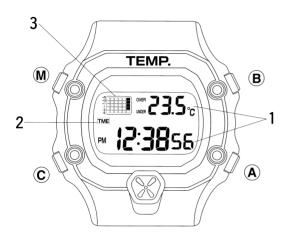
CITIZEN QUARTZ TRAINING TIMER

Model No. ME4xxx Cal. No. D320

• INSTRUCTION MANUAL

CTZ-B8020



Thank you for purchasing a CITIZEN QUARTZ Watch. To ensure correct use, please read these instructions carefully. Please confirm that the CITIZEN International Guarantee Card is included for your possible claim.

When reading this instruction manual please keep the watch diagram above in view. Symbols (A, B, etc.) used in the sections on operating instructions refer to the symbols indicated in this diagram. The design may differ slightly depending on the model.

1. FEATURES

This watch is a digital quartz watch equipped with a training timer function convenient for various types of sports training along with alarm, chronograph and timer functions. It also is equipped with a temperature measurement function and EL (electroluminescence) function.

2. EXPLANATION OF DISPLAYS AND FUNCTIONS

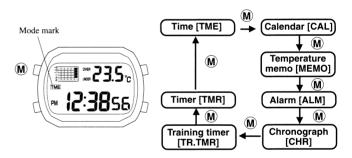
Please read the following while referring to the watch illustration shown above.

Name		Time	Calendar	Temperature Memo		
. 0	Pressed once	Temperature measurement		Advancing of memo number		
Button (A)	Pressed for 2 seconds or more					
Button B	Pressed once					
	Pressed for 2 seconds or more	To time correction mode	To date correction mode			
Button ©	Pressed	1				
Button (M)	Pressed	To calendar mode	To temperature memo mode	To alarm mode		
1: Time/function display		Hours, minutes, seconds, temperature, (AM/PM)	Month, date, day, temperature	Memo no., temperature, memo time (hours, minutes)		
2: Mode mark		TME	CAL	MEMO		
3: Graphic display		Graphic display corresponding to time/function display		Temperature memo graphic display		

Alarm	Chronograph	Training Timer	Timer		
Switching on and off	Split/reset	Skip/reset	Restart/reset		
Alarm monitor		To sub-timer correction mode	To timer correction mode		
	Start/stop	Start/stop	Start/stop		
To alarm time correction mode					
EL illumination					
To chronograph mode	To training timer mode	To timer mode	To time mode		
"Hours, minutes" or "OFF", temperature Hours, minutes, seconds, 1/1000 seconds		Sub-timer number, minutes, seconds, ON/OF	Minutes, seconds, temperature		
ALM CHR		TR.TMR	TMR		
Graphic display corresponding to time/function display					

3. SWITCHING FUNCTIONS (MODES)

Pressing button (M) switches the mode as shown below each time it is pressed. The current mode can be confirmed by looking at the mode mark.



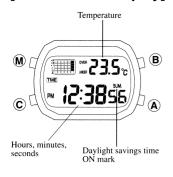
[Auto-Return Function]

The watch automatically returns to the time mode if none of the buttons on the watch are pressed for about 2 minutes or more in the calendar, temperature memo or alarm mode.

4. EL ILLUMINATION

Pressing button © during the normal display of any mode illuminates the EL light for as long as button © is pressed. In addition, the EL light is illuminated when the split time or stop operation is performed during chronograph measurement.

5. SETTING THE TIME [TME] [Normal Time Display]



<Switching Daylight Savings Time (Summer Time)>

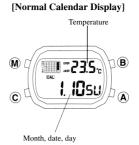
- 1. Continuously pressing button (B) for at least 2 seconds during the normal time display causes "SUM" and "ON/OFF" to flash and the watch to switch to the daylight savings time correction mode.
- 2. Press button (A) to set daylight savings time. Each time button (A) is pressed, daylight savings time switches between set (ON) and cancelled (OFF).
- 3. Press button (M) to return the watch to the normal time display.
- * When Daylight Savings Time is Set (ON) "SUM" is displayed during the normal time display, and the time displayed is one hour ahead of the normal time (time when daylight savings time is cancelled).

