

## **EA 3050 - Digital Compass with Altimeter**

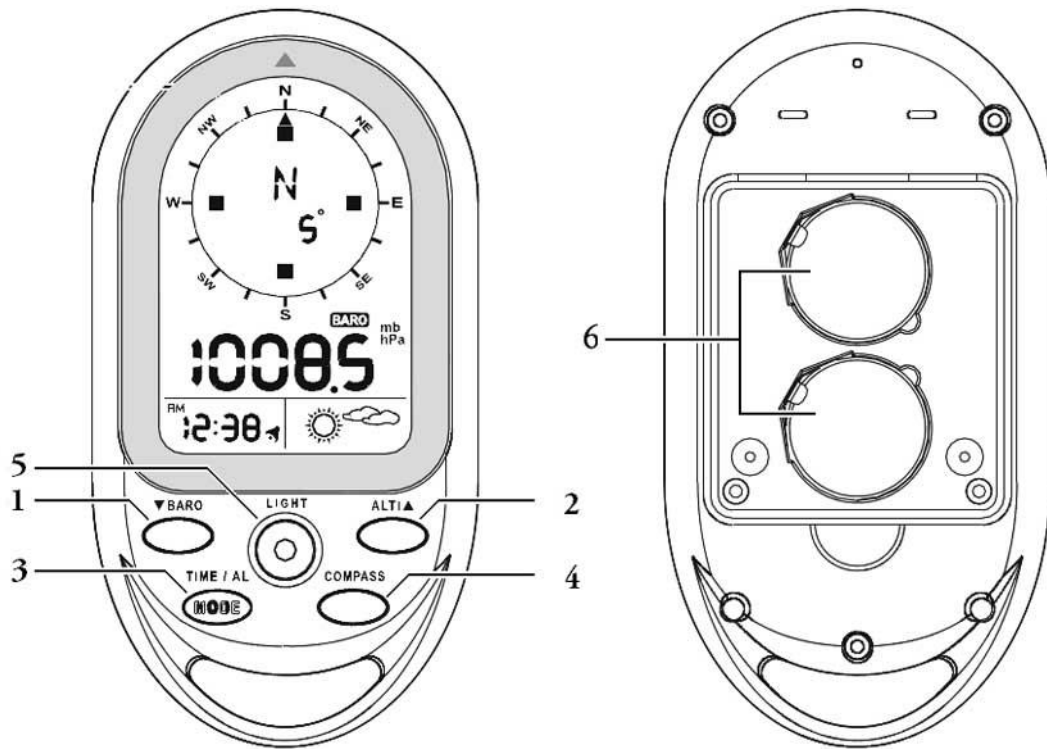
### **Features**

- Digital compass function provides degree, north point arrow and cardinal point readings. Compass Range - 0° To 359° , 1-16 pointers (graphical)
- Declination angle adjustable for regions with magnetic variation
- Altimeter: measures in either meter or feet
- Barometer pressure and sea level pressure measurement in hpa, mmHG or inHG.
- Weather forecast Icons: Sunny, Slightly Cloudy, Cloudy and Rainy
- Time and Date
- Daily Alarm
- Temperature reading with unit °C or °F
- Water resistant
- Lanyard included for easy carrying.

