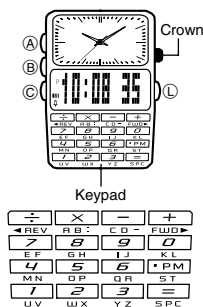


ABOUT THIS MANUAL



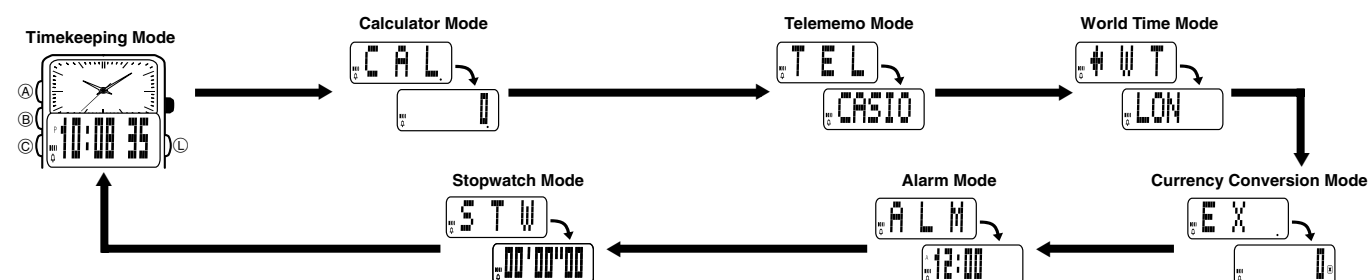
- Button operations are indicated using the letters shown in the illustration.

- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "REFERENCE" section.

GENERAL GUIDE

- Press (C) to change from mode to mode.
- In any mode (except for the Stopwatch Mode), press (L) to illuminate the display.

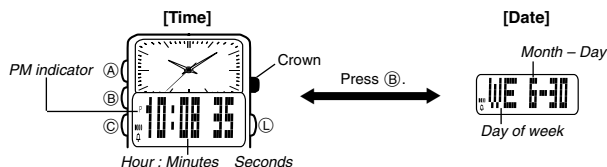
- If the digital display of your watch is continuously changing, see "Auto Display Function" for information on how to stop it.



TIMEKEEPING MODE

In addition to normal timekeeping, use the Timekeeping Mode to set the current time and date.

- In the Timekeeping Mode, press (B) to toggle between the time and date screens.



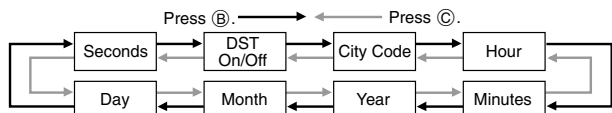
Read This Before You Set the Time and Date !

The digital times displayed in the Timekeeping Mode and World Time Mode are linked. Because of this, make sure you select a "Home City" (the city whose time and date you are setting), before you set the time and date.

- This watch features separate digital and analog timekeeping. Note that the digital time and analog time are independent of each other, and must be set separately.

To set the digital time and date

1. In the Timekeeping Mode, hold down (A) until the seconds digits start to flash.
2. While the seconds digits are flashing, press (D) on the keypad to reset the seconds to 00.
- Pressing (D) while the seconds count is in the range of 30 to 59 resets the seconds to 00 and adds 1 to the minutes. In the range of 00 to 29, the minutes count is unchanged.
3. Press (B) or (C) to move the flashing in the sequence below to select other settings.



- See "Daylight Saving Time (DST)" for details on DST On/Off setting.
- You must input separate values for each of the two digits of the hour, minutes, year, month, and day settings. With the year setting, you can input values for the two rightmost digits.
- While any selection is flashing, press (L) to toggle between 12-hour format (A or P indicator appears) and 24-hour format (no indicator).
- 4. Use (B) and (C) to select the city code setting.
- 5. Use (B) and (C) to scroll through the city codes until the one you want to set as your Home City.
- Pressing (B) scrolls forward, while (C) scrolls back through city codes.
- See "CITY CODE TABLE" for a complete list of available codes.