Note: Although "SUM" is displayed on the watch, this refers to daylight savings time. The abbreviation "SUM" is used since daylight savings time is used during the summer.

<Setting the Time>

- Continuously pressing button ® for at least 2 seconds during the normal time display causes "SUM." and "ON/OFF" to flash and the watch to switch to the daylight savings time correction mode. This allows the flashing portion of the display to be corrected.
- 2. Each time button (B) is pressed in the correction mode, the flashing location on the display changes in the order of daylight time, seconds, minutes, hours and 12/24 hour display. Press button (B) until the location of the display desired to be corrected flashes.
- 3. Pressing button (A) to correct the location of the display that is flashing. (Pressing button (A) continuously causes the display to advance rapidly.)
- * Daylight savings time is alternately switched on and off each time button (A) is pressed.
- * When correcting seconds, pressing button (A) causes the seconds display to return to "00" and then start running.
- * The 12/24-hour display is alternately switched between 12-hour and 24-hour display every time button (A) is pressed.
- 4. Press button (M) to return the watch to normal time display
- * When the watch is set to the 12-hour display, make sure to set the time while paying attention to AM and PM
- * The watch automatically returns to the normal time display if none of the buttons on the watch are pressed for about 2 minutes or more when in the correction mode (flashing display).
- * Pressing button (M) when in the time correction mode causes the watch to immediately return to the normal time display.

6. SETTING THE DATE [CAL]



<Setting the Date>

- 1. Continuously pressing button

 (B) for 2 seconds or more during the normal calender display causes the "month" to flash and the watch to enter correction mode. This allows the flashing portion of the display to be corrected.
- 2. Each time button (B) is

pressed in the correction mode, the flashing location on the display changes in the order of month, date and year. Press button (B) until the location of the display desired to be corrected flashes.

- 3. Press button (A) to correct the location of the display that is flashing. (Pressing button (A) continuously causes the display to advance rapidly.
- 4. Press button (M) to return the watch to the normal calendar display.
- * The year can be set from 1999 to 2099 (only displayed when in correction mode).
- * The day is set automatically whenever the year, month and date are corrected.
- * When the date has been set to a date that does not exist (such as February 30), it will automatically be corrected to the first day of the following month when the watch is returned to the normal display.
- * Since this watch is provided with an auto-date function, the date does not have to be corrected on the last day of the month.
- * The watch automatically returns to the normal calendar display if none of the buttons on the watch are pressed for about 2 minutes or more when in the date correction mode (flashing display).
- * Pressing button (M) when in the date correction mode causes the watch to immediately return to the normal calendar display.

7. USING THE THERMOMETER FUNCTION

The thermometer function displays the most recent temperature as measured in all modes except the chronograph and training timer modes. This watch measures temperature in two ways: either by automatically measuring temperature every hour on the hour, or by arbitrarily measuring temperature whenever desired by the user by operating the buttons of the watch regardless of the time. In addition, temperature display can be switched between Celsius (°C) and Fahrenheit (°F).

< Automatic Temperature Measurement>

The watch measures temperature automatically every hour on the hour. Temperature is not measured if the watch has been switched to the time correction mode (flashing display) at the time temperature is measured.

<Arbitrary Temperature Measurement by button operation>

When button (A) is pressed during the normal display in the time mode, temperature is measured continuously for 3 minutes at 2 second intervals. Temperature measurement is terminated by pressing either button (A) or button (M) during temperature measurement.

