CakCity

APACHE

Manual

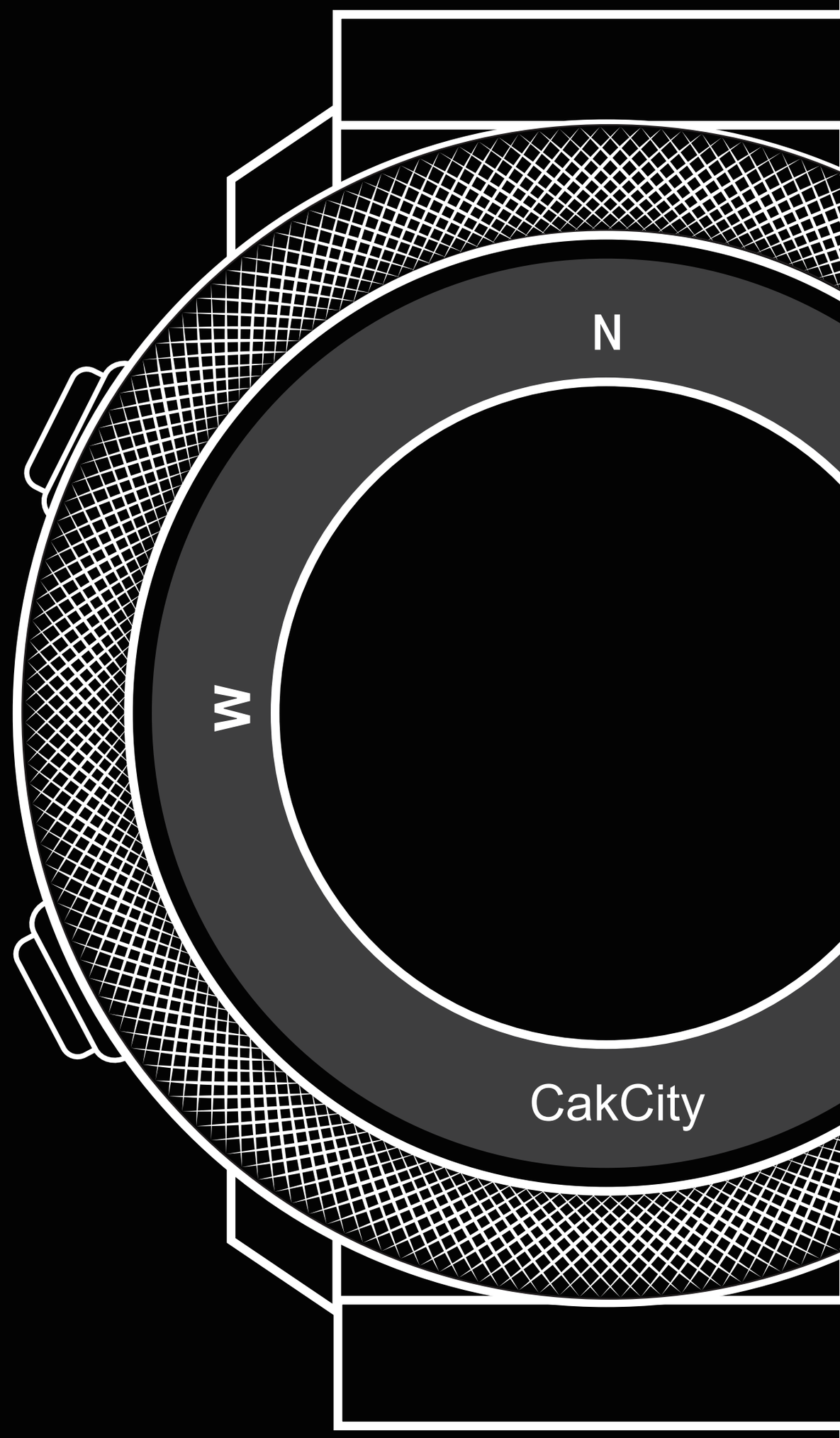
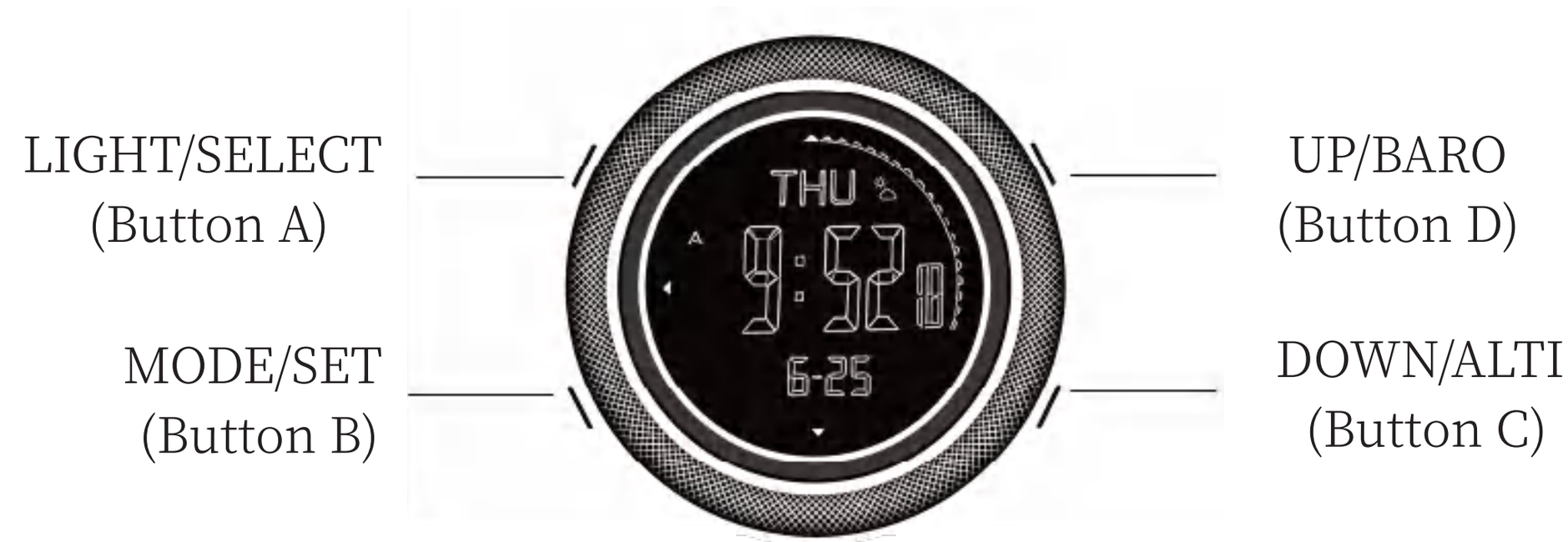