6. Use (B) and (C) to select the hour, minutes, year, month, and day, and make the settings you want for each.
- While hour, minutes, year, month, or day is selected (flashing), use the keypad keys to input the number you want.
- The flashing selection automatically advances to the right each time you input a number.
- You should input both digits for the hour, minutes, year, month, and day settings. If you want to specify 3 o'clock, for example, input 03 for the hour.
- While hour or minutes is flashing, press (PM) to toggle between AM (A indicator appears) and PM (P indicator appears).
7. After you make the setting you want, press (A) to return to the current time screen.
- The day of the week is automatically displayed in accordance with the date (year, month, and day) settings.
- The year can be set in the range of 1995 to 2094.
- The watch's built-in full automatic calendar automatically makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after the replacement of the watch's battery.

To set the analog time

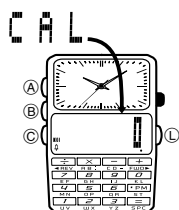
1. Pull the crown out.
2. Set the hands by turning the crown.
3. Push the crown back in to restart timekeeping.

Daylight Saving Time (DST)

Daylight Saving Time automatically advances the time setting by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

To toggle your Home City time between DST and Standard Time

1. In the Timekeeping Mode, hold down (A) until the seconds digits start to flash.
2. Press (B) to move the flashing to the DST On/Off setting.
3. Press (B) or (C) to toggle Daylight Saving Time (ON) and standard time (OFF).
4. Press (A) to return to the current time screen.
- The DST indicator appears on the display to indicate that daylight saving time is turned on.



CALCULATOR MODE

The Calculator Mode lets you perform addition, subtraction, multiplication, and division using 8-digit values (7 digits for negative values, because one digit is used by the minus sign).

- You can use the Calculator Mode to turn the input tone on and off.

Using the Calculator

- Input calculation just as you do with any standard calculator, as shown in the examples below. Be sure to press (B) to clear the calculator before beginning each calculation.
- If the result of a calculation exceeds 8 digits, an E (error) indicator appears on the display. Press (B) to clear the error indicator.

Basic Calculations

The +, -, ×, and ÷ indicators appear on the display whenever you press the corresponding operation key.

Example	Operation	Display
12.3 + 74 - 90 = -3.7	12 $\boxed{+}$ 74 $\boxed{-}$ 90 $\boxed{=}$	-3.7
(12 - 0.5) × 3 ÷ 7 = 4.9285714	12 $\boxed{-}$ 0.5 $\boxed{\times}$ 3 $\boxed{\div}$ 7 $\boxed{=}$	4.9285714

Constant Calculations

Input the number you want to use as a constant, and then press one of the arithmetic keys twice. This causes the **K** indicator to appear on the display, indicating constant calculations.

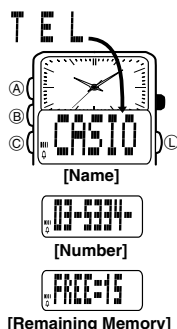
Example	Operation	Display
10 + 7 = 17	7 $\boxed{+}$ 10 $\boxed{=}$	K 17. +
12 + 7 = 19	12 $\boxed{+}$ 7 $\boxed{=}$	K 19. +
78 - 12 = 66	12 $\boxed{-}$ 78 $\boxed{=}$	K 66. -
45 - 12 = 33	45 $\boxed{-}$ 12 $\boxed{=}$	K 33. -
2 × 12 = 24	12 $\boxed{\times}$ 2 $\boxed{=}$	K 24. ×
5 × 12 = 60	5 $\boxed{\times}$ 12 $\boxed{=}$	K 60. ×
45 ÷ 9 = 5	9 $\boxed{\div}$ 45 $\boxed{=}$	K 5. ÷
72 ÷ 9 = 8	72 $\boxed{\div}$ 9 $\boxed{=}$	K 8. ÷
17 + 17 + 17 + 17 = 68	17 $\boxed{+}$ 17 $\boxed{+}$ 17 $\boxed{+}$ 17 $\boxed{=}$	K 68. +
(2.3) ⁴ = 27.9841	2 $\boxed{\times}$ 3 $\boxed{=}$ 2 $\boxed{\times}$ 3 $\boxed{=}$ 2 $\boxed{\times}$ 3 $\boxed{=}$ 2 $\boxed{\times}$ 3 $\boxed{=}$	K 27.9841 ×
	To perform the above (2.3) ²	
	2 $\boxed{\times}$ 3 $\boxed{=}$ 2 $\boxed{\times}$ 3 $\boxed{=}$	K 7.9841

Switching the Input Tone On and Off

In the Calculator Mode, hold down $\boxed{A}$ for about two seconds to switch the input tone on and off.

