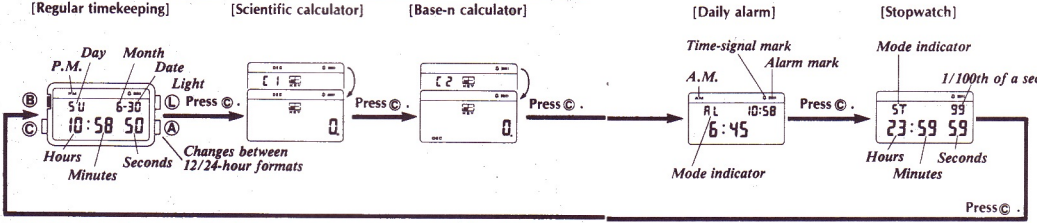
Dear Customer,
Congratulations on your purchase of this Casio Digital Quartz Watch. Although highly sophisticated, this watch is delightfully simple to use, and by referring to this guide you will enjoy all the features of this reliable ultra-precise timepiece.

Notice: As this watch contains precise electronic components, the back cover should only be removed by authorized personnel.

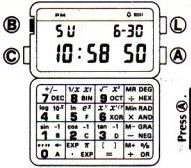
Reading the display



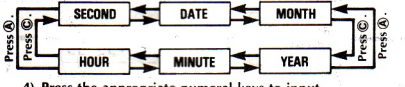
(Reversion to regular timekeeping) The watch reverts to regular timekeeping when the Ⓒ button is pressed after operation, regardless of the mode.
(Auto-retrieve function) The calculator display, if left unused, will automatically return to the time display in 5 or 6 minutes. The alarm display will return to the time display in 2 or 3 minutes.

(Sound demonstration) Press and hold Ⓐ in the daily alarm mode to sound the buzzer.

Setting time and calendar



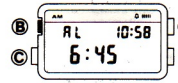
1) In the regular timekeeping mode, first press Ⓑ for a few seconds to set.
2) Press the [0] key on a time signal to correct seconds.
3) The flashing position can be shifted by pressing Ⓒ or Ⓐ in the following order.



4) Press the appropriate numeral keys to input.
5) Press Ⓑ to revert to regular timekeeping mode.
   * *Year digits can be set up to the 2079 by inputting the last two digits.*

Setting daily alarm

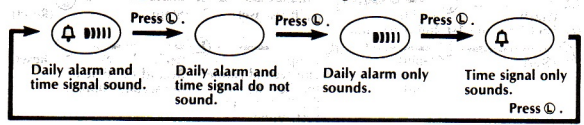
If the daily alarm is set, the buzzer sounds for 20 seconds at the preset time every day until cleared. To stop the buzzer while sounding, press any button. If the time signal is set, the watch sounds every hour on the hour.



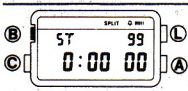
[Presetting alarm time]
1) Press Ⓑ to enter new alarm time.
2) The flashing position can be shifted by pressing Ⓒ or Ⓐ.
3) Press the appropriate numeral keys to input.
4) Press Ⓑ to complete setting.

** When the watch is in the 24-hour system, the alarm time is displayed in that system.*

[ON or OFF setting of daily alarm and time signal]



Stopwatch operation



Ⓑ Ⓛ *SPLIT/ RESET*

Ⓒ Ⓐ *START/STOP*

A signal confirms start/stop operation. (Working range) The stopwatch display is limited to 23 hours 59 minutes 59.99 seconds. Thereafter it can be reset and started again.

(a) Net time measurement

Ⓐ (Start) → Ⓐ *(Time loss)* (Stop) → Ⓐ (Re-start) → Ⓐ (Stop) → Ⓛ (Reset)

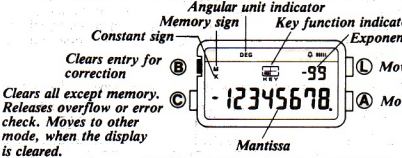
(b) Split time measurement

Ⓐ (Start) → Ⓛ (Split) → Ⓛ (Split release) → Ⓐ (Stop) → Ⓛ (Reset)

(c) Split time and 1st-2nd place times

Ⓐ (Start) → Ⓛ (Split) The first runner finishes. → Ⓐ (Stop) The second runner finishes. Record the time of the first runner. → Ⓛ (Split release) Record the time of the second runner. → Ⓛ (Reset)

Scientific calculator operation



(Moving the key function indicator)

["F1" mode] ["F2" mode]

Press Ⓛ.

Press Ⓐ.