Table of Contents

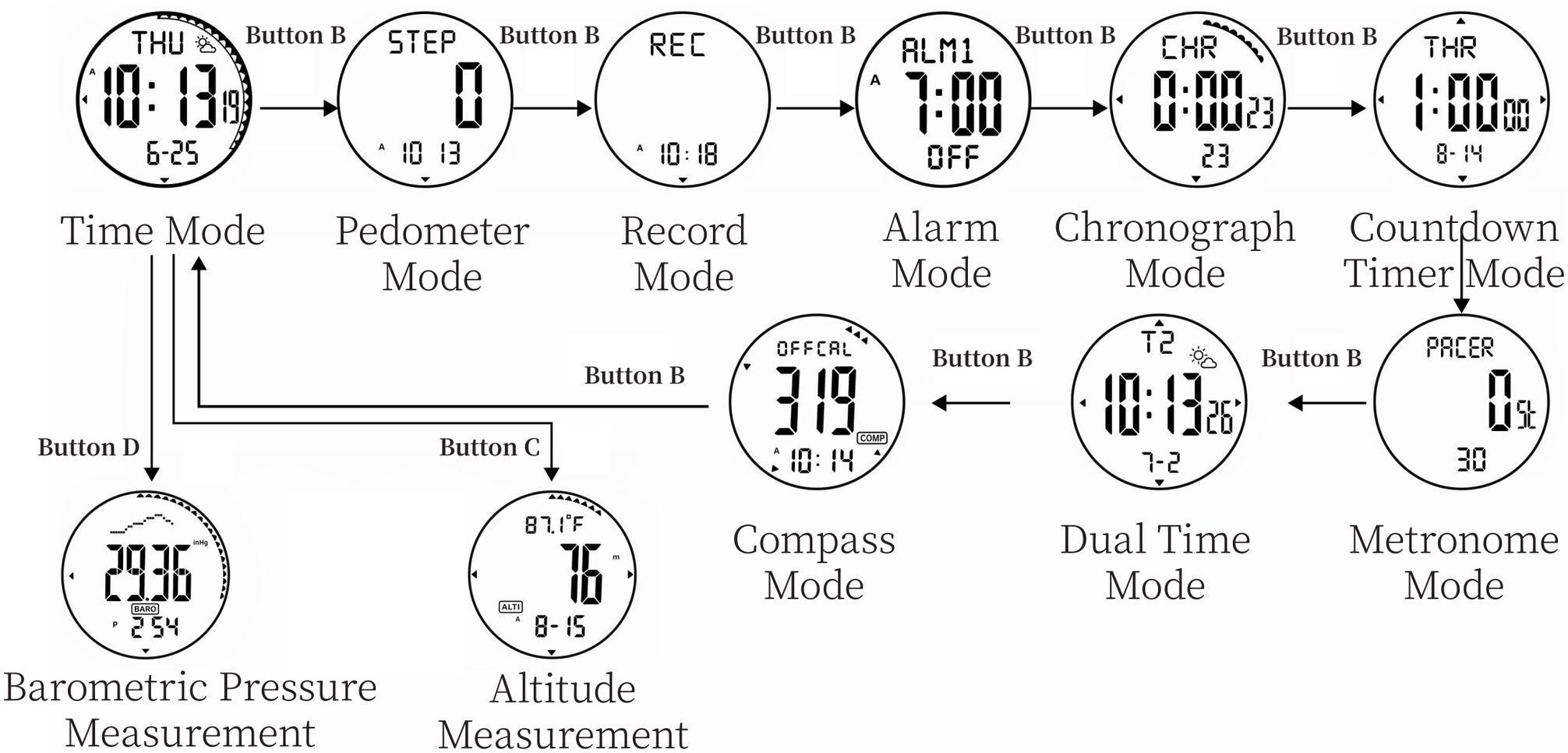
A. Features 1
B. Modes & Functions 2
1. Time & Date Setting 3
2. Pedometer Mode 4
3. Data Record Review 6
4. Alarm Mode 7
5. Stopwatch (Chronograph) Mode 8
6. Countdown Timer Mode 10
7. Metronome Mode 12
8. Dual Time Setting 13
9. Altitude Measurement Mode 14
10. Barometric Pressure Measurement Mode 17
11. Compass Mode 21
C. Specifications 28
Sensor Power Consumption 29



A. Features

- Time display: Hour, minute, second, day of week, month, date
- 12 / 24-hour time format
- Fully automatic calendar supporting years 2000–2099
- Pedometer
- Barometric pressure measurement (300~1100 mbar / 8.859~32.484 inHg)
- Altitude measurement (-698~+9164 m / -2246~+30067 ft)
- Temperature measurement (10~+60 °C / 14~140 °F)
- Digital Compass
- Alarms (2 independent alarms + hourly chime)
- Chronograph: Max 99 hours 59 mins 59.99 sec, stores up to 100 lap records
- Countdown Timer: Max 99 hours 59 mins 59.99 sec
- Metronome
- Dual Time display
- Low battery indicator
- EL Electroluminescent backlight

B. Mode and Function



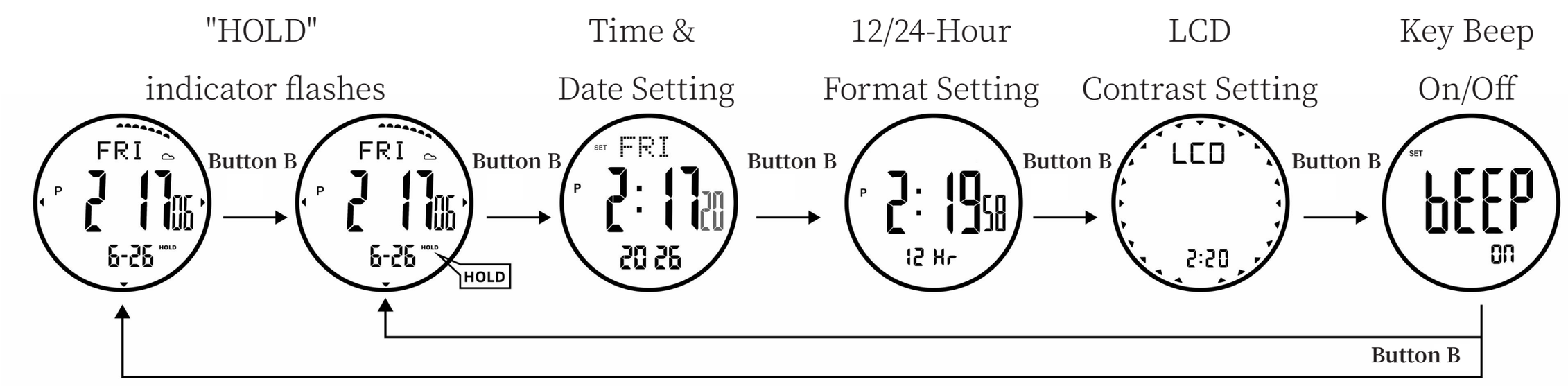
- Press Button A in any mode to turn on the EL backlight for 3 seconds.
- Press Button B to switch between modes.
- In Timekeeping Mode, hold Button D for 2 seconds to cycle displays: Week → Temperature → Altitude Trend Graph → Sea Level Barometric Trend Graph.
- In Timekeeping Mode, press Button C to directly enter Altitude Measurement Mode.
- In Timekeeping Mode, press Button D to directly enter
- Barometric Pressure Measurement Mode.

- From any of the above measurement modes, press Button B to exit and return to Timekeeping Mode.

1. Time & Date Setting

- In Timekeeping Mode, hold Button B for 2 seconds; the seconds digit will flash to enter the setting interface.
- Once the setup is complete, press and hold Button B for two seconds to exit.