- The input tone on/off setting you make in the Calculator Mode is applied to all other modes, except the Stopwatch Mode.

TELEMemo MODE



The Telememo Mode lets you store up to 30 records, each containing name and telephone number data. Records are automatically sorted based on the characters of the name. You can recall records by scrolling through them on the display.

- Holding down $\boxed{=}$ in the Telememo Mode displays the number of records you can still input.
- See "CHARACTER LIST" for details on how the watch sorts records.
- A Telememo Mode record has a text field and a number field.
- Inputting data into the number field without inputting anything in the text field creates a record with a blank name screen. Because of this, it is a good idea to always input both name and number data for each record.

About Name and Number Input

You can input characters at the flashing cursor position. There are two fields where you can input characters: a text field and a number field.

- You tell when you are in the text field because the cursor looks like $\blacksquare$. In the number field, the cursor looks like $\cdot$.
- You can input eight characters for the text field and 14 digits for the number field.
- While the cursor is in the text or number field (see "Inputting New Telememo Data"), use the keypad to input characters.

Text Field

Use this field for the name. You can input alpha characters (A through Z), numbers (0 through 9), hyphens (-), periods (.), and colons (:).

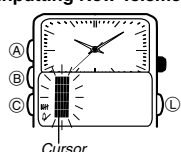
- Each key is assigned more than one character. Each press of a key sequentially changes the character at the cursor position. Pressing $\boxed{7}$, for example, changes the characters at the cursor position in the sequence: 7 → 7 → 7 → 7 etc. The letters that a key inputs are printed below the key, while the number it inputs is printed on the key itself.
- Use $\boxed{=}$ to input a space, $\boxed{+}$ to input a period, $\boxed{-}$ to input a hyphen, and $\boxed{\times}$ to input a colon.

Number Field

You can input numbers (0 to 9), hyphens (-) and spaces for telephone numbers.

- Use $\boxed{=}$ to input a space and $\boxed{-}$ to input a hyphen.
- The number field initially contains all hyphens. You can leave the hyphens or replace them with numbers or spaces.

Inputting New Telememo Data



- In the Telememo Mode, press $\boxed{B}$ and $\boxed{L}$ at the same time to display the new data screen.
 - The new data screen is the one that is blank (contains no name).
 - If the message FULL appears on the display, it means that memory is full. To store another record, you will first have to delete some of the records currently in memory.
- Hold down $\boxed{A}$ until the flashing cursor appears on the display.

- Input a name in the text field.

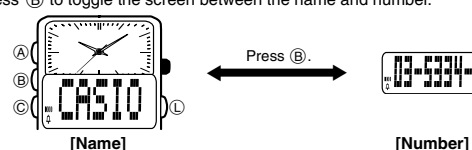
- See "Text Field" for details on how to input characters in the text field.
- When the character you want is at the cursor position, press $\boxed{B}$ to move the cursor to the right.

- After you input a name, use $\boxed{B}$ to move the cursor to the number field.

- The text field can hold up to eight characters. When the cursor is located at the eighth space of the text field, moving the cursor to the right causes it to jump down to the first digit in the number field. When the cursor is at the 14th digit of the number field, moving it to the right causes it to jump back up to the first character of the text field.
- Pressing $\boxed{C}$ moves the cursor the left, while $\boxed{B}$ moves it to the right.
- Input a telephone number in the number field.
- See "Number Field" for details on how to input characters in the number field.
- Each time you input a digit, the cursor automatically moves to the right.
- If you make a mistake while inputting numbers, use $\boxed{B}$ and $\boxed{C}$ to move the cursor to the location of the error and input the correct data.
- After inputting data, press $\boxed{A}$ to store it.
- When you press $\boxed{A}$ to store data, the message CONFIRM appears on the display for a few seconds. After the sort operation is complete, the cursor appears in the text field, ready for input a new Telememo record.
- Input more records (starting from step 3) or press $\boxed{A}$ again to return to the new data screen.