Press Ⓛ. Press Ⓐ.

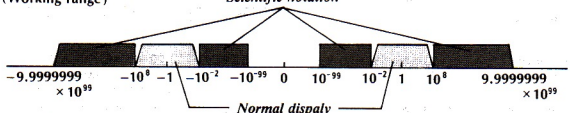
[Home position]

The keyboard function matches the position of the key function indicator. The indicator's home position is lower left. Pressing Ⓛ moves the indicator to the upper left ("F1" mode), Ⓐ moves it to upper right ("F2" mode), etc. Each shift of the indicator corresponds to a change in the key functions: i.e. indicator on the upper left equals the functions marked upper left on the key-in the case of the [4 °'''] key, for example, the log function would be activated.

(Relationship between the key function indicator position and the keyboard functions)

Position of key function indicator	Home position	"F1" mode	"F2" mode
Functions on keyboard	7 8 9 ÷ 4 5 6 × 1 2 3 − 0 · = +	+/− 1/x √ MR log ln x^y Min sin cos tan M− °'" EXP (M+	+/− x! x^2 DEG 10^x e^x $x^{1/y}$ RAD $\sin^{-1}$ $\cos^{-1}$ $\tan^{-1}$ GRA ← π) %

(Working range)



When the answer exceeds the normal display capacity, it is automatically shown by scientific notation, 8-digit mantissa and exponents up to $10^{\pm 99}$.

(Calculating examples)

	Example	Operation
Entry clear	2 × 2.5 = 5	2 × 2.7 Ⓑ 2.5 = (Clears 2.7)
Basics	10 − 7 × (3 + 6) = −53	10 − 7 × Ⓛ [( )] 3 + 6 Ⓐ [( )] =

You can input the formula as written. True Algebraic Logic automatically determines priorities in formula computation. Calculations up to 12 pairs of parentheses nestable in 4 levels can be performed.

	Example	Operation
Constants	2.3 × 12 = 27.6 (−9) × 12 = −108	**12 × × 2.3 = 9** Ⓛ [+/− 7 DEC] = (+/−)
Memory calculation	53 + 6 = 59 +)23 − 8 = 15 74	**53 + 6** Ⓛ [Min RAD × AND] **23 − 8 =** Ⓛ [M+ % + OR] Ⓛ [MR DEG ÷ HEX] └(works as a [Min] key.) (Mt) (MR)

The [Min] key clears the previous number stored and stores a displayed number in the memory.

Trigonometrics	$\sin^{-1}0.8 - \cos^{-1}0.9 = 27°17'17''$	**.8** Ⓐ [1] − **.9** Ⓐ [2] = Ⓐ [0] ($\sin^{-1}$) ($\cos^{-1}$) (°′″←)

Before decimal/sexagesimal conversion, please check if DEG is shown.

Logarithms	log456 ÷ ln456 = 0.4342944	**456** Ⓛ [Min RAD × AND] Ⓛ [4 log 10^x] ÷ Ⓛ [MR DEG ÷ HEX] Ⓛ [5 ln e^x] = (Min) (log) (MR) (ln)
Roots	$\sqrt{2} + \sqrt{3} + \sqrt{5} = 5.2871969$	**2** Ⓛ [9 √ x^2 OCT] + **3** Ⓛ [9 OCT] × **5** Ⓛ [9 OCT] = (√) (√) (√)
Percentages	15% add-on of 2500	**2500 × 15** Ⓐ [M+ % + OR] + (%)
	25% discount of 3500	**3500 × 25** Ⓐ [M+ % + OR] − (%)

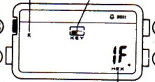
Base-n calculator operation

Basic arithmetic and scientific calculations should be performed in the scientific mode. Base-n and logical calculations should be performed in the Base-n mode.

Constant sign *Key function indicator*

Clears entry for correction Ⓑ

Clears all except memory. Releases overflow or error check. Moves to other mode, when the display is cleared. Ⓒ



Ⓛ

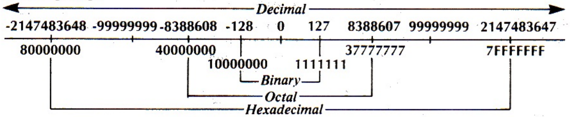
Ⓐ *Moves to "INV" mode.*

Base indication

(Relationship between the key function indicator position and the keyboard functions)

Position of key function indicator	Home position	"INV" mode
	Press Ⓐ. ⟷	
Functions on keyboard	7 8 9 ÷ 4 5 6 × 1 2 3 − 0 · = +	DEC BIN OCT HEX E F XOR AND B C D NEG A EXP = OR