Time Mode

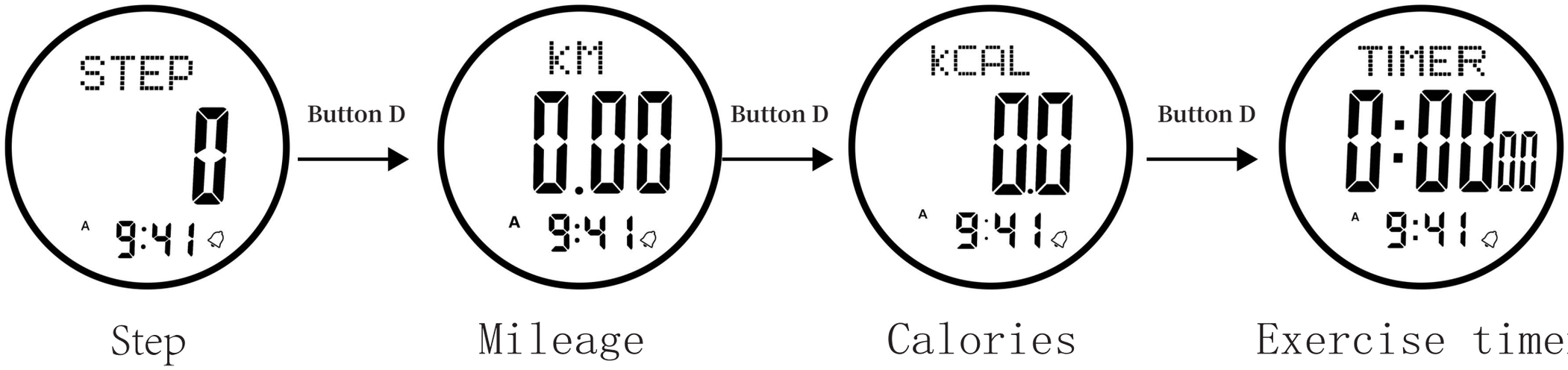


- Press Button B to select the flashing editable field.
- Press Button D to increase the value; hold Button D for fast value increment.
- Press Button C to decrease the value; hold Button C for fast value decrement.

- When the seconds digit flashes, press Button D or C to reset the seconds to zero.
- Press Button D or C to toggle between 12/24-hour format.
- LCD Contrast Level: Range 1–10; press Button D or C to raise or lower the contrast.
- Hold Button B for 2 seconds to exit the setting interface.
- The watch will automatically exit setting mode if no button is pressed for 1 minute.

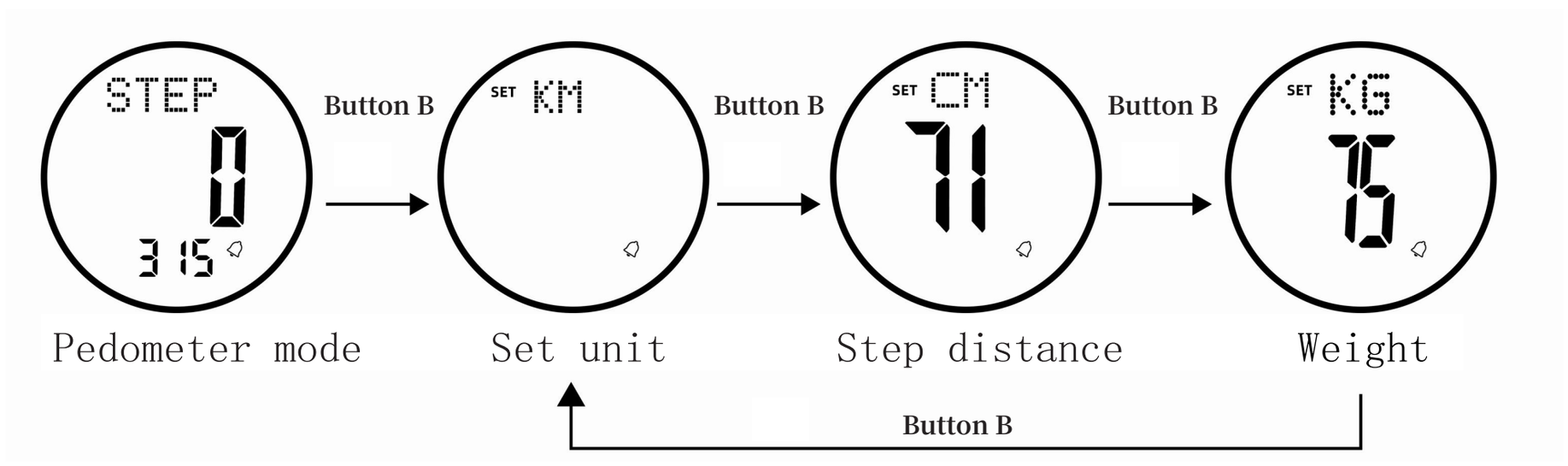
2. Pedometer Mode

- Step Count Range: 0 ~ 999,999 steps
- Calorie Burn Range: 0.0 ~ 99,999.9 kcal
- Distance Range: 0.00 ~ 9,999.99 KM / 0.00 ~ 9,999.99 Miles
- Exercise Duration Range: 0 ~ 24 Hours
- In Pedometer Mode, hold Button C for 2 seconds to turn the pedometer function ON / OFF.
- A pedometer icon will appear on screen when the function is active.
- Press Button D to cycle through data screens: Steps → Distance → Calories →Exercise Time.



- In pedometer mode, hold Button B for 2 seconds; the unit will flash to enter setting mode.
- Press Button B to switch between the flashing adjustable items: unit, stride length, body weight.

As shown in the figure below

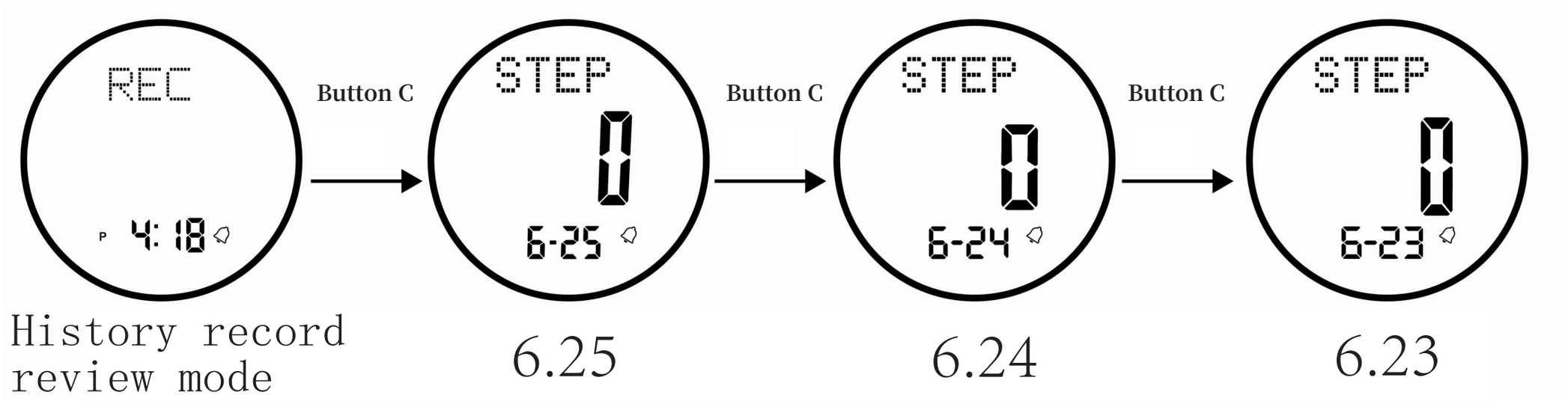


- Press Button D or C to toggle between metric and imperial measurement units.
- Press Button D to increase the value; hold Button D for fast increment.

