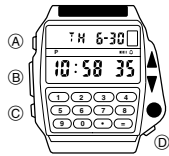


Operation Guide 1174

About This Manual

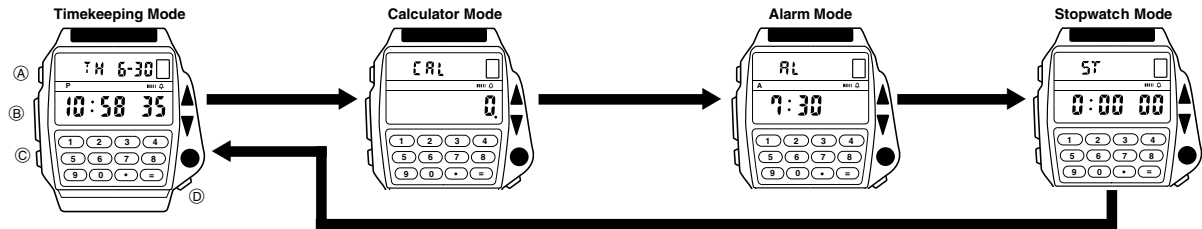
- Button operations are indicated using the letters shown in the illustration.



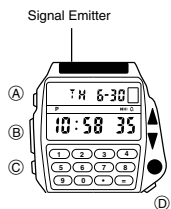
General Guide

- You can use the Remote Control functions while in the Timekeeping Mode.
- Press (C) to change from mode to mode. Each mode is explained in detail on the following pages.

- After you perform an operation in any mode, pressing (C) returns to the Timekeeping Mode.
- An input tone sounds each time you press a button. You can switch the confirmation tone on and off in the Calculator Mode.



Timekeeping Mode



In addition to normal timekeeping, the Timekeeping Mode also provides you with remote control capabilities for your TV, video tape deck, and other devices equipped with a remote control unit.

- This watch only controls devices equipped with a remote control unit.
- For details on how to set the time and date, see "To set the time and date".

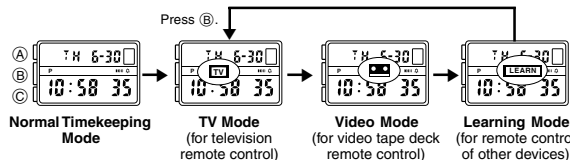
Note

The explanations in this manual use button symbols (▲, ▼, ●, ●), button markings (1, 2, etc.), and letters (A, B, etc.) to indicate buttons on the watch. Example: Press (D) to switch on the television.

About the Timekeeping sub-modes

The Timekeeping Mode is made up of four sub-modes. Use the (B) button while in the Timekeeping Mode to switch between the sub-modes.

- If you leave the watch in the TV, Video or Learning Mode without performing an operation for about two or three hours, the watch automatically returns to the Normal Timekeeping Mode.
- To manually return to the Normal Timekeeping Mode, press (C) to change to the Calculator Mode. Next, use (C) to change to the Timekeeping Mode.



About the TV and Video Tape Deck remote control function

In order to be able to use this watch for remote control of a television or video tape deck, you must first set the appropriate manufacturer code. The manufacturer code tells the watch what signals to use for remote control. The Manufacturer Code Table shows the names of the manufacturers that correspond to each code. For full details on how to actually set the manufacturer code, see "To set the manufacturer code".

Some TV or tape deck models may not work properly with this watch, even though they are made by one of the manufacturers in the Manufacturer Code Table. Also, you may find that you can control a TV or tape deck using a code for a manufacturer that is different from the ones in the table. For details on finding the code you should use, see "How to find the right code".

Notes

- Replacing the battery will cause the remote control data setting (TV/video manufacturer codes) to be altered. Be sure that you make a note of your codes before you have the battery replaced.
- There are some manufacturers with more than one code. Try the various codes available for your equipment to find the one that works best.
- You have to set separate codes for your TV and tape deck, even if they are made by the same manufacturer.
- You might not be able to use this watch to control models that combine a TV and tape deck into a single unit, multi-functional TVs that can be used as computer monitors, or other televisions or tape decks equipped with special functions.

