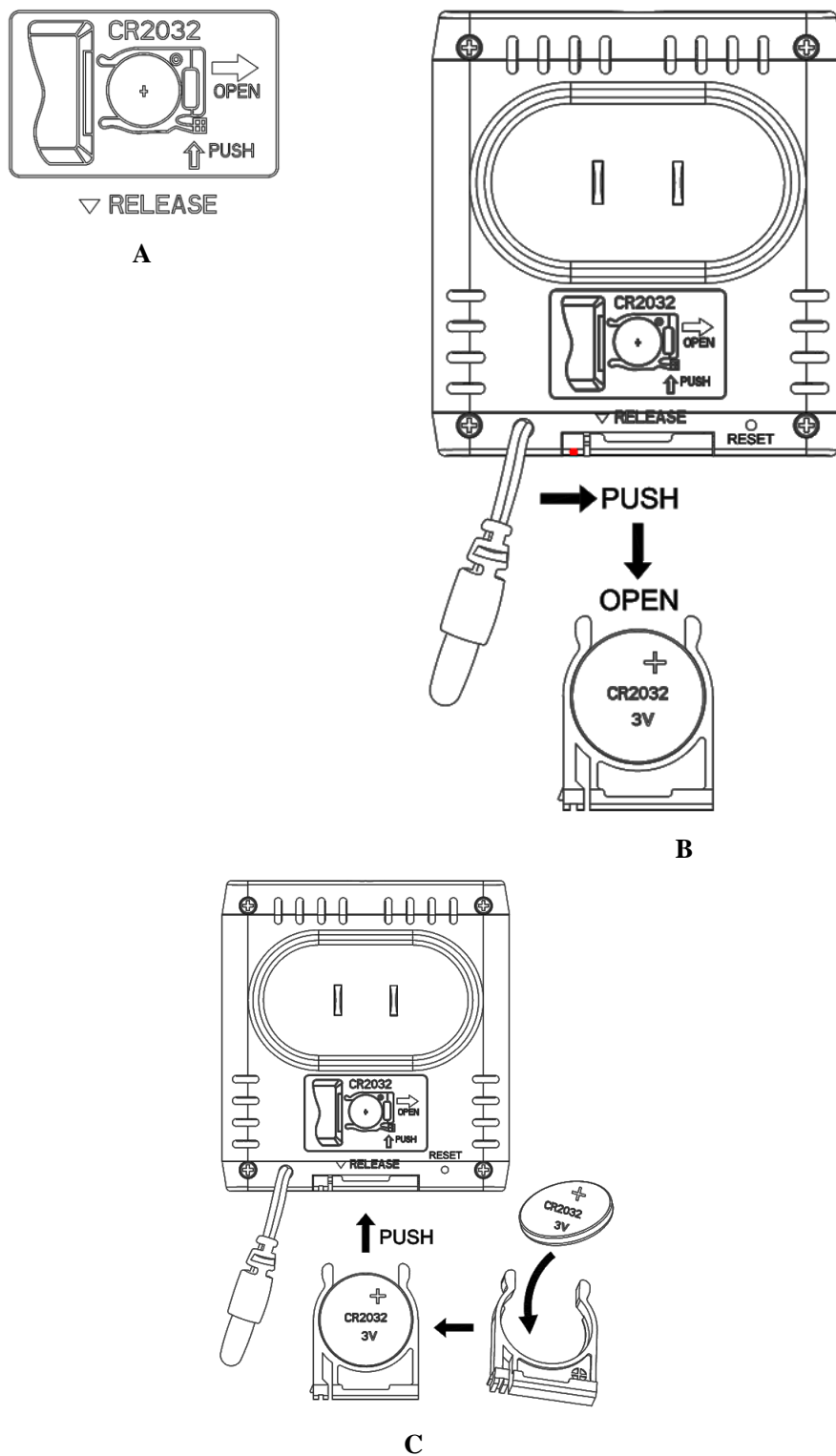
CR2032
OPEN
PUSH
RELEASE

A

CR2032
OPEN
PUSH
RELEASE
RESET

PUSH

OPEN

CR2032
3V

B

CR2032
OPEN
PUSH
RESET
RELEASE

CR2032
3V

PUSH

CR2032
3V

CR2032
3V

C

Figure 2

3.4 The Indoor Temperature Probe

The purpose of the indoor temperature probe is to provide an accurate temperature reading that is not influenced by the internal heating of the night light body. The probe cannot be removed, and

will insure your temperature reading is accurate and can be trusted.