Recalling Telememo Records

- In the Telememo Mode, press $\boxed{+}$ to scroll forward through the records or $\boxed{-}$ to scroll in reverse.
- Holding down either key scrolls through the records at high speed.
- Only the name screen appears when you scroll through Telememo records.
- Press $\boxed{B}$ to toggle the screen between the name and number.



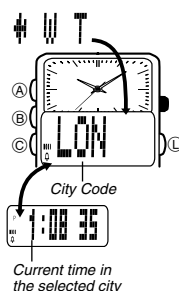
Editing Telememo Records

- In the Telememo Mode, scroll through the records and display the one you want to edit.
- Hold down $\boxed{A}$ until the cursor appears on the display.
- Use $\boxed{B}$ and $\boxed{C}$ to move the cursor to the character you want to change.
- Use the keypad to make any changes you want.
- For details on inputting characters, see "About Name and Number Input".
- After making the changes that you want, press $\boxed{A}$ to store them and return to the name screen.

Deleting Telememo Records

- In the Telememo Mode, scroll through the records and display the one you want to delete.
- Hold down $\boxed{A}$ until the cursor appears on the display.
- Hold down $\boxed{L}$ until the message CLEAR appears on the display.
- After the record is deleted, the cursor appears on the display.
- Input data or press $\boxed{A}$ to return to the new data screen.

WORLD TIME MODE



The World Time Mode shows the current time in 27 cities (29 time zones) around the world.

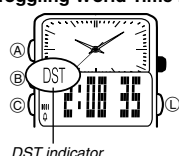
- For full information on city codes, see "CITY CODE TABLE".
- In the World Time Mode, the digital display automatically alternates between the city code and the current time in that city.

Viewing the Time in Another City

In the World Time Mode, press $\boxed{+}$ to scroll forward through the city codes and $\boxed{-}$ to scroll back.

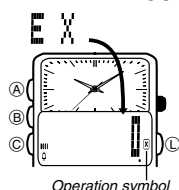
- Holding down either key scrolls the city codes at high speed.

Toggling World Time between DST and Standard Time



- In the World Time Mode, display the city code whose DST/Standard Time setting you want to change.
 - You can make separate settings for each city code.
- Hold down $\boxed{B}$ for about one second to toggle DST (DST displayed) and standard time (DST not displayed).
- The DST indicator appears on the display to indicate that daylight saving time is turned on.
- Note that the DST/Standard Time setting affects only the currently displayed city code. Other city codes are not affected.

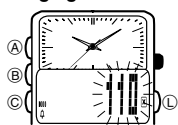
CURRENCY CONVERSION MODE



The Currency Conversion Mode lets you register one currency exchange rate for quick and easy conversion of one currency to another.

- The default Currency Conversion Mode setting is × 0 (conversion is performed by multiplying the input value by 0). The × is the multiplication operator, and 0 is the exchange rate. Be sure to change the value to an up-to-date exchange rate value and the operator (multiplication or division) you want to use.

Changing the Exchange Rate



1. In the Currency Conversion Mode, hold down (A) until the exchange rate starts to flash on the display.
2. Use the keypad to input the exchange rate you want to use.
 - Pressing (B) changes the exchange rate to 0.
3. Press (A) to return to the Currency Conversion Mode.

Changing the Operator

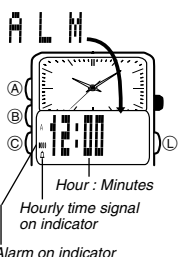
In the Currency Conversion Mode, press $\times$ to select multiplication (indicated by the operation symbol $\times$) or $\div$ to select division (indicated by the operation symbol $\div$) for the conversion calculation.

- The operator you select remains in effect until you change it.

Performing a Currency Conversion

1. In the Currency Conversion Mode, use the keypad to input the value from which you want to convert.
 2. Press $=$ to display the conversion result.
 3. Press (B) to clear the conversion result.
- An E (error) indicator appears on the display when the result of a calculation exceeds 8 digits. Press (B) to clear the error indicator.
 - Take care you do not press $=$ while a calculation result is displayed. Doing so re-converts the results.
 - The displayed decimal point is quite small. Look carefully when you are reading values.