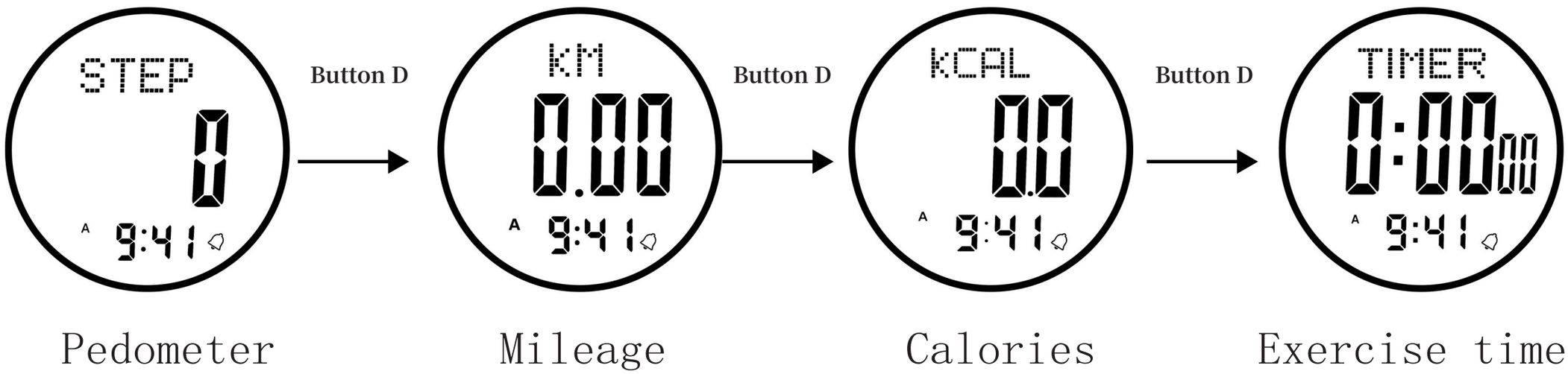
- Press Button C to decrease the value; hold Button C for fast decrement.
- Body weight input range: 20–200 kg / 44–441 lbs (default value: 75 kg / 165 lbs)
- Stride length input range: 30–180 cm / 2–71 inches (default value: 70 cm / 28 inches)
- Hold Button B for 2 seconds to exit the setting interface.
- The watch will automatically exit setting mode if no button is pressed for 1 minute.

3. Review records

- In Record Mode, press Button C to view the historical data of the most recent 7 days.



- While viewing a single day’ s record, press Button D to cycle through the following data categories.

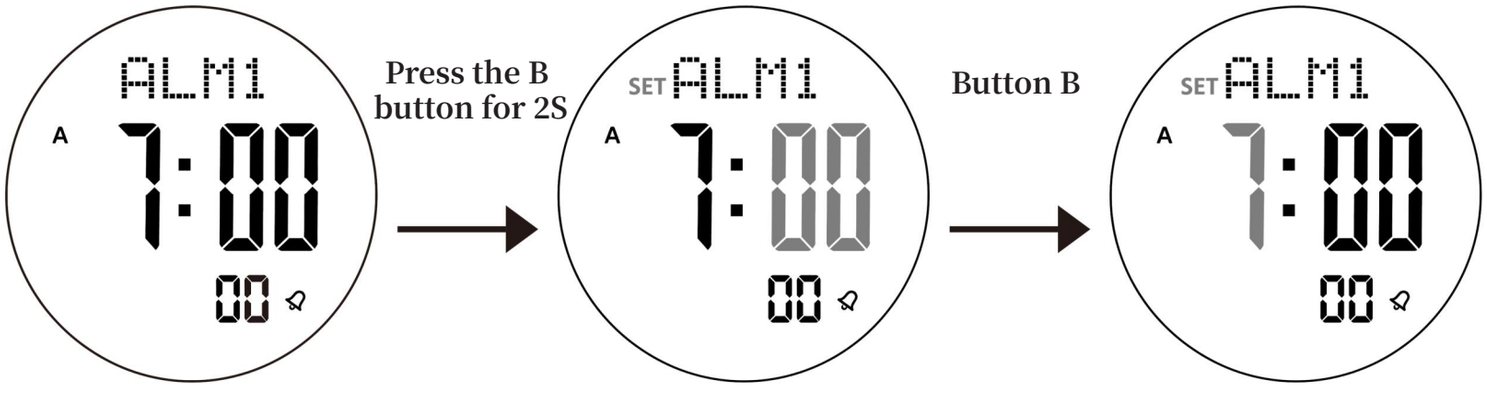


Pedometer Mileage Calories Exercise timer

- Buttons C and D will have no function if there is no recorded data for the selected date.

4. Alarm Mode

- In Alarm Mode, press Button D to cycle through the options: AL1 → AL2 →Hourly Chime → AL1
- Press Button C to turn each alarm or hourly chime ON / OFF
- In Alarm Mode, hold Button B for 2 seconds; the minute digits will flash to enter the time setting interface
- Press Button B to switch between adjustable setting fields



Alarm mode Set Minute Set Hour

- Press Button D to increase the value; hold Button D for fast increment.
- Press Button C to decrease the value; hold Button C for fast decrement.
- Hold Button B for 2 seconds to exit the setting interface.
- The watch will automatically exit setting mode if no button is pressed for 1 minute.
- When the alarm is activated, the watch will beep for 30 seconds once the set time arrives, with the alarm icon flashing on screen. Press any button to silence the alert.

5. Chronograph Mode (Stopwatch)

- Maximum timing capacity: 99 hours 59 minutes 59.99 seconds
- In Chronograph Mode: Press Button D to start / pause timing. When paused, hold Button C for 2 seconds to reset all timing values.
- Lap Split Recording: While the chronograph is running, press Button C to save a lap split time. The lap data will display for 15 seconds, then revert to the main stopwatch counter. Press Button C again to capture the next lap reading. Press Button D at any time to stop timing.

- Hold Button B for 2 seconds to enter Lap Record Review Mode; use Button C or D to scroll through stored lap data.

