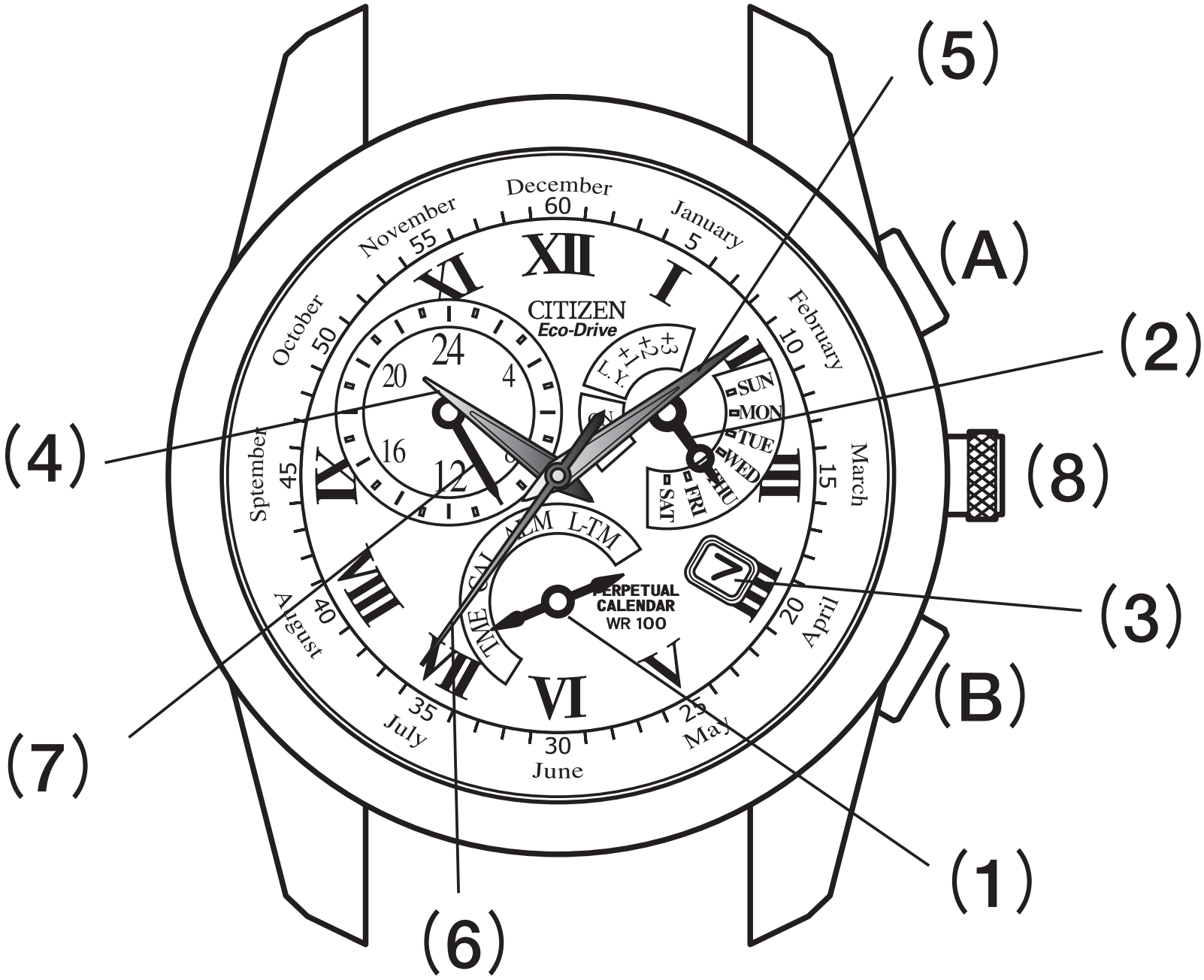

(5)
(A)
(2)
(8)
(4)
(3)
(B)
(7)
(6)
(1)
December
January
February
March
April
May
June
July
August
Sptember
October
November
CITIZEN
Eco-Drive
PERPETUAL
CALENDAR
WR 100
SUN
MON
TUE
WED
THU
FRI
SAT
L-TM
ALM
CAL
TME

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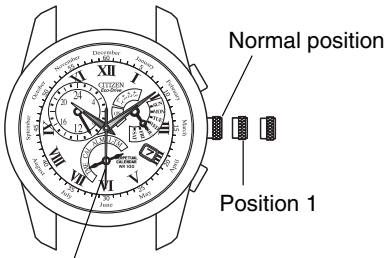
1. Features

This watch is a solar-powered watch that contains a solar cell in its face that drives the watch by converting light energy into electrical energy. It is also equipped with numerous functions including a perpetual calendar that changes the date automatically (changes the number of years from the most recent leap year, month, date and day automatically until February 28, 2100 including leap years), a daily alarm that can be set based on a 24 hour clock, and a local time function that enables setting of time differences in one hour units.

2. Before Using

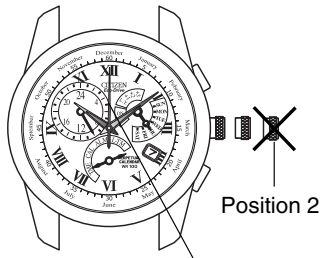
<Be careful not to pull the crown too far out when switching the mode.>
The mode of this watch can be changed with the crown pulled out to Position 1.
If the crown is pulled out to Position 2, the second hand will move to the 0 seconds position and the watch will enter the correction mode for each mode (when in the time mode or alarm mode; when in the calendar mode, the second hand moves to the month display, and when in the local time mode, the second hand continues to move at 1-second intervals). **When the crown is pulled out to Position 2 in the time mode, the second hand stops causing the time to be incorrect.** In addition, since the set time, date, alarm time and so forth will end up changing if the crown is pulled out to Position 2 in each mode, be careful not to pull out the crown too strongly.
Refer to "5. Switching the Mode (Display Function)" for information on how to properly switch the watch to each mode.