ALARM MODE



You can set a Daily Alarm that sounds at the same time each day, while it is turned on. You can also turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.

Setting the Alarm Time

1. In the Alarm Mode, hold down (A) until the left hour digit of the alarm time starts to flash.
 2. Use the keypad to input the alarm time.
- This operation automatically turns on the Daily Alarm.
 - The flashing selection automatically advances to the right each time you input a number. You can also use (B) and (C) to move the flashing digit between the left hour, right hour, left minutes, and right minutes settings.
 - The 12-hour/24-hour format of the alarm time matches the format you select in the Timekeeping Mode.
- If you are using the 12-hour timekeeping format, press $\square$ to toggle between AM and PM.
 - When setting the alarm time using the 12-hour format, take care to set the time correctly as am (A indicator) or pm (P indicator).
 - 3. Press (A) to return to the alarm display screen.

Daily Alarm Operation

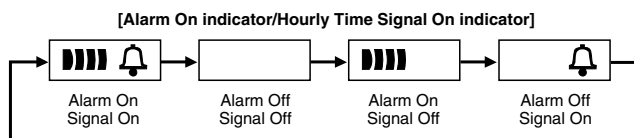
The alarm sounds at the preset time each day for about 20 seconds, or until you stop it by pressing any button.

To test the alarm

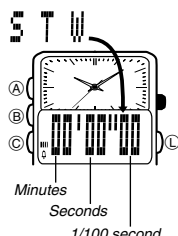
Hold down (B) to sound the alarm.

Turning the Daily Alarm and Hourly Time Signal on and off

In the Alarm Mode, press (B) to cycle through the on and off settings as shown below.



STOPWATCH MODE



The Stopwatch Mode lets you measure elapsed time, split times, and two finishes. The range of the stopwatch is 59 minutes, 59.99 seconds.

(a) Elapsed Time

Start → Stop → Re-start → Stop → Clear

(b) Split Time

Start → Split → Split release → Stop → Clear

(c) Two Finishes

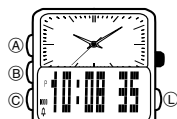
Start → Split → Stop → Split release → Clear

First runner finishes. Second runner finishes. Record time of first runner. Record time of second runner.

REFERENCE

This section contains more detailed and technical information about watch operation. It also contains important precautions and notes about the various features and functions of this watch.

Auto Display Function



Auto Display function of this watch continually changes the contents of the digital display. Note that you cannot use any of the watch's other functions while the Auto Display function is operating.

Turning the Auto Display off

Hold down (C) for about three seconds until the watch beeps.

Turning the Auto Display on

- Hold down (C) for about three seconds until the watch beeps.
- Note that the Auto Display function cannot be performed while you are making settings.

Auto Return Features

- If you leave a screen with flashing a digit or a cursor on the display for two or three minutes without performing any operation, the watch automatically saves anything you have input up to that point and exits the setting screen.
- If you leave the watch in the Telememo or Alarm Mode for about two minutes without performing any operation, it automatically changes to the Timekeeping Mode. The watch also reverts to the Timekeeping Mode if you leave it in the Calculator, World Time, or Currency Conversion Mode for about six or seven minutes without performing any operation.

12-hour/24-hour Timekeeping

The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is also applied in the World Time and Alarm Modes.

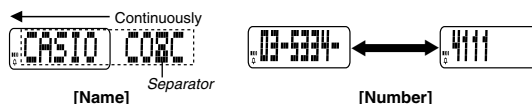
- With the 12-hour format, the P (PM) indicator appears to the left of the hour digits for times in the range of noon to 11:59 pm. The A (AM) indicator is shown from midnight to 11:59 am.
- With the 24-hour format, times are indicated in the range of 0:00 to 23:59, without indicator.

Initial Screens

When you enter the Timekeeping, Telememo, or World Time Mode, the data you were viewing when you last exited the mode appears first.

Telememo Mode

In the Telememo Mode, up to five characters for the text field and up to eight digits for the number field can be shown on the display at a time. Name data longer than five characters automatically scrolls across the display from right to left. If number data is longer than eight digits, the first eight digits alternate on the display with the remaining digits.