<Temperature Measuring Range and Measurement Accuracy>

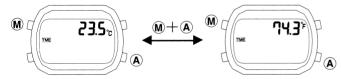
	Celsius (°C)	Fahrenheit (°F)		
Displayed temperature range	-9.9°C to +59.9C	14°F to 139°F		
Measurement units	0.1°C	1°F		
Measurement accuracy	20°C to 30°C: ±1°C -5°C to 40°C: ±2°C	68°F to86°F: ±2°F 23°F to 104°F: ±4°F		

Notes:

- * The measured temperature is affected by body temperature if temperature is measured while wearing the watch. In order to measure temperature accurately, remove the watch and allow it to acclimatise to the temperature of the surrounding environment for at least 20 to 30 minutes. The amount of time required to eliminate the effects of body temperature varies according to the temperature differences before and after allowing the watch to acclimatise to the surrounding environment and the conditions at the location where the watch is allowed to acclimatise.
- * Do not use the thermometer to measure temperature beyond the displayed temperature range indicated. Exposure of the watch to extremely high or low temperatures may cause malfunction.
- <Switching Between Celsius and Fahrenheit Display> Simultaneously pressing button (A) while pressing button (M) for at least 3 seconds or more in the time mode switches the temperature display between Celsius (°C) and Fahrenheit (°F). (The display will not switch if button (A) is pressed first.)

[Celsius display]

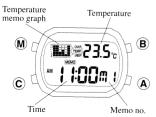
[Fahrenheit display]



8. TEMPERATURE MEMO MODE [MEMO]

When temperature is measured automatically every hour on the hour or when temperature is measured at an arbitrary time by operating the watch buttons, the watch stores temperature measurement data (consisting of temperature, time and memo number) in the form of a temperature memo. A maximum of 7 temperature memos can be stored in memory. Temperature memos stored in memory can be viewed in the temperature memo mode.

[Temperature Memo (No. 1) Display]



<Displaying Temperature Memos>

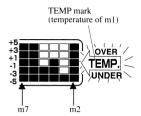
- 1. Press button (M) to switch to the memo mode.
- Each time button (A) is pressed, up to 7 temperature memos are displayed in order starting with the

most recent memo. The memo number of the most recent temperature data is assigned a value of "m1", while the oldest temperature data is assigned a value of "m7".

- * When the number of temperature memos exceeds 7, the oldest memo is automatically deleted. Temperature memos cannot be deleted manually.
- * When there are less than 7 temperature memos stored in memory (such as after performing the allreset procedure described later), only the number of temperature memos stored in memory is repeatedly displayed.
- * The most recent temperature data (m1) is displayed in the time, calendar, alarm and timer modes.

<Temperature Memo Graphic Display>

In the temperature memo mode, the temperatures of each stored temperature memo (m2 through m7) are displayed in the form of a bar graph based on the

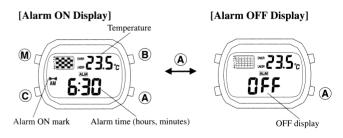


temperature difference with the most recent temperature memo (m1). This graphic display provides a rough visual representation of temperature changes between each temperature memo.

- * The temp mark flashes during display of the most recent temperature memo (m1). The temperature graph of the selected temperature memo (m2 through m7).
- * When the temperature difference between the selected temperature memo and the most recent temperature memo (m1) exceeds ±5°C (4°F), the word OVER (when the selected temperature is higher than the most recent temperature) or UNDER (when the selected temperature is lower) flashes.
- * When the most recent temperature memo exceeds the range of -10° to +60°C (14°F to 140°F), the word OVER (when it is above +60°C/140°F) or UNDER (when it is below -10°C/14°F) flashes.

9. USING THE ALARM [ALM]

Once this alarm is set (switched ON), the alarm tone sounds for 20 seconds at the same time every day.



<Alarm ON/OFF>

The alarm is switched on and off each time button (A) is pressed during the normal alarm display. When the alarm is turned on, the " mark lights on the digital display in each mode.

<Setting the Alarm>

- 2. Press button (A) to correct the "hours". (Pressing button (A) continuously causes the display to advance rapidly.)
- 3. Press button (B) again while the "hours" are flashing. The "minutes" flash at this time.
- 4. Press button (A) to correct the "minutes".
- 5. Press button (M) to return the watch to the normal alarm display.

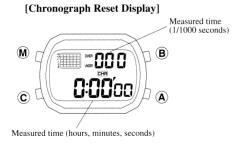
<Alarm Tone Monitor>

The alarm tone can be monitored by continuously pressing button A in the alarm mode. The alarm sounds for as long as button A is pressed.