[Crown in Proper Position]



When the crown is pulled out to Position 1, the second hand moves to the 30 seconds position and stops.

[Crown Pulled Out Too Far]



When the crown is pulled out too far to Position 2, the second hand moves to the 0 seconds position and stops, and the watch enters the correction mode.

This watch is a solar-powered watch. Please fully charge the watch before using by exposing it to light by referring to "11. General Reference for Charging Times".

A secondary battery is used in this watch to store electrical energy. This secondary battery is a clean energy battery that does not contain mercury or other toxic substances. Once fully charged, the watch will continue to run for about 1.5 years without additional charging (when the power save feature is operating).

☆ **Power Save Feature:**

When power generation stops as a result of light not shining on the solar cell during the time (TME) or local time (L-TM) mode, the power save feature is activated and the second hand stops at the 0 seconds position to save power. The 24 hour hand, hour hand and minute hand continue to move normally. When light once again begins to shine on the solar cell, the power save feature is canceled and the second hand rapidly moves to the current time and returns to moving at 1-second intervals. **Although varying according to the design, the power save feature is activated when light does not shine continuously on the solar cell for 30 minutes or more, and the second hand has reached the 0 seconds position.**

<Proper Use of this Watch>

To use this watch comfortably, make sure to charge it before it stops running completely. Since there is no risk of overcharging no matter how much the watch is charged (Over Charge Prevention Feature), it is recommended that the watch be charged every day.

3. Names of Components

Mode / Name	Time (TME)	Calendar (CAL)
(1) Mode hand	TME	CAL
(2) Function hand	Displays day	Displays day
(3) Date	Displays date	Displays date
(4) Hour hand	Displays hours	Displays hours
(5) Minute hand	Displays minutes	Displays minutes
(6) Second hand	Displays seconds	Displays month
(7) 24 hour hand	24-hour time display in coordination with hour hand	24-hour time display in coordination with hour hand

Alarm (ALM)	Local Time (L-TM)
ALM	L-TM
Displays alarm ON/OFF	Displays day
Displays date	Display date
Displays alarm hours	Displays local time (hours)
Displays alarm minutes	Displays local time (minutes)
Stops at 0 seconds position	Displays seconds
24-hour alarm time display in coordination with alarm hour hand	24-hour local time display in coordination with local time (hours)

Name	Crown position	Crown and button operation	
(8) Crown	Normal position	Not used	Not used
	Position 1	Mode switching (second hand stops at 30 seconds position)	Mode switching (second hand stops at 30 seconds position)
	Position 2	Time correction (second hand stops at 00 seconds)	Date correction (second indicates the month)
Button (A)	Normal position	Not used	Function hand indicates years since leap year while pressed
	Position 1	Not used	Not used
	Position 2	Not used	Switches date correction location (leap year → month → date → day)
Button (B)	Normal position	Function hand indicates alarm ON or OFF while pressed	Not used
	Position 1	Not used	Not used
	Position 2	Not used	Not used

Crown and button operation	
Not used	Not used
Mode switching (second hand stops at 30 seconds position)	Mode switching (second hand stops at 30 seconds position)
Alarm correction (second hand stops at 00 seconds)	Local time correction (second hand continues moving in 1-second intervals)
Not used	Switches watch to reference position check mode when pressed continuously for 10 seconds
Not used	Not used
Not used	Not used
Alarm tone monitor (alarm tone sounds while pressed)	Not used
Not used	Not used
Alarm ON/OFF setting	Not used

4. Hand Reference Position Check and Correction

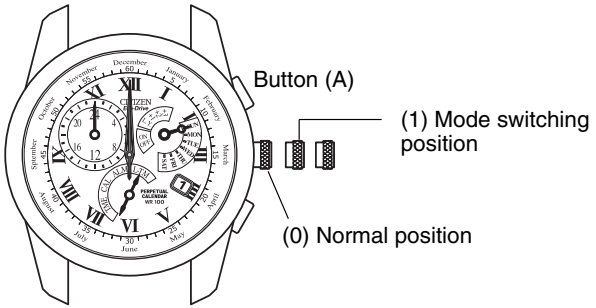
Reference position: This refers to the base position of each hand for enabling this watch to function properly. Refer to the illustration below for the reference position of each hand. If the reference position is not set properly, the time, date, alarm ON/OFF positions and other watch functions will not be displayed properly.

Before using this watch, check that the functions of the watch operate properly by performing the following procedure.

[Reference Position Check]

1. After pulling out the crown to Position 1 (second hand moves to the 30 seconds position and waits), turn the crown to set the mode hand to the local time [L-TM] mode.
2. Return the crown to the normal position.
3. Press button (A) for at least 10 seconds and then release after each hand begins to move in coordination.
   - The second hand rapidly advances forward (clockwise rotation), while the other hands, including the function hand, rapidly move forward or backward.
   - The date changes by one day when the function hand completes four revolutions.

<Correct Reference Positions of Each Hand>



<Reference Positions of Each Hand>

24 hour hand: 24:00
Hour hand, minute hand: 00:00
Second hand: 0 seconds
Function hand: SUN (SUN immediately after the date has changed to “1”)
Date: 1st

Perform the “Reference Position Correction” procedure if any of the hands or date are not at the positions indicated above.

[Returning to Local Time Mode After Checking Reference Position]

- After the date and each hand has displayed the reference position, pressing button (A) returns the watch to the local time mode. Alternatively, the watch automatically returns to the local time mode if the crown or buttons are not operated for two consecutive minutes.
- The reference position check is canceled when the mode is switched by pulling the crown out to Position 1 while the reference position is displayed.

Note:

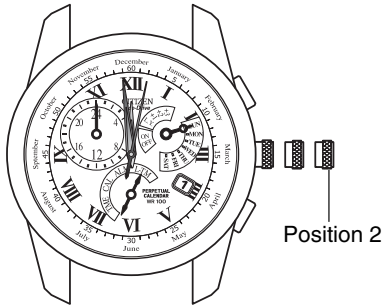
- The watch will not return to the local time mode even if button (A) is pressed if the crown is pulled out to Position 1 or Position 2. In addition, it will not automatically return to the local time mode after 2 minutes.