### **Specifications:**

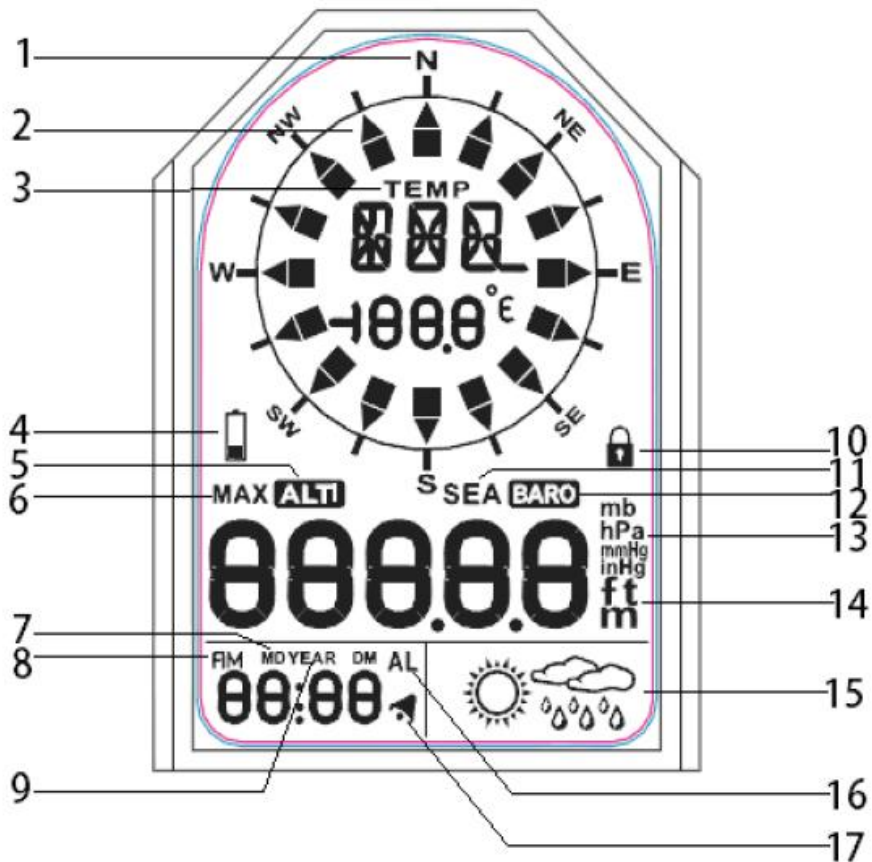
- Thermometer measuring range: -20° ~ +60° C (-4° F to +140° F)
- Altimeter measuring range: -400 ~ 9000 meter
- Barometer measuring range: 300mbar ~ 1100 mbar
- Power Supply: Battery: CR2032 lithium x 2 pcs
- Dimension: 54 x 103 x 17 mm

## Main Appearance



- |                          |   |
|--------------------------|---|
| 1: BARO/▼ button:        | Access to barometer setting mode/decrease values                                  |
| 2: ALTI/▲ button:        | Access to altitude setting mode/ increase values                                  |
| 3: TIME/AL/ MODE button: | Toggle display between time, date and alarm.<br>Access to Time/Alarm setting mode |
| 4: COMPASS button:       | Access to compass setting mode;<br>Quit any setting mode                          |
| 5: LIGHT/LOCK button:    | Turn on the backlight;<br>Lock/unlock keys  |
| 6: BATTERY COMPARTMENT   |   |


## LCD DISPLAY



- 1: Cardinal point when the compass in the north direction
- 2: Direction arrow
- 3: Temperature: appears if not in compass mode
- 4: Low battery Indicator
- 5: Appears when in Altimeter mode
- 6: Indicates maximum altitude
- 7: Indicates the display format of Day and Month
- 8: AM / PM
- 9: Year
- 10: Keypad is locked
- 11: Appears when sea level pressure is shown
- 12: Appears when in Barometer mode
- 13: Units of air pressure.
- 14: Units of altitude, appear in altitude mode
- 15: Weather forecast
- 16: Appears when in Alarm mode
- 17: Appears when alarm is activated

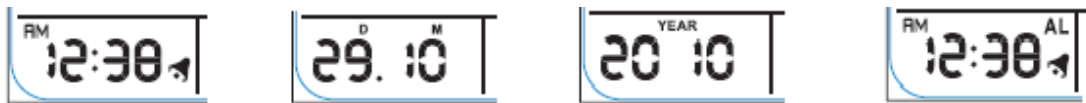
## Set Up:

- Use a small screwdriver to remove the screw on the battery cover, take the battery out with a thin stick, inserted 2 PCS CR2032 lithium batteries, and place the positive side of the battery upward. Then tighten the screw on the battery screw.

When battery is low, the battery low icon (  ) will be on. The batteries should be replaced.

## Main Function and Operation

- Press MODE key to switch mode between Clock, Date, Year and Alarm Clock



- Press ALTI/▲, BARO/▼, COMPASS buttons to switch between

ALTIMETER MODE --- BAROMETER MODE --- COMPASS MODE



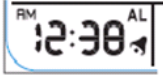
## TIME MODE


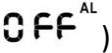



### (1) Manual Time Setting

- Press and hold “MODE” key for 3 seconds to enter settings. Press “▼” or “▲” to change setting, and press “MODE” button to confirm and move to next setting.
- Setting sequence are as follow: 12/24 hour format, Hour, Minute, Second, Year, Month/Day sequence, Month, Day, Temperature unit, Pressure unit, and Altitude unit.
- If no button is pressed for 15 seconds, the display will return to previous mode.
- Press “COMPASS” button to exit the Time Setting Mode

### (2) Daily Alarm Setting

- Press “TIME/AL” button to navigate to Alarm Time Display. (“AL” icon display on

the LCD , Hold "TIME/AL" button for 3 seconds to enter alarm clock setting mode. Press "▼" or "▲" to change setting, and press "TIME/AL" button to confirm and move to next setting.


