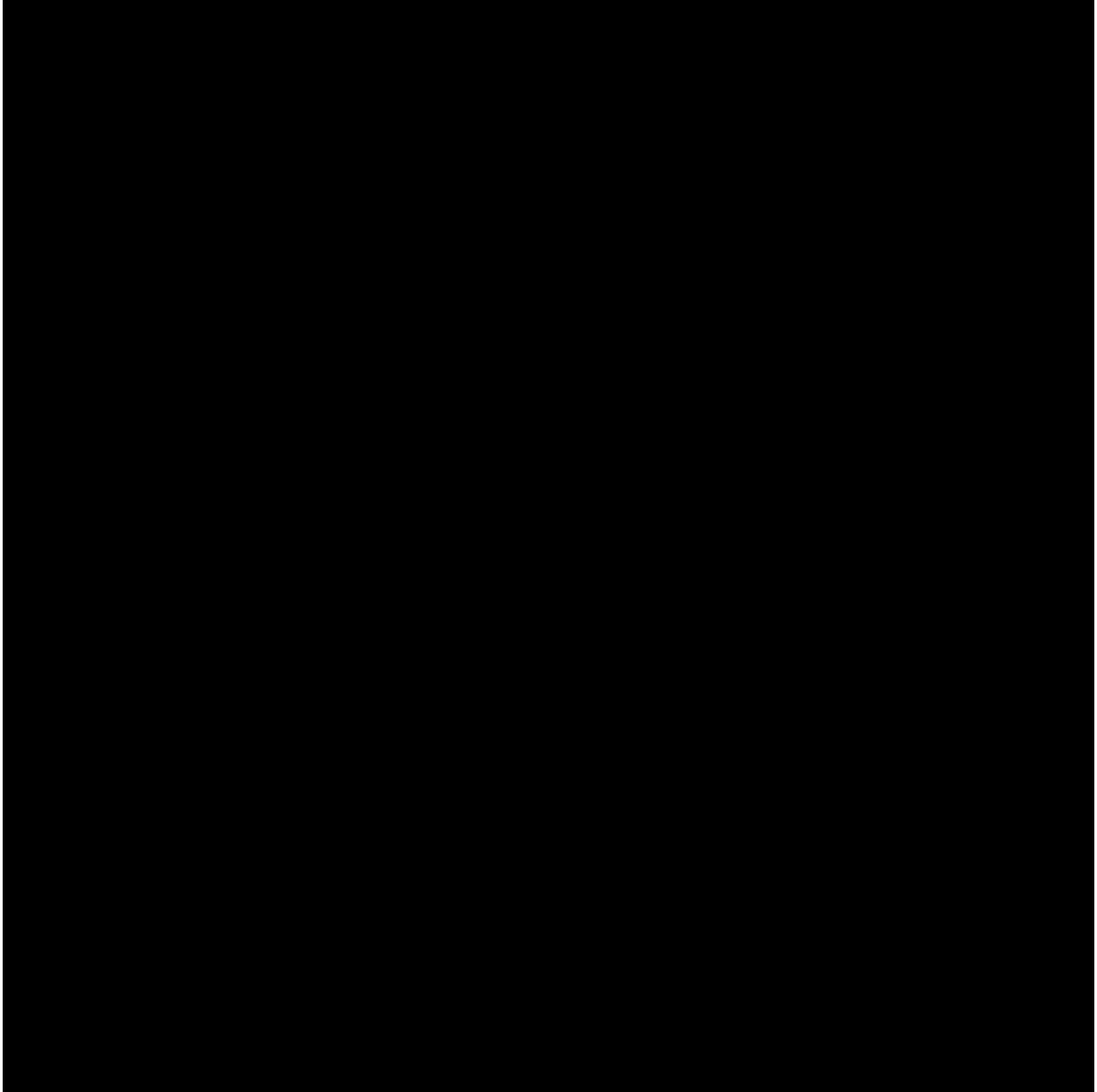
NATIONAL GEOGRAPHIC™

WATCH COLLECTION

NG702 SERIES

INSTRUCTION MANUAL



INTRODUCTION

The electronic sensors on this watch work to provide essential information, such as weather forecast, temperature, pressure, altitude, and compass directions, when you are skiing, hiking, climbing, or performing other outdoor activities. In addition, the watch includes current time, daily alarm, chronograph, countdown timer, and pacer functions.

CARE INSTRUCTIONS

- Avoid exposing the watch to extreme conditions for long periods of time; avoid rough use or severe impacts.

- We recommend that you replace the battery at a certified service agency to ensure the watch's water-resistance will continue.

- Clean the watch occasionally with a soft moistened cloth.

- Do not expose the watch to strong chemicals such as gasoline and alcohol.

- Do not block the sensor ventilation holes.

- Store your watch in a dry place when not in use.

- Keep your watch away from strong magnetic objects such as speakers, magnets, mobile phones, and televisions.

WATCH FUNCTIONS

Mode Button (M)

- Selects among current time, daily alarm, chronograph, countdown timer, and dual time modes.

- Selects among ski, ski recall, altimeter, barometer, and compass modes.

- Selects among the setting items during setting display.

Sensor Button (SR)

Used to select between timekeeping and sensor modes.

Start/Stop Button (S/S)

- Selects among functional displays in the same mode.

- Activates the "start" or "stop" functions under chronograph and countdown timer modes.

- Toggles between YES and NO.

- Changes the setting value under setting display.

Lap/Reset Button (L/R)

- Activates the "lap" or "reset" chronograph functions in chronograph and timer modes.

- Moves the cursor to the left while in history recalling display.

- Decreases the digits under setting display.

Electroluminescent (EL) Button

- Turns ON the EL backlight for about three seconds.

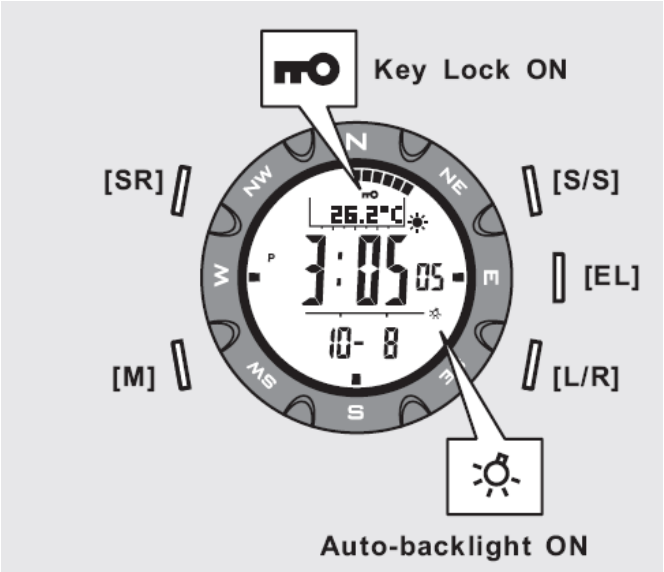
- Hold down the EL button to turn the auto-backlight function ON or OFF.

- When this function is ON, the auto-backlight indicator will appear. Pressing any button will turn ON the EL backlight.

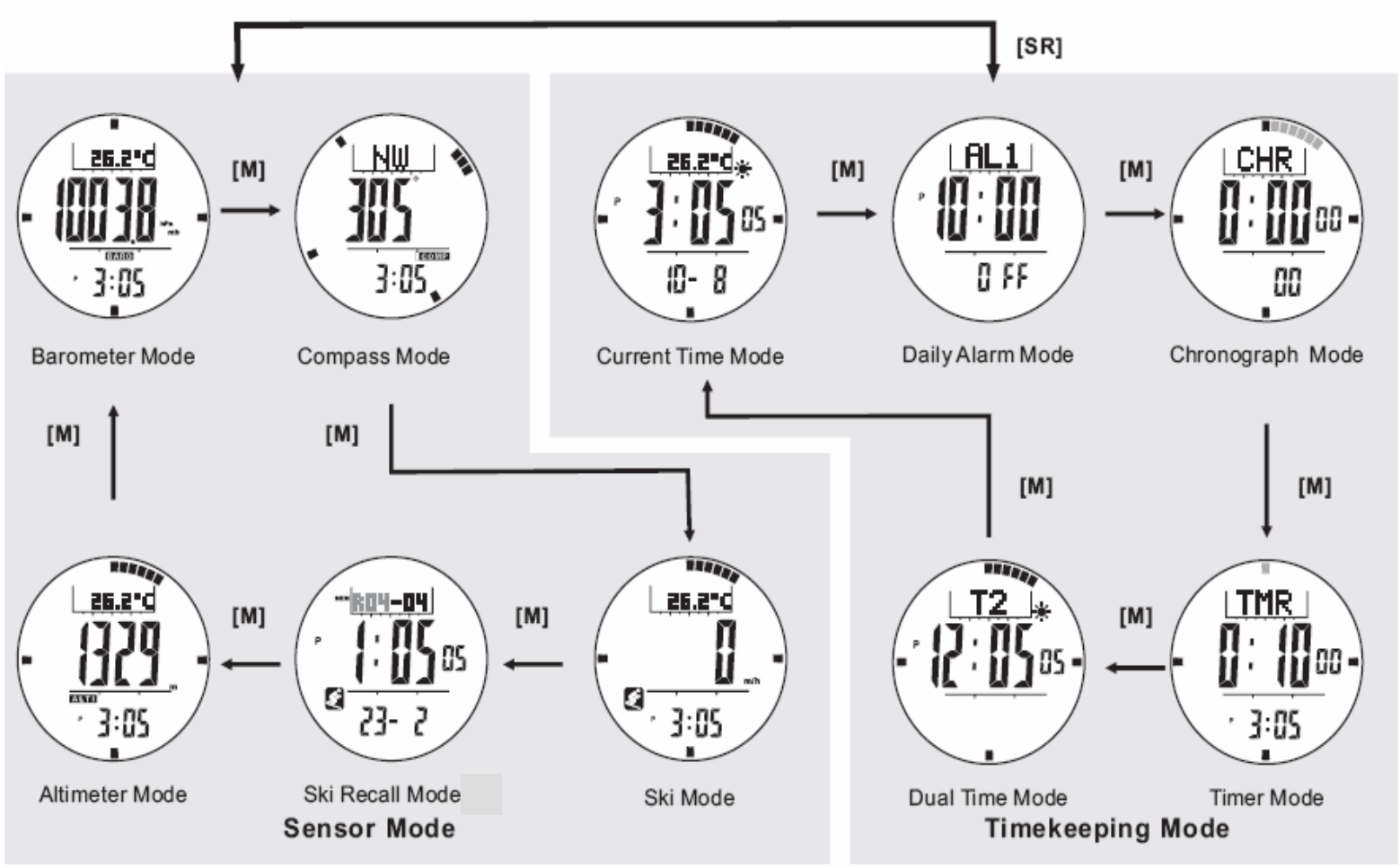
Key Lock Function

- Hold down the M button and then hold down the S/S button simultaneously to turn this function ON or OFF.

- When this function is ON, the key lock indicator will appear. No functions can be activated until the key lock is OFF.



Timekeeping and Sensor Modes

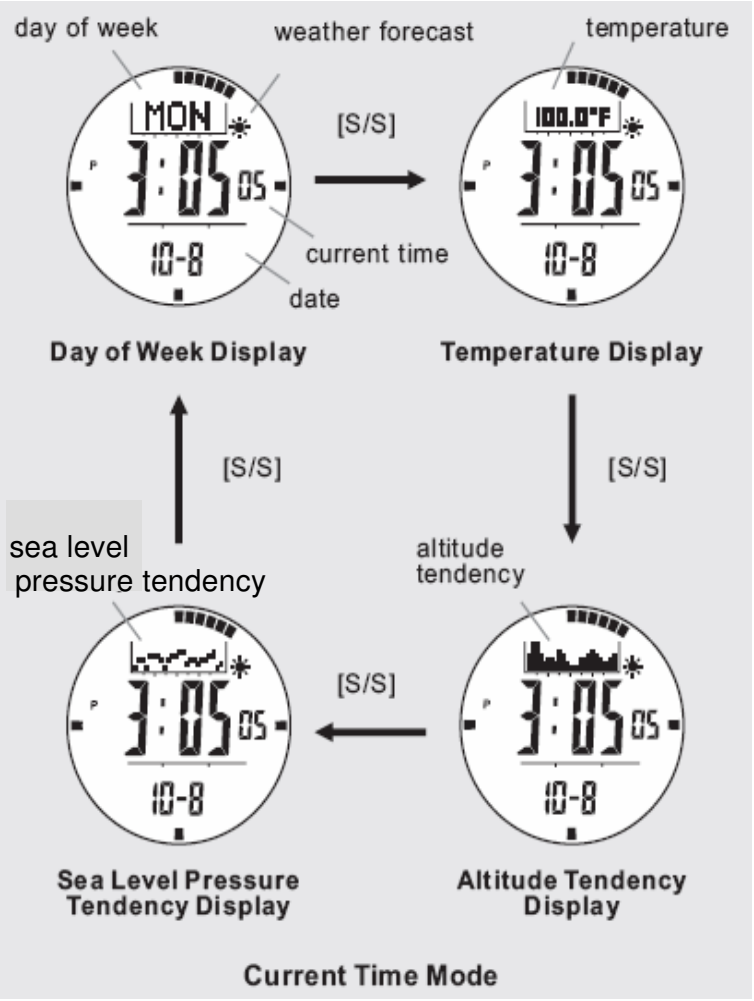


A) CURRENT TIME MODE

The Current Time Mode has four functional displays: day of week, temperature, altitude tendency and sea level pressure tendency.

To switch among the different functional displays, press the S/S button.

Note: To get an accurate reading of air temperature, take off the watch from the wrist for 20 to 30 minutes before taking the measurement. It prevents body temperature from affecting the measurement.



Automatic Display Switching

To activate the automatic display switching feature, hold down the S/S button.

Each of the four functional displays will appear, one by one, for as long as the S/S button is held down.

Weather Forecast Feature

A special feature of this watch is the weather predicting function. It works by analyzing the changes in air pressure.

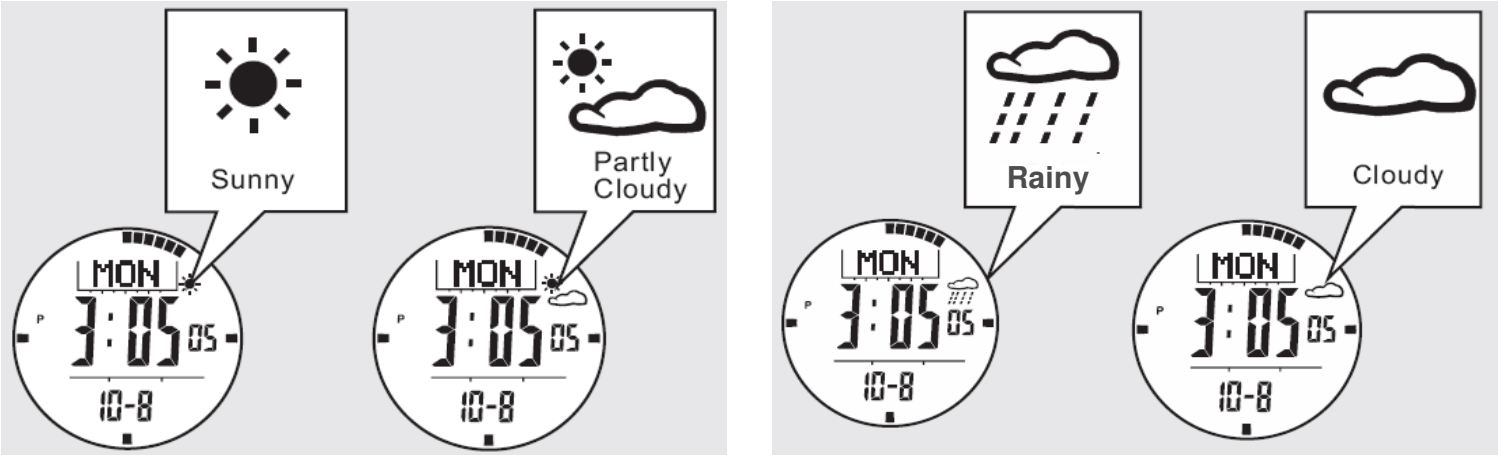
The watch provides four different symbols to indicate the weather forecast:

- Sunny - Partly Cloudy - Cloudy - Rainy

The weather forecast feature can be displayed in the current time and dual time modes only.