3.5 Display Console Layout

📝 **Note:** The following illustration shows the full segment LCD display for description purposes only and will not appear like this during normal operation.
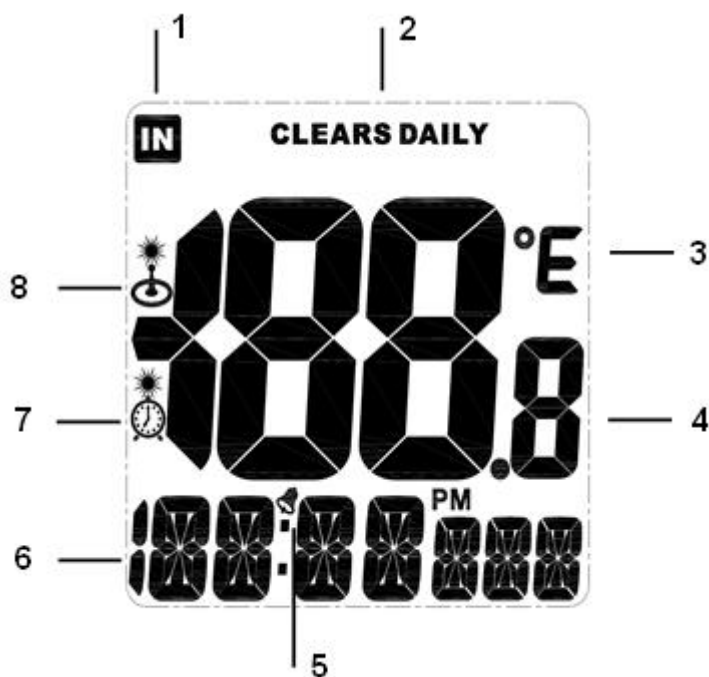
1. Indoor temperature icon
2. Min/Max reset (clears daily)
3. Temperature units (°F or °C)
4. Temperature display
5. Time alarm icon
6. Time display
7. TIM icon (backlight timer option)
8. CNT icon (backlight control option)

Figure 3

4 Console Operation

📝 Note: The console has three keys for easy operation: **SET** key, + key and **MIN/MAX/-** key.

4.1 Quick Display Mode

While in Normal Mode, press (do not hold) the **SET** key to enter the Quick Display Mode as follows:

- Once for time/week
- Twice for date.
- Three times for time alarm

- Four times for time/second

4.2 Set (Program) Mode

While in Normal Mode, **press and hold** the **SET** key for at least three seconds to enter the Set Mode. The first setting will begin flashing. You can press the **SET** key again to skip any step, as defined below.

Note: In the Set mode, press the [+] key or [MINMAX/**-**] key to change or scroll the value. Hold the [+] key or [MINMAX/**-**] key for three seconds to increase/decrease rapidly.

Note: In Set mode, to enter the normal mode, complete all set mode operations or wait 30 seconds for timeout.