Manufacturer code (TV)

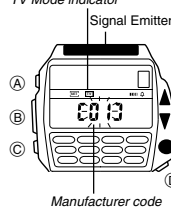
Manufacturer	Code	Manufacturer	Code
FERGUSON	17, 18	PHILIPS	06, 28
FUNAI	15, 16, 41, 42	PIONEER	33
GOLDSTAR	06, 12, 13, 29, 32	SAMSUNG	06, 12, 14, 15, 29, 32
GRUNDIG	20, 21, 22	SANYO	03, 35, 36, 40
HITACHI	03, 25, 26, 27, 28, 29	SHARP	01, 03, 37
JVC	03, 04, 05, 30	SONY	03, 07
mitsubishi	03, 19	TELEFUNKEN	23, 24
NEC	03, 29, 31, 32	TOSHIBA	03, 38, 39, 40
PANASONIC	02, 08, 09, 10		

Manufacturer code (video tape deck)

Manufacturer	Code	Manufacturer	Code
AKAI	24, 25, 33	PANASONIC	02, 14
FERGUSON	17, 18	PHILIPS	07, 08, 09, 10
FUNAI	15	PIONEER	31
GOLDSTAR	26	SAMSUNG	16, 32, 33
GRUNDIG	20, 21, 22	SANYO	34, 35, 36, 37, 38
HITACHI	04, 27, 42	SHARP	01
JVC	03, 04, 05	SONY	11, 12, 13
mitsubishi	06, 19	TELEFUNKEN	06, 23
NEC	28, 29	TOSHIBA	39, 40, 41
NOKIA	30		

To set the manufacturer code

1. Switch on the TV or video tape deck whose manufacturer code you want to set.
2. In the Timekeeping Mode, press (B) to select the TV Mode (TV) or Video Mode (V).
3. Select TV Mode if you want to set the code for your TV, or the Video Mode to set the code for your video deck. Hold down (A) until a manufacturer code appears flashing on the display.



4. While the TV or video manufacturer code setting display is shown, press (▲) to increase the code number.
- Holding down (▲) increases the code number at high speed.
- See the Manufacturer Code Table for details on manufacturer codes.



5. To test whether or not the displayed manufacturer code is correct for your equipment, point the Signal Emitter (red window) at your TV or tape deck and press (D).
- If the above operation switches the power of your TV or tape deck off, it means that the correct code has been selected.
- Certain TVs and tape decks may be slow to respond after receiving a remote control signal. With such units, try holding down (D) for one or two seconds.
- If nothing happens when you press (D), use steps 4 and 5 to try another code.

- After you set the correct manufacturer code, press (A) to return to the mode you selected in step 2 (TV or Video).
- See "To use the TV and video remote control functions" for information on using the remote control functions.
- If you can't find a code that works with your equipment, see "How to find the right code".
- If you do not press any buttons for a few minutes while the manufacturer code is flashing, the flashing will stop and the watch automatically returns to the TV or Video Mode.

How to find the right code

Use the following operation if you have difficulty finding a manufacturer code that works with your equipment.

- Switch on the TV or video tape deck whose manufacturer code you want to set.
- In the Timekeeping Mode, press (B) to select the TV Mode (TV) or Video Mode (V).
- Select TV Mode if you want to find the code for your TV, or the Video Mode to find the code for your video deck.
- Hold down (A) until a manufacturer code appears flashing on the display.
- Press (▲) until manufacturer code 01 appears.
- Code 01 comes sequentially after code 42.
- Holding down (▲) increases the code number at high speed.
- To test whether or not the displayed manufacturer code is correct for your equipment, point the Signal Emitter (red window) at your TV or tape deck and press (D).
- If the above operation switches the power of your TV or tape deck off, it means that the correct code has been selected. Skip to step 6.
- Certain TVs and tape decks may be slow to respond after receiving a remote control signal. With such units, try holding down (D) for one or two seconds.
- If nothing happens when you press (D), press (▲) to advance to the next code and repeat step 5 to test the code.

