# CASIO

## **Getting Acquainted**

Congratulations upon your selection of this CASIO watch. To get the most out of your purchase, be sure to carefully read this manual and keep it on hand for later refe when necessary.

Expose the watch to bright light to charge its battery before using it. You can use this watch even as its battery is being charged by exposure to

Be sure to read "Battery" of this manual for important information you need to know when exposing the watch to bright light.



World Time Mode

**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.

Data Bank Mode

SDB

# If the display of the watch is blank..



If the Power Saving on (S) indicator flashes on the display, it means that the display is blank because In the Power Saving on (S) indicator flashes on the display, it means that the display is blank because the watch's Power Saving function has turned off the display to conserve power. Power Saving automatically turns off the display and puts the watch into a sleep state whenever your watch is left for a certain period where it is dark. is dark.

- is dark.

  The initial factory default setting is Power Saving on.

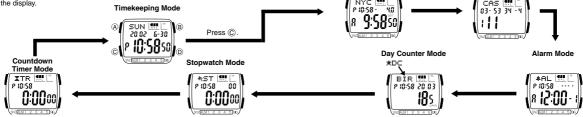
  The watch recovers from the sleep state if you move it to a well-lit area \*-if you press any button, or if you angle the watch towards your face for reading.

  \* It can take up to five seconds for the display to turn on.

  See "Power Saving function" for more information

# **General Guide**

- Press © to change from mode to mode.
  In any mode (except when a setting screen is on the display), press ® to illuminate. the display. Timekeeping Mode



## Timekeeping

PM indicator Language indicato

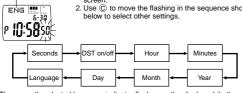


Use the Timekeeping Mode to set the time and date

Note
This watch is capable of displaying text for the day of the week in any one of 16 different languages (English, Portuguese, Spanish, French, Dutch, Danish, German, Italian, Czech, Swedish, Polish, Greek, Romanian, Turkish, Russian, and Japanese).

- **To set the time and date**1. In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.

  2. Use © to move the flashing in the sequence shown
- below to select other settings.



- The currently selected language indicator flashes on the display while the Language (setting) is selected in the above sequence.
- 3. When the setting you want to change is flashing, use  ${\mathbin{\mathbb B}}$  and  ${\mathbin{\mathbb D}}$  to change it as

| described below.                   |   |
|------------------------------------|---|
| To change this setting             | Perform this button operation   |
| Seconds                            | Press D to reset to DD.   |
| DST on/off                         | Press ① to toggle between Daylight Saving Time ( CF displayed) and standard time ( CF displayed). |
| Hour, Minutes, Year,<br>Month, Day | Use ① (+) and ⑧ (-) to change the setting.  |
| Language                           | Use B and D to change the language setting.   |

While the language indicator is flashing on the display, use 
 and 
 to cycle through the language indicators as shown below, until the one for the language you want to select is displayed.

| Press      | Indicator | Language   | Indicator | Language | Indicator | Language |
|------------|-----------|------------|-----------|----------|-----------|----------|
|            | ENG       | English    | DEU       | German   | ROM       | Romanian |
|            | POR       | Portuguese | ITA       | Italian  | TÜR       | Turkish  |
| *          | ESP       | Spanish    | CES       | Czech    | PYC       | Russian  |
| I          | FRA       | French     | SVE       | Swedish  | JPN       | Japanese |
| - 1        | NED       | Dutch      | POL       | Polish   |           |          |
| Press (B). | DAN       | Danish     | EΛΛ       | Greek    |           |          |

- 4. Press (a) to exit the setting screen.The day of the week is automatically displayed in accordance with the date (year,
- month, and day) settings.

  See the "Day of the Week List" for information on abbreviations used.

- In addition to the day of the week display, the language setting also affects the type
  of characters you can input for the name in the Data Bank Mode and the text in the
  Day Counter Mode.
- bay Counter Mode.

  Holding down (a) in the Timekeeping Mode displays the indicator for the currently selected language. Keeping (a) depressed for about two seconds changes to the Timekeeping Mode setting screen (indicated by the seconds flashing). If you accidentally display the setting screen, press (a) again to exit.