- * The alarm can be turned off when it is sounding by pressing any button.
- * When the 12-hour display has been set for the time mode, the alarm time also uses a 12-hour display. Set the alarm time while paying attention to AM and PM.
- * The alarm time does not switch to daylight savings time even if the watch has been set to daylight savings time in the time mode.
- * When none of the watch buttons are pressed for about 2 minutes or more in the alarm correction mode, the watch automatically returns to the normal alarm display.
- * Pressing button (M) when in the alarm correction mode immediately returns the watch to the normal alarm display.

10. USING THE CHRONOGRAPH [CHR]

The chronograph is able to measure and display time in 1/1000 second increments up to a maximum of 23 hours, 59 minutes and 59.999 seconds. The chronograph returns to 00 hours, 00 minutes, 00.000 seconds after measuring for 24 hours. The chronograph can also be used to measure split time.

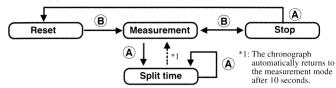


Use of Integrated Measurement>

- 1. Pressing button (B) repeatedly starts and stops the chronograph each time it is pressed.
- 2. Press button (A) to reset the chronograph while it is stopped.

<Measuring Split Time>

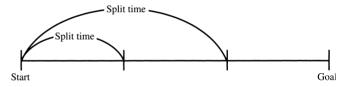
- 1. Pressing button (B) repeatedly starts and stops the chronograph each time it is pressed.
- 2. When button (A) is pressed during timing, the split time is displayed for 10 seconds. The letters "SPL" flash during the time the split is displayed. The most recent split time can be measured and displayed each time button (A) is pressed.
- 3. Press button (A) to reset the chronograph while it is stopped.



<Switching Modes during Chronograph Measurement>

Chronograph measurement is continued even when switching to a different mode by pressing button (M) during chronograph measurement. When again returning to the chronograph mode, time is displayed in continuation from before the mode was switched. However, when chronograph measurement exceeds 24 hours, it returns to the chronograph reset display.

*Split time: The amount of time elapsed when reaching an intermediate point after starting.



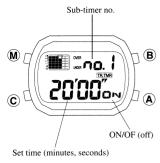
11. USING THE TRAINING TIMER [TR.TMR]

The training timer function is equipped with five subtimers (No. 1 through No. 5). Time is measured repeatedly in sequence using these five sub-timers. Each sub-timer can be set in 1 second increments from 0 minutes 10 seconds to 59 minutes 59 seconds. In addition, each sub-timer can also be set to OFF (when not in use) or skipped during timing (to immediately start timing with the next sub-timer).

<Example of Using the Training Timer>

The training timer is particularly convenient when performing a series of training exercises for a predetermined amount of time at a sports gym and so forth (e.g.,running on a running machine for 20 minutes \rightarrow resting for 5 minutes \rightarrow bench pressing for 5 minutes \rightarrow resting for 3 minutes \rightarrow doing squats for 5 minutes). The training timer can also be used in athletic competitions such as soccer matches in which there is a first half and second half with a half-time period in between (e.g., 45 minute first half \rightarrow 10 minute half time \rightarrow 45 minute second half).

[Normal Training Timer (No.1) Display]



<Setting the Sub-timer>

The setting procedure is the same for all 5 sub-timers. Set sub-timer nos. 1 through 5 by repeating the procedure.

 Press button (A) in the training timer mode to select the sub-timer to be set. (Sub-timer nos. 1 through 5 are called up

each time button (A) is pressed.)