- A separator is inserted automatically between the last and first character or digit.

World Time Mode

- The current times in all World Time Mode cities are calculated in accordance with the Greenwich Mean Time (GMT) differential for each city, based on the current Home City time setting in the Timekeeping Mode.
- GMT differential is calculated by this watch based on Universal Time Coordinated (UTC) data.
- The seconds count of the World Time is synchronized with the seconds count of the Timekeeping Mode.

Backlight Precautions

The backlight uses an EL (electro-luminescent) panel that causes the entire display to glow for easy reading in the dark. In any mode (except for the Stopwatch Mode), press (L) to illuminate the display for about one second.

- The electro-luminescent panel loses illuminating power after very long use.
- The illumination provided by the backlight may be hard to see when viewed under direct sunlight.
- The watch will emit an audible sound whenever the display is illuminated. It does not indicate malfunction of the watch.
- The backlight automatically turns off whenever an alarm sounds.
- Leaving the backlight on for a long time or turning on the backlight while battery power is low can cause the second hand of the watch to stop momentarily.

CHARACTER LIST

1	(space)	10	I	19	R	28	0	37	9
2	A	11	J	20	S	29	1	38	-
3	E	12	K	21	T	30	2	39	.
4	C	13	L	22	U	31	3	40	:
5	D	14	M	23	V	32	4		
6	F	15	N	24	W	33	5		
7	F	16	O	25	X	34	6		
8	G	17	P	26	Y	35	7		
9	H	18	Q	27	Z	36	8		

CITY CODE TABLE

City Code	City	GMT Differential	Other major cities in same time zone
--			
HNL	HONOLULU	-11	PAGO PAGO
ANC	ANCHORAGE	-10	PAPEETE
LAX	LOS ANGELES	-9	NOME
DEN	DENVER	-8	SAN FRANCISCO, LAS VEGAS, VANCOUVER, SEATTLE, DAWSON CITY
CHI	CHICAGO	-7	EL PASO, EDMONTON
NYC	NEW YORK	-6	HOUSTON, DALLAS/FORT WORTH, NEW ORLEANS, MEXICO CITY, WINNIPEG
CCS	CARACAS	-5	MONTREAL, DETROIT, MIAMI, BOSTON, PANAMA CITY, HAVANA, LIMA, BOGOTA
RIO	RIO DE JANEIRO	-4	LA PAZ, SANTIAGO, PORT OF SPAIN
--		-3	SAO PAULO, BUENOS AIRES, BRASILIA, MONTEVIDEO
--		-2	
--		-1	PRAIA
GMT LON	LONDON	+00	DUBLIN, LISBON, CASABLANCA, DAKAR, ABIDJAN
PAR	PARIS	+01	MILAN, ROME, MADRID, AMSTERDAM, ALGIERS, HAMBURG, FRANKFURT, VIENNA, STOCKHOLM, BERLIN
CAI	CAIRO	+02	ATHENS, HELSINKI, ISTANBUL, BEIRUT, DAMASCUS, CAPE TOWN
JRS	JERUSALEM	+03	KUWAIT, RIYADH, ADEN, ADDIS ABABA, NAIROBI
JED	JEDDAH	+03.5	SHIRAZ
THR	TEHRAN	+04	ABU DHABI, MUSCAT
DXB	DUBAI	+4.5	
KBL	KABUL	+05	MALE
KHI	KARACHI	+5.5	MUMBAI, CALCUTTA
DEL	DELHI	+06	COLOMBO
DAC	DHAKA	+6.5	
RGN	YANGON	+07	JAKARTA, PHNOM PENH, HANOI, VIENTIANE
BKK	BANGKOK	+08	SINGAPORE, KUALA LUMPUR, BEIJING, TAIPEI, MANILA, PERTH, ULAANBAATAR
TYO	TOKYO	+09	SEOUL, PYONGYANG
ADL	ADELAIDE	+9.5	DARWIN
SYD	SYDNEY	+10	MELBOURNE, GUAM, RABAU
NOU	NOUMEA	+11	PORT VILA
WLG	WELLINGTON	+12	CHRISTCHURCH, NADI, NAURU ISLAND

• Based on data as of June 1999.