Note: Since the watch predicts the weather by changes in air pressure, it is highly recommended to stay at the same altitude for at least eight hours for a more accurate forecast.

Note: The watch predicts the weather by adopting general weather prediction principles. It is not capable of reflecting a dramatic change in weather within a very short period of time.



Setting the Current Time and Date

- To select the setting display, press and hold the M button for two seconds in Current Time Mode.

- When the seconds are flashing, press the M button to select among the different setting items. While in the seconds setting, press the S/S or L/R button once to reset the seconds to zero.

- Once the minute, hour, year, month, or date is flashing, press the S/S or L/R button to set the correct time. Pressing this button will adjust the time in increments of one digit. Holding this button down will adjust the time at a higher speed.

- When "Date Format" (month-day or day-month) is flashing, press S/S or L/R to change the setting.

- To switch between the 12-hour format and 24-hour format, press the S/S button once the "12" or "24" is flashing.

- When LCD contrast is selected, press the S/S or L/R button to increase/decrease the contrast level. When key beep setting is selected, press the S/S or L/R button to select between ON and OFF.

- When all formats are set, press and hold down the M button to exit the setting display.

B) DAILY ALARM MODE

This watch includes two daily alarms (Daily Alarm 1 and 2) and one hourly chime. These alarms will work independently.

Selecting Daily Alarm and Hourly Chime Display

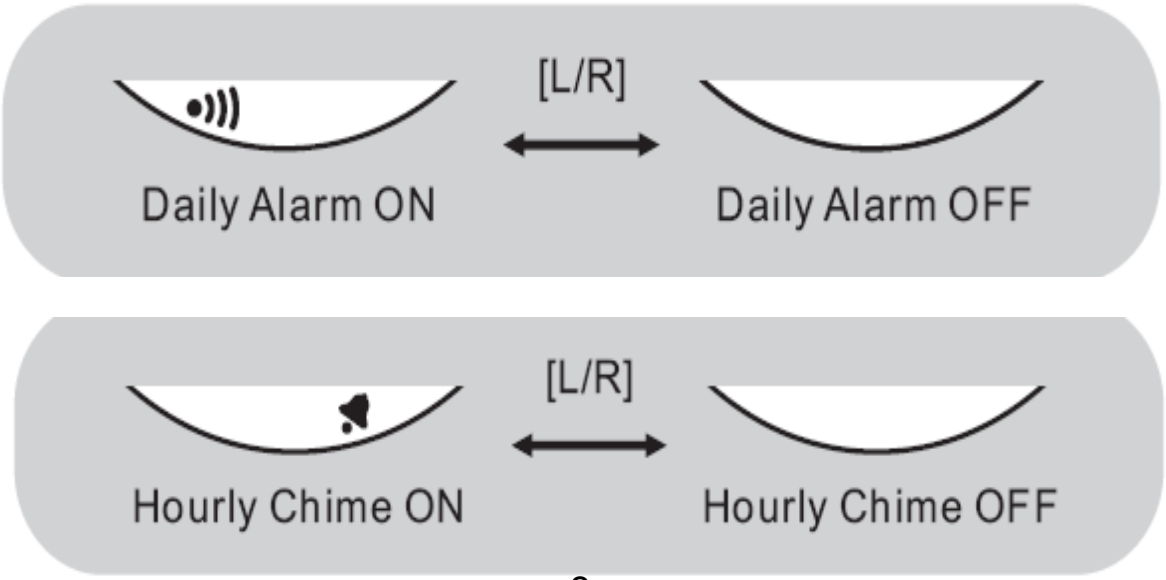
- Press the S/S button to switch among Daily Alarm 1, Daily Alarm 2, and the hourly chime display.

Switching Daily Alarm and Hourly Chime ON and OFF

- In Daily Alarm 1, Daily Alarm 2, or the hourly chime display, press L/R to switch the function ON and OFF.

- When the alarm indicat is exhibited (alarm is ON), the watch will sound at the set alarm time every day. When the alarm sound comes on, press any button to stop the beep.

- When the hourly chime indicat is exhibited (chime is ON), the watch will sound on the hour every hour.



SETTING THE DAILY ALARM

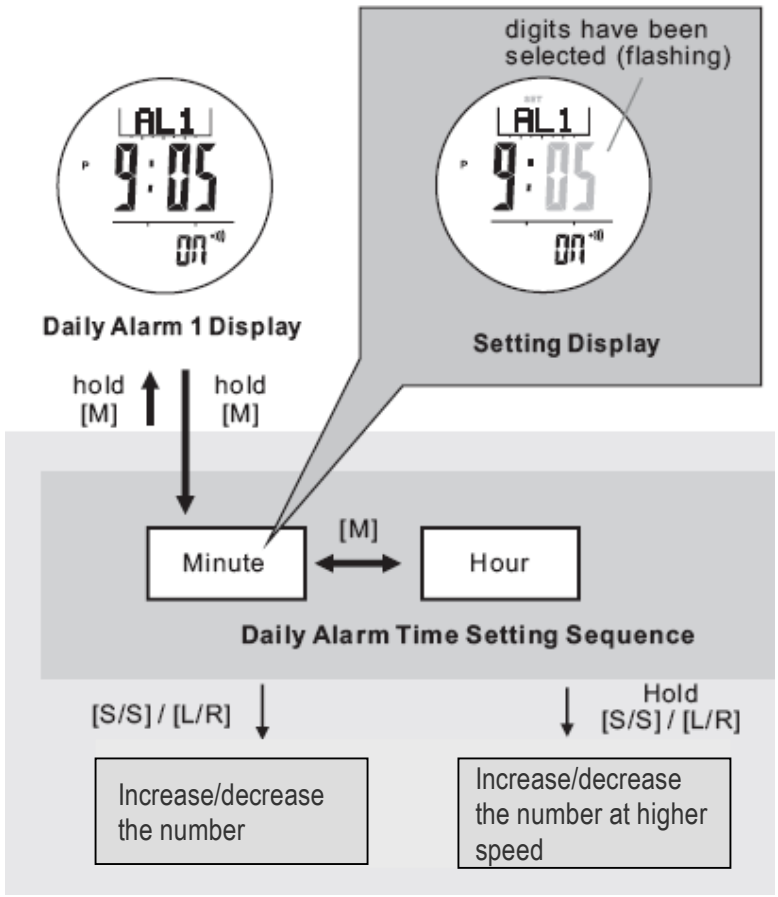
- To select the setting display, press and hold the M button for two seconds in Alarm Mode — Alarm 1 display.

- When the minute is flashing, press the M button to select between the minute and hour settings.

- When the minute or hour is flashing, press the S/S or L/R button to set the desired alarm time. Hold down this button to scroll the setting at a higher speed.

- When the desired time is set, press and hold the M button to exit the setting display.

- When the daily alarm is ON, the alarm will beep for 30 seconds. It can be stopped at any time by pressing any button except the EL button.



C) CHRONOGRAPH MODE

- To select Chronograph Mode, press the M button until this mode is displayed.

- In Chronograph Mode, the indicator “CHR” appears on the first row; the lap number and counting hour appear on the second row; and the counting minute, second, and 1/100 second appear on the third row of the display.

- This watch can measure elapsed time, accumulative elapsed time, and lap time (store a time record while the chronograph is still running). The chronograph’s counting limit is 23 hours, 59 minutes, and 59.99 seconds. The chronograph can store up to 99 lap times.

To Reset the Chronograph

To measure a new elapsed time, reset the chronograph to "All-Zero" display.

- To reset the chronograph to "All-Zero" display, press and hold the L/R button for two seconds while the chronograph has stopped.

Note: When the chronograph has been reset, the elapsed time, accumulated elapsed time, and lap time memories will be erased.

Recording the Elapsed Time and Accumulative Elapsed Time

From "All-Zero" display, press the S/S button to start the chronograph. Press the S/S button once again to stop the chronograph. The elapsed time will appear on the display.

Measuring Lap Times

To store a lap time, press the L/R button while the chronograph is running. The stored lap time and lap number will appear on the display for about ten seconds. The chronograph keeps running. Once the running time display resumes, press the L/R button to store another lap time.

Recalling Lap Times

In chronograph mode, hold down the M button to enter Lap Time Recall Sequence and the total accumulative elapsed time will be exhibited.

Press S/S or L/R to select a target lap for the recall.

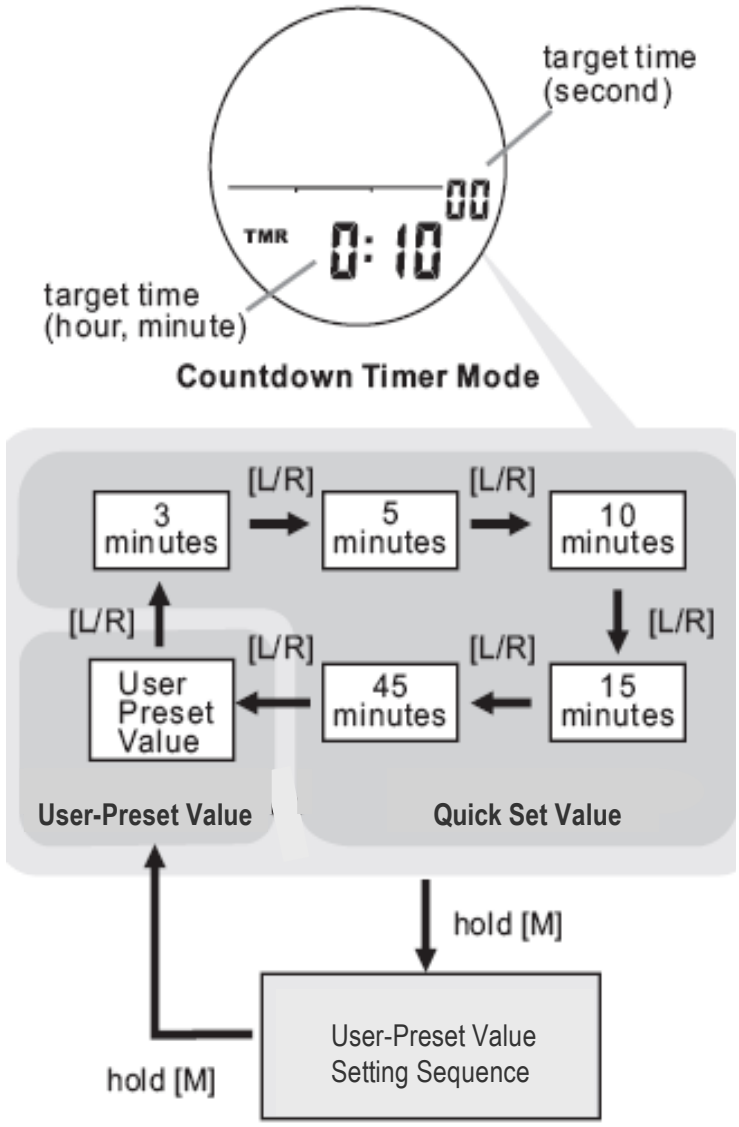
Hold down the M button to exit the recall display.

D) COUNTDOWN TIMER MODE

This watch measures the elapse of a fixed period of time (target time) by counting down from the target time to zero.

The target time can be chosen from quick-set values (3, 5, 10, 15, 45 minutes) or can be set up as a user-preset value (default: one minute).

The user can set a custom target time by setting the user-preset value.



Setting the Target Time

- Press L/R to choose the target time from 3, 5, 10, 15, 45 minutes or the user-preset value following the adjacent diagram.

- When one of the above values is exhibited on the display, that value is chosen for the countdown.

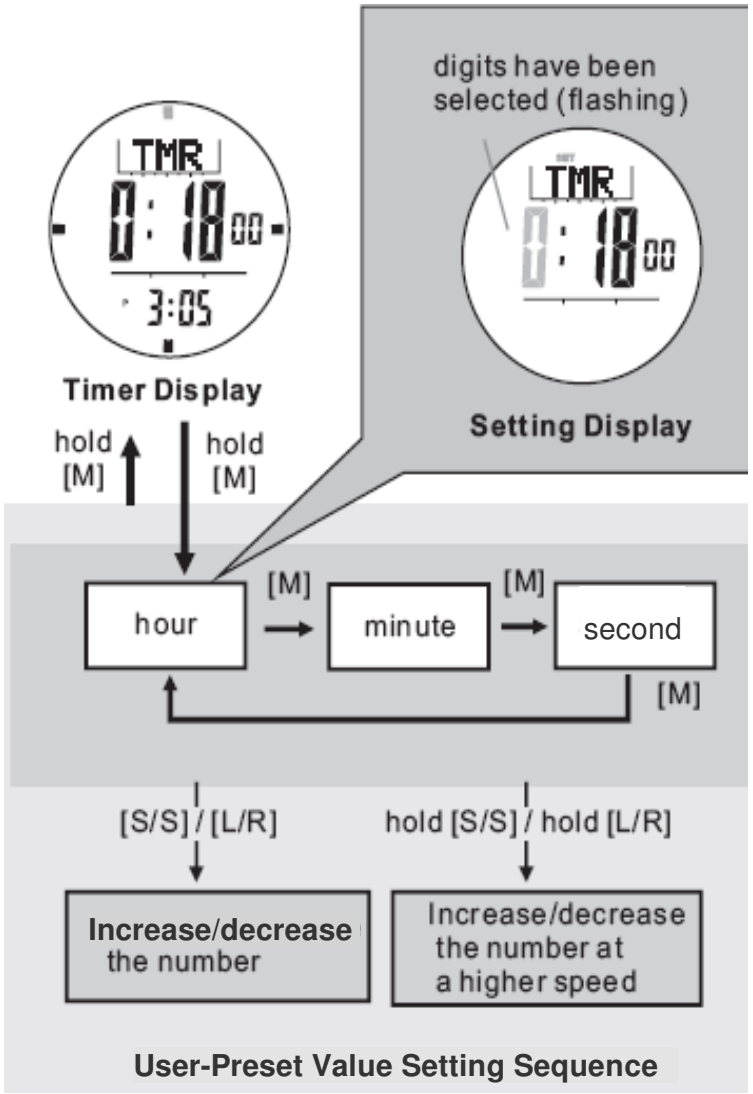
Setting the User-Preset Value

- In Countdown Timer Mode, hold down the M button to change the display to setting display.

- The selected digits will be flashing on the display. Press the M button to select among the different settings (hour, minute, second) following the diagram to the side.

- When one of the settings is selected, press S/S or L/R to change the setting value; hold down the button to change the button to change the setting value faster.

- When the above is set, hold down the M button to exit the setting.



User-Preset Value Setting Sequence

Using the Timer

- When the target time is set, press S/S to start the countdown. When the timer is counting, press S/S to stop the countdown.

Timer Sound Signal

- Last ten minutes: beeps once every minute.