- After you set the correct manufacturer code, press (A) to return to the mode you selected in step 2 (TV or Video).

To use the TV and video remote control functions

- In the Timekeeping Mode, press (B) to select either the TV Mode (TV) indicator shown on the display or Video Mode (V) indicator shown on the display.
- Point the Signal Emitter (red window) at your TV or tape deck and use the buttons to perform the operation that you want (see table on the right).
- Each time you perform an operation, an indicator appears on the display to indicate when the watch is emitting a remote control signal.



Button	TV Mode	Video Mode
(B)	Switches to Video Mode	Switches to Learning Mode
(D)	Switches power on and off	Switches power on and off
(▲)	Increases volume	Increases volume
(▼)	Decreases volume	Decreases volume
(●)	Performs execute or confirm function	No function
Numeric Buttons		
(=)	Changes to the next higher channel	Changes to the next higher channel
(-)	Changes to the next lower channel	Changes to the next lower channel
(0) to (9)	For channel selection	1, 2, 3, 4 have functions noted below
(1)	Inputs 1 for channel selection	Starts rewind operation
(2)	Inputs 2 for channel selection	Stops tape transport
(3)	Inputs 3 for channel selection	Starts tape playback
(4)	Inputs 4 for channel selection	Starts fast forward operation

After pressing (A), the buttons in the following table have the functions noted.

- When you press (A), the indicator "S" appears in the upper left of the display to indicate that the buttons are "shifted." Note that the manufacturer code setting display does not appear if you press (A) while "S" is displayed. To call up the manufacturer code setting display, first press another button to clear "S."

Button	TV Mode	Video Mode
(●)	Switches between TV and video function	Switches between TV and video function
(1)	Inputs "1" as leading digit of two digit channel number * (10 +)	No function
(2)	Inputs "2" as leading digit of two digit channel number (20 +)	No function

*With some TV models, pressing (A) and then the (1) button causes a switch between one-digit channel input (-) and two-digit channel input (-+).

Notes

- With some television models, pressing (D) will not switch power on. If this happens, try pressing any of the numeric buttons to switch power on.
- With some television models, pressing (A) and then (●) will not switch between TV and video functions. If this happens, try pressing the (=) and (-) buttons. With some TVs, the switch between the TV and video functions is performed between channel 1 and the last channel available.
- This watch is equipped with buttons that cover as wide a range of remote control functions as possible. Note, however, that if your TV or tape deck is not equipped with some of these functions, nothing will happen when you press the corresponding button on this watch.
- For televisions that do not have a TV/video switching function, pressing (A) and then (●) may switch teletext, etc. on and off.

Inputting two-digit channel numbers

There are various systems being used for input of two-digit channel numbers. With this watch, you should use the system that is closest to the one employed by the remote control unit that comes with your TV or video equipment.

Example: To select channel 12

- If the remote control unit of your equipment has a special key for input of a 10's digit, press the watch's (A) button. Next, input (1) and then (2).
- If the remote control unit of your equipment allows input of two digits, hold down the (1) button for two or three seconds and then, press the (2) button of the watch.
- If the remote control unit of your equipment does not allow input of two digits, use the (=) and (-) buttons to change to the two-digit channel number you want.
- If the remote control unit of your equipment uses an EXECUTE or CONFIRM button for two-digit channel number input, press the (1) button and then the (2) button, and then press the (●) button of this watch.

About the Learning Mode

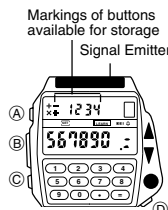
The Learning Mode makes it possible for you to set up the watch for use with a stereo system, or any other device equipped with an infrared sensor. The Learning Mode lets you store infrared data for up to 16 functions for instant recall when you need them.

Important!

- Due to difference in infrared signal forms, this watch may not work properly with certain types of equipment.
- Learning Mode functions may not work properly if watch battery power is too low.
- Replacing the battery will cause the Learning Mode data settings to be cleared. If you want to assign functions to the same buttons after the battery is replaced, be sure that you make a record of your data before you have the battery replaced.
- The Learning Mode data for some functions take up more memory than that of other functions. Because of this, you may be able to store data for fewer than 16 functions.