[Reference Position Correction]

- **Perform steps 5 through 10 below if continuing to correct the reference position after just having checked the reference position.**

1. Pull the crown out to Position 1 (the second hand moves to the 30 seconds position and waits).
2. Turn the crown to set the mode hand to the local time mode [L-TM].
3. Return the crown to the normal position.
4. Press button (A) for at least 10 seconds and release when each hand begins to move to the reference position.
   - The second hand rapidly advances forward (clockwise rotation), while the other hands, including the function hand, rapidly move forward or backward.
   - The date changes by one day when the function hand completes four revolutions.

<Watch when Second Hand and Minute Hand have Shifted from Reference Position>



5. After the date has changed, pull the crown out to Position 2 once the function hand has stopped moving.
6. Click (turn) the crown to the right.
   • The second hand advances by 1 second for each click.
   • Turning the crown continuously (rapidly by two clicks or more) causes the second hand to advance continuously. Turn the crown by one click to the right or left to stop the second hand from advancing. The second hand will advance by 60 seconds and then stop automatically if it is not interrupted.
   • First stop the second hand near the 55 seconds position and then move it slowly one second at a time to correctly align at the 0 seconds position.

   Note: The second hand cannot be corrected in the reverse direction (counter-clockwise rotation).
7. Press button (A).
   • After the minute hand completes a demonstration movement (by moving back by 5 minutes and then moving forward by 5 minutes), the hour hand and minute hand enter the correction mode.

8. Click (turn) the crown.
   • Turn the crown by one click to the right causes the hour hand and minute hand to advance by 1/4 minute (and 4 clicks cause them to advance by 1 minute).
   • Turn the crown by one click to the left to move back the hour hand and minute hand by 1/4 minute (and 4 clicks cause them to move back by 1 minute).
   • Continuously turning the crown causes the hour hand and minute hand to advance continuously. Turn the crown by one click to the right or left to stop the hour hand and minute hand from advancing. The hour and minute hands will advance by 24 hours and then stop automatically if they are not interrupted.
   • First stop the hands at about 12:00 and then slowly move them one step at a time to correctly align them at the 12:00 position.
9. Press button (A).
   • After the function hand and date complete a demonstration movement (the function hand rotates backward by 180 degrees and then returns to its original position, while the date moves in coordination with the function hand), the watch enters the calendar correction mode.
10. Turn the crown to align the function hand at “SUN” immediately after the date has changed to “1”.
   • Turning the crown by one click to the right advances the function hand by one step.
   • Turning the crown by one click to the left moves back the function hand by one step.

- Turning the crown continuously causes the function hand to advance continuously. Turn the crown by one click to the right or left to stop the function hand from advancing.
- **The date changes by one day when the function hand completes four revolutions. Turn the crown to the right to advance the function hand by clockwise rotation and continue to advance the function hand until "1" is displayed for the date.**
- When setting the date by advancing the function hand counter-clockwise, first move back the function hand until "31" is displayed for the date, and then advance the function hand by clockwise rotation until "1" is displayed for the date.
- Correctly set the function hand to "SUN" immediately after the date has changed to "1". Once the date has changed to "1", immediately interrupt movement of the function hand and align it with "SUN" on the scale by slowly moving it one step at a time.

Note: Pressing button (A) causes the watch to enter the second hand reference position setting mode again.

11. Return the crown to the normal position and press button (A).
    - The date and each hand return to the local time display.
    - Reference position correction can also be terminated by returning the crown to the normal position and pressing button (A) following correction of the second hand or hour and minute hands.

    Example: If the crown is returned to the normal position and button (A) is pressed after correcting seconds, reference position correction is terminated and the watch returns to the local time display without correcting the reference positions for the hour hand, minute hand, function hand or date.

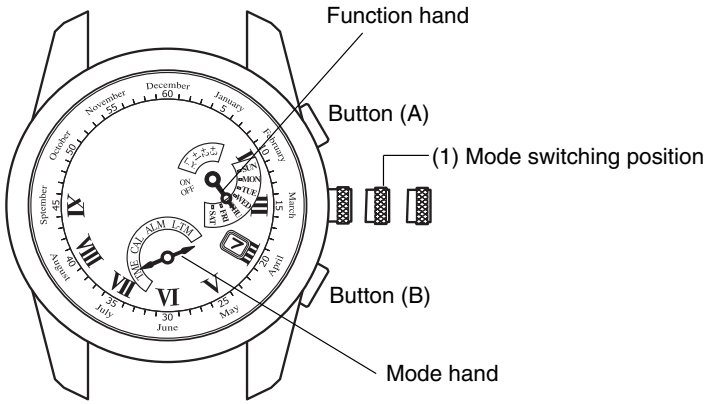
<Change in Corrected Location>



This completes the procedure for correcting the reference position. Check that the time, date and other modes are displayed correctly before using the watch.

5. Switching the Mode (Display Function)

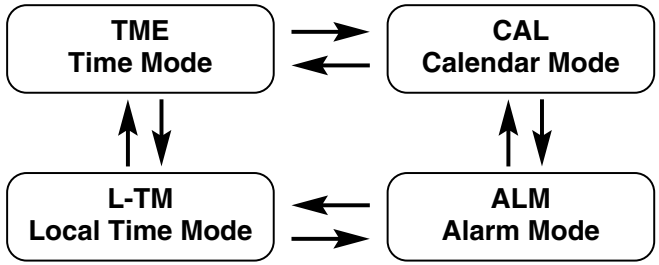
This watch is equipped with four modes consisting of a time, calendar, alarm and local time mode. The mode changes when the crown is pulled out to Position 1 and turned. The current mode can be confirmed with the mode hand.