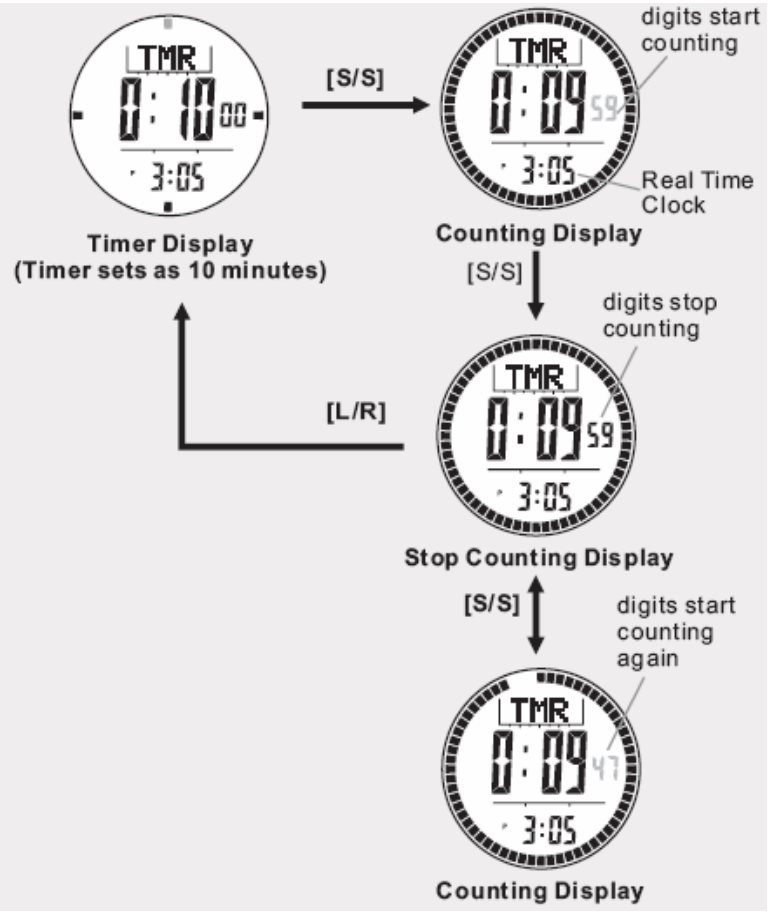
- Last minute: beeps once every ten seconds.

- Last five seconds: beeps once every second.

- Count to zero: beeps 30 seconds and the target time will be reloaded automatically after the beeps.

Reloading the Target Time

- When the timer has stopped counting, press the L/R button to reload the target time.



E) DUAL TIME MODE

The watch includes a function to show the current time for a second time zone.

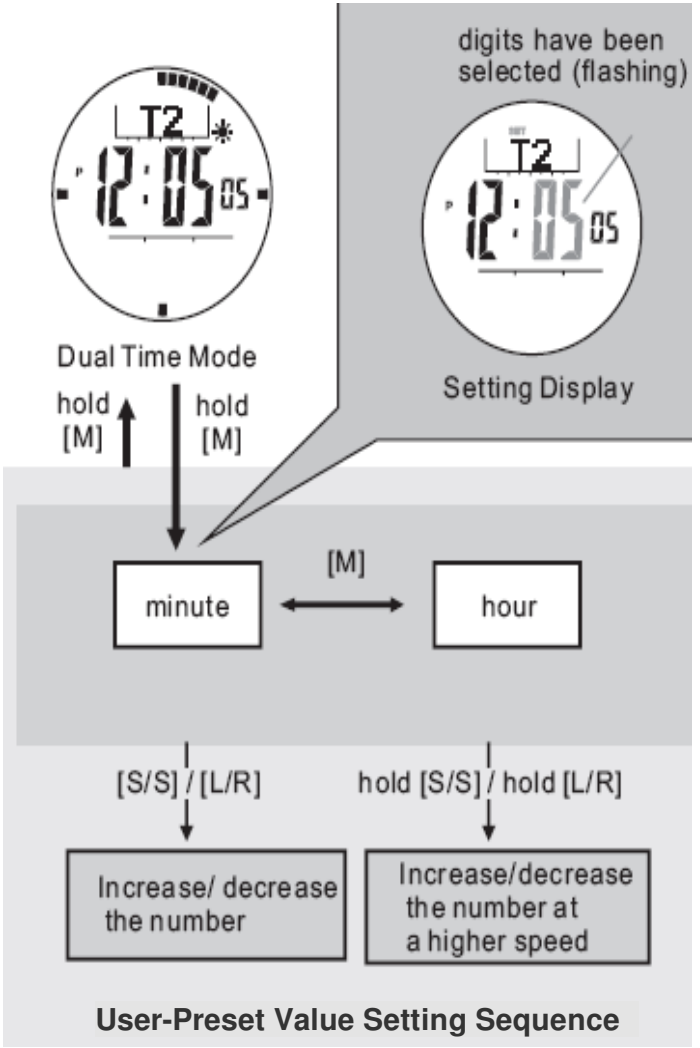
How to Set the Dual Time

- To select setting display, hold down the M button for two seconds in Dual Time Mode, and the flashing "SET" icon will appear.

- In setting display, press the M button to change the selection between hour and minute.

- When the digits are flashing, press the S/S or L/R button to increase/decrease the number. Hold down the button to change the number at a higher speed.

- When the setting has been completed, hold down the M button to exit the display. The watch will also exit this display if no buttons are pressed for over one minute.



User-Preset Value Setting Sequence

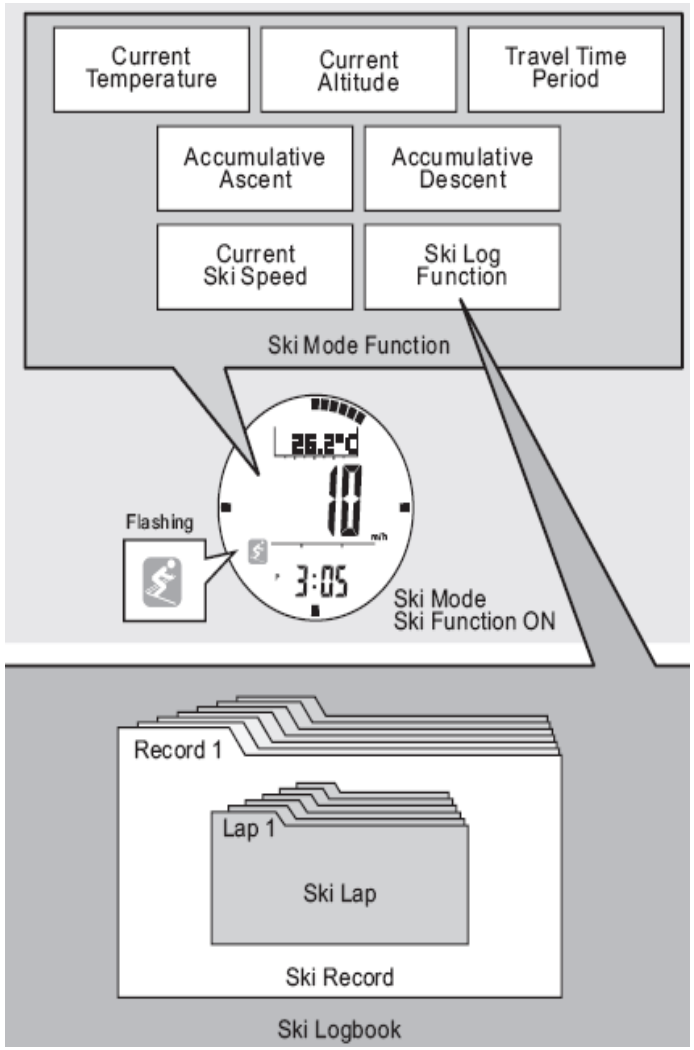
F) SKI MODE

Once the ski function is turned ON, the ski icon will start flashing. The watch will:

- Exhibit the current ski data on display.

- Log the ski data into the ski logbook automatically or manually (ski log function).

Note: The watch will log ski data continuously once the ski function is turned ON, even if the watch has been switched to another function mode subsequently.



Ski Logbook

The logbook organizes the ski data as follows:

- Ski lap: the ski data stored while the skier completed a ski run.

- Ski record: the ski record which stores a series of ski laps, and hence provides the summary of all ski laps.

Ski Recall Mode

The logged ski data can be reviewed from the ski logbook in the ski recall mode.

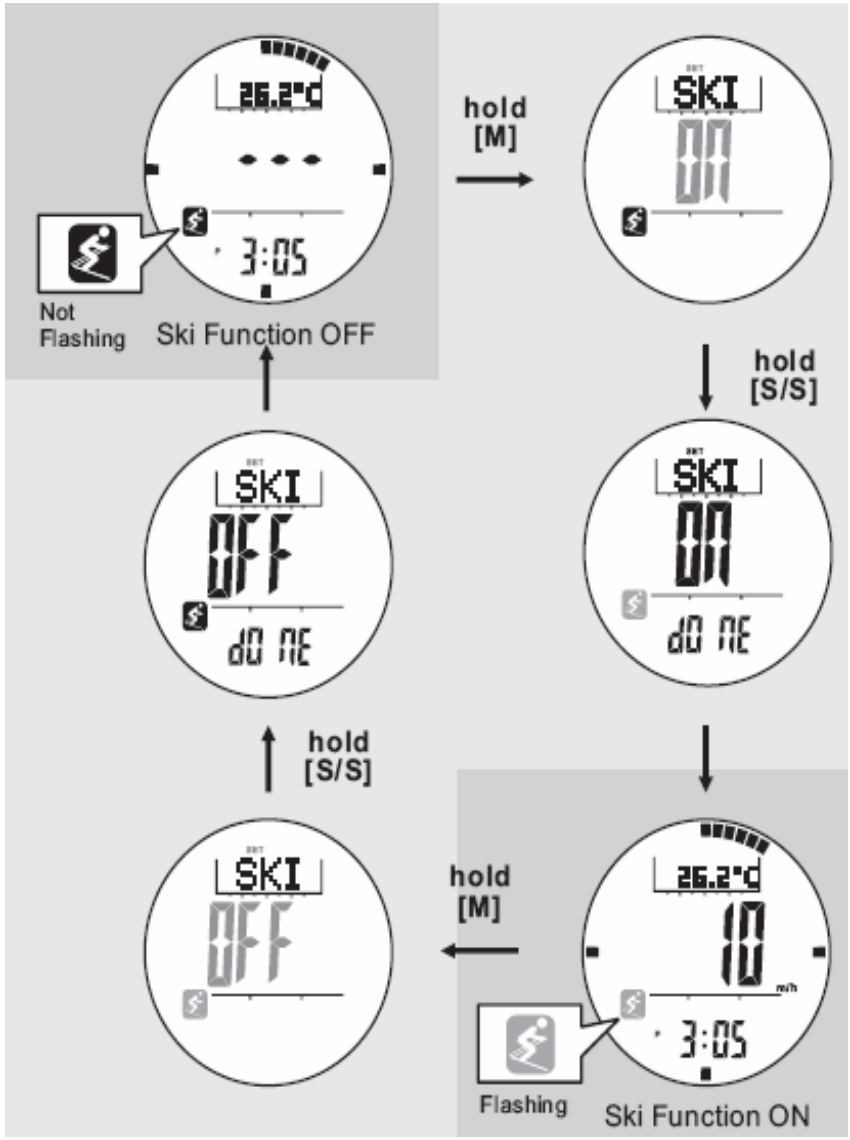
Turning the Ski Function ON or OFF

- Hold down the M button in Ski Mode to flash the ON or OFF indicator.

- When the "ON" or "OFF" indicator is flashing, hold down the S/S button until the "DONE" indicator appears.

- When the ski function is turned ON, the ski icon will be flashing on the display. When turned OFF, the ski icon will stop flashing.

Note: The ski function will turn OFF automatically after it has been ON for 12 hours.



Ski Mode Display

Once the ski mode is selected, perform the key operations below to select the ski mode sub-functional displays.

Changing the Top Row Display

Press the S/S button to change the top row display between current altitude and current temperature.

Changing the Middle Row Display

Press the L/R button to change the middle row display among the ski run's current descent speed, total elapsed time, accumulative descent, and accumulative ascent.

Note: This change can operate only if the ski function is turned on.

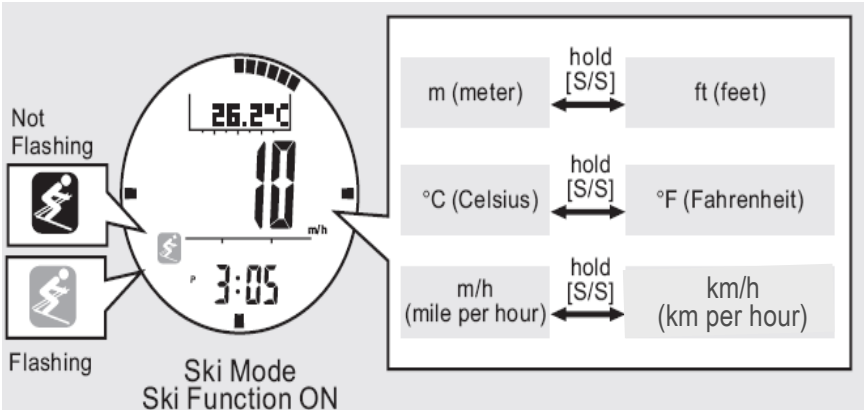
Changing the Bottom Row Display

Hold down the L/R button to change the bottom row display between current time and current lap.

Note: This change can operate only if the ski function is turned on.

Changing the Measurement Unit

Hold down the S/S button to change the measurement unit as per the adjacent diagram.



SKI LOG FUNCTION

Example to Illustrate Ski Log Function

Assume a user enjoyed three ski runs within a day as it is outlined in the diagram on page 21. To use the ski log function, the user needs to turn on the ski function before the ski runs.

The watch will log the ski data below into the ski logbook automatically, and this data can be reviewed in Ski Recall Mode at a later time.