- 2. Pressing button (A) for at least 2 seconds switches the selected sub-timers to the correction mode (ON or OFF flashes).
- 3. While ON or OFF is flashing, press button (A) again to switch the selected sub-timer ON (in use) or OFF (not in use).
- Each time button (B) is pressed, the flashing location changes (ON/OFF → minutes → seconds).
 Press button (B) until the location desired to be corrected flashes.
- 5. Press button (A) to correct the location that is flashing. (Pressing button (A) continuously causes the display to advance rapidly.)
- 6. Press button (M) to complete the sub-timer setting procedure.
- * When a sub-timer is set to a time from 00 minutes to 00 seconds to 00 minutes 09 seconds, the sub-timer will automatically be set to 10 seconds after the setting procedure is completed.
- * When none of the watch buttons are pressed for about 2 minutes or more in the sub-timer correction mode, the watch automatically returns to the normal display.
- * Pressing button (M) when in the sub-timer correction mode immediately returns the watch to the normal display.

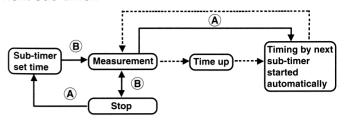
<Training Timer Measurement Procedure>

Timing can be started from any of the five sub-timers that have been set to ON. When timing of one sub-timer has been completed, a tone indicating that time has expired sounds for about 5 seconds, and timing with the next sub-timer starts automatically simultaneous to sounding of the above tone. Sub-timers that have been set to OFF during timer setting are skipped.

- 1. Press button (A) to select the sub-timer with which timing is to be started.
- 2. Press button (B) to start the selected sub-timer.
- 3. Pressing button (B) during timing stops the elected sub-timer. Pressing button (B) again resumes timing in continuation from the time at which timing was previously stopped.
- 4. Pressing button (A) while the selected sub-timer is stopped returns the selected sub-timer to the set time.

<Skip Function>

Pressing button (A) during timing by the selected sub-timer immediately causes timing by that timer to be skipped followed by the start of timing with the next sub-timer.

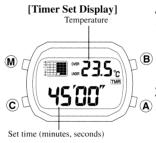


<Switching Mode during Training Timer Measurement>

Training timer measurement is continued even when switching to a different mode by pressing button (M) during training timer measurement. When again returning to the training timer mode, time is displayed in continuation from before the mode was switched. When the set time of the selected sub-timer expires, a tone indicating that the time is up sounds even when the watch is displaying a different mode.

12. USING THE TIMER [TMR]

The timer can be used to set the time in 1 second increments counting down from 59 seconds to 00 minutes 01 second. A tone indicating that the time is up sounds for about 5 seconds when the time has elapsed. At the same time, an auto chronograph (24 hour clock) begins to measure the amount of time elapsed after time on the timer expired.

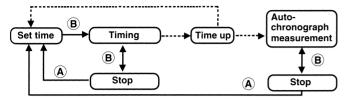


<Setting the Timer>

- Pressing button (A) for at least 2 seconds in the timer mode causes the "minutes" to flash.
- 2. Press button (B) to set the "minutes". (Pressing button (B) continuously causes the display to advance rapidly.)
- 3. Pressing button (A) when the "minutes" are flashing causes the "seconds" to flash.
- 4. Press button (B) to set the "seconds".
- 5. Pressing button (M) completes the timer setting procedure.
- * When none of the watch buttons are pressed for about 2 minutes or more in the timer correction mode, the watch automatically returns to the timer set display.
- * Pressing button (M) when in the timer correction mode immediately returns the watch to the timer set display.

<Measuring Time with the Timer>

- 1. Press button (B) to start timing from the set time.
- 2. Pressing button (B) during timing interrupts timing. Pressing button (B) again restarts timing in continuation from the time when the timer was previously stopped.
- 3. Pressing button (A) while the timer is stopped returns the timer to the set time.



Use of Auto-Chronograph Measurement>

- 1. The auto-chronograph starts measuring time automatically after the set time of the timer has elapsed.
- 2. Pressing button (B) during auto-chronograph measurement repeatedly starts and stops the auto-chronograph each time it is pressed.
- 3. Pressing button (A) when the auto-chronograph is stopped returns the timer to the timer set time.

<Timer Restart Function>

Pressing button (A) during timer or auto-chronograph measurement immediately returns the timer to the timer set time and timing is automatically restarted from that set time.

<Switching Mode during Timer Measurement>

Measurement is continued even when switching to a different mode by pressing button (M) during timer or auto-chronograph measurement. When again returning to the timer mode, time is displayed in continuation from before the mode was switched. However, when the auto-chronograph completes 24 hours of measurement, the timer returns to the timer set display.