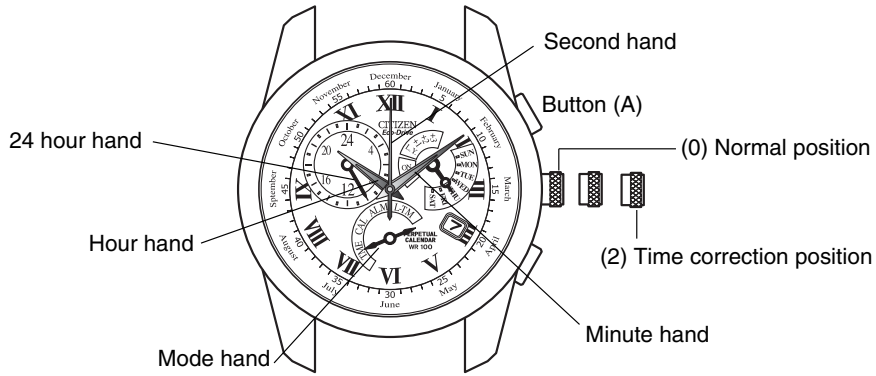
Notes:

- If the crown is pulled out too far to Position 2, the watch enters the correction mode of each mode which may cause the time, date and other settings to change.
- When switching the mode, slowly turn the crown until the mode hand points to the center of the letters of the mode name.
- Return the crown to the normal position after checking the mode. Using the watch with the crown pulled out may cause damage to watch components or impair water resistance.

[Mode/Display Function]



6. Setting the Time



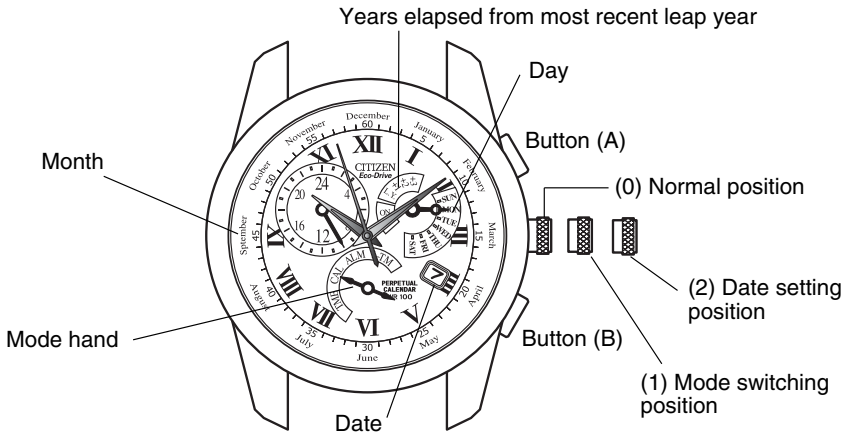
[Procedure for Setting the Time]

1. Pull the crown out to Position 1 (the second hand rapidly advances to the 30 seconds position and waits).
   Note: If the second hand does not stop at the 30 seconds position, refer to the section on "Reference Position Correction" of "4. Hand Reference Position Check and Correction" and set the reference position of the second hand.

2. Turn the crown to align the mode hand at the time mode [TME].
3. Pull the crown out to Position 2 (time correction position).
   • The second hand rapidly advances to the 0 seconds position and stops.
4. Turn (click) the crown to set the 24 hour hand, hour hand and minute hand to the current time.
   ① Turning the crown one click to the right advances the 24 hour hand, hour hand and minute hand by one minute.
   ② Turning the crown by one click to the left moves back the 24 hour hand, hour hand and minute hand by one minute.
   • Turning the crown continuously (rapidly by two clicks or more) causes the 24 hour hand, hour hand and minute hand to move continuously.
   • Turn the crown to the left or right to interrupt continuous movement of the hands. The hands will continue to advance by 12 hours and then stop automatically unless movement is interrupted by turning the crown to the right or left.
   • The 24 hour hand moves in coordination with the hour hand. Make sure to set AM and PM correctly when setting the time.
5. Return the crown to the normal position in synchronization with a telephone time signal or other time service.

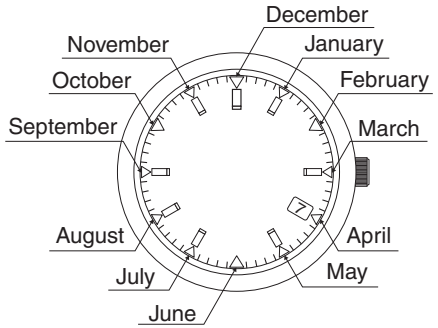
7. Setting the Date

This watch is equipped with a perpetual calendar that changes the year (number of years elapsed from the most recent leap year), month, date and day automatically until February 28, 2100, including leap years, once the date has been set.



<Reading the Month>

The months are arranged such that 1:00 corresponds to January, 2:00 to February, 3:00 to March and so forth so that 11:00 corresponds to November and 12:00 to December. Read each month from the corresponding location on the scale.



[Procedure for Setting the Date]

1. Pull the crown out to Position 1 (the second hand rapidly advances to the 30 seconds position and stops).
2. Turn the crown to set the mode hand to the calendar [CAL] mode.
3. Pull the crown out to Position 2 (date setting position).
   - The second hand rapidly advances to the month display position stored in memory while the function hand moves to the year display position (elapsed years from most recent leap year).

4. Turn (click) the crown to set the year.
   ① Turning the crown to the right causes the year to change in order from LY (leap year) → +1 → +2 → +3 → LY → +1 → and so on.
   ② Turning the crown to the left causes the year to change in the opposite order from LY (leap year) → +3 → +2 → +1 → LY → +3 → and so on.
5. Press button (A).
   • The second hand makes one revolution and the watch enters the month correction mode.
   ① Turning the crown one click to the right causes the second hand to advance to the next month.

Note:

   • The month can only be corrected by turning the crown to the right (clockwise), and will not be corrected if the crown is turned to the left (counter-clockwise).