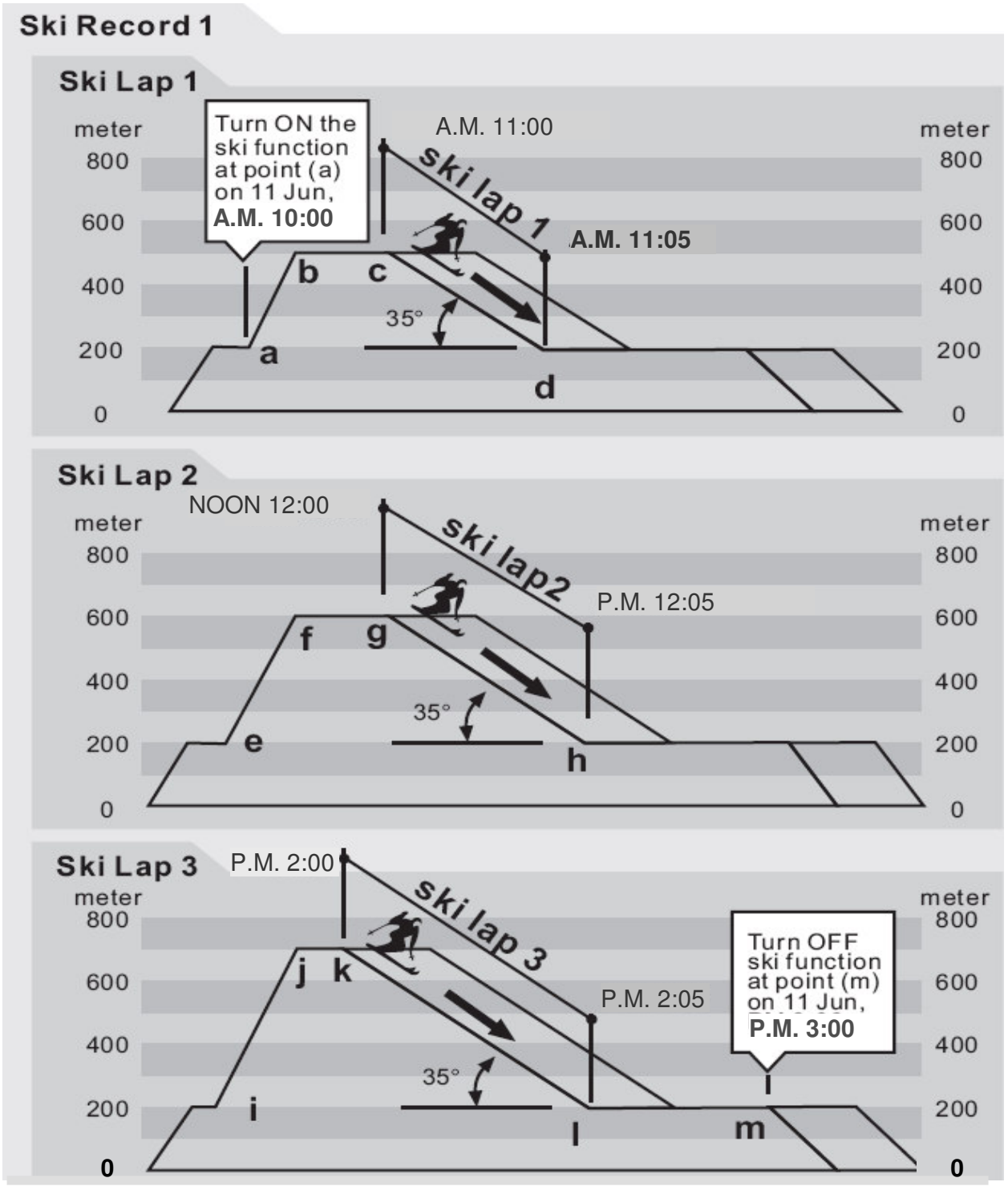
Ski Record (the information and summary of all ski laps)

- The recorded date = 11 June
- The recorded start time = A.M. 10:00 00
- The total travel time = 5:00 00
- The total number of ski laps recorded = three ski laps
- The total descent time = 0:15 00
- The accumulative descent = 1,200 meters
- The accumulative ascent = 1,200 meters
- The maximum descent speed = 15 km/h*
- The highest altitude reached = 700 meters
- The lowest altitude reached = 200 meters
- The slope of the ski course = 35 degrees

This maximum speed is a dummy figure. The maximum speed can be logged in a real situation only.

Ski Lap (ski data)

- The starting lap time = A.M. 11:00 00 (lap 1), NOON 12:00 00 (lap 2), P.M. 2:00 00 (lap 3)
- The total descent time = 0:05 00 (lap 1), 0:05 00 (lap 2), 0:05 00 (lap 3)
- The maximum descent speed = 9 km/h (lap 1), 11 km/h (lap 2), 15 km/h (lap 3)
- The average descent speed = 6 km/h (lap 1), 8 km/h (lap 2), 10 km/h (lap 3)
- The highest altitude reached = 500 m (lap 1), 600 m (lap 2), 700 m (lap 3)
- The lowest altitude reached = 200 m (lap 1), 200 m (lap 2), 200 m (lap 3)
- The altitude change = 300 m (lap 1), 400 m (lap 2), 500 m (lap 3)
- The descent altitude graph changes for every lap


Ski Record 1
Ski Lap 1
meter
800
600
400
200
0
Turn ON the ski function at point (a) on 11 Jun, A.M. 10:00
A.M. 11:00
ski lap 1
A.M. 11:05
b
c
35°
a
d
Ski Lap 2
NOON 12:00
ski lap2
P.M. 12:05
f
g
e
h
Ski Lap 3
P.M. 2:00
ski lap 3
P.M. 2:05
Turn OFF ski function at point (m) on 11 Jun, P.M. 3:00
j
k
i
l
m

LOGGING A SKI LAP

When the ski function is turned on:

- The watch will create a ski record to log the starting time and date into the ski logbook.

- When a ski run is started, the watch will create a ski lap automatically or manually to log the ski data into the ski logbook.

How to Activate a Ski Lap Automatically

- To start a ski run: When a ski run is started and a significant altitude loss is detected, the descent time timer will start counting automatically, and a new ski lap is created.

- To stop a ski run: When a ski run is stopped and the altitude loss is not significant, the descent time timer will stop counting automatically, and the current ski lap is saved.

How to Activate a Ski Lap Manually

- Press the M button once in the Ski Mode to select "MANUAL" display. Now the watch is ready to manually start/stop a ski lap.

- To start a ski run: Press the S/S button once and start the ski run at the same time. The descent time timer will start counting from zero seconds, and a new ski lap is created.

- To stop a ski run: Press the S/S button once again when the ski run is stopped. The descent time timer will stop counting, and the current ski lap is saved.

SLOPE SETTING

The slope setting inputs the slope angle of the ski course into the watch.

Most of the ski courses post this figure for the skier to see on the course.

SENSITIVITY SETTING

The watch will activate the ski lap function (start the descent timer and create a ski lap) automatically when a ski run is started (a significant altitude loss is detected).

The sensitivity setting adjusts the accuracy of the above auto-activation.

Type of Sensitivity

- Ascending sensitivity setting: adjusts the sensitivity for altitude ascent auto-activation.

- Descending sensitivity setting: adjusts the sensitivity for altitude descent auto-activation.

Level of Sensitivity

- Fast sensitivity: If false auto-activation is observed, select this setting to improve the performance.

- Normal sensitivity: If the auto-activation functions normally, keep this setting.

- Slow sensitivity: If the auto-activation cannot function, select this setting to improve the performance.

SETTING THE SLOPE AND SENSITIVITY

To select the setting display, hold the M button for about two seconds in Ski Mode. The flashing "SET" icon will appear.

In setting display, press the M button to change the selection following the diagram below.

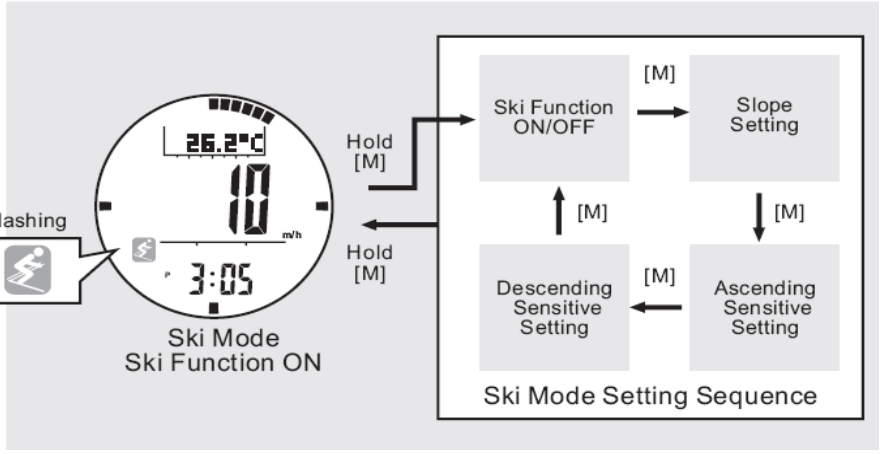
- When the ON or OFF indicator is flashing, holding down the S/S button for about two seconds will turn the ski function ON or OFF.

- When the slope angle is flashing, press the S/S or L/R button to increase/decrease the angle.

- When the "RATE AS" indicator (ascending sensitive rate) appears, press the S/S or L/R button to change the setting among "FAST," "SLOW," and "NORM" (normal).

- When the "RATE DS" (descending sensitive rate) appears, press the S/S or L/R button to change the setting among "FAST," "SLOW," and "NORM" (normal).

When the setting is completed, hold down the M button to exit the setting display.



G) SKI RECALL MODE

Ski Logbook

The ski record logs a series of ski laps, and it provides the summary of these ski laps:

- Recorded date
- Recorded start time
- Total travel period
- Total number of ski laps recorded
- Total descent time
- Accumulative descent
- Accumulative ascent
- Maximum descent speed
- Highest altitude reached
- Lowest altitude reached
- Slope of the ski course

Ski Lap

The ski lap logs the data of a particular ski lap, and it includes:

- The starting lap time
- Total descent time
- Maximum descent speed
- Average descent speed
- Highest altitude reached
- Lowest altitude reached
- Altitude change
- The descent altitude change graph

Ski Recall Mode Display

When the Ski Recall Mode is selected:

- The total number of logged records will appear on the top row of the display.

- The starting time and date of the displayed record will appear on the middle and bottom row of the display respectively.

How to Select Among Different Ski Records

Press the L/R button to select a target record among the logged records.

How to Review the Recorded Data

When a target record is displayed, press the S/S button to review the different data record. During the review, press the M button once to return to the previous display.

How to Select the Ski Lap

When one of the target record data (except slope review display) is displayed, hold down the M button to select a target lap among the logged laps.

To exit the lap selection sequence and go back to the Ski Recall Mode, press the M button once.

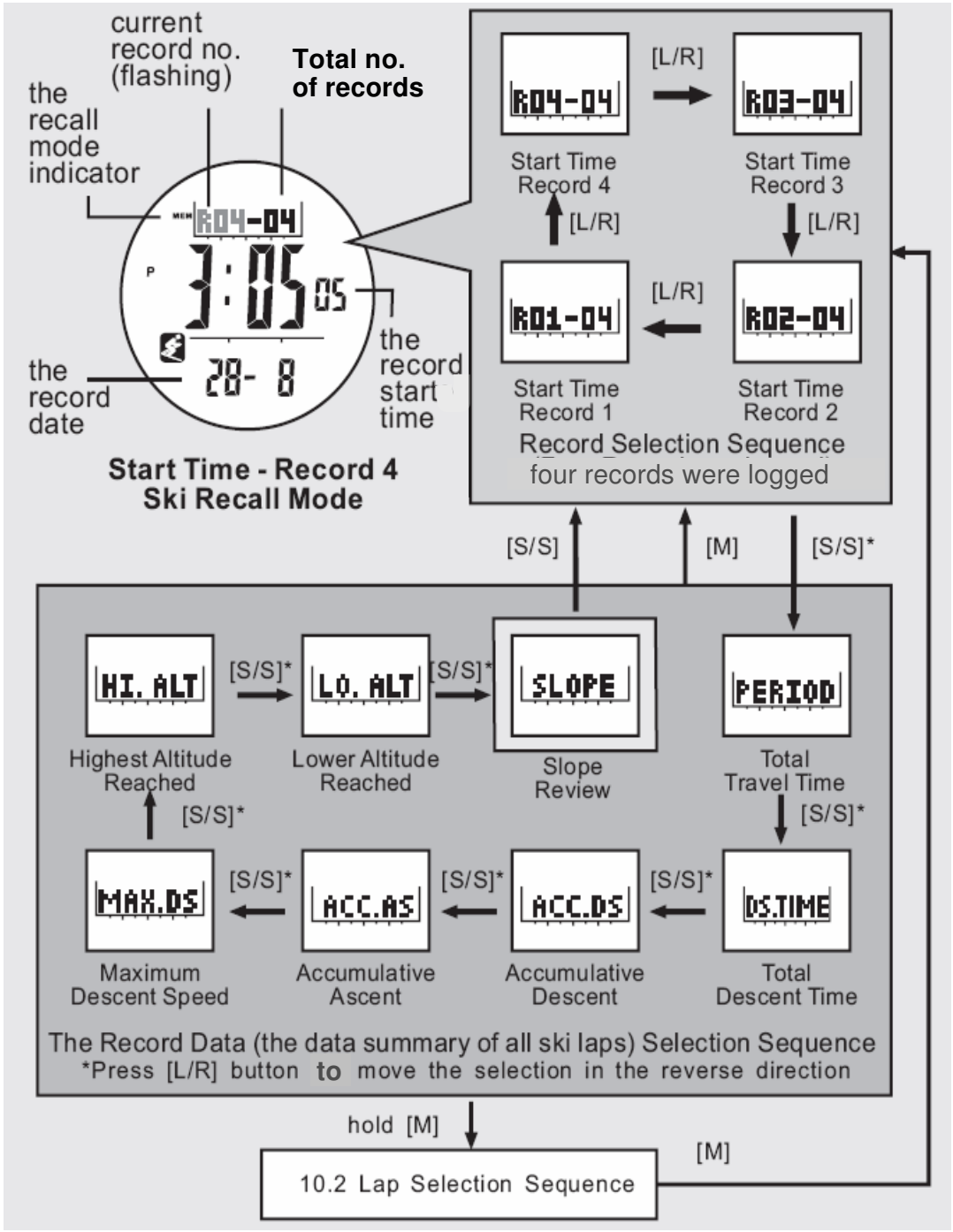
How to Select Among Different Ski Laps

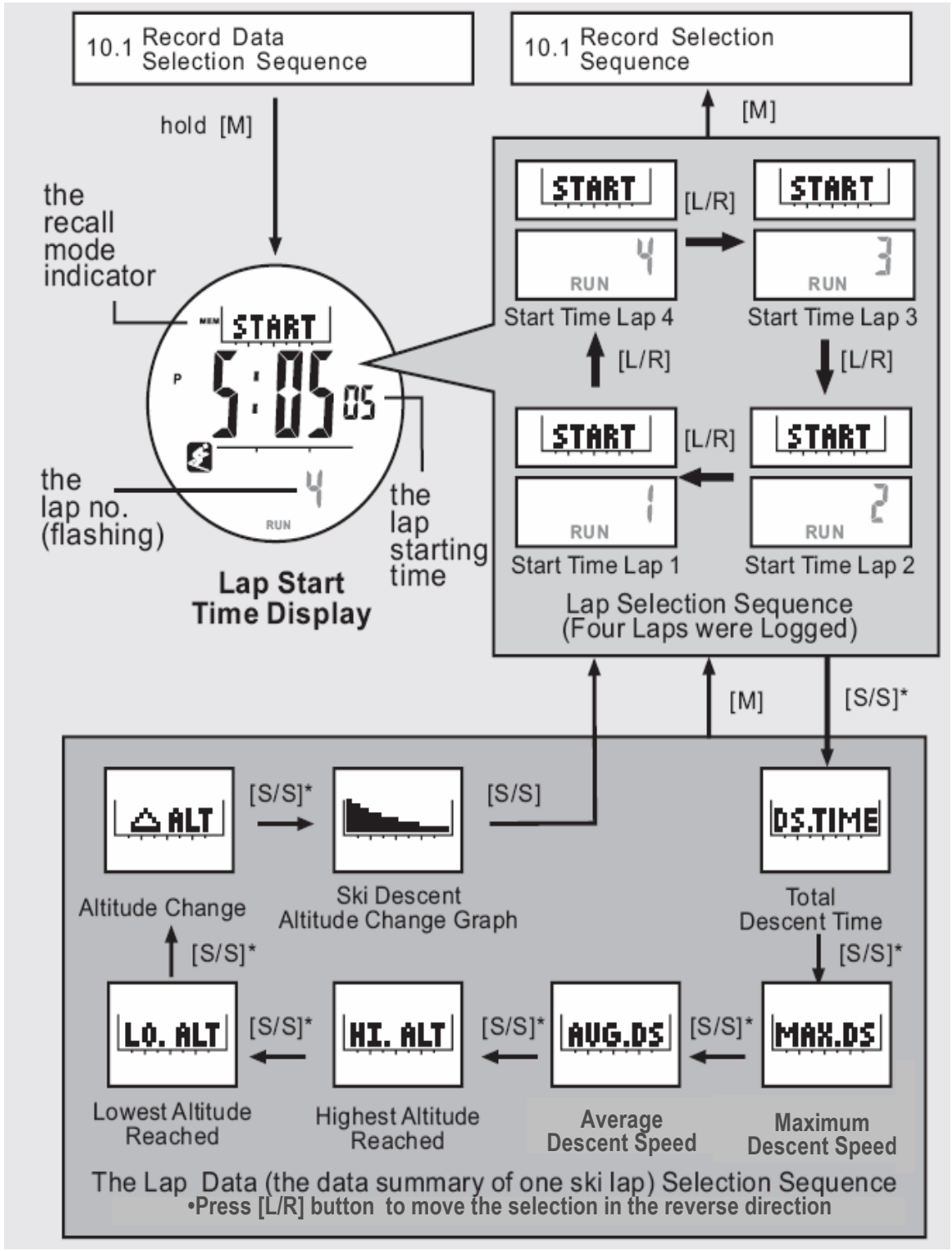
During the lap start time display, press the L/R button to select a target lap among the logged laps.