13. ALL-RESET PROCEDURE

Always make sure to perform the all-reset procedure described below after replacing the battery. In addition, there may also rarely be times when the watch does not run properly or has an abnormal display due to a strong impact or is subjected to static electricity (such as when there is no time display showing or when the alarm sounds continuously). Perform the reset-all procedure in these cases as well.



<All-Reset Procedure>

- 1. Press all four buttons

 (A), (B), (C) and (M)
 simultaneously. (The
 entire display lights.)
- 2. Release all buttons.
- 3. Press any button. (A tone confirming operation sounds and the watch will start to run.) This completes the all-reset procedure.

After performing this procedure, make sure to properly reset the time and each of the other modes before using the watch.

14. PRECAUTIONS

Caution:Water Resistance Performance

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

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.

^{*}WATER RESISTANT (ANT) xxbar may also be indicated as W.R. xxbar

			Examples of use				
* (The unit "bar" is roughly equal to 1 atmosphere.)			Minor exposure to	Moderate exposure to water (washing,	Marine sports	Scuba diving	Operation of the
Indication		Specification	water (washing face,	kitchen work,	(skin diving)	(with air tank)	button with
Dial	Case back	Specification	rain, etc.)	swimming, etc.)			moisture visible
WATER RESIST or no indication	WATER RESIST (ANT)	Water-resistant to 3 atmospheres	OK	NO	NO	NO	NO
WR 50 or WATER RESISTANT 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 RESISTANT 100/200		Water-resistant to 10/ 20 atmospheres	ок	ок	ок	NO	NO

^{*} WATER RESIST(ANT) xxbar may also be indicated as W.R. xxbar.

^{*(}The unit "bar" is roughly equal to 1 atmosphere.)

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

- Do NOT operate the 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 your watch to your dealer or Citizen Service Centre 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 the watch in for repair. Otherwise, pressure inside the watch will increase, and parts (crystal, buttons, etc.) may come off.

CAUTION: Keep your watch clean

 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 isn't waterresistant, take it to your dealer.

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

WARNING: Handling of the Battery

Keep the battery out of the reach of small children.
 If a child swallows the battery, contact a physician immediately.

CAUTION: Replacing the Battery

- For replacement of the battery, take your watch to your dealer or Citizen Service Centre.
- Replace the battery as soon as possible if the service life of the battery has expired. Leaving a depleted battery in the watch may result in leakage, which can damage the watch severely.

CAUTION: Operating environment

- Use the watch within the operating-temperature range specified in the instruction manual.
- Do NOT use 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 strong shocks 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, discolouration, melting,
 cracking, etc., may result. If the watch comes in
 contact with mercury used in thermometers, the
 case, band or other parts may become
 discoloured.

15. SPECIFICATIONS

1. Caliber No.: D320

2. Type: Digital quartz watch3. Accuracy: Within ±20 seconds per

month on average (when worn at normal temperatures of +5°C/41°F to +35°C/95°F)

4. Operating

Temperature Range: -5°C/23°F to +50°C/122°F

5. Display Functions

*Time: Hours, minutes, seconds,

temperature

*Date: Month, date, day, temperature *Temperature memo: Memo time (hours, minutes),

temperature, memo no.

*Alarm: Alarm time (hours, minutes)

or OFF, temperature

*Chronograph: 24-hour measurement

(1/1000 second increments), split time measurement, auto-chronograph

measurement.

*Training timer: Repeated timing by 5 sub-

timers, skip function

*Timer: 60-minute measurement

(1-second increments)

6. Additional Functions

*EL illumination function

*Temperature measurement function

7. Battery: No. 280-206, battery code: CR2016

8. Battery Life: Approx. 3 years (when used under the

following conditions: alarm tone sounds for 20 seconds/day, time up tone sounds for a total of 10 seconds/ day, and EL illumination is used for

3 seconds/day)

^{*}Specifications are subject to change without notice.