1. **12/24 Hour Format (default: 12h):** Press the [+] key to change between 12 hour and 24 hour format.
2. **Change Hour.** Press the **SET** key again to set the hour. Press the [+] key or **[MINMAX/-]** key to adjust the hour up or down. Note the PM icon is present during afternoon hours.
3. **Change Minute.** Press the **SET** key again to set the minute. Press the [+] key or [MINMAX/**-**] key to adjust the minute up or down.
4. **Date Format (default: MM-DD):** Press the **SET** key again to enter the day/month format mode. Press the [+] key to switch between DD-MM-YY and MM-DD-YY.
5. **Change Month.** Press the **SET** key again to set the calendar month. Press the [+] key or [MINMAX/**-**] key to adjust the calendar month.
6. **Change Day.** Press the **SET** key again to set the calendar day. Press the [+] key or [MINMAX/**-**] key to adjust the calendar day.
7. **Change Year.** Press the **SET** key again to set the calendar year. Press the [+] key or [MINMAX/**-**] key to adjust the calendar year.
8. **Time Alarm Hour.** Press the **SET** key again to set time alarm hour. Press the [+] key or [MINMAX/**-**] key to adjust the hour up or down. While the alarm value is flashing, press and hold the **SET** button for three seconds to turn the alarm on and off. The time alarm icon will appear 🔔 when set, and disappear when disabled. Press (do not hold) the **SET** key to advance to the next setting.
9. **Time Alarm Minute.** Press the **SET** key again to set time alarm minute. Press the [+] key or [MINMAX/**-**] key to adjust the minute up or down. While the alarm value is flashing, press and hold the **SET** button for three seconds to turn the alarm on and off. The time alarm icon will appear 🔔 when set, and disappear when disabled. Press (do not hold) the **SET** key to advance to the next setting.
10. **Temperature Units of Measure (default: °F):** Press the **SET** key again to change the temperature units of measure (the **UNITSET** icon will be displayed). Press the **[+]** key to switch between °F and °C units of measure.
11. **Max/Min Clearing**. Press the **SET** key again to set the max/min clearing mode (CLR

ON/OFF).   The Max/Min can be programmed to clear daily (at midnight) or manually. Press the **[+]** key to switch between "Clears Daily" and Clears Manually.

12. **Backlight Color Setting (default: Indoor)**. Press the **SET** key again to set the backlight color defined parameter (the **LED** icon will be displayed). Press [+] key or [MINMAX/**-**] key to toggle between **IN** (uses the indoor temperature to automatically display backlight color) and **USE** (manually set your own backlight color to one of 11 choices).

The following section is based on the IN, and USE setting selected.

 12.1 **IN** Backlight Color Setting (reference Figure 4).
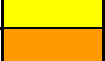
 12.2 **Indoor Backlight Color Low (IN default: 58):** Press the **SET** key again to change the lower range of the color changing backlight spectrum (the **LOWER** icon will be displayed).   Press the [+] key or [MINMAX/**-**] key to adjust the low temperature limit.

 12.3 **Indoor Backlight Color High (default: 85):** Press the SET key again to change the upper range of the color changing backlight spectrum (the **UPPER** icon will be displayed).

 12.4 **USE** Backlight Color Setting (reference Figure 4).

 12.5 **Backlight Color (USE):** Press the **SET** key again to manually select the backlight color (the **COLOR** icon will be displayed). Press [+] key or [MINMAX/**-**] key to choose among 11 different colors.

The following table provides 11 different backlight colors for reference:

No.	Color (USE)	Colors	IN Temp (°F)	Comments (Manually set maximum and minimum values)
0	Cold Purple		<58	LOW
1	Fuchsia		58-61	
2	Purple		61-64	
3	Blue		64-67	
4	Aqua		67-70	
5	Dark Green		70-73	Color Increment=(HI-LOW)/9
6	Light Green		73-76	
7	Yellow		76-79	
8	Orange		79-82	
9	Red		82-85	
10	Red Hot		>85	HI

Note: This manual is not printed in color. To view the actual color chart,

visit:

http://site.ambientweatherstore.com/Manuals/ws01.pdf

to view the actual color.

Note: Reference **Section 6 Personalizing Color Ranges** to modify the

color changes to best suit your comfort level and location.