How to Review the Lap Data

When a target lap is displayed, press the S/S button to review different lap data displays.

To exit the lap selection sequence and go back to the ski start time display, press the M button once.


current record no. (flashing)
Total no. of records
the recall mode indicator
R04-04
3:05 05
28- 8
the record date
the record start time
Start Time - Record 4
Ski Recall Mode
R04-04
[L/R]
R03-04
Start Time Record 4
Start Time Record 3
[L/R]
[L/R]
R01-04
[L/R]
R02-04
Start Time Record 1
Start Time Record 2
Record Selection Sequence
four records were logged
[S/S]
[M]
[S/S]*
HI. ALT
[S/S]*
LO. ALT
[S/S]*
SLOPE
PERIOD
Highest Altitude Reached
Lower Altitude Reached
Slope Review
Total Travel Time
[S/S]*
[S/S]*
MAX.DS
[S/S]*
ACC.AS
[S/S]*
ACC.DS
[S/S]*
DS.TIME
Maximum Descent Speed
Accumulative Ascent
Accumulative Descent
Total Descent Time
The Record Data (the data summary of all ski laps) Selection Sequence
*Press [L/R] button to move the selection in the reverse direction
hold [M]
[M]
10.2 Lap Selection Sequence


10.1 Record Data Selection Sequence
10.1 Record Selection Sequence
hold [M]
[M]
the recall mode indicator
START
5:05 05
the lap no. (flashing)
4
RUN
the lap starting time
Lap Start Time Display
START
[L/R]
4
RUN
Start Time Lap 4
3
Start Time Lap 3
Start Time Lap 1
2
Start Time Lap 2
Lap Selection Sequence (Four Laps were Logged)
[S/S]*
[S/S]
ALT
DS.TIME
Altitude Change
Ski Descent Altitude Change Graph
Total Descent Time
LO. ALT
HI. ALT
AVG.DS
MAX.DS
Lowest Altitude Reached
Highest Altitude Reached
Average Descent Speed
Maximum Descent Speed
The Lap Data (the data summary of one ski lap) Selection Sequence
•Press [L/R] button to move the selection in the reverse direction

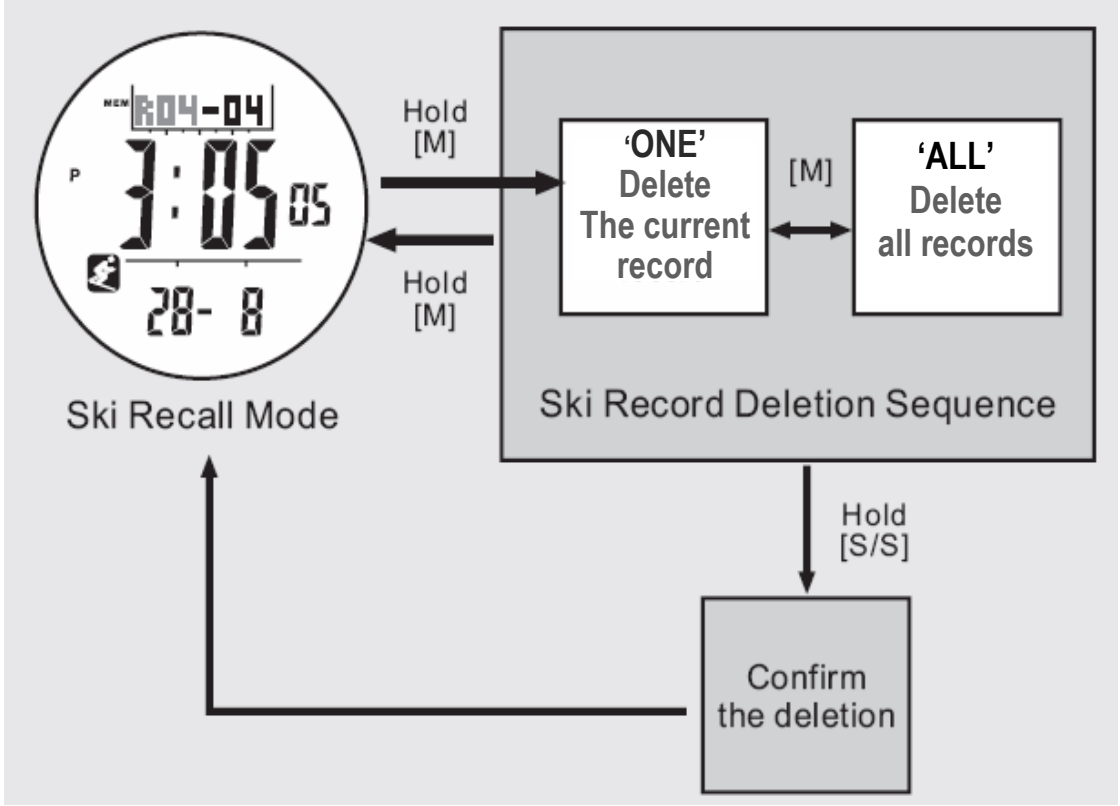
How to Delete the Ski Record

- Hold down the M button in the Ski Recall Mode to select the record deletion display.

- In the record deletion display, press the M button to change the selection between "ONE" (delete the current record) and "ALL" (delete all records).

- When the "ONE" or "ALL" indicator is flashing (selected), hold down the S/S button to confirm the deletion and exit the setting display.

Note: When the ski function is turned on, the current ski record cannot be deleted.



H) ALTIMETER MODE

Functional Display

This watch includes two altimeter functional displays: temperature and history. One of the two functional displays will appear on the top row of the display.

Press the S/S button to select between temperature and history displays.

Fast Sampling

During the altimeter mode, holding down the L/R button will activate fast sampling (sample per second) for five minutes.

Temperature Display

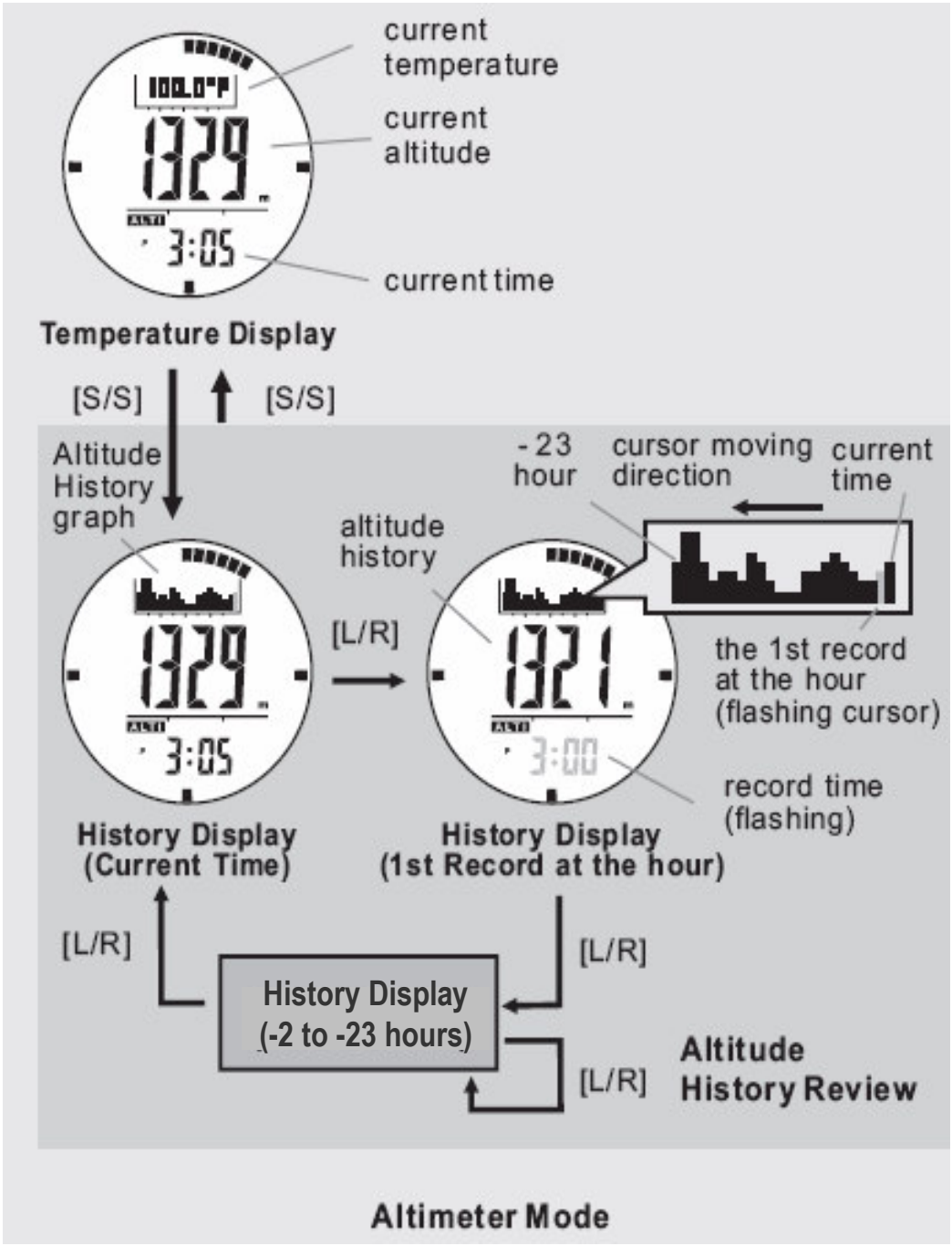
In the temperature display, the top display shows the current temperature in degrees Celsius or Fahrenheit.

History Display

The watch records the altitude reading automatically every hour on the hour. These records will be plotted into an altitude record graph.

In the history display, the altitude record graph shows on the top row of the display.

To review the altitude records of the last 23 hours, press the L/R button to move the cursor to the left cyclically. At the same time, the respective altitude record and its recording time (flashing) will appear on the display.

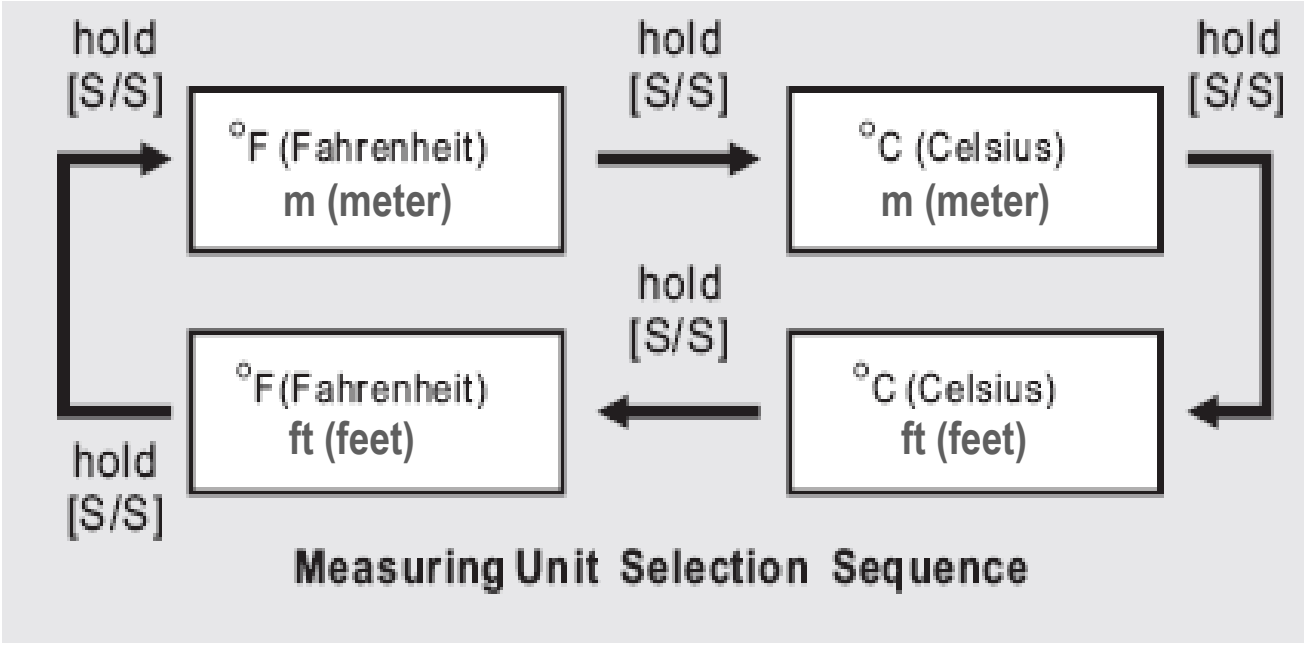

current temperature
current altitude
current time
Temperature Display
[S/S]
[S/S]
Altitude History graph
altitude history
-23 hour
cursor moving direction
current time
[L/R]
the 1st record at the hour (flashing cursor)
record time (flashing)
History Display (Current Time)
History Display (1st Record at the hour)
[L/R]
[L/R]
History Display (-2 to -23 hours)
[L/R]
Altitude History Review
Altimeter Mode

How to Switch Between Measurement Units

The watch displays altitude in either meters or feet.

The watch displays temperature in either degrees Celsius or Fahrenheit.

To switch between different units, hold down the S/S button as per the diagram below.



Absolute and Relative Altitude

- This watch measures both absolute and relative altitude.

- Absolute altitude is the altitude difference between the current altitude and sea level.

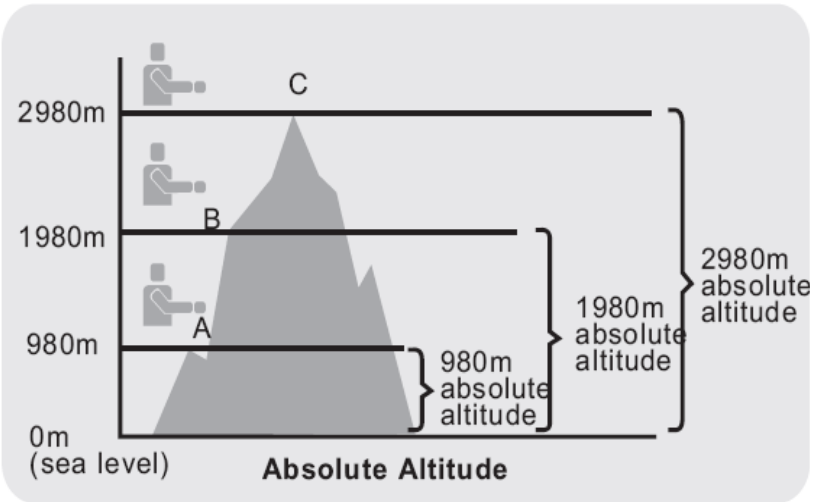
- Relative altitude is the altitude difference between the current altitude and the relative ground (where relative altitude is reset to zero).