(Working range)



(Calculating examples)

	Example	Operation
Base conversions	$7FFF_{16} = 32767_{10}$	Ⓐ [÷ HEX] 7 Ⓐ [5 F] Ⓐ [5 F] Ⓐ [5 F] Ⓐ [7 DEC] (HEX) (F) (F) (F) (DEC)
Arithmetics	$123_8 \times AB_{16} = 3771_{16}$	Ⓐ [9 OCT] 123 Ⓐ [÷ HEX] × Ⓐ [0 A] Ⓐ [1 B] = (OCT) (HEX) (A) (B)

Logical operations

The following logical operations can be executed on the operand(s) for binary, octal and hexadecimals.

AND ....*Logical product of two operands*

OR..............*Logical sum of two operands*

XOR ....*Exclusive logical sum of two operands*

NEG ....*Negation*

(NOT is obtained by subtracting "1" from the negative number.)

NEG......... Two's compliment

NOT......... One's compliment

19_{16} AND $1A_{16} = 18_{16}$	Ⓐ [÷ HEX] 19 Ⓐ [× AND] 1 Ⓐ [0 A] = (HEX) (AND) (A)
50_{16} OR $1101_2 = 5d_{16}$	Ⓐ [÷ HEX] 50 Ⓐ [8 BIN] Ⓐ [+ OR] 1101 = Ⓐ [÷ HEX] (HEX) (BIN) (OR) (HEX)
5_{16} XOR $3_{16} = 6_{16}$	Ⓐ [÷ HEX] 5 Ⓐ [6 XOR] 3 = (HEX) (XOR)
Negation of $1C_{16}$ is $FFFFFFE4_{16}$	Ⓐ [÷ HEX] 1 Ⓐ [2 C] Ⓐ [− NEG] (HEX) (C) (NEG)

Care of your watch

- Battery life is calculated from when the battery is loaded at the factory. At first sign of power fade (no light or dim display), have battery replaced at dealer or Casio distributor.
- The watch will withstand the ingress of water at a static pressure as indicated, i.e. 50 meters, 100 meters or 200 meters, or equivalent to immersion in sea water at the

stated depths. However, when performing any underwater activity, the dynamic pressure generated through movement is greater than the static pressure. For full details on the limitations of use, please refer to the water resistance chart below:

Rank	Case Designation	Splashes, rain, etc.	Swimming, car-washing, etc.	Snorkeling, diving, etc.	Scuba diving
A*	—	No	No	No	No
B	WATER RESISTANT	Yes	No	No	No
C**	50M WATER RESISTANT	Yes	Yes	No	No

**Sweat-resistant but not water-resistant, so water should be avoided.*

***Caution—50 metres water resistant models—do not operate push buttons below the surface of the water.*

- Your water resistant watch has been tested in accordance with the International Organization for Standardization regulations ISO2281 and FTC (USA) "GUIDE FOR THE WATCH INDUSTRY", Guide 5.
- This watch contains precision electronic components. Never attempt to open the case or remove the back cover.
- A waterproof rubber seal is used to guard against water and dust. As rubber deteriorates with time, the seal should be replaced periodically (every 2—3 years).
- Should water or condensation appear in the watch, immediately have the watch checked. Water can corrode electronic parts inside the case.

- Avoid exposing the watch to temperature extremes.
- Although the watch is designed to withstand impact under normal use, it is inadvisable to subject it to severe impact, rough usage or drops onto hard surfaces.
- Avoid fastening the band too tightly. You should be able to insert your finger inside the band.
- Clean the watch and bracelet with a soft cloth, dry or moistened with mild soap. Never use volatile chemicals (such as benzine, thinners, spray cleaners, etc.).
- Gold plated surfaces can be kept in good condition by regular wiping with a soft damp cloth. Discoloration can be removed with detergent.
  Always store your watch in a dry place.
- Avoid exposing the watch to strong chemicals such as gasoline, cleaning solvent, aerosol spray, adhesive agent, paints, etc. The chemical action caused by such liquids will destroy the seals, case and finish.