Figure 4

13. **Backlight Control Setting (default: ON).** Press the **SET** key again to set the backlight color control option. Press [+] key or [MINMAX/**-**] key to toggle between **CNT** (automatic light control sensing), **TIM** (manually set your own defined light time) or **ON** (light permanently ON).

The following section is based on the CNT, ON or TIM setting selected.

13.1 In **CNT** mode, the icon ☀ will be displayed, and the backlight will automatically turn on when it is dark. The backlight will automatically turn off when it is light.

13.2 In **TIM** mode, the icon ⏰ will be displayed, and the backlight will turn on at a specific time of day, and turn off after a time period has elapsed. (Default time: 5:00 PM, Default time period: 12 hours).

13.2.1 Press the **SET** key again to set the hour of the day the backlight will turn on. Press the [+] key or [MINMAX/**-**] key to adjust the hour up or down.

13.2.2 Press the **SET** key again to set the minute of the day the backlight will turn on. Press the [+] key or [MINMAX/**-**] key to adjust the minute up or down.

13.2.3 Press the **SET** key again to set the time period or length of time the backlight will be turned on. Press the [+] key or [MINMAX/**-**] key to adjust the time period between 1 hour to 24 hours.

13.3 In **ON** mode, the backlight will light permanently.

14. Backlight Contrast: Press the **SET** key again to change the backlight brightness (the **BRIGHT** icon will be displayed). Press the [+] key or [MINMAX/**-**] key to adjust the backlight contrast from 1 (dim) to 8 (bright).

4.3 Min/Max Mode

The Min/Max mode displays the minimum and maximum temperature (since the last reset) for the indoor temperature.

1. **Display Maximum**. Press the **MIN/MAX/-** key once to display the maximum. The **MAX** icon will be displayed.
2. **Clear Maximum.** To reset the maximum value to the current value, *press and hold* the **MINMAX/-** button for 3 seconds.
3. **Display Minimum**. Press the **MIN/MAX/-** key again to display the minimum. The **MIN** icon will be displayed.
4. **Clear Minimum.** To reset the minimum values to the current values, *press and hold* the **MINMAX/-** button for 3 seconds.

To return to normal mode, press the **MIN/MAX/-** key again.

4.4 Manually Turn the Backlight On and Off

In normal mode, press and hold **MIN/MAX/-** key for 3 seconds to turn on the backlight. LED ON will be displayed.

Press and hold the **MIN/MAX/-** key again to turn off the backlight. LED OFF will be displayed.

Depending on the backlight control mode, if the backlight is turned off manually, it will turn on again based on the following criteria:

1. In the LED CNT mode (automatic light control sensing), the light will turn on again when

darkness is sensed.

2.   In the LED TIM mode (manually set your own defined light time), the light will turn on
again at the programmed time of day.

5 Adjustment or Calibration

The purpose of calibration is to fine tune or correct for any sensor error associated with the
devices margin of error. The measurement can be adjusted from the display to calibrate to a known
source.

Calibration is only useful if you have a known calibrated source you can compare it against, and is
optional. This section discusses practices, procedures and sources for sensor calibration to reduce
manufacturing and degradation errors.

5.1 Temperature Calibration

In normal mode, press and hold the **SET** and [**+**] keys at the same time for five seconds to enter
the temperature calibration mode. The indoor temperature will begin flashing. Press the [**+**] key to
increase the temperature and the **MIN/MAX/-** key to decrease the temperature reading in 0.1°
increments. To rapidly increase (or decrease) the temperature reading, press and hold the [**+**] or
MIN/MAX/- button.

To return the temperature to the actual or uncalibrated measurement, press the **SET** button.

Once the displayed temperature equals the calibrated source, press and hold the **SET** button for
three seconds, or wait 30 seconds for timeout, and the temperature value will stop flashing.

6 Personalizing Color Ranges

You can customize your background color ranges to suit your location, or personal preferences.

For example, if you live in Alaska, your definition of hot and cold may be very different if you
live in Arizona.

Likewise, if you track your indoor comfort level, your comfort range may be very different than
someone else.