To store Learning Mode data

- In the Timekeeping Mode, press (B) to select the Learning Mode (LEARN).
- Hold down (A) for one or two seconds, until the data memory display appears.
- The markings of all the buttons that are available for data storage appear on the display.
- If you do not perform any operation for two or three minutes while the data memory display is shown, the watch automatically returns to the Learning Mode.
- Press a button to select where the data should be stored.

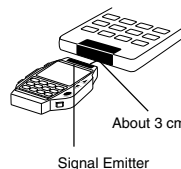


Markings	Buttons	Markings	Buttons
0 to 9	(0) to (9)	-	(▼)
.	(.)	x	(●)
=	(=)	÷	(D)
+	(▲)		

- When you press a button, the corresponding marking flashes on the display, indicating that the watch is ready to accept data input.
- If you do not perform any operation for about 15 seconds after a marking starts flashing, the watch automatically returns to the Data Memory Display.

Remote Control Unit

- Position the signal emitter of the remote control unit whose function you want to store against the signal emitter of the watch, as shown in the illustration, and hold down the button of the remote control unit for the function whose data you want to store.
- At this time, the indicator (S) appears in the upper part of the watch's display to indicate that the watch is receiving the signal. Take care that you do not move the watch or the remote control unit, and that you keep the remote control unit button depressed until the indicator (S) disappears from the watch's display.
- While the watch is storing infrared data, "- -" is shown in the watch's upper display.



- The watch can receive Learning Mode data only as long as one of the key markings is flashing on the display. If the key marking you selected stops flashing, return to step 3.
- After the data storage procedure is complete, the corresponding key marking disappears from the display of the watch (Figure 1).

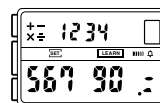


Figure 1

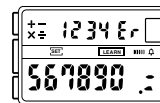


Figure 2

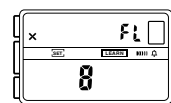


Figure 3

- The message "Er" (error) on the watch's display (Figure 2) indicates that the data was not received correctly or that infrared data was not stored correctly in the watch's memory. Repeat the procedure starting from step 3.
- The message "FL" (full) on the watch's display (Figure 3) indicates that further data storage will not be possible because memory is full.

- If you want to store more data, continue from step 3. To exit the procedure, press (A) to return to the Learning Mode.

Important

- Whenever you store Learning Mode data, it replaces anything that was previously stored in the memory you select. If you want to change previously stored data to different data, perform the above procedure and press the button whose data you want to replace in step 4. When you do, the marking for that button will start to flash on the display.
- If an "Er" or "FL" error occurs while you are replacing existing data with new data, the previous data remains unchanged in memory.
- Sometimes, the watch will indicate that data was successfully stored, but you may have problems when later using the function in the Learning Mode. When this happens, repeat the above procedure and try storing the Learning Mode data again. If the function still does not work properly in the Learning Mode, it probably means that the signal you are storing is not compatible with this watch's remote control system.
- You can keep a record of what functions you store to which button using the Learning Mode Memo.

To use Learning Mode data

- In the Timekeeping Mode, press **(B)** to select the Learning Mode (**LEARN**).
- Point the signal emitter at the device you want to control and press the button to which the function is assigned.

To clear Learning Mode data

- In the Timekeeping Mode, press **(B)** to select the Learning Mode (**LEARN**).
- Hold down **(A)** for one or two seconds, until the data memory display appears.
- Press the button that corresponds to the Learning Mode data you want to delete. When you do, that button's marking flashes on the display.
- Hold down **(B)** until the button marking stops flashing.
- Press **(A)** to return to the Learning Mode.

Troubleshooting Guide

Problem: Remote control functions do not work at all.