- The setting sequence are as follow: Hour, Minute and Alarm ON (  ) /OFF (  )
- When alarm is on, the symbol "  " appears and when it is off, the symbol "  " disappears.
- When alarming, "  " will flash, press any button to stop alarming. If no button pressed for 15 seconds, the alarm will auto stop after 2 minutes.

## **ALTIMETER AND BAROMETER**

After battery inserted, the device will automatically measure the barometer readings as well as the maximum sea level pressure reading.

### **(1) To Set and Reset Altimeter:**


Altimeter: measures in either meters or feet, range:-400 ~ 9000 meters. The device provide both current altitude and maximum altitude

( i ) Current Altitude display 

( ii ) Maximum Altitude display  ("MAX" icon display on the LCD)

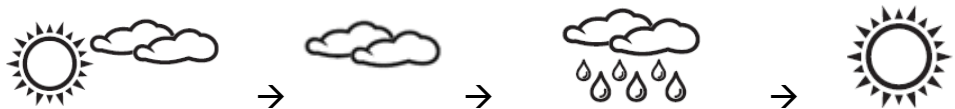
- Press "ALT" button to enter altimeter mode. Press "ALT" button again to display the maximum altitude.
- When LCD display current altitude, press and hold "ALT" button for 3 seconds to enter setting. Press "▼" or "▲" to adjust altitude, and press "MODE" button to confirm and quite the setting. Press "▼" and "▲" at the same time, current altitude value will be reset to 0.
- When LCD display maximum altitude, press "▼" and "▲" at the same time, maximum altitude record will be cleared, and reset to 0.

## (2) To Set Sea Level Pressure and Weather Forecast Icons

( i ) Current barometric pressure: 

( ii ) Sea level pressure  ("SEA" icon display on the LCD)

- Press "BARO" button to enter Barometer mode, LCD will display the current barometric pressure, press "BARO" button again to display the sea level pressure.
- In Sea Level pressure display, hold "BARO" button for 3 seconds to enter setting. Press "▼" or "▲" to change setting, and press "MODE" button to confirm and move to next setting.
- The setting sequences are as follow: sea level pressure, toggle weather forecast icons. (Weather Forecast have four animation as below)



- The weather forecast will start the first forecast at 6 hours later after the current weather status is entered.

### Note:

- (1) Barometric pressure and sea level pressure measurement in **hpa, mmHG or inHG**.  
When sea level pressure is changed, the altitude will adjust itself accordingly.
- (2) The range of sea level pressure is 900mbar ~1100mbar.
- (3)



means Slight Cloudy



means Cloudy



means Rainy

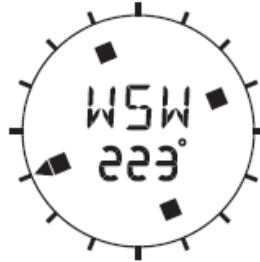


means Sunny

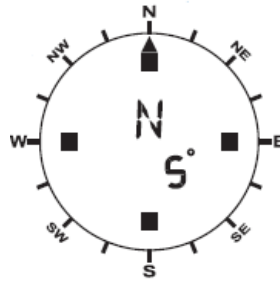
## COMPASS

The compass shows the bearing in degrees due North together with 16 cardinal points

- Press COMPASS button, the unit will enter Compass mode, Hold the unit horizontal. Point the 12 o'clock position of the unit in the direction you want to measure. As below graph shown, the direction you are measuring now is WSW 223°.The arrow "▲" always point to North.



- When the direction of compass is point to North (degree for -12.5 to +12.5), the direction icon outside will be shown. If no key press for 30 seconds, the unit will auto off the compass and return to temperature mode.