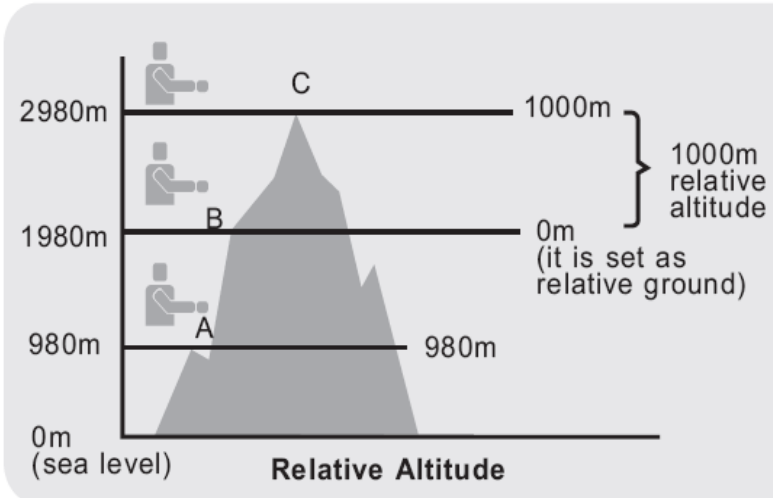
Example:

- Point A: The absolute altitude is 980 meters; the relative altitude is 980 meters. (The relative and absolute altitudes are the same unless the relative altitude is reset.)

- Point B: The absolute altitude is 1,980 meters; the relative altitude is zero meters (it is set as a relative ground).

- Point C: The absolute altitude is 2,980 meters; the relative altitude is 1,000 meters.





Relative Altitude

- The relative and absolute altitudes are the same unless the relative altitude is reset to zero at a reference point (e.g., the starting point of a trail).

Switching Between Absolute and Relative Altitude

- When the absolute altitude display is exhibited, hold down the L/R button to exhibit the relative altitude ("REL" icon will flash) temporarily.

- Hold down the L/R button for about three seconds to change the display to relative altitude ("REL" icon will exhibit).

- When the relative altitude display is exhibited, hold down the L/R button to exhibit the absolute altitude temporarily.

- Hold down the L/R button for about three seconds to change the display to absolute altitude.

Setting and Calibrating the Absolute Altitude

Why Calibrating is Needed

This watch, like most altimeters, calculates altitude by air pressure; thus changes in air pressure affect the altitude readings of this watch.

To achieve a more accurate altitude reading, the watch needs to be calibrated from time to time as pressure may change gradually even within hours.

This watch includes a calibration for this purpose.

Altimeter Adjustment

There are four adjustment methods:

- Zero Altitude: Adjust mandatory altitude to zero for relative altitude measurement. If the altimeter is adjusted by this method, an "r" indicator will appear on the display.

- Absolute Altitude: Set altitude to a known value and it can be recalled for the next setting.

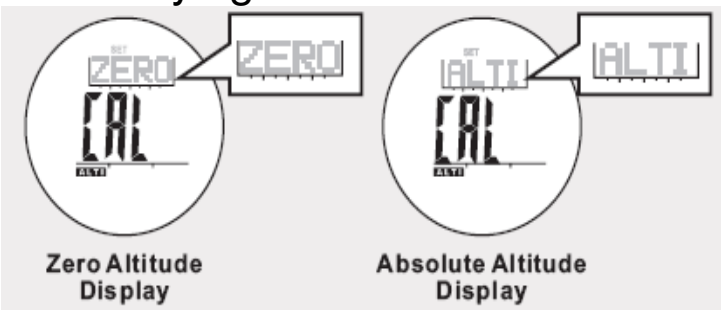
- Sea Level Pressure: Input a specific sea level pressure received from an official site.

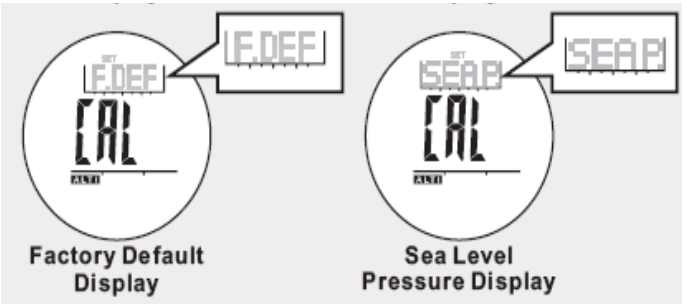
- Factory Default: Restore the watch to default factory setting, where the assumed sea level pressure is 1013.2 mb.

Note: When the ski function is turned on, the altimeter adjustment function is prohibited.

Note: Altitude is calibrated independently on each mode. For example, if absolute altitude is selected, the effect of the previous sea level pressure setting will be ignored.

Note: This watch includes an automatic sea level pressure comparison feature. This feature allows NO fluctuating altitude readings to be recorded when staying at the same altitude.





Zero Altitude Adjustment

- To select the adjustment display, hold the M button in Altimeter Mode. Then press the M button to select among different adjustments.

- Press the S/S button in zero altitude display, and the "NO" indicator will appear.

- When the "NO" indicator appears, press the S/S or L/R button to select between "YES" (reset the watch to zero) or "NO" (abort the resetting). When "YES" or "NO" is selected, hold the M button to confirm the setting.

- To exit the adjustment display, hold the M button for two seconds, and the watch will go back to Altimeter Mode. If "YES" is selected when exiting the adjustment display, the "done" display will appear for two seconds prior to the normal operation.

Absolute Altitude Adjustment

- To select the adjustment display, hold the M button in Altimeter Mode. Then press the M button once again to select among adjustments.

- Press the S/S button in the absolute altitude display, and the altitude reading will appear.

- When the altitude reading (the last setting) appears, press the S/S or L/R button to increase or decrease the number to the target reading. Holding down the S/S or L/R button will advance your selection rapidly.

- When the setting is completed, hold the M button to confirm settings and exit the adjustment display.

Note: Once you have adjusted the altitude by using absolute altitude adjustment at a place where the altitude is, for example, 100 meters, the watch will store this figure into memory for you to adjust the altitude the next time you are at the same place.

Sea Level Pressure Adjustment

- To select the adjustment display, hold the M button in Altimeter Mode. Then press the M button to select among the adjustments.

- Press the S/S button in the sea level pressure display, and the sea level pressure will appear.

- Press the S/S or L/R button to increase or decrease the number to the target number. Holding down the S/S or L/R button will advance your selection rapidly.

- Once the adjustment is completed, hold the M button to confirm the adjustment and exit the adjustment display.

Factory Default Adjustment

- To select the adjustment display, hold the M button in Altimeter Mode. Then press the M button to select among the adjustments.

- Press the S/S button in the factory default display, and the "NO" indicator will appear.

- Press the S/S or L/R button to select between "YES" (reset the watch to factory default) or "NO" (abort the resetting).

- To exit the adjustment display, hold the M button for two seconds, and the watch will go back to the altimeter mode. If the "YES" display is selected when exiting the adjustment display, the "done" display will appear for two seconds prior to the normal operation.

I) BAROMETER MODE

The watch includes three barometer functional displays: temperature, sea level pressure, and history graph display. One of the these displays will appear on the top row of the display.

Fast Sampling

During the barometer mode, holding down the L/R button will activate fast sampling (sample per second) for five minutes.

Temperature Display

In the temperature display, the top display shows the current temperature in degrees Celsius or Fahrenheit.

Sea Level Pressure Display

In the sea level pressure display, the sea level pressure shows on the top row of the display.

History Display

The watch records the altitude reading automatically every hour on the hour. These records will be plotted into a pressure record graph.

In the history display, the pressure record graph shows on the top row of the display.

To review the pressure records of the last 23 hours, press the L/R button to move the cursor to the left cyclically. At the same time, the respective pressure record and its recording time (flashing) will appear on the display.

Barometer Adjustment

There are two kinds of barometer adjustment methods: absolute pressure and factory default.

Note: When the ski function is turned on, barometer adjustment functions are prohibited.

Before calibrating the barometer, you must have the absolute pressure of your current position. This value will be inputted into the watch during the adjustment.

Consult the nearest observatory station to get the ambient barometric pressure of your current position.

Note: If an incorrect pressure is inputted during the calibration procedure, it will result in an incorrect pressure reading in the future.

Absolute Pressure Adjustment

- Hold the M button in Barometer Mode to select the adjustment display. Then press the M button to select between adjustments.

- Press the S/S button in the absolute pressure display, and the pressure reading will appear.

- Press the S/S or L/R button to increase/decrease the numbers. Holding down the S/S or L/R button will advance your selection rapidly.

- Once the setting is completed, hold the M button to confirm settings and exit the adjustment display.

Factory Default Adjustment

- Hold the M button in Barometer Mode to select the adjustment display. Then press the M button to select between adjustments.

- Press the S/S button in the factory default display, and the "NO" indicator will appear.

- Press the S/S or L/R button to select between "YES" (reset watch to factory default) or "NO" (abort resetting).

- To exit the adjustment display, hold the M button for two seconds, and the watch will go back to Barometer Mode. If the "YES" display is selected when exiting the adjustment display, the "done" display will appear for two seconds prior to the normal operation.

J) COMPASS MODE

Precautions

- Keep your watch away from magnets or appliances that may contain magnetic objects such as mobile phones, speakers, etc.

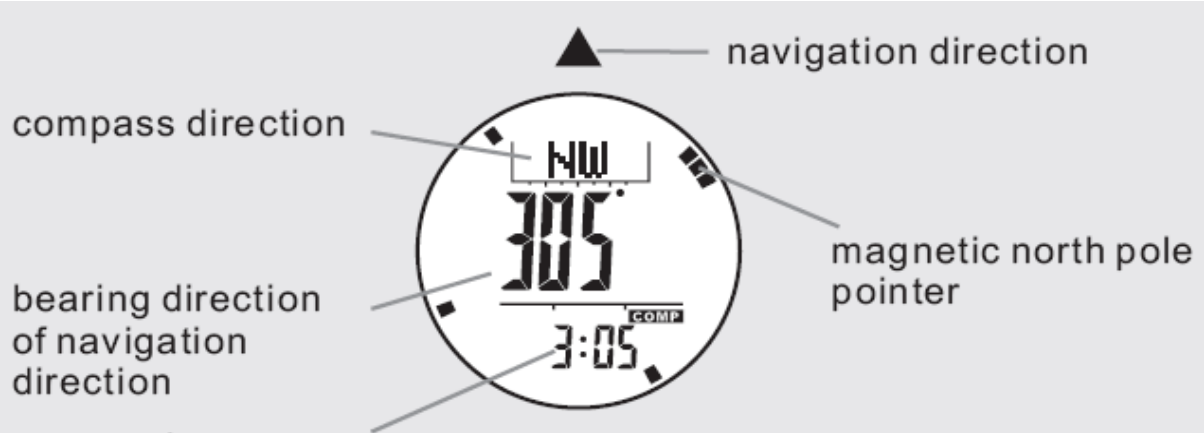
- The watch, like most magnetic compasses, points to magnetic north, which is slightly different from true north.

- Perform the compass calibration from time to time, since this will reinforce its precision.

- Do not place the watch close to metal objects.

- Do not place the watch close to electrical appliances.

- Do not place the watch inside a moving object or a ferroconcrete building.



Digital Compass Mode

Direction of an Object

The direction of an object from a point can be specified in either compass direction or bearing direction. This watch includes both.

Compass Directions

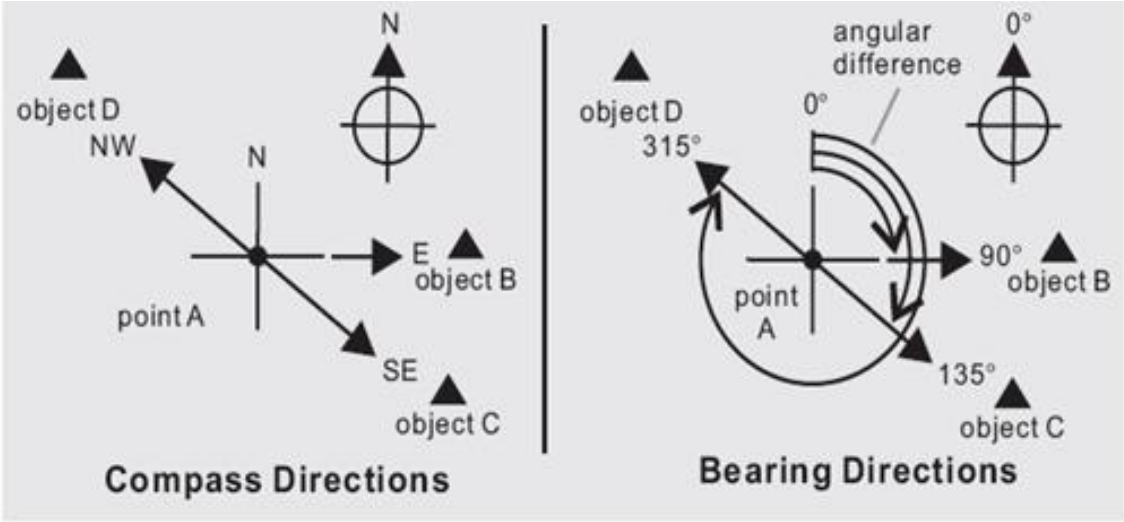
The compass directions are shown in the table on the next page.

For example, in the figure on the next page, the compass direction of object B from point A is east. The compass direction of object C from point A is southeast. The compass direction of object D from point A is northwest.

Bearing Directions

The bearing direction of an object is defined as the angular difference between north and the object. (Assume zero degrees for North, and the measuring range is from zero to 359 degrees).

For example, in the figure on the next page, the bearing direction of object B from point A is 90 degrees. The bearing direction of object C from point A is 135 degrees. The bearing direction of object D from point A is 315 degrees.



Marks	Compass Directions	Bearing Directions
N	North	349° - 11°
NNE	North-Northeast	12° - 33°
NE	Northeast	34° - 56°
ENE	East-Northeast	57° - 78°
E	East	79° - 101°
ESE	East-Southeast	102° - 123°
SE	Southeast	124° - 146°
SSE	South-Southeast	147° - 168°
S	South	169° - 191°
SSW	South-Southwest	192° - 213°
SW	Southwest	214° - 236°
WSW	West-Southwest	237° - 258°
W	West	259° - 281°
WNW	West-Northwest	282° - 303°
NW	Northwest	304° - 326°
NNW	North-Northwest	327° - 348°

Compass Mode

- In the Compass Mode, the top of the display shows the compass direction.

- The middle display shows the bearing direction.

- The bottom display shows the current time in hours and minutes.

- The pointer within the display shows the direction of magnetic north analogically.