Specifications

Accuracy at normal temperature: ±15 seconds a month
Display capacity:
- Regular timekeeping mode
  Hours, minutes, seconds, am/pm, month, date and day
  Time system: Changeover between 12/24-hour formats
  Calendar system: Auto-calendar pre-programmed until the year 2079

- Daily alarm mode
  Hourly time signals
- Stopwatch mode
  Measuring capacity: 23 hours 59 minutes 59.99 seconds
  Measuring unit: 1/100th of a second
  Measuring modes: Normal time, net time, split time and 1st-2nd place times
- Scientific calculator mode
  Basic operations: 4 basic calculations, constants for $+/-/\times/\div$, parenthesis calculations (up to 12 pairs of parentheses nestable at 4 levels) and memory calculations

Capacity:

	Input range	Output accuracy
Entry/basics	8-digit mantissa or 8-digit mantissa plus 2-digit exponent up to $10^{\pm 99}$	
Scientifics		
$\sin x$ /$\cos x$ /tan	DEG: $\|x\| < 1440°$	±1 in the 8th digit
	RAD: $\|x\| \leqq 8\pi$ rad	±1 in the 8th digit
	GRA: $\|x\| < 1600$ gra	±1 in the 8th digit
$\sin^{-1}x$ /$\cos^{-1}x$	$\|x\| \leqq 1$	±1 in the 8th digit
$\tan^{-1}x$	$\|x\| < 10^{100}$	±1 in the 8th digit
log x /ln x	$10^{-99} \leqq x < 10^{100}$	±1 in the 8th digit
10^x	$-10^{100} < x < 100$	±1 in the 8th digit
e^x	$-10^{100} < x \leqq 230.2585$	±1 in the 8th digit

x^y	$x > 0$: y : real number	±1 in the 8th digit
	$x = 0$: $y > 0$	±1 in the 8th digit
	$x < 0$: y : integer or $\pm 1/2n+1$ (n: integer)	±1 in the 8th digit
$x^{1/y}$	$x > 0$: y : real number	±1 in the 8th digit
	$x = 0$: $y > 0$	±1 in the 8th digit
	$x < 0$: y : odd number or $\pm 1/n$ (n: natural number)	
$\sqrt{\ }$	$0 \leqq x < 10^{100}$	±1 in the 8th digit
	$\|x\| < 10^{50}$	±1 in the 8th digit
$1/x$	$\|x\| < 10^{100}$, $x \neq 0$	±1 in the 8th digit
$x!$	$0 \leqq x \leqq 69$ (x: integer)	±1 in the 8th digit
°'" →	[°, ', "] $< 10^{100}$	±1 in the 8th digit
°'" ←	$\|x\| < 10^{96}$	±1 in the 8th digit

- Base-n calculator mode
  Base conversions (BINARY/OCTAL/DECIMAL/HEXADECIMAL),
  4 basic calculations, constants for $+/-/\times/\div$, logical operations (AND/OR/XOR/NEG)

Battery:
One lithium battery (type: CR-1616)
Approx. 2 years operation on type CR-1616 (under the following conditions: illumination —1 sec/day, calculation —1 hr/day, alarm-20 secs/day)

NOTE: THERE IS NO WAY unit components can be damaged or malfunction, due to misoperation of buttons. If confusing information appears on the display, it means entry sequence was incorrect. Please read the manual and try again.

[How to replace the battery]

CAUTION: Battery replacement should not be attempted without use of the correct tools.

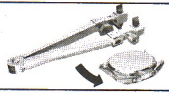
1. Check the type of back cover

2. Removing the back cover

Place the watch on soft material, like buckskin, and hold it firmly.

Screw-in type

With the Adjustable Case Opener, turn the back cover counterclockwise.



Snap-on type (A)

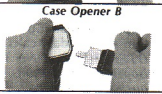
Insert Opener A in the recess and move from side to side to make a gap between the cover and the case. Then use the opener to pry off the cover.

Case Opener A

Snap-on type (B)

Fit Case Opener B into the notch and pry open the back cover.

Case Opener B



***BATTERY LIFE:** Battery life is calculated from when the battery is loaded at the factory. At first sign of power fade (no light or dim display), have battery replaced at dealer or Casio distributor.*

3. Replacing the battery

Using a screwdriver, remove screw(s) from the battery holder.
Replace dead battery(s) and attach the battery holder.

CAUTION

- *Avoid touching the contact (—) of the battery.*
- *Never hold the contacts with metallic tweezers.*

4. AC (ALL CLEAR)

As shown below, touch the AC contact and the battery (+) side with metallic tweezers. Contact should be about 2 seconds.

IMPORTANT

a) Contacting AC (ALL CLEAR) is necessary, when a new battery has been put in, because the memories/counters may cause erratic displays.
b) On some models, pushing the light button will turn on the display.

5. Fitting the back cover

Using the Adjustable Case Opener, tighten the back cover.

Place the watch on a hand press and push the back cover in gently.

Hold the watch horizontally and snap-fit the back cover.