# To toggle between 12-hour and 24-hour timekeeping

- To toggle between 12-hour and 24-hour timekeeping
  In the Timekeeping Mode, press ① to toggle between 12-hour timekeeping (indicated
  by A or P on the display), or 24-hour timekeeping.

  With the 12-hour format, the P (PM) indicator appears on the display for times in the
  range of noon to 11:59 p.m. and the A (AM) indicator appears for times in the range
  of midnight to 11:59 a.m.

  With the 24-hour format, times are displayed in the range of 0:00 to 23:59, without
  any indicator.
- any indicator.
- The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is applied in all modes

Daylight Saving Time (DST)
Daylight Saving Time (summer time) 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 the Timekeeping Mode time between DST and Standard Time



- In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting
- seconds start to hash, which indicates the setting screen.

  2. Press © to move the flashing to the DST on/off setting.

  3. Press © to toggle between Daylight Saving Time (@n displayed) and standard time (@n displayed).
- Sprayed and standard unit (Mr displayed).
   Fress (a) to exit the setting screen.
   The DST indicator appears on the display to indicate that Daylight Saving Time is turned on in the Timekeeping, Alarm, and Day Counter Mode.

# **World Time**



Current time in the selected city The World Time shows the current time in 28 cities (29

- The world Time shows the current time in 28 crites (29 time zones) around the world.

  The time settings of the Timekeeping Mode and the World Time Mode are independent from each other, so you must make separate settings for each.

  Whenever you change the time setting for any city in the World Time Mode, the settings of all other cities are
- changed accordingly.
  The UTC differential value indicates the number of hours offference in time between the currently selected time zone and UTC.

  All of the operations in this section are performed in the World Time Mode, which you enter by pressing ©.

# CASIO

DST indicator

A B'S OF

To set the current time in the World Time Mode

OCT in time to 1. In the World Time Mode, use ① to select the city code





4. When the setting you want to change is flashing, use ® and ® to change it as

| To change this setting | Perform this button operation  |
|------------------------|--|
| DST on/off             | Press ① to toggle between Daylight Saving Time (@ff displayed) and standard time (@ff displayed).  The above operation toggles all World Time city codes between Daylight Saving Time and Standard Time. |
| Hour, Minutes          | Use ① (+) and ⑧ (-) to change the setting.   |

- While the settings are flashing on the display, pressing (a) at the same time changes the DST on/off, hour, and minutes settings so they match the Timekeeping Mode time.

  When setting the world time using the 12-hour format, take care to set the time correctly as a.m. (A indicator) or p.m. (P indicator).

- 5. Press (a) to exit the setting screen.
  The DST indicator appears on the display to indicate that Daylight Saving Time is turned on in the World Time Mode.
  Note that you cannot make settings for individual city codes. Daylight Saving Time (summer time) advances the time setting by one hour from Standard Time.
  Remember that not all countries or even local areas use Daylight Saving Time.

To view the time in another city code
In the World Time Mode, press ⊕ to scroll city codes (time zones).

• For full information on city codes, see the "City Code Table".

## Data Bank

808 | 1991 | وج:۶ CAS !!!! 03: 53 34 : ! !

The Data Bank 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.

  The characters you can input for the name depend on the language you select in the Timekeeping Mode. See "To set the time and date" for more information. Changing the language setting does not affect names that are already stored.
- See "Sort Table" for details on how the watch sorts
- All of the operations in this section are performed in the Data Bank Mode, which you enter by pressing ©.

Name area HALL IN Number area

New Data Screen

- To create a new Data Bank record

  1. In the Data Bank Mode, use ① to display the new data
  - To jump directly to the new data screen, press (B) and
  - In jump directly to the new data screen, press (a) and (a) at the same time.

    If the new data screen does not appear when you press (b), it means that memory is full. To store another record, you will first have to delete some of the records stored in memory.

    Individual to the data for the flashing cursor (...) appears in the name area of the display.

  - the name area of the display.

    3. In the name area, use 

    B and 

    D to cycle through characters at the cursor position. The characters cycle in the sequence shown below.

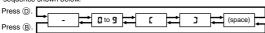


- The above character sequence is for English input. See "Character List" for the
- character sequences of other languages.