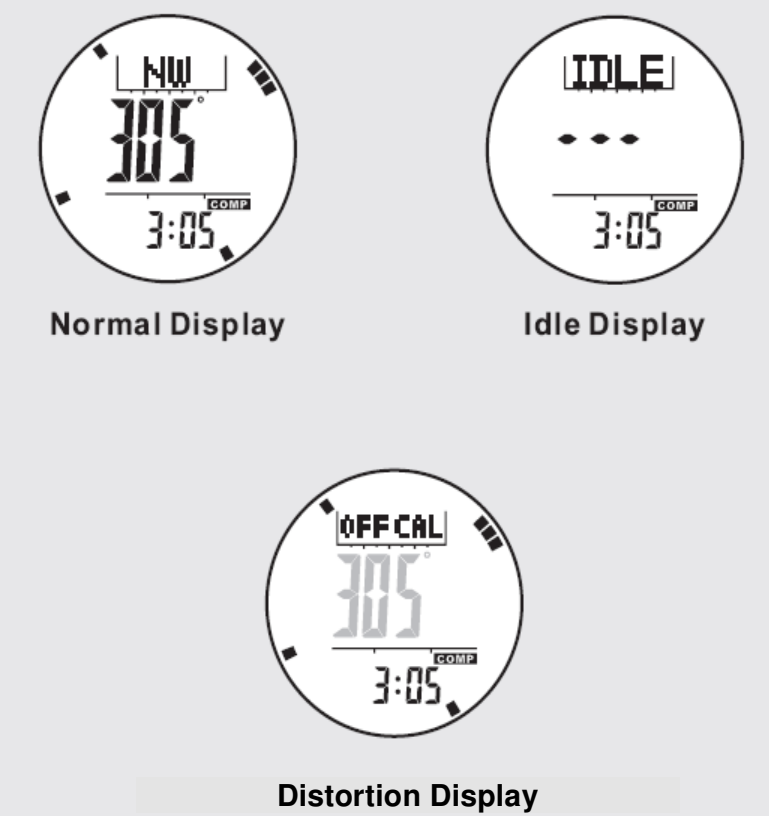
IDLE Mode

If no buttons are pressed for one minute, the watch will go to IDLE mode automatically. To activate the compass again, press any button.

Distortion

If distortion is detected, the indicator "OFF CAL" with flashing direction digits will appear.

Please refer to the upcoming section "Calibrating the Compass" to restore the compass to normal operation when distortion occurs.



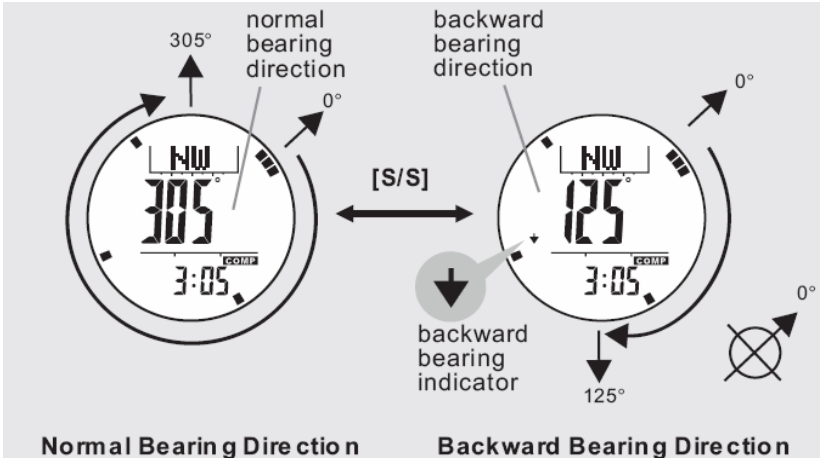
Backward Bearing Direction

This watch includes a backward bearing function.

The backward bearing direction is the opposite direction from the normal bearing direction.

When the backward bearing indicator appears, the watch is showing the backward bearing direction.

In compass mode, press the S/S button to select between normal and backward bearing direction.



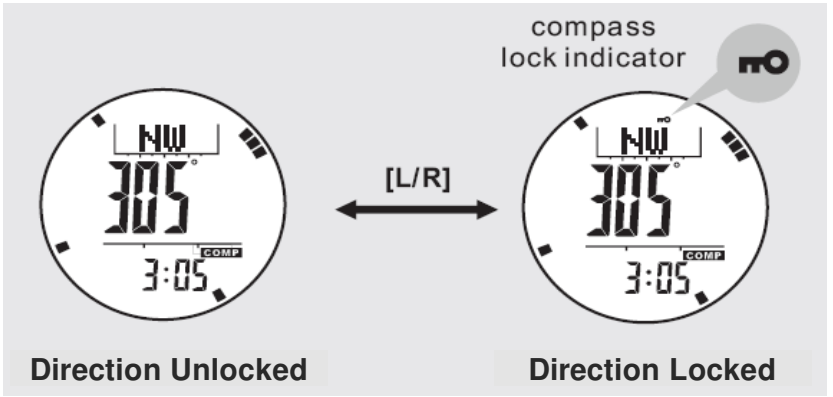
Compass Lock

This watch includes a compass lock function that locks the important direction readings.

In compass mode, press the L/R button to lock/unlock the direction readings.

When the lock indicator appears, the compass direction, bearings direction, and magnetic north pole pointer are locked.

Note: The compass lock will be released automatically when the watch enters IDLE mode.



Checking your Position by Backward Bearing Directions

- Spot two distant identifiable landmarks such as mountains, lighthouses, forts, or buildings for your current position (for example, mountains A and B).

- Check out the backward bearing directions of mountains A and B from your current position (for example, 135 degrees from mountain A and 270 degrees from mountain B).

- Use a ruler to draw the line 135 degrees on the map starting from mountain A. Draw the line 270 degrees on the map starting from mountain B.

- Your current position on the map will be the intersection point (point A) of the 135 and 270 degree lines.

Checking the Hike Course (see map on next page for reference)

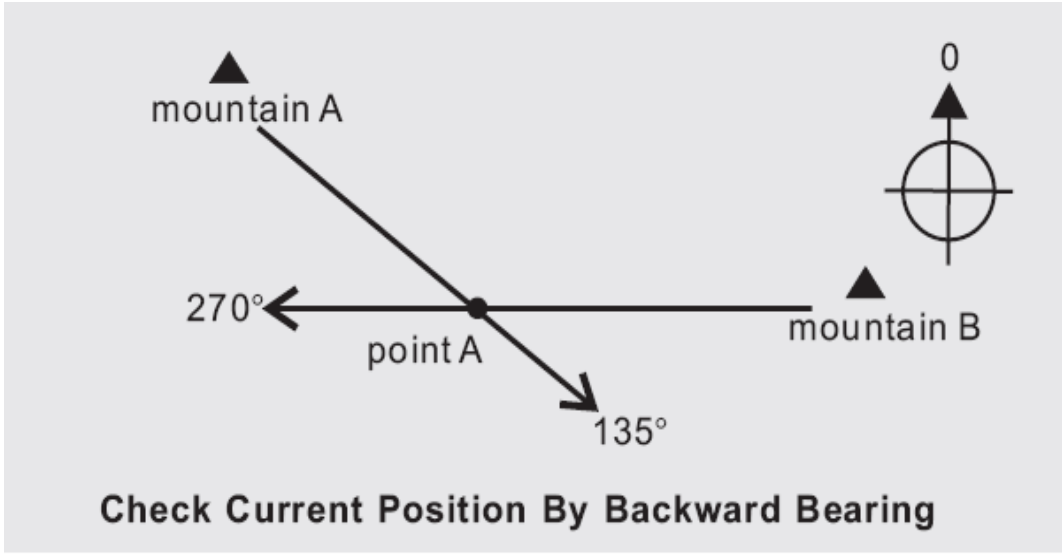
- During a trek, the watch can keep your correct course. For example, the correct trail starts at point A and finishes at point E.

- Mark the points (identifiable landmarks) where the trek turns its direction, such as points A, B, C, D, and E.

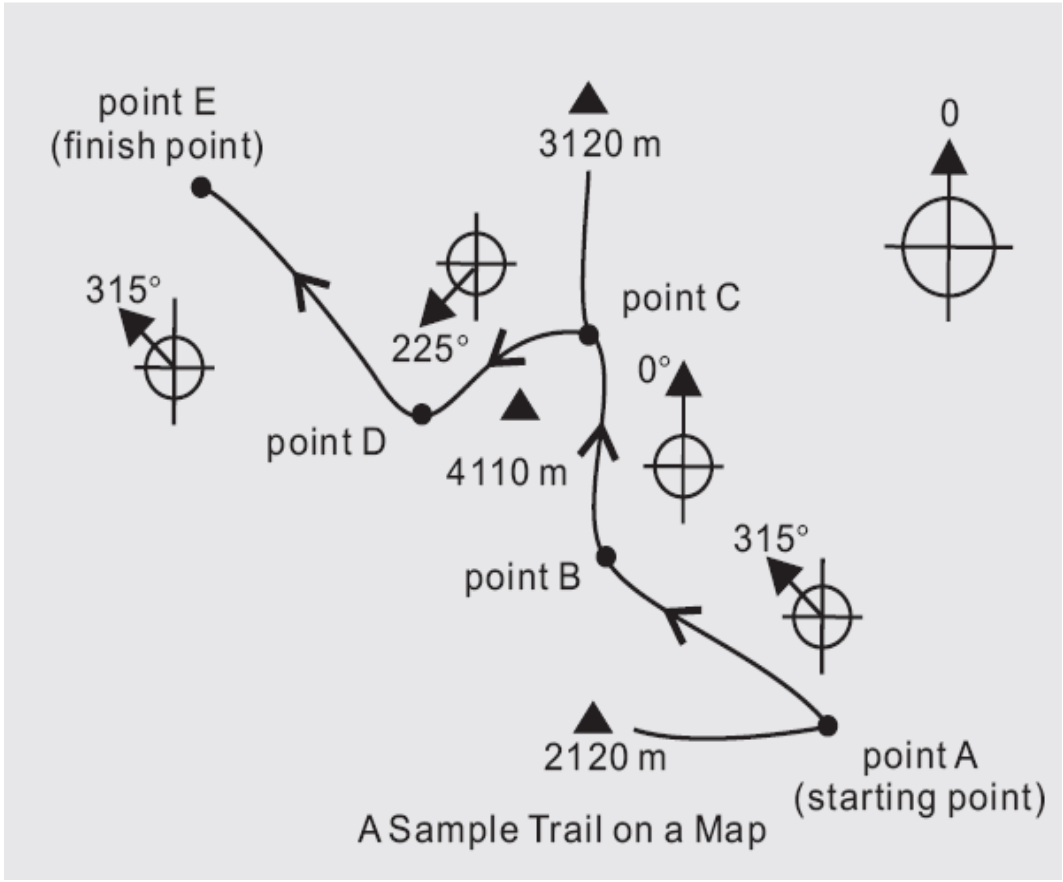
- Find out the bearing directions of point B from point A (315), point C from point B (0), point D from point C (225), and point E from point D (315).

- During the trek, make sure that the heading direction is 315 degrees from point A to point B. Perform similar checks in other sections of the trail.

Note: If you are in doubt of the directions and positions of the trail, consult the park administration office before starting the trek.



Check Current Position By Backward Bearing



A Sample Trail on a Map

Magnetic Declination

The magnetic North Pole is slightly different from the true North Pole.

This watch, like most magnetic compasses, points to the magnetic North Pole. However, everything measured on a map is related to the true North Pole.

The angular difference between magnetic and true North Pole is called magnetic declination. Its amount (degrees and minutes) and direction (easterly and westerly) depends on where you are in the world.

For serious compass users or those who intend to perform accurate navigation, the compass must be adjusted for magnetic declination.

The watch also includes a compensation setting for magnetic declination.

Magnetic Declination Information

Most topographic maps include a small arrow that shows magnetic North Pole or magnetic declination information.

This user manual includes the magnetic declination for some major cities (see next page).

For those cities whose names are not included in this list, you can input that city's latitude and longitude into one of the magnetic declination calculation websites listed below to get the magnetic declination:

http://gsc.nrcan.gc.ca/geomag/index_e.php

http://www.ngdc.noaa.gov/seg/geomag/declination.shtml

No.	Country/Place	Major City	Declination
1	Afghanistan	Kabul	2-E
2	Australia	Canberra	12-E
3	Austria	Vienna	2-E
4	Bahrain	Manama	2-E
5	Bangladesh	Dhaka	0
6	Belgium	Brussels	1-W
7	Brazil	Brasîlia	19-W
8	Canada	Ottawa	14-W
9	Chile	Santiago	5-E
10	China	Beijing	6-W
11	China	Hong Kong	2-W
12	Costa Rica	San José	0
13	Cuba	Havana	3-W
14	Czech Republic	Prague	2-E
15	Denmark	Copenhagen	1-E
16	Egypt	Cairo	3-E
17	Finland	Helsinki	6-E
18	France	Paris	1-W
19	Germany	Berlin	1-E
20	Greece	Athens	3-E
21	Hungary	Budapest	4-E
22	India	New Delhi	1-E
23	Indonesia	Jakarta	1-E
24	Israel	Jerusalem	3-E
25	Italy	Rome	1-E
26	Japan	Tokyo	7-W
27	Jordan	Ámmān	3-E
28	Kenya	Nairobi	1-E
29	Korea	Seoul	7-W
30	Malaysia	Kuala Lumpur	1-E
31	México	México City	6-E
32	Nepal	Kathmandu	0
33	Netherlands	Amersterdam	1-W
34	New Zealand	Wellington	22-E
35	Norway	Oslo	0
36	Pakistan	Islamabad	2-E
37	Philippines	Manila	1-W
38	Portugal	Lisbon	5-W
39	Russia	Moscow	9-E
40	Singapore	Singapore	0
41	South Africa	Cape Town	23-W
42	Spain	Madrid	3-W
43	Sweden	Stockholm	3-E
44	Switzerland	Bern	0
45	Taiwan	Táipei	3-W
46	Thailand	Bangkok	0
47	United Arab Emirates	Abu Dhabi	1-E
48	United Kingdom	London	3-W
49	United States	Washington, DC	10-W
50		Juneau	25-E
51		Phoenix	12-E
52		Little Rock	2-E
53		Sacramento	16-E
54		Denver	10-E
55		Atlanta	4-W
56		Honolulu	10-E
57		Boston	16-W
58		Saint Paul	2-E
59		Jackson	1-E
60		Santa Fe	10-E
61		Oklahoma City	6-E
62		Salem	18-E
63		Harrisburg	11-W
64		Salt Lake City	14-E

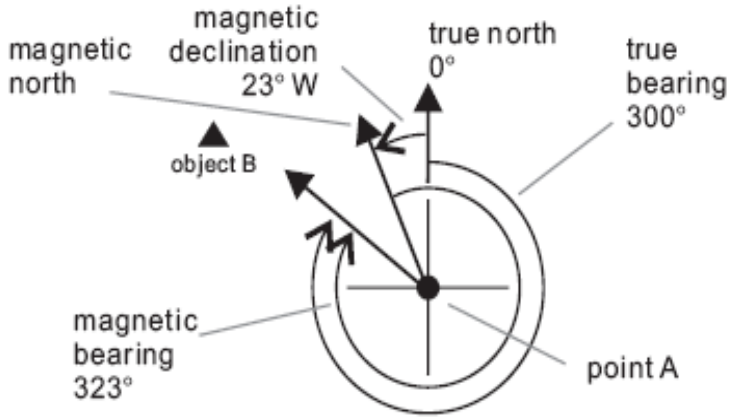
Magnetic Declination Compensation

To compensate for magnetic declination, subtract westerly (W) magnetic declination or add easterly (E) magnetic declination from the magnetic bearing.

Example 1: Westerly magnetic declination is 23 degrees, and the compass needle points 323 degrees. (Refer to image on right.)