6. Press button (A).
   • The function hand moves from the year display to the day display and the watch enters the date correction mode.
7. Turn the crown to the set the date.
   ① When the crown is turned by one click to the right, the function hand makes four revolutions and the date changes.
   ② When the crown is turned by one click to the left, the function makes four revolutions in the opposite direction (counter-clockwise) and the date moves back by one day.

Note:

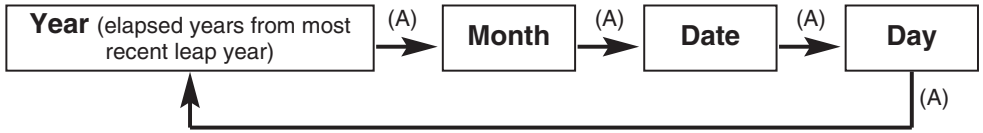
   • The date cannot be corrected continuously. Correct the date one day at a time.

8. Press button (A).
   • After the function hand completes a demonstration movement (in which it moves back and forth across the day display range and then stops at the position of the current day), the watch enters the day correction mode.
9. Turn the crown to set the day.
   ① Turning the crown to the right changes the day in the order of SUN → MON → TUE → WED → THU → FRI → SAT and then back to SUN.
   ② Turning the crown to the left changes the day in the reverse order of SUN → SAT → FRI → THU → WED → TUE → MON and then back to SUN.
10. When button (A) is pressed, the watch returns to the year correction mode.
11. Return the crown to the normal position.
   • Following correction of year, month, date or day, the correction mode can be ended by returning the crown to the normal position.

   Example: After correcting the month, the watch can be returned to the normal display without correcting the date or day by returning the crown to the normal position.

   • This completes date correction.

<Change in Corrected Location>



<Quick Reference Chart for Number of Years Since Leap Year>

Year	Elapsed year	Display	Year	Elapsed year	Display
2004	Leap year	LY	2008	Leap year	LY
2005	1st year	+1	2009	1st year	+1
2006	2nd year	+2	2010	2nd year	+2
2007	3rd year	+3	2011	3rd year	+3

<Setting to a Non-Existent Date>

The date is automatically changed to the first day of the following month when the crown is returned to the normal position from the correction mode.

Examples:

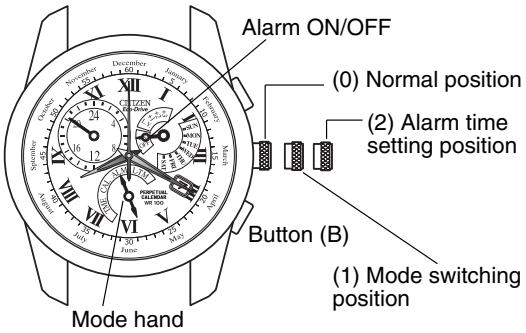
Regular year: February 29, 30 or 31 → March 1
Regular year: April 31 → May 1
Leap year: February 30 or 31 → March 1

8. Using the Alarm

The alarm function uses a 24 hour clock. Once the alarm has been set, the alarm sounds for 15 seconds when the set time is reached once a day.

- When using the watch in each of time, calendar and alarm modes, the alarm sounds at the time that coincides with the time mode.
- When using the watch in the local time [L-TM] mode, since the alarm sounds at the time that coincides with the local time, it is not necessary to correct the time difference for the alarm time to coincide with the local time.

[Setting the Alarm Time]



1. Pull the crown out to Position 1 (the second hand rapidly advances to the 30 seconds position and waits).
2. Turn the crown to set the mode hand to the alarm mode [ALM].
   • The hour hand and minute hand rapidly advance to the previously set alarm time.
   • The function hand moves to either ON or OFF.
3. Pull the crown out to Position 2 (alarm time setting position).
   • The second hand moves the 0 seconds position.
   • The function hand switches to the ON position.
4. The alarm switches between ON and OFF when button (B) is pressed.
5. Turn the crown to set the alarm time.
   ① Turning the crown by one click to the right causes the 24 hour hand, hour hand and minute hand to advance by one minute.
   ② Turning the crown by one click to the left causes the 24 hour hand, hour hand and minute hand to move back by one minute.
   • Turning the crown continuously causes the 24 hour hand, hour hand and minute hand to move continuously.
   • Turn the crown by one click to the left or right to interrupt movement of the hands. The hands will continue to advance by 12 hours and then stop automatically unless their movement is interrupted by turning the crown to the left or right.
   • The 24 hour hand moves in coordination with the hour hand. Make sure to set AM and PM correctly when setting the time.
6. Return the crown to the normal position.

[Switching Alarm ON and OFF]

1. Pull the crown out to Position 1 and then turn the crown to set the watch to the alarm mode [ALM].
   • The hour hand and minute hand rapidly advance to the set alarm time.
   • The function hand moves to either ON or OFF.
2. Pull the crown out to Position 2 (alarm time setting position).
   • The function hand switches to the ON position.
3. The alarm switches between ON and OFF when button (B) is pressed.
4. Return the crown to the normal position after setting the alarm to ON or OFF.

[Alarm Tone Monitor]

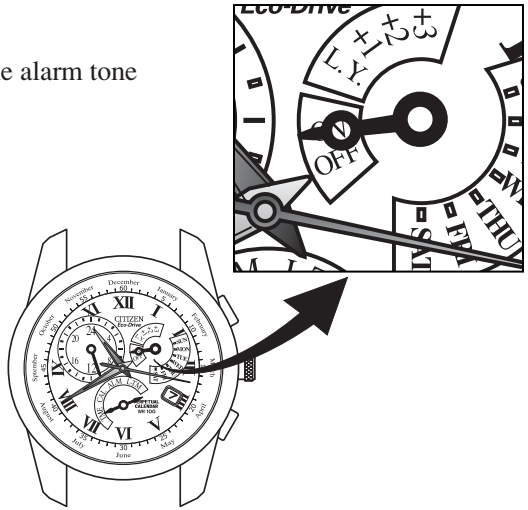
• When button (B) is pressed with the crown in the normal position in the alarm mode [ALM], the alarm tone sounds for as long as button (B) is pressed.