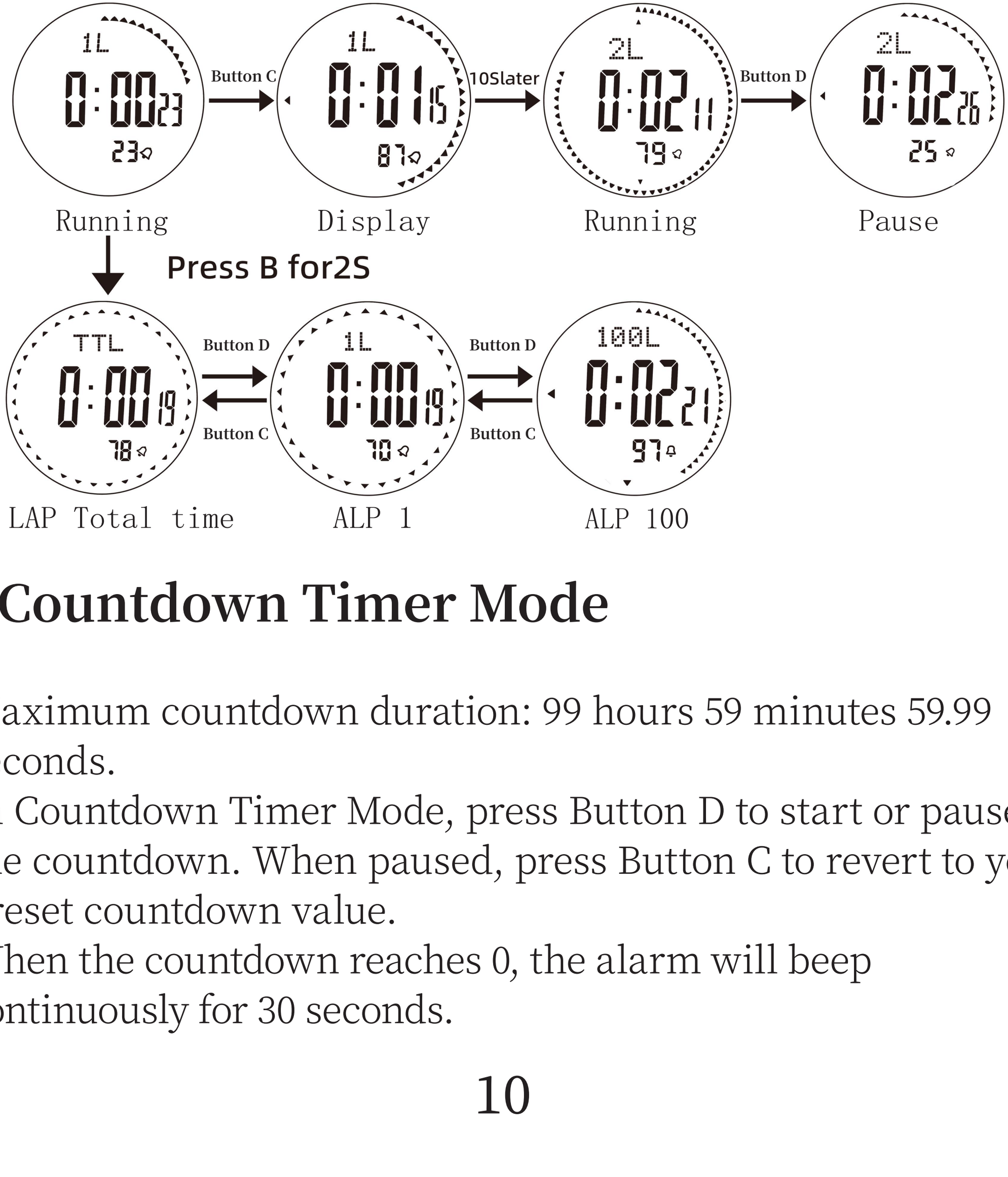


Chronograph mode



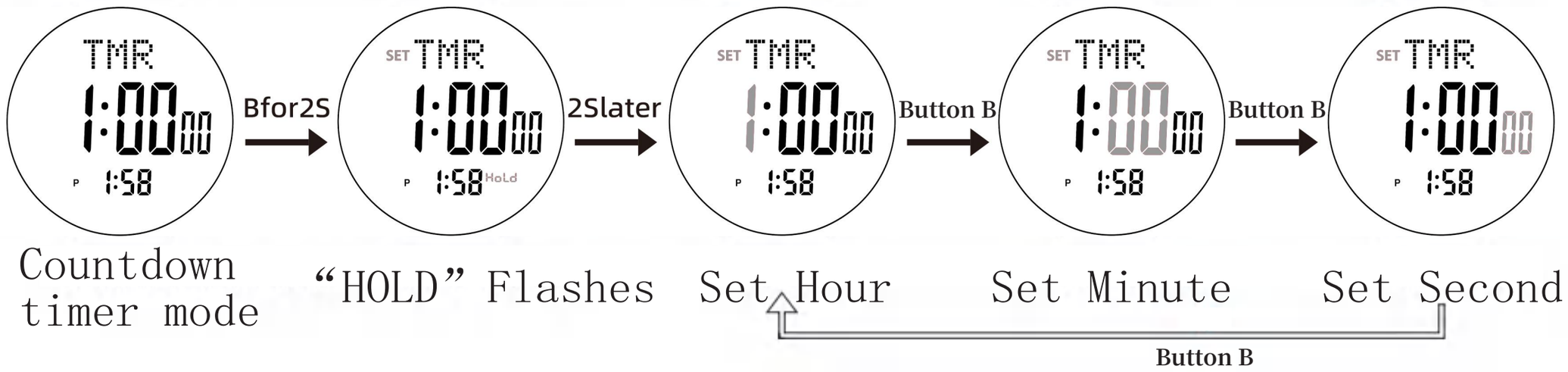
Review LAP

- Once the maximum storage limit of 100 lap records is reached, press Button D or C to overwrite the most recent lap data if you wish to continue capturing lap times.
- While in Lap Record Review Mode, hold Button B for 2 seconds to exit and return to Chronograph Mode.
- You may press Button B to switch to other modes while the chronograph timer is active; the stopwatch will continue counting in the background.
- If the chronograph is paused with no further operation, the watch will automatically revert to Timekeeping Mode after 5 minutes.



6. Countdown Timer Mode

- Maximum countdown duration: 99 hours 59 minutes 59.99 seconds.
- In Countdown Timer Mode, press Button D to start or pause the countdown. When paused, press Button C to revert to your preset countdown value.
- When the countdown reaches 0, the alarm will beep continuously for 30 seconds.



Countdown Time Setting Steps

- In Countdown Timer Mode, hold Button B for 2 seconds; the hour digit will flash to enter countdown setting mode. Press Button B to cycle sequentially through the editable setting fields: Hour → Minute → Second

Adjustment & Exit Operations

- Press Button D to increase the value; hold Button D for fast increment.
- Press Button C to decrease the value; hold Button C for fast decrement.
- Hold Button B for 2 seconds to exit the setting interface.
- The watch will automatically exit setting mode if no button is pressed for 1 minute.

7. Metronome Mode



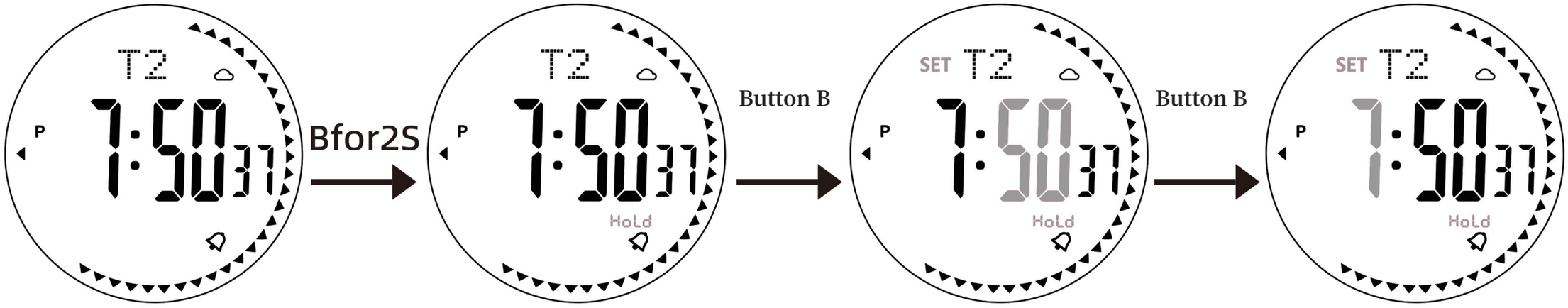
Pacer mode “HOLD” flashes Set pace

- In Metronome Mode, press Button D to turn the metronome ON / OFF.
- When the metronome is paused, hold Button C for 2 seconds to reset the beat counter to zero.
- If the metronome runs continuously without being paused, the counter will automatically reset to 0 once it reaches 99,999 beats.
- In Metronome Mode, hold Button B for 2 seconds to enter tempo frequency setting (adjustable range: 30–180 BPM).
- Press Button D to increase the tempo value; hold Button D for fast increment.
- Press Button C to decrease the tempo value; hold Button C for fast decrement.

- Hold Button B for 2 seconds to exit the tempo setting interface.
- The watch will automatically exit setting mode if no button is pressed for 1 minute.