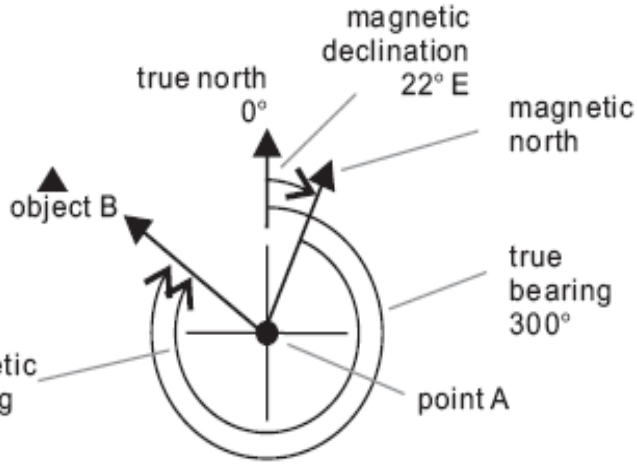
Example 2: Easterly magnetic declination is 22 degrees, and the compass needle points 278 degrees. (Refer to image on right.)

The watch allows you to compensate the compass bearing at a place where the magnetic declination is either westerly or easterly.



True Bearing (TB) =
Magnetic Bearing (MB) - Westerly Magnetic Declination (W)
300° (TB) = 323° (MB) - 23° (W)

Compensate the Bearing with Westerly (W) Magnetic Declination



True Bearing (TB) =
Magnetic Bearing (MB) + Easterly Magnetic Declination (E)
300° (TB) = 278° (MB) + 22° (E)

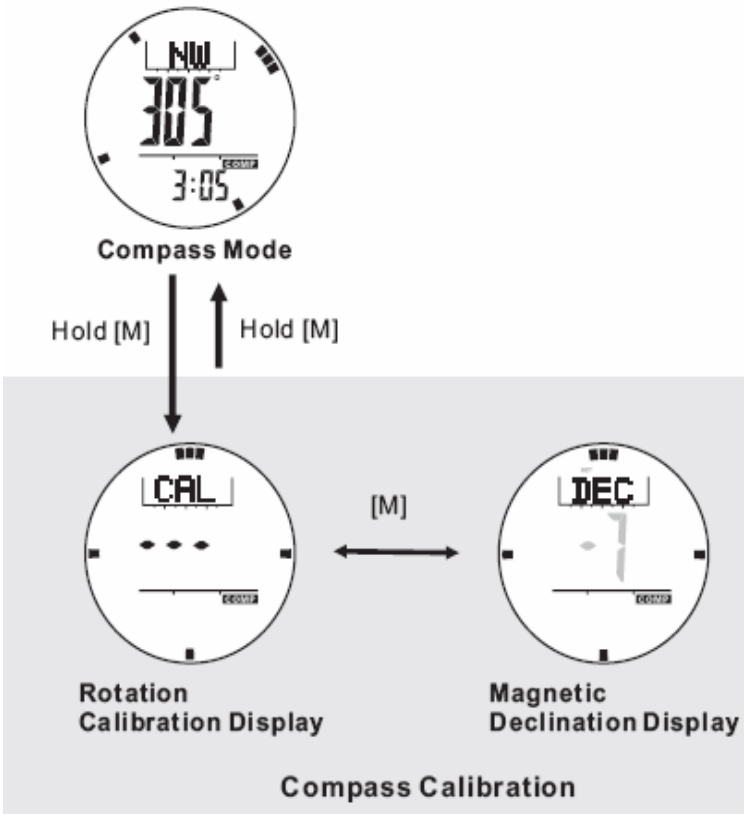
Compensate the Bearing with Easterly (E) Magnetic Declination

CALIBRATING THE COMPASS

When to Calibrate the Compass

This watch should be calibrated when the one of the following conditions applies:

- The watch is used for the first time.
- The battery has been replaced.
- The bearing direction digits are flashing, and the "OFF CAL" indicator appears.
- The compass is used in a location away from the place where it has been calibrated.
- The user intends to regulate the precision of the digital compass.



How to Calibrate the Compass

The compass calibration includes two processes: rotation calibration mode and magnetic declination setting.

It is advisable to apply both from time to time to get more accurate readings.

Note: If the watch has not been calibrated, it may indicate an inaccurate direction.

CALIBRATING THE COMPASS

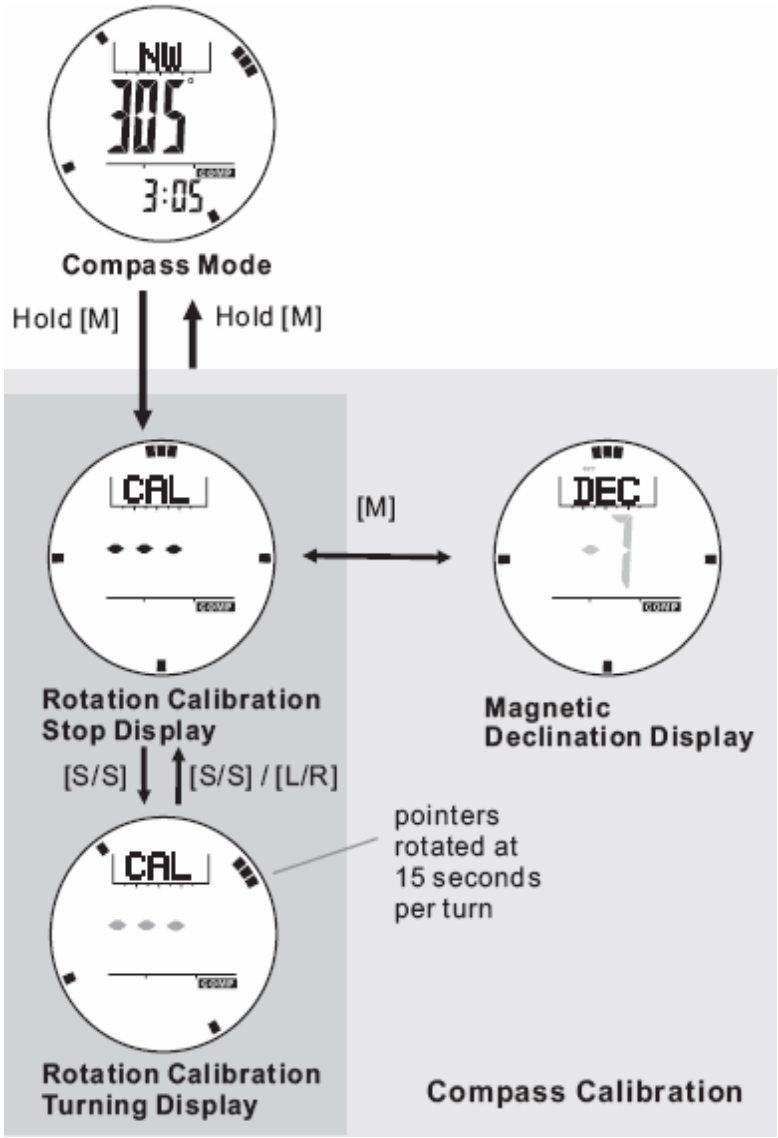
Rotation Calibration Mode

- To select this display, hold the M button in compass mode.

- Press the S/S button once to start the calibration. The pointers will start rotating. Turn the watch in the same direction of the rotating pointers for more than two turns. Keep the watch parallel to the horizon.

- Press the S/S or L/R button to stop the calibration when the second rotation calibration is completed.

- When the pointer stops rotating, hold the M button to return to the compass mode, or press the M button once to set the magnetic declination.



CALIBRATING THE COMPASS

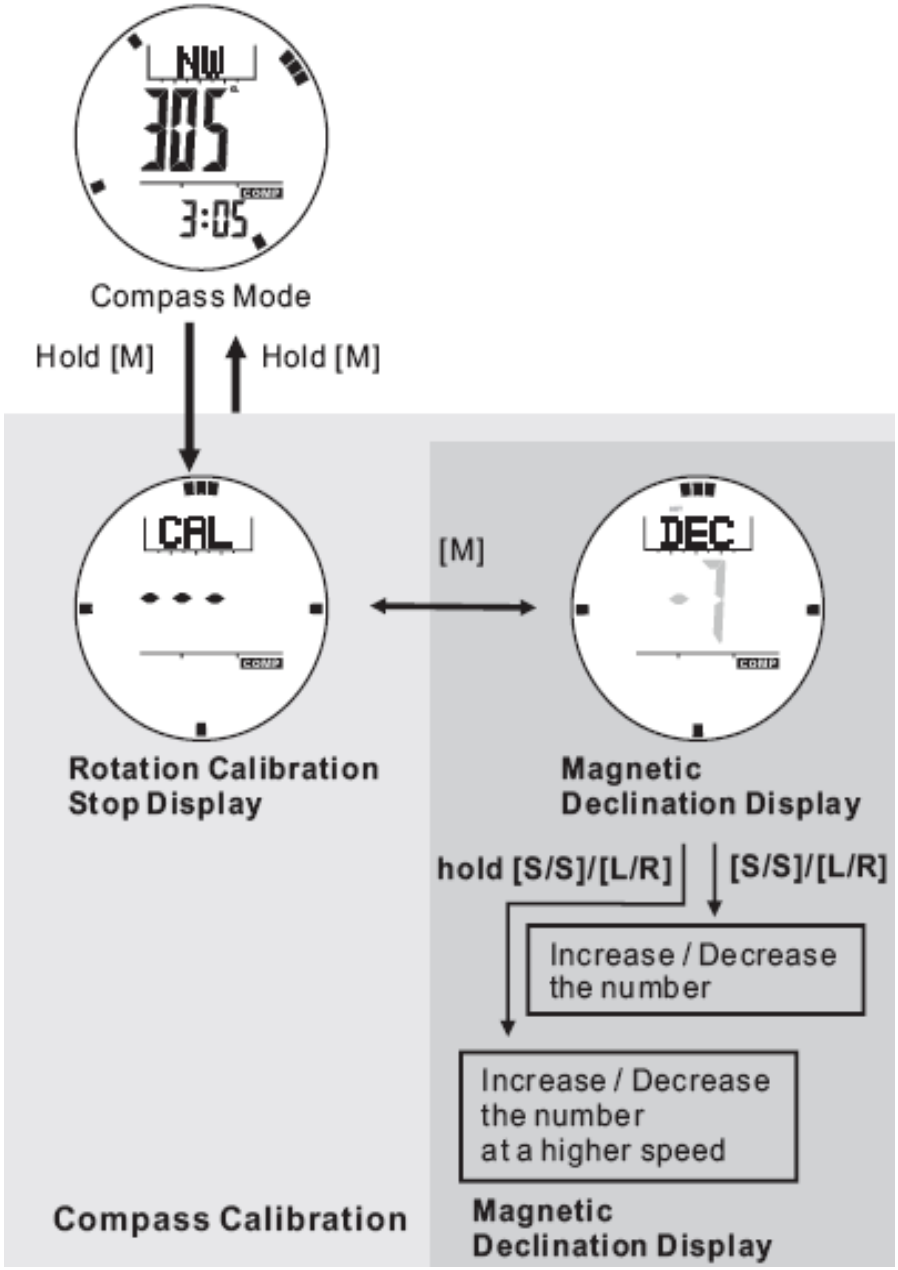
Magnetic Declination Mode

- Get the magnetic declination of the city closest to your current position. This angle will be inputted into the watch during the calibration.

- To select the magnetic declination display, press the M button in rotation calibration display.

- Press the S/S or L/R button to increase/decrease the number. Hold down the button to change the number at a higher speed.

- Once the setting is completed, hold the M button to confirm the setting and exit the adjustment display.



Low Battery Detection

- When the "low battery" indicator is exhibited on the display, it means that the capacity of the battery is low.

- It is recommended to replace with a new battery by a certified service agent.

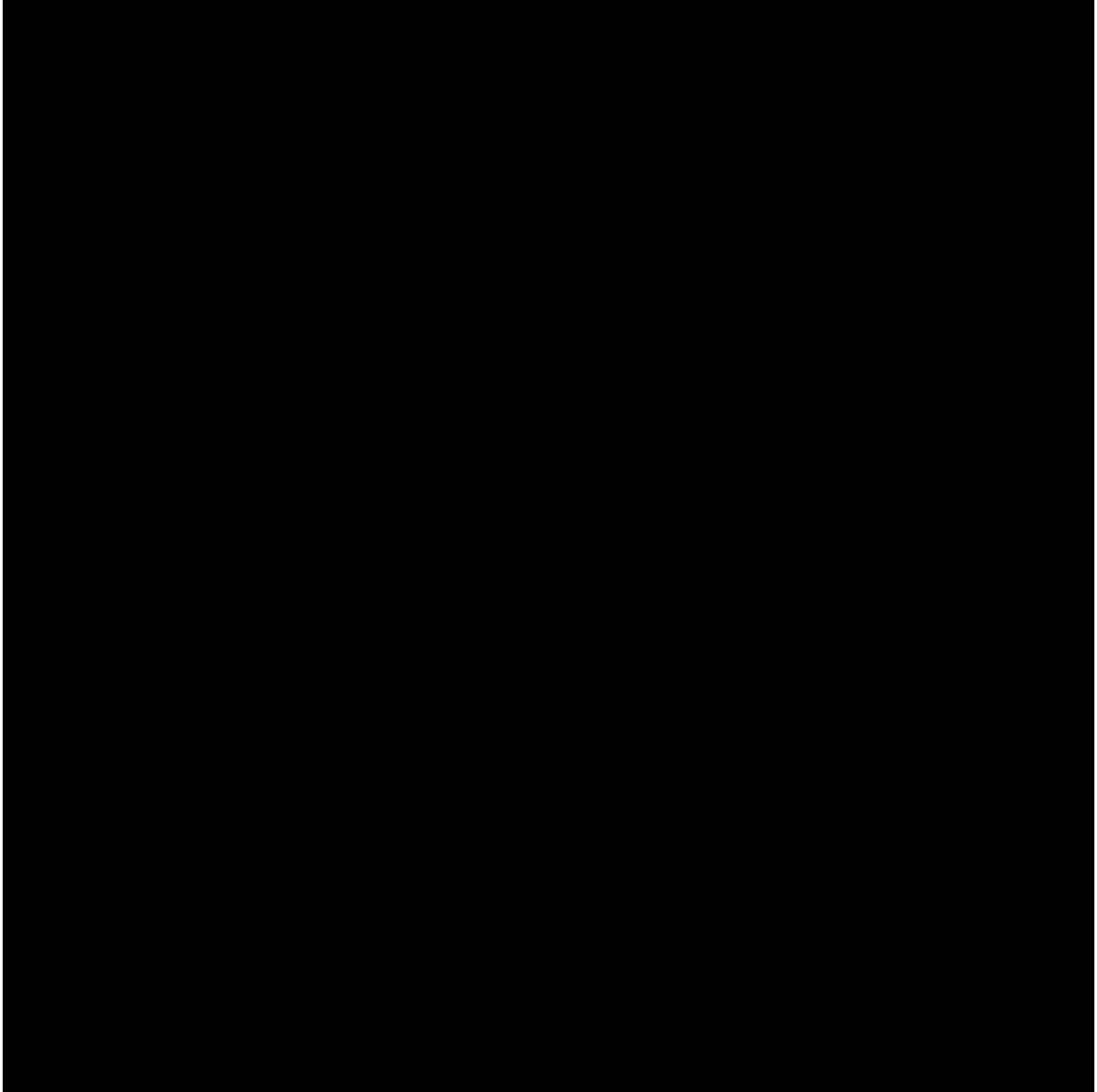
- If the appearance of the "low battery" indicator is caused by using the watch under very cold conditions, the indicator will disappear when returned to normal temperature environment.

WATCH SPECIFICATIONS

Battery: CR2032 3.0 Volt

Battery life: Approximately 36 months

Water-resistance: 10 ATM, 100 m



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