[Stopping the Alarm Tone]

• Press either button (A) or (B) to stop the alarm tone while it is sounding.

[Alarm ON/OFF Check]

• When button (B) is pressed when the watch is in the time mode [TME], the function hand indicates ON or OFF for as long as button (B) is pressed to indicate the alarm status.

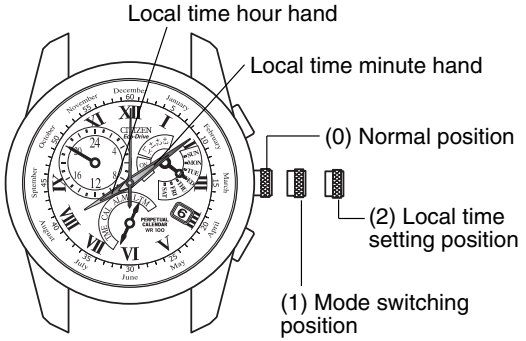


9. Setting the Local Time

• The local time [L-TM] function lets you set the watch to a time in a different area from the time set in the time mode [TME].
• The time difference can be corrected in 1 hour units based on the time mode. The local time can be set over a range of ±23 hours based on the time mode.
• The minute and second hands move in coordination with the time mode.

[Procedure for Setting Local Time]

1. Pull the crown out to Position 1 (the second hand rapidly advances to the 30 seconds position and waits).
2. Turn the crown to set the mode hand to the local time [L-TM] mode.
3. Pull the crown out to Position 2 (local time setting position).



• The second hand rapidly advances to the current time and begins 1-second interval movement.

4. Turn the crown by set the 24 hour hand and hour hand to the local time.
   ① Turning the crown by one click to the right causes the 24 hour hand and hour hand to advance by one hour.
   ② Turning the crown by one click to the left causes the 24 hour hand and hour hand to go back by one hour.
   • Turning the crown continuously (rapidly by two clicks or more) causes the hour hand and minute hand to move continuously.
   • Turn the crown by one click to the left or right to interrupt continuous movement of the hands. The hands will continue to advance by 12 hours and then stop automatically unless movement is interrupted by turning the crown to the right or left.
   • The 24 hour hand moves in coordination with the hour hand. Make sure to set AM and PM correctly when setting the time.
5. Return the crown to the normal position to complete setting of the local time.

10. Functions Unique to Solar-Powered Watches

When the watch becomes insufficiently charged, the watch display changes as shown below. When the watch has changed normal hand movement to the insufficient charge warning display, this indicates that that the watch is insufficiently charged. Allow light to shine on the solar cell until the watch returns to 1-second interval movement. Even after the watch has returned to 1-second interval movement, sufficiently charge the watch by exposing it to light by referring to “11. General Reference for Charging Times” to ensure that the watch is used comfortably.

[Power Save Feature]

The second hand stops at the 0 seconds position to save power.



When the watch stops generating power as a result of the solar cell not being exposed to light for 30 minutes or more

When power generation resumes as a result of the solar cell being exposed to light

[Normal Time Display]



When watch becomes insufficiently charged

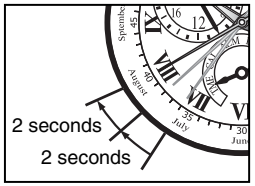
When charged

[Insufficient Charge Warning Display]

The second hand changes to 2-second interval movement.



When the capacity of the secondary battery is depleted as a result of not being charged



[Stopped]

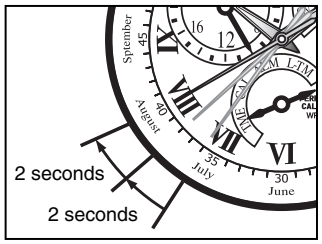
The second hand stops at the 0 seconds position and the other hands stop at the correct minute position.



The time is incorrect since the watch has stopped as a result of being insufficiently charged. Reset the watch to the correct time.

Charge the watch by allowing light to shine on the solar cell until the watch begins to run. In the case the watch has stopped as a result of being insufficiently charged, a minimum of 30 minutes are required until the watch begins to run again even if light shines on the solar cell. Sufficiently charge the watch by referring to “11. General Reference for Charging Times”.

<Insufficient Charge Warning Feature>



When the watch becomes insufficiently charged, the watch switches to the time mode regardless of which mode is displayed at that time, and the second hand begins to move at 2-second intervals to indicate that the watch is insufficiently charged.

- Although the watch continues to run normally at this time, the watch ends up stopping if it remains insufficiently charged for about 3 days. Sufficiently charge the watch by exposing to light so that the second hand returns to 1-second interval movement. Continue to charge the watch even after the second hand returns to 1-second interval movement to ensure that the watch can be used comfortably. There no need to worry about overcharging since it is equipped with an over charge prevention feature.
- Although the watch will begin to run when light is allowed to shine on the solar cell after it has stopped as a result of being insufficiently charged, since the time is incorrect, reset the watch to the correct time after sufficiently charging.

Notes:

- Alarm time and ON/OFF status continued to be stored in memory. However, the alarm tone will not sound even if the alarm is set (ON).
- The set time (time difference) is retained in memory for the local time.

- Crown (mode switching) and button operations will not function.
- The time (including alarm and local time) and date cannot be corrected.

<Over Charge Prevention Feature>

When the secondary battery becomes fully charged as result of light shining into the watch dial (solar cell), the over charge prevention feature is activated automatically to prevent the battery from being charged further. This prevents the performance of the solar cell and secondary battery from deteriorating no matter how much the watch is charged, and lets you expose the watch to light without worrying about overcharging.

<Power Save Feature>



When power is no longer generated as a result of light not shining continuously for 30 minutes or more on the solar cell during the time or local time mode, the second hand moves to the 0 seconds position and stops and the power save feature is activated to reduce current consumption.

- The 24 hour hand, hour hand and minute hand continue to keep the correct time even when the watch is in the power save mode.