8. Dual Time Setting

- In Dual Time Mode, hold Button B for 2 seconds; the minute digit will flash to enter the time setting interface.
- Press Button B to cycle sequentially through the adjustable setting fields

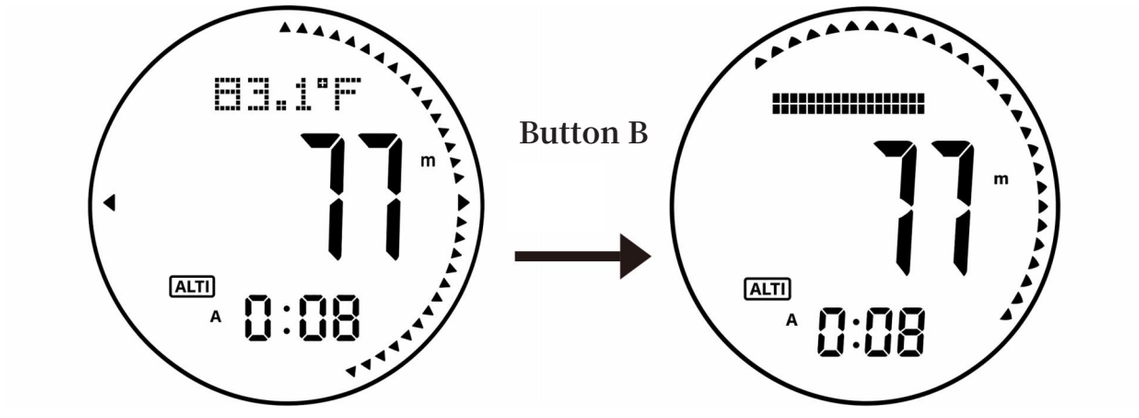


The 2nd time mode　“HOLD” flashes　Set Minute　Set Hour

- Press Button D to increase the value; hold Button D for fast increment.
- Press Button C to decrease the value; hold Button C for fast decrement.

- Hold Button B for 2 seconds to exit the setting interface.
- The watch will automatically exit setting mode if no button is pressed for 1 minute.

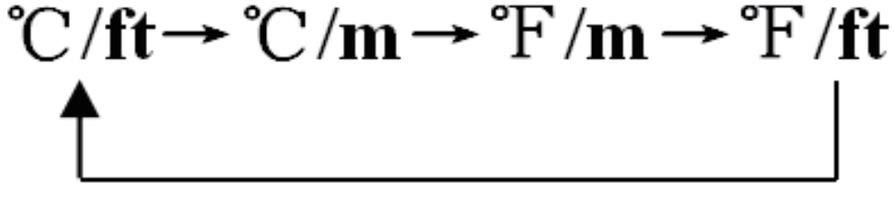
9. Altitude Measurement Mode



temperature On top Altitude trend on top

- While in Timekeeping Mode, press Button C to enter Altitude Measurement Mode.
- Press Button D to switch the top row display content between Temperature and Altitude Trend Graph.
- When the altitude trend graph is displayed, short-press Button D to review historical hourly altitude curves.
- Hold Button D for 2 seconds to cycle through combined temperature & altitude units in the following order: °C/ft → °C/m → °F/m → °F/ft

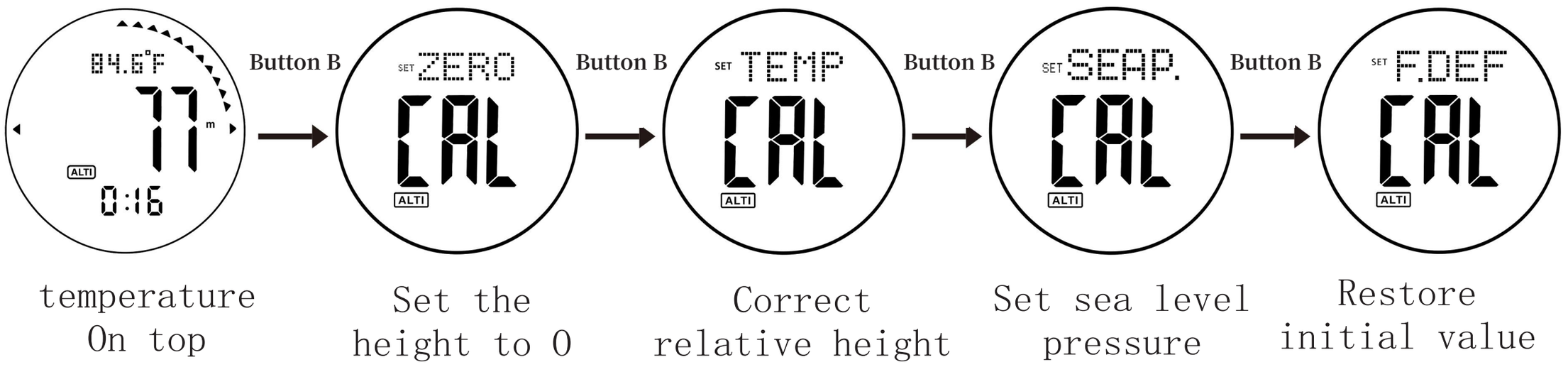
- If no buttons are pressed for 24 hours, the watch will automatically return to Timekeeping Mode. When the trend graph is active, the top line showing current altitude will flash.



  - It will return to timekeeping mode after 24h without any pressing, whenthe top row display curve, the first line flashes(current altitude)

Altitude Calibration Setting

- Hold Button B for 2 seconds to enter altitude calibration setting mode. Press Button B to cycle sequentially through each adjustable setting item.



1. Relative Altitude Zero Setting (ZERO)

- Press Button D or C to toggle between “YES” and “NO”.
- If YES is selected: The relative altitude baseline will be set to 0. Measurement readings become relative altitude, and an “r” icon will appear on the screen.
- If NO is selected: The watch calculates altitude based on the default sea-level pressure of 1013.25 mbar.

2. Manual Current Altitude Input (ALTI)

- Press Button D to increase the value; hold Button D for fast increment.
- Press Button C to decrease the value; hold Button C for fast decrement.
- Hold Button B for 2 seconds to confirm the value and return to Altitude Measurement Mode.

3. Sea Level Pressure Adjustment (SEAP)

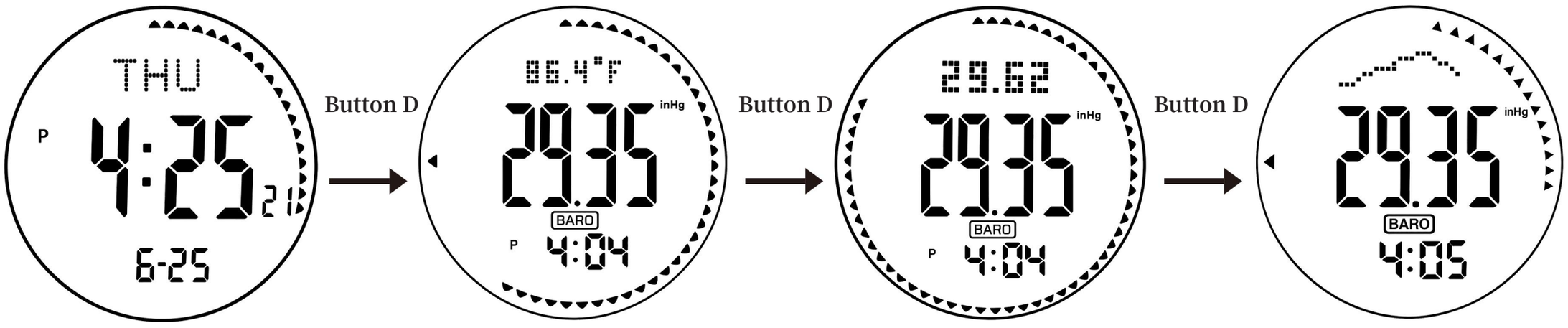
- Press Button D to increase the value; hold Button D for fast increment.

- Press Button C to decrease the value; hold Button C for fast decrement.
- Hold Button B for 2 seconds to confirm the value and return to Altitude Measurement Mode.

4. Restore Factory Default Pressure (DEF)

- Press Button D or C to toggle between “YES” and “NO”.
- If YES is selected, the watch restores the factory default sea-level pressure value of 1013.25 mbar.