- Possible Cause:** Use of the wrong mode (TV/Video/Learning)
 - Action:** Make sure the watch is in the TV Mode when you are trying to control a TV, in the Video Mode when you are trying to control a video tape deck, or in the Learning Mode when you are trying to control a unit whose data you have stored using the Learning Mode. See "About the Timekeeping sub-modes" for details on changing modes.
- Possible Cause:** Wrong manufacturer code
 - Action:** You must set the correct manufacturer code for the type of TV or video tape deck you are trying to control. See "To set the manufacturer code".
- Possible Cause:** The path between the signal emitter and device you are trying to control is blocked or too long (more than five meters).
 - Action:** Make sure that the path between the watch's signal emitter and the signal receiver of the device being controlled is not blocked by clothing, your hand, furniture, etc. Reduce the distance between the signal emitter and device if necessary.
- Possible Cause:** Your TV or video tape deck is not equipped with an infrared remote control system.
 - Action:** Use this watch only with TVs or video tape decks equipped with an infrared remote control system.
- Possible Cause:** The main power switch of the TV, video tape deck, or other device is switched off.
 - Action:** Use the main power switch to switch power on.
- Possible Cause:** Manufacturer codes and Learning Mode data were altered by battery replacement.
 - Action:** Replacing the battery will cause the remote control data setting (TV and video tape deck manufacturer codes, and Learning Mode data) to be altered. Re-input the codes.

Problem: Some remote control functions do not work.

- Possible Cause:** Improper pointing of the watch's signal emitter.
 - Action:** Make sure that the signal emitter is pointing directly at the device you are controlling.
- Possible Cause:** Use of button on the watch for which the TV/video tape deck does not have a corresponding function.
 - Action:** Some TV or tape deck models may not have functions that correspond to the functions provided on the watch.
- Possible Cause:** Direct sunlight shining on the infrared signal receiver port on the TV or video deck.
 - Action:** Take action so that direct sunlight does not shine on the infrared signal receiver port on the TV or video deck.

Problem: Video deck functions do not work at all.

- Possible Cause:** Your video tape deck might have a dual code (A Code/B Code or Video 1/Video 2) remote control receiver.
 - Action:** Try switching the setting (between A Code/B Code or Video 1/Video 2) on your video tape deck until you find the correct setting for use with the watch.

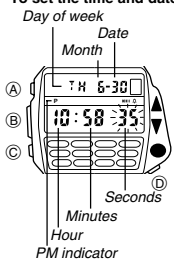
Problem: Cannot store Learning Mode data.

- Possible Cause:** The remote control unit whose signals you are trying to store is not an infrared type remote control unit.
 - Action:** Use this watch only with devices equipped with infrared remote control system.
- Possible Cause:** The watch is not set up correctly to store data.
 - Action:** This watch can store data in the Learning Mode only as long as one of the key markings is flashing on the display. Perform the Learning Mode operation correctly so that a key marking is flashing on the display.
- Possible Cause:** The watch and remote control unit are not facing correctly or they are too far from each other.
 - Action:** Position the signal emitter of the remote control unit so that it faces directly at the signal emitter of the watch. Make sure that the remote control unit and watch are about three centimeters apart.
- Possible Cause:** Error during storage of Learning Mode data (indicated by "E" message).
 - Action:** Take care that you do not move the watch or the remote control unit you are using while storing Learning Mode data. Otherwise, you may be using a remote control unit whose infrared signals are incompatible with this watch's memory.
- Possible Cause:** Memory full (indicated by "FL" message).
 - Action:** Delete data that you no longer need to make room for new data.

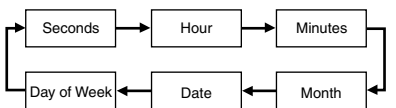
Problem: Learning Mode operation does not work.

- Possible Cause:** Improper storage of Learning Mode data.
 - Action:** Check the display of key markings on the screen that appears when storing Learning Mode data. If the marking of the button you are trying to use appears on the display, it means that Learning Mode data is not assigned to that button. Perform the correct procedure to assign data to that button.
- Possible Cause:** Operation of a button to which no Learning Mode data was stored.
 - Action:** Correctly store Learning Mode data.