• The calendar is corrected in coordination with the 24 hour hand, hour hand and minute hand.
• When the watch has been sufficiently charged and power generation resumes, the second hand rapidly advances to the current seconds and begins 1-second interval movement.
• The second hand begins 2-second interval movement if the watch is insufficiently charged (insufficient charge warning feature). Allow light to shine on the solar cell to fully charge the watch.

11. General Reference for Charging Times

Recharging time varies according to the watch model (such as the color of the dial). The times in the table below should therefore only be used as a rough reference.

* Charging time refers to the amount of time during which the watch is continuously exposed to light.

Illuminance (lx)	Environment	Charging time		
		One day usage	Charging time from the stopped state to normal hand movement (1-second interval movement)	Full charge time
500	Inside an ordinary office	4 hours	100 hours	-----
1.000	Under a fluorescent lamp (30 W) at a distance of 60-70 cm (24-28 in)	2 hours	45 hours	-----
3.000	Under a fluorescent lamp (30 W) at a distance of 20 cm (8 in)	40 minutes	13 hours	150 hours
10.000	Outdoors, cloudy	11 minutes	4.5 hours	45 hours
100.000	Outdoors, summer and sunny under direct sunlight	2 minutes	1 hour	8 hours

Full charge time: Time to fully recharge the watch after it has stopped.
One day usage: Time required for recharging the watch to run for 1 day with normal hand movement (1-second interval movement).

Note:

- The watch will continue to operate for about 7 months without additional charging once it has been fully charged. It will continue to keep time for about 1.5 years when the Power Save feature has been activated. However, once the watch has stopped as a result of being insufficiently charged, a considerable amount of time is required until it starts to run again as indicated in the table above. It is therefore recommended to charge your watch everyday. Furthermore, it is recommended to charge your watch by exposing to direct sunlight once a month.

12. Solar-Powered Watch Handling Precautions

<Try to keep the watch charged at all times.>

Please note that if you frequently wear long sleeves, the watch can easily become insufficiently charged because of being hidden and not exposed to light.

- When you take the watch off, try to place in as bright a location as possible so that it will always be charged and continue to run properly at all times.

CAUTION Charging Precautions

- Avoid charging the watch at high temperatures (about 60°C/140°F or higher) since allowing the watch to reach a high temperature during charging can cause deformation or discoloration of the dial, solar cell and other external components as well as a malfunction of mechanical components.

  Examples: Charging by placing the watch too close to a light source that may become hot such as an incandescent lamp or halogen lamp, or charging by placing the watch on an automobile dashboard that can easily reach a high temperature.

- When charging the watch with an incandescent lamp, halogen lamp or other light source that may reach a high temperature, always make sure to place the watch at least 50 cm (20 in) away from the light source to prevent the watch from reaching a high temperature.

WARNING Handling of Secondary Battery

- Never attempt to remove the secondary battery from the watch. If the secondary battery must unavoidably be removed, store it out of the reach of small children to prevent accidental swallowing.
- If the secondary battery should happen to be swallowed, consult a physician immediately and seek medical attention.

WARNING Only Use the Specified Secondary Battery

- Never use a secondary battery other than the genuine secondary battery used in this watch. Even if another type of secondary battery is installed in the watch, the watch structure does not permit its operation. In cases in which a different secondary battery such as a silver battery is forcibly installed in the watch and charged, overcharging may occur that will eventually cause the secondary battery to rupture. This can result in the risk of the watch being damaged or injury to the wearer. When the secondary battery is replaced, always make sure to use the specified secondary battery.

13. Replacing the Secondary Battery

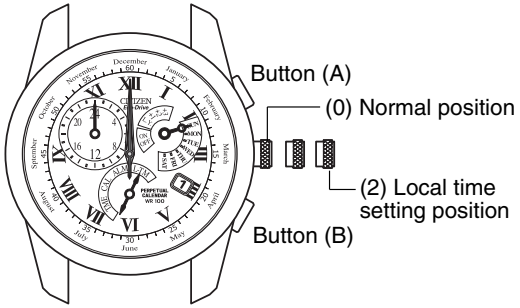
Unlike ordinary silver-based batteries, the secondary battery used in this watch does not have to be periodically replaced since it is able to be charged and discharged repeatedly.

14. All-Reset

This watch may not function properly as a result of being subjected to the effects of static electricity, strong impact and so forth. When this happens, perform the All-Reset and Reference Position Alignment procedures described below. When performing the all-reset procedure, first make sure the watch is sufficiently charged and the second hand is moving at 1-second intervals. If the all-reset procedure is performed when the watch is insufficiently charged, it may not function properly or remain stopped following the all-reset procedure.

[All-Reset Procedure]

1. Pull the crown out to Position 1 (the second hand rapidly advances to the 30 seconds position and waits).
2. Turn the crown to align the mode hand to the local time mode [L-TM].
3. Pull the crown out to Position 2 (local time setting position).



• The second hand rapidly moves to the current time and begins 1-second interval movement.

4. Press buttons (A) and (B) simultaneously.
   • Following a confirmation tone, each hand performs a demonstration movement.
5. This completes the all-reset procedure. Next, perform the reference position alignment procedure for each hand and the calendar by referring to “4. Hand Reference Position Check and Correction”.
   Furthermore, if performing the reference position alignment procedure after performing the all-reset procedure, perform steps 6 through 10 of the “Reference Position Correction” described in “4. Hand Reference Position Check and Correction”.
6. After having aligned the reference position, correctly reset the time, date and other modes before using the watch.

15. Precautions

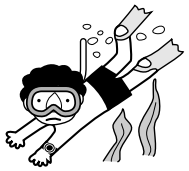
CAUTION: Water-resistance performance

There are several types of water-resistant watches, as shown in the following table.

The unit "bar" is roughly equal to 1 atmosphere.

* WATER RESIST(ANT) xx bar may also be indicated as W.R. xx bar.

For correct use within the design limits of the watch, confirm the level of water-resistance of your watch, as indicated on the dial and case, and consult the table.