  4. When the character you want is at the cursor position, press © to move the cursor

- When the character you want is at the cursor position, press (a) to move the cursor to the right.
   Repeat steps 3 and 4 until the name is complete.
   You can input up to eight characters for the name.
   After you input the name, press (a) as many times as necessary to move the cursor to the number area.
  - When the cursor is located at the eighth space of the name area, moving the cursor to the right causes it to jump to the first digit of the number. When the
- cursor to the right causes it to jump to the first agit of the number. When the cursor is at the 16th digit of the number, moving it to the right (by pressing ②) causes it to jump to the first character in the name.

  7. In the number area, use ③ and ⑤ to cycle through numbers and symbols (hyphen, brackets, space) at the cursor position. The characters cycle in the sequence shown below.



- 9. Repeat steps 7 and 8 until you complete number input.

  9 You can input up to 16 digits for the number.

  1 The number initially contains all hyphens. You can leave the hyphens as they are or replace them with numbers or other symbols (brackets, space).

- 10. Press (A) to store your data and return to the Data Bank record screen (without
- When you press (A) to store data, the name and number you input flash for about one second as Data Bank records are sorted. After the sort operation is complete, the Data Bank record screen appears.

  The name can show only three characters at a time, so longer text scrolls continuously
- from right to left. The last character is indicated by the symbol # after it.

## To recall Data Bank records

In the Data Bank Mode, use (1) to scroll through Data Bank records on the display

## To edit a Data Bank record

- In the Data Bank Mode, use (D) to scroll through the records and display the one 1. In the Data Bank Mode, use (①) to scroll through the records and display the one you want to edit.
  2. Hold down (A) until the flashing cursor appears on the display.
  3. Use (②) to move the flashing to the character you want to change.
  4. Use (③) (forward) and (B) (back) to change the character.
  5. After making the changes that you want, press (A) to store them and return to the

- Data Bank record screen

- To delete a Data Bank record

  1. In the Data Bank Mode, use ① to scroll through the records and display the one you want to delete.

  2. Hold down ② until the flashing cursor appears on the display.

  3. Press ③ and ① at the same time to delete the record.

   The message CLR appears to indicate that the record is being deleted. After the record is deleted the cursor appears on the display, ready for input.

- record is deleted, the cursor appears on the display, ready for input.

  4. Input data or press (A) to return to the Data Bank record screen.

## Alarms



You can set up to five independent multi-function alarms with hour, minutes, month, and day. When an alarm is turned on, the alarm tone sounds when the alarm time is turned off, the alarm tone sounds when the alarm time is reached. One of the alarms can be configured as a snooze alarm or a one-time alarm, while the other four are one-time alarms.

You can also turn on an Hourly Time Signal that causes

- the watch to beep twice every hour on the hour.

   There are five alarms numbered through § You can Incre are five alarms numbered ; finrough 5, You ca configure Alarm 1 as a snooze alarm or a one-time alarm. Alarms 2 through 5 can be used as one-time alarms only.

  Alarm settings (and Hourly Time Signal settings) are available in the Alarm Mode, which you enter by
- pressing ©.

## Alarm Types

type is determined by the settings you make, as described below.

 Daily alarm
Set the hour and minutes for the alarm time. This type of setting causes the alarm to sound everyday at the time you set

# Date alarm

Set the month, day, hour and minutes for the alarm time. This type of setting causes the alarm to sound at the specific time, on the specific date you set

# 1-Month alarm

Set the month, hour and minutes for the alarm time. This type of setting causes the alarm to sound everyday at the time you set, only during the month you set

# Monthly alarm

Set the day, hour and minutes for the alarm time. This type of setting causes the alarm to sound every month at the time you set, on the day you set.