To set the time and date



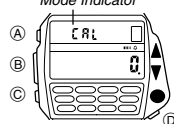
- Use **(C)** to enter the Timekeeping Mode.
 - You cannot set the time and date starting from the TV (**TV**), Video (**VID**), or Learning (**LEARN**) Modes. If the watch is in any of these modes, press **(C)** four times to return to the Normal Timekeeping Mode.
- Hold down **(A)** while in the Normal Timekeeping Mode until the seconds digits start to flash on the display. The seconds digits flash because they are *selected*.
- Press **(C)** to change the selection in the following sequence.



- While the selection is flashing, press **(B)** to switch between 12-hour and 24-hour formats.
- While the seconds digits are selected (flashing), press **(▲)** to reset the seconds to "00". If you press **(▲)** while the seconds count is in the range of 30 to 59, the seconds are reset to "00" and 1 is added to the minutes. If the seconds count is in the range of 00 to 29, the minutes count is unchanged.
- While any other digits (besides seconds) are selected (flashing), press **(▲)** to increase the number. While the day of the week is selected, pressing **(▲)** advances to the next day. Holding down **(▲)** changes the current selection at high speed.
- After you set the time and date, press **(A)** to return to the Timekeeping Mode.
- The watch does not make any allowance for leap years. Be sure to manually set February 29 (when one occurs) for the appropriate date.
- If you do not press any buttons for a few minutes while a selection is flashing, the flashing stops and the watch goes back to the Timekeeping Mode automatically.

Calculator Mode

Mode Indicator



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).

To use the calculator

- The following table shows the buttons you should use to perform calculations in the Calculator Mode.

Calculator Mode Function	Button	Calculator Mode Function	Button
Numeric input	(D) to (9)	Division (÷)	(D)
Addition (+)	(▲)	Decimal point (.)	(*)
Subtraction (-)	(▼)	Equals (=)	(=)
Multiplication (x)	(●)	Calculator clear	(B)

- Input calculations 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 you press the wrong arithmetic operation key, simply press the correct key before inputting anything else.
- If the result of a calculation exceeds 8 digits, an "E" (error) indicator appears on the display. Press **(B)** to clear the error indicator.

Calculation Examples

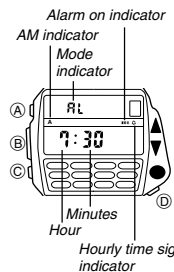
Example	Operation	Display
35 + 64 - 123 = -24	(B) (3) (5) (▲) (6) (4) (▼) (1) (2) (3) (=)	-24.
2.3 × 5.2 = 11.96	(B) (2) (.) (3) (●) (5) (.) (2) (=)	11.96
89 ÷ 56 = 1.5892857	(B) (8) (9) (D) (5) (6) (=)	1.5892857
56 × 3 - 89 = 79	(B) (5) (6) (●) (3) (▼) (8) (9) (=)	79.

To switch the input tone on and off

- While in the Calculator Mode, press **(A)** to switch the input tone on and off.
- A beep sounds when you press **(A)** to switch the input tone on. Nothing sounds when you press **(A)** to switch the input tone off.

Alarm Mode

Alarm on indicator



When the Daily Alarm is switched on, the alarm sounds for 20 seconds at the preset time each day. Press any button to stop the alarm after it starts to sound. When the Hourly Time Signal is switched on, the watch beeps every hour on the hour.

To set the alarm time

- Hold down **(A)** while in the Alarm Mode until the hour digits start to flash on the display. The hour digits flash because they are *selected*.
- This operation will switch the Daily Alarm on automatically.
- Press **(C)** to change the selection in the following sequence.



- Press **(▲)** to increase the selected digits. Holding down **(▲)** increases the selection at high speed.
- The format (12-hour and 24-hour) of the alarm time matches the format you select for normal timekeeping.
- When setting the alarm time using the 12-hour format, take care to set the time correctly as morning (A) or afternoon (P).
- After you set the alarm time, press **(A)** to return to the Alarm Mode.