*Note:*

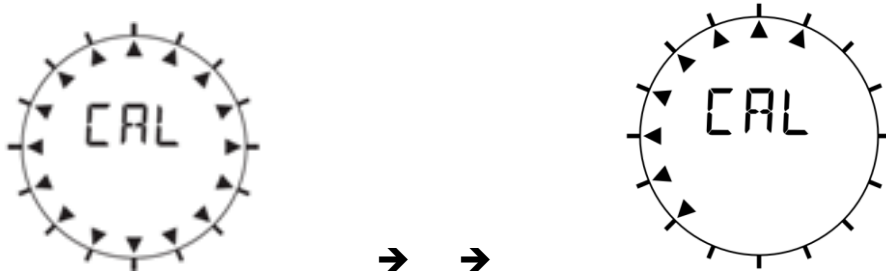
1. *The compass must be kept in a level position when in use. Taking a measurement while the unit is not horizontal (in relation to the horizon) can result in large measurement error*
2. *Always take bearings in the open air, because it is easily affected by disturbing sources of magnetism.*
- 3.

Direction	Meaning	Direction	Meaning	Direction	Meaning	Direction	Meaning
N	North	NNE	North-northeast	NE	Northeast	ENE	East-northeast
E	East	ESE	East-Southeast	SE	Southeast	SSE	South-Southeast
S	South	SSW	South-Southwest	SW	Southwest	WSW	West-Southwest
W	West	WNW	West-Northwest	NW	Northwest	NNW	North-northwest

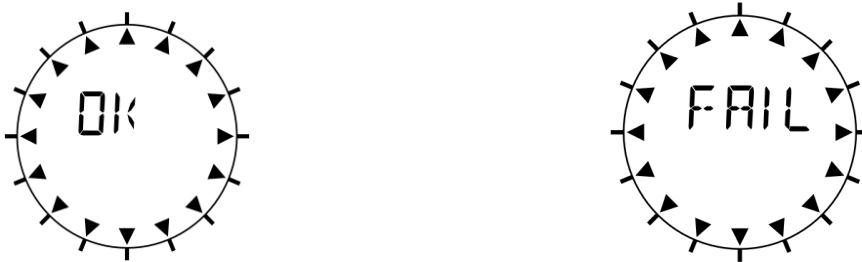
### (1) Compass Sensor Calibration

The compass should be calibrated before use OR when the battery is replaced.

- In COMPASS mode, hold "COMPASS" button for 3 seconds to enter the compass sensor calibration mode, press COMPASS button to start the calibration
- Keep the unit in a level position or on top of a non-metallic table/desk, reference to the arrow showing in LCD, rotate the compass clockwise for one full rotation slowly.



- When finished, LCD will display "OK" if the calibration is successful or display "Fail" if it is failed as below.



### (2) Set the Declination Angle

The angle between magnetic north and the true north direction is called magnetic declination. The earth's magnetic poles fluctuate over time, and it also varies from place to place. Finding the declination on the map or website, then set the declination on this unit to offset the difference between magnetic north and true north. Please note that if you fail to do this, the readings you get from the compass could be in error.

- In COMPASS mode, hold "COMPASS" button for 3 seconds to enter the compass sensor calibration mode, press "MODE" button to enter setting of declination angle. The angle would flash on the LCD. (for example, as below, "0°" will flash on the LCD)

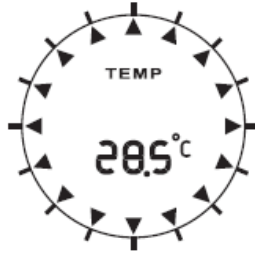




- Press “▼” or “▲” to change the angle value, range from -90° to 90°, and press “MODE” button to confirm and exit the setting.


## TEMPERATURE

- When compass mode is off, the top 2 row LCD display will provide the reading of temperature with unit of °C or °F, the range from -20°C to 60°C.



- When Temperature is lower than -20°C, LCD display will show LL.L°C. When temperature is higher than 60°C, LCD display will show HH.H°C.

## BACKLIGHT/ KEYPAD LOCK

- Press LIGHT button to turn backlight on for 5 seconds.
- Press and hold LIGHT button for 3 seconds, keyboard will be locked and icon  will be shown in LCD display. Hold the LIGHT button for 3 seconds to unlock the keyboard.

## TURN OFF UNIT

- Hold the “▼” & “▲” button at the same time, and use a pin to press “reset” button to turn off the unit. The LCD display and all the function will be off.
- Press and hold “LOCK” & “COMPASS” button to restart the unit,
- After the unit been turned off, all the record and setting data would be cleared.