Example 1: I live in Arizona, and my house temperature ranges from 58 °F to 85 °F.

Color Increment = (HI-LOW)/9 = (85 – 58)/9 = 3 °F.

Example 2: I live in Alaska, and my house temperature ranges from 49°F to 85°F.

Color Increment = (HI-LOW)/9 = (85 – 49)/9 = 4 °F.

7 Glossary of Terms

Term	Definition
Accuracy	Accuracy is defined as the ability of a measurement to match the actual value of the quantity being measured.
Range	Range is defined as the amount or extent a value can be measured.

7 Specifications

7.1 Update Rate

The indoor temperature sensor updates once per 60 seconds.

7.2 Measurement Specifications

The following table provides specifications for the measured parameters.

Measurement	Range	Accuracy	Resolution
Indoor Temperature	32 to 140 °F	± 1 °F	0.1 °F

7.3 Power

- AC Voltage: 110 – 240V, 50 / 60 Hz
- Console Power Consumption: 0.1 W
- CR2032 Button Battery (200 mAh / 3V)

8 Troubleshooting Guide

Problem	Solution
The nightlight does not turn on.	Check the night light control mode settings (Section 4.2)

12 Liability Disclaimer

Please help in the preservation of the environment and return used batteries to an authorized depot.

The electrical and electronic wastes contain hazardous substances. Disposal of electronic waste in wild country and/or in unauthorized grounds strongly damages the environment.

Reading the "User manual" is highly recommended. The manufacturer and supplier cannot accept any responsibility for any incorrect readings and any consequences that occur should an inaccurate reading take place.

This product is designed for use in the home only as indication of weather conditions. This product is not to be used for medical purposes or for public information.

The specifications of this product may change without prior notice.

This product is not a toy. Keep out of the reach of children.

No part of this manual may be reproduced without written authorization of the manufacturer.

Ambient, LLC WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS PRODUCT.

13 FCC Statement

Statement according to FCC part 15.19:
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.
2. This device must accept any interference received, including interference that may cause undesired operation.

Statement according to FCC part 15.21:
Modifications not expressly approved by this company could void the user's authority to operate the equipment.

Statement according to FCC part 15.105:
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.

14 Warranty Information

Ambient, LLC 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 only to the original purchaser of this product. To receive warranty service, the purchaser must contact Ambient, LLC for problem determination and service procedures.

Warranty service can only be performed by a Ambient, LLC. The original dated bill of sale must be presented upon request as proof of purchase to Ambient, LLC.

Your Ambient, LLC warranty covers all defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (lack of reasonable and necessary maintenance); (2) damage resulting from failure to follow instructions contained in your owner's manual; (3) damage resulting from the performance of repairs or alterations by someone other than an authorized Ambient, LLC authorized service center; (4) units used for other than home use (5) applications and uses that this product was not intended (6) the products inability to receive a signal due to any source of interference or metal obstructions and (7) extreme acts of nature, such as lightning strikes or floods.

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.

15 Battery Safety Information

Warning: Keep batteries away from children. If infant happens to swallow batteries, consult a doctor immediately. Never charge batteries. Charging batteries may cause battery electrolyte to seethe or battery internal pressure to rise. Leakage, heating, explosion or ignition of batteries may result. Do not heat or dispose of batteries in fire. Do not modify nor disassemble batteries. This may damage gaskets, and may cause ignition, heating, leakage or explosion. Insert batteries (+) (-) correctly. Erroneous insertion of batteries may result in battery short-circuiting depending on types of devices. Leakage, heating, explosion or ignition of batteries may result. In case of eye contact with battery electrolyte, immediately flush eyes thoroughly with water, do not rub the eyes, and consult a doctor. In case battery electrolyte comes into contact with the mouth, gargle and rinse thoroughly and consult a doctor immediately. Do not connect (+) and (-) of batteries by wire. Do not carry nor store batteries

with metallic necklace or hairpin.