# To set an alarm time



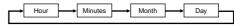
displayed. Alarm ‡



1. In the Alarm Mode, use (D) to scroll through the alarm screens until the one whose time you want to set is



- The Hourly Time Signal screen does not have an alarm number.
- 2. After you select an alarm, hold down (A) until the hour setting of the alarm time starts to flash, which indicates the setting screen
  - This operation automatically turns on the alarm
- 3. Use © to move the flashing in the sequence shown below to select other settings



- While a setting is flashing, use (() (+) and (() (-) to change it.
  To set an alarm that does not include a month (Daily alarm, Monthly alarm), set for the month. Use (() and (() until the mark appears (between 12 and 1) while month setting is flashing.
  To set an alarm that does not include a day (Daily alarm, 1-Month alarm), set for the day. Use (() and (() until the -- mark appears (between the end of the month and 1) while the day setting is flashing.
  When setting the alarm time using the 12-hour format, take care to set the time correctly as a.m. ((A) indicator) or p.m. ((P) indicator).

# **Alarm Operation**

The alarm tone sounds at the preset time for 10 seconds, regardless of the mode the watch is in. In the case of the snooze alarm, the alarm operation is performed a total of seven times, every five minutes, until you turn the alarm off or change it to a one time alarm

- time alarm.

   Pressing any button stops the alarm tone operation.

   Performing any one of the following operations during a 5-minute interval between snooze alarms cancels the current snooze alarm operation.

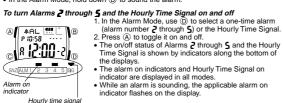
  Displaying the Timekeeping Mode setting screen

  Displaying the alarm { setting screen}

# CASIO

## To test the alarm

In the Alarm Mode, hold down to sound the alarm.



Hourly time signa

- To select the operation of Alarm #

  1. In the Alarm Mode, use ① to select Alarm #.

  2. Press ④ to cycle through the available settings in the sequence shown below.

## Snooze on indicator and Alarm I on indicator



- The snooze on indicator and Alarm 1 on indicator are displayed in all modes.
  The snooze on indicator flashes during the 5-minute intervals between alarms.
  The alarm indicator (Alarm 1 on and/or snooze on) flashes while the alarm is

# Day Counter

the 1-second



The Day Counter lets you count the number of days from the Timekeeping Mode's current date to a specific target There are five Day Counter records, each of which can

- be set with its own text and target date (year, month, day).
  When the target date falls before the current date (as kept in the Timekeeping Mode), the number of days is
- displayed as a negative value.
- Whenever the date specified by any one of the Day Counters matches the date of the Timekeeping Mode (regardless of the Day Counter's year setting), the **DAYS** indicator flashes on the Timekeeping Mode and Day



- The initial default target date when you purchase the watch, after you have its
- The initial detail target date when you putchase the watch, after you have its battery replaced, or when battery power drops to Level 5 is January 1, 2001.
   The characters you can input for the text depend on the language you select in the Timekeeping Mode. See "To set the time and date" for more information. Changing the language setting does not affect texts that are already stored.
   All of the operations in this section are performed in the Day Counter Mode, which was considered.
- you enter by pressing ©.

# To create a new Day Counter record

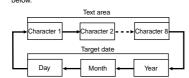


- nter record

  I. In the Day Counter Mode, use ① to scroll through the Day Counter records until the one you want is on the display.

  2. Hold down ② until the flashing cursor appears in the text area of the display, which indicates the setting
- screen.

  3. Press © to move the flashing in the sequence shown



4. While the cursor is in the text area, use (B) and (D) to cycle through characters at the cursor position. The characters cycle in the sequence shown below.



- The above character sequence is for English input. See "Character List" for the character sequences of other languages.

   When the character you want is at the cursor position, press © to move the cursor that the character you want is at the cursor position.
- to the right.
- Repeat steps 4 and 5 until the name is complete

- 6. Repeat steps 4 and 5 until me name is complete.
  You can input up to eight characters for the text.
  7. After you input the text, press © as many times as necessary to move the cursor to the target date.
  When the cursor is located at the eighth space of the text area, moving the cursor to the right causes it to jump to the year setting. When the cursor is at the day setting, moving it to the right (by pressing ©) causes it to jump to the first elements in the text. character in the text
- 8. While the year, month, or day setting is flashing, use (D) (+) and (B) (-) to change
- The text can show only three character is indicated by the symbol 4 after it.

  When the setting.

  The text can show only three characters at a time, so longer text scrolls continuously from right to left. The last character is indicated by the symbol 4 after it.

Use the above procedure to edit Day Counter records, too.

To recall Day Counter records
In the Day