10. Barometric Pressure Measurement Mode

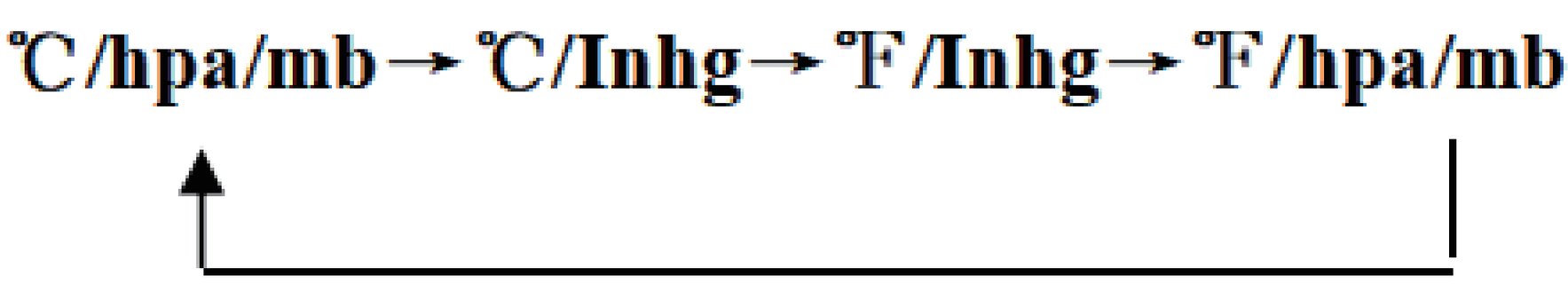


Time mode　　Display temperature　　Display SEAP　　Display trend

Operation Instructions

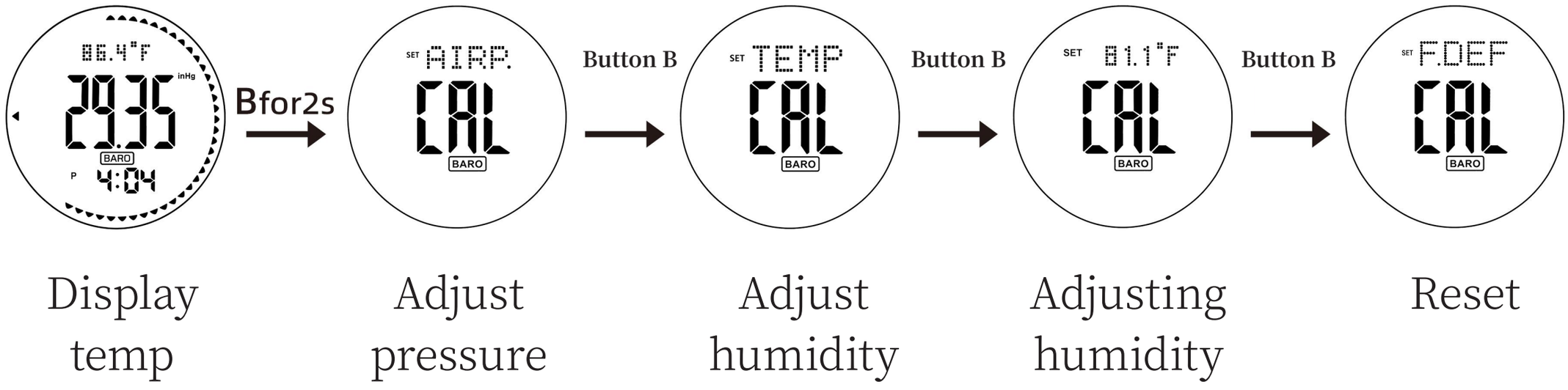
- While in Timekeeping Mode, press Button D to enter Barometric Pressure Measurement Mode.

- Press Button D to cycle through three display contents: Temperature, Sea Level Barometric Pressure, Pressure Trend Graph.
- When the pressure trend graph is shown, short-press Button C to view historical hourly pressure curves.
- Hold Button D for 2 seconds to switch combined temperature & pressure units in the fixed sequence below: °C/hPa/mb → °C/inHg → °F/inHg → °F/hPa/mb
- If no buttons are pressed for 24 consecutive hours, the watch will automatically revert to Timekeeping Mode.



Barometric Pressure Calibration Setting

- Hold Button B for 2 seconds to enter barometric pressure setting mode.
  Press Button B to cycle sequentially through all adjustable setting items.



1. Manual Current Barometric Pressure Input (AIRP)

- Input your local current barometric pressure value (AIRP).
  Press Button D to increase the value; hold Button D for fast increment.
  Press Button C to decrease the value; hold Button C for fast decrement.
  Hold Button B for 2 seconds to confirm the setting and return to Barometric Pressure Measurement Mode.

2. Manual Current Temperature Input (TEMP)

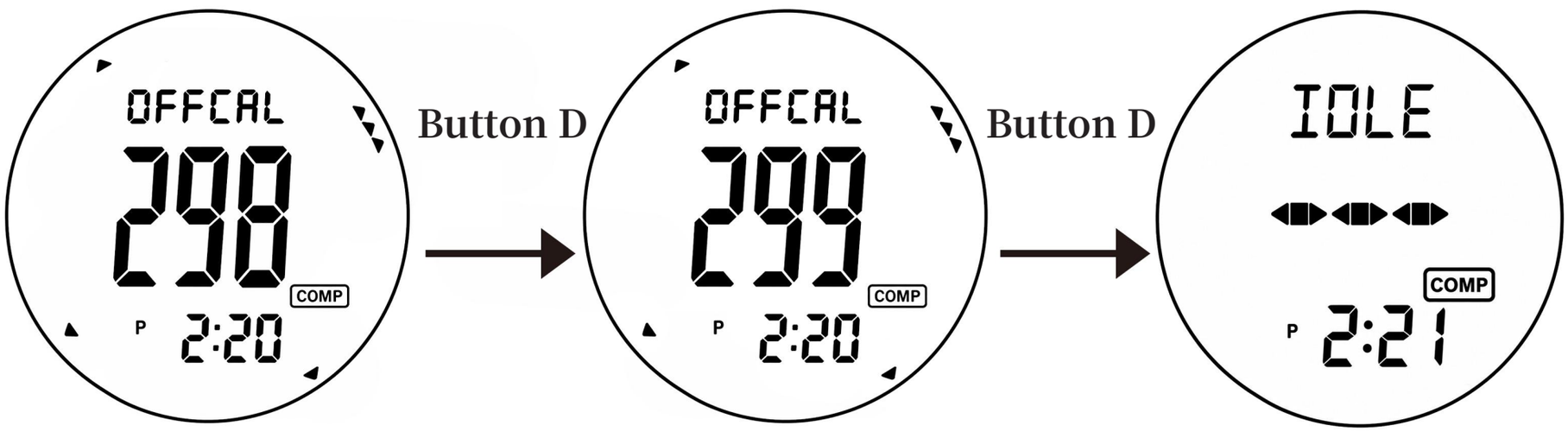
- Input your ambient current temperature value (TEMP).
  Press Button D to increase the value; hold Button D for fast increment.
  Press Button C to decrease the value; hold Button C for fast decrement.
  Hold Button B for 2 seconds to confirm the setting and return to Barometric Pressure Measurement Mode.

3. Restore Factory Default Values (DEF)

- Press Button D or C to toggle between “YES” and “NO”. If YES is selected, the watch will load factory default values for both pressure and temperature.Hold Button B for 2 seconds to confirm the selection and return to Barometric Pressure Measurement Mode.

Supplementary Note
When adjusting temperature values:
If the temperature unit is ℃, each short press changes the value by 0.1℃.
If the temperature unit is ℉, each short press changes the value by 0.2℉.