Indication		Specifications	Examples of use				
Dial	Case (case back)		 Minor exposure to water (washing face, rain, etc.)	 Moderate exposure to water (washing, kitchen work, swimming, etc.)	 Marine sports (skin diving)	 Scuba diving (with air tank)	 Operation of the crown or button with moisture visible
WATER RESIST or no indication	WATER RESIST(ANT)	Water-resistant to 3 atmospheres	**OK**	**NO**	**NO**	**NO**	**NO**
WR 50 or WATER RESIST 50	WATER RESIST(ANT) 5 bar or WATER RESIST(ANT)	Water-resistant to 5 atmospheres	**OK**	**OK**	**NO**	**NO**	**NO**
WR 100/200 or WATER RESIST 100/200	WATER RESIST(ANT) 10bar/20 bar or WATER RESIST(ANT)	Water-resistant to 10/20 atmospheres	**OK**	**OK**	**OK**	**NO**	**NO**

• Water-resistance for daily use (to 3 atmospheres): This type of watch is water-resistant to minor exposure to water. For example, you may wear the watch while washing your face; however, it is not designed for use underwater.
• Upgraded water-resistance for daily use (to 5 atmospheres): This type of watch is water-resistant to moderate exposure to water. You may wear the watch while swimming; however, it is not designed for use while skin diving.
• Upgraded water-resistance for daily use (to 10/20 atmospheres): This type of watch may be used for skin diving; however, it is not designed for scuba or saturated diving using helium gas.

CAUTION

• Be sure to use the watch with the crown pressed in (normal position). If your watch has a screw-lock type crown, be sure to tighten the crown completely.
• Do NOT operate the crown or button with wet fingers or when the watch is wet. Water may enter the watch and compromise water-resistance.
• If the watch is used in seawater, rinse with fresh water afterward and wipe with a dry cloth.
• If moisture has entered the watch, or if the inside of the crystal is fogged up and does not become clear within a day, immediately take the watch to your dealer or Citizen Service Center for repair. Leaving the watch in such a state will allow corrosion to form inside.

• If seawater enters the watch, place the watch in a box or plastic bag and immediately take it in for repair. Otherwise, pressure inside the watch will increase, and parts (crystal, crown, buttons, etc.) may come off.

CAUTION: Keep your watch clean.

• Leaving dust and dirt deposited between the case and crown may result in difficulty in pulling the crown out. Rotate the crown while in its normal position, from time to time, to loosen dust and dirt and then brush it off.
• Dust and dirt tend to be deposited in gaps in the back of the case or band. Deposited dust and dirt may cause corrosion and soil your clothing. Clean the watch occasionally.

Cleaning the Watch

• Use a soft cloth to wipe off dirt, perspiration and water from the case and crystal .
• Use a soft, dry cloth to wipe off perspiration and dirt from the leather band.
• To clean a metal, plastic, or rubber watchband, wash away dirt with mild soap and water. Use a soft brush to remove dust and dirt jammed in the gaps in the metal band. If your watch is not water-resistant, take it to your dealer.

NOTE: Avoid using solvents (thinner, benzine, etc.), as they may mar the finish.

CAUTION: Operating environment

- Use the watch within the operating-temperature range specified in the instruction manual.
  Using the watch where temperatures are outside the specified range, may result in deterioration of functions or even stoppage of the watch.
- Do NOT use the watch in places where it is exposed to high temperature, such as in a sauna.
  Doing so may result in a skin burn.
- Do NOT leave the watch in a place where it is exposed to high temperature, such as the glove compartment or dash-board of a car.
  Doing so may result in deterioration of the watch, such as deformation of plastic parts.
- Do NOT place the watch close to a magnet.
  Timekeeping will become inaccurate if you place the watch close to magnetic health equipment such as a magnetic necklace or a magnetic latch of a refrigerator door or handbag clasp or the earphone of a mobile phone. If this has occurred, move the watch away from the magnet and reset the time.
- Do NOT place the watch close to household appliances that generate static electricity.
  Timekeeping may become inaccurate if the watch is exposed to strong static electricity, such as is emitted from a TV screen.
- Do NOT subject the watch to a strong shock such as dropping it onto a hard floor.

- Avoid using the watch in an environment where it may be exposed to chemicals or corrosive gases.
  If solvents, such as thinner and benzine, or substances containing such solvents come in contact with the watch, discoloration, melting, cracking, etc. may result. If the watch comes in contact with mercury used in thermometers, the case, band or other parts may become discolored.

Periodical inspections

Your watch needs inspection once in every two or three years for safety and long use.
To keep your watch water-resistant, the packing needs to be replaced regularly.
Other parts need to be inspected and replaced if necessary.
Ask for Citizen geuine parts upon replacement.

16. Specifications

1. Model: E87*
2. Type: Analog solar-powered watch
3. Timekeeping accuracy: Within ±15 seconds per month on average (when worn at normal temperatures of +5°C to +35°C/41°F to 95°F)
4. Operating temperature range: -10°C to +60°C/14°F to 140°F
5. Display functions:
- Time: 24 hour display, hours, minutes, seconds
- Date: Date display by a date wheel (with continuous advance function)
  Month display by second hand
  Day display by function hand
  Year display by function hand (elapsed years from leap year)/display only while button (B) is pressed in the calendar mode)

6. Additional functions:
- Perpetual calendar (elapsed years from leap year, month, date and day are switched automatically until February 28, 2100 (including leap years))

- Power save feature
- Insufficient charge warning feature
- Over charge prevention feature
- Daily alarm (24 hour clock, alarm monitor, alarm ON/OFF)
- Local time (time different correction: 1 hour units)

7. Continuous Operating Times
- Time until watch stops without charging after being fully charged:
  : Approx. 1.5 years (with the power save feature operating continuously)
  : Approx. 7 months (when the power save feature is not operating)
- Insufficient charge warning display (2-second interval movement) to stopped: Approx. 3 days

8. Battery: Secondary battery, 1

* Specifications are subject to change without notice.