11.Compass Mode



Adjust compass

Measure after adjusting

Stop after Imin's measure

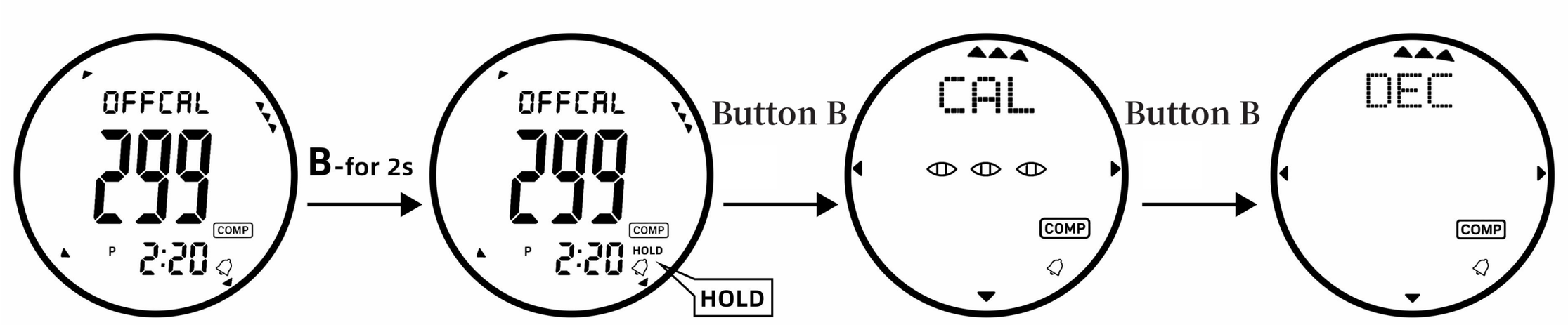
- Keep the watch held horizontally. Rotate the watch until the directional needle aligns with the 0 mark; the 12 o’ clock position on the dial will point due North.
- While in Compass Measurement Mode, press Button C to toggle the reverse direction display ON or OFF.
- When reverse direction display is enabled, a “-” symbol appears in the bottom-left corner of the screen.
- With this function active, the 12 o’ clock dial position will point due South when the needle aligns with the 0 mark.

- The watch will automatically exit measurement mode if no buttons are pressed for 1 minute. Press Button D to restart compass measurement.

The table below defines the full meaning of each directional abbreviation shown on the scree

Direction	Meaning	Direction	Meaning	Direction	Meaning	Direction	Meaning
N	North	NNE	North-north-east	NE	North-east	ENE	East-north-east
E	East	ESE	East-south-east	SE	South-east	SSE	South-south-east
S	South	SSW	South-south-west	SW	South-west	WSW	West-south-west
W	West	WNW	West-north-west	NW	North-west	NNW	North-north-west

Compass adjust mode



Adjust compass "HOLD" flashes Set CAL Set DEC

1. Automatic Calibration Mode (CAL)

- While in Compass Mode, hold Button B for 2 seconds to enter automatic calibration (CAL). Press Button D or C, then slowly rotate the watch; clockwise or counterclockwise rotation is acceptable.
- After rotating two full continuous circles in the same direction, the watch will automatically exit calibration mode and return to standard compass measurement mode.
- During calibration, 60 directional indicator points will light up and turn off one after another sequentially. Once all points cycle through, calibration is automatically confirmed.

Note:

The watch will automatically launch automatic calibration mode the first time you use the compass after replacing the battery.

2. Declination Adjustment Mode (DEC / Magnetic Declination Correction)

- If the watch still shows severe directional deviation after standard automatic calibration even when true north is known, use the DEC magnetic declination correction function to offset the error.
- While in Compass Mode, hold Button B for 2 seconds to enter CAL automatic calibration screen, then press Button B a second time to switch to DEC declination adjustment:
  - Press Button D to increase the correction angle by 1°
  - Press Button C to decrease the correction angle by 1°

- Total adjustable correction range: ±90° (West = negative / East = positive, ±90° limit for both directions)
- Hold Button B for 2 seconds to save the adjusted declination value and return to normal compass measurement mode.

1. Barometric Pressure Trend Curve Logic

The curve displayed in Barometric Pressure Mode does not reflect real-time absolute altitude changes. The watch measures altitude once every 15 minutes:

- If the altitude variation is ⩽ 8 meters: The system judges the change is caused by sea-level pressure fluctuation instead of actual altitude movement, and calculates pressure values based on altitude data recorded in the previous 15 minutes.
- If the altitude variation > 8 meters: The system judges the user is ascending/descending; the original pressure reading will remain unchanged.

2. Measurement Sampling Interval Rules

Within the first 5 minutes after entering Altitude / Barometric Pressure Mode or exiting any setting menu: sampling occurs once every 2 seconds. After the initial 5 minutes: altitude & pressure sampling switches to once every 2 minutes; all other functional modes sample data once every 15 minutes.

3. Magnetic Declination Calculation Rule

When setting magnetic declination (DEC):

- If a positive value (+) is set: The displayed bearing = true geographic declination + manually adjusted offset value
- If a negative value (–) is set: The displayed bearing = true geographic declination – manually adjusted offset value

4. Weather Forecast Algorithm

The watch generates a weather forecast hourly by analyzing barometric pressure trends over the past 4 hours:

- Gradually rising pressure: Weather will improve
- Gradually falling pressure: Weather will deteriorate

Four weather display levels (sorted from best to worst):
Sunny → Cloudy → Overcast → Rainy

Method:

a) Detect the pressure every 59min 59s
b) The pressure from former 1 hour minus later 1 hour' s, totally 4 value(if the absolute value more than 2.5mbar, then it is useless),only use the valid value for their average. The weather is judge from the average value.
Sunshine: 0.8~2.5(mbar/h)
Cloudy: 0.5~0.8(mbar/h)
No change: - 0.5~0.5(mbar/h)
Overcast sky: - 1.0~ - 0.5(mbar/h)
Rainy: - 2.5~ - 1.0(mbar/h)

Notes:

- temperature measurement by personal temperature (when you wear a watch),the effect of direct sunlight and humidity. In order to make the measurement of temperature more accurate, please take the watch from the wrist and place it in a place not directly exposed to the sun and good ventilation and dry the case.It takes about 20 to 30 minutes for the watchcase to reach the actual ambient temperature.

C. Specification

- Movement dimension : Φ 40.20±0.1mm
- Thickness (include buzzer) : 8.5mm
- Work temperature : -10°C~60°C
- Work voltage : 3V
- Time Veracity : ±60s/month (T=25 °C)
- Thermometer precision : ±2°C (-10°C~60°C)
- Barometer precision : ±3mb (-10C~40C)
- Altimeter precision (altitude ascent every 1000m) : ±5m (-10°C~40°C)

- Digital compass Veracity : ±11 (-10°C~40°C)
- Battery type : CR2032 (220mAh)
- Static average moment current : ⩽590uA
- Static average drive current : ⩽8.02u A (max: 13u A)
- Alarm average current : ⩽2.65m A (max: 5.5m A)
- EL backlight average current : ⩽9.96m A (max: 12m A)
- Digital compass average current : ⩽0.261 uA (max: 0.442 u A)
- weather forecast average current : ⩽0.12uA (max: 900u A)
- pressure sensor average current : ⩽0.0576 u A (max: 0.602 u A)
- altitude/pressure sensor average current : ⩽0.0488u A
- Battery life (85%) : 18months(Japan battery)

Sensor electricity consumption

1. Detect the weather 1 time each 1 our
2. Detect the direction 1 time eachminute
3. At the first 2s, when use Atmospheric pressure or altitude measurement, it measure 1 time,;it will measure every second 5 minutes later; At 15 min later,will measure every 2 min for 1 time;in other mode, every 15 min for 1 time

Compass used 3 time, each time for 60s,pressure detected 3 times, each time for 60s,altitude detected 11 time, each time for 4 hours, backlight for 4 times,3s for each time, alarm sound 1 time for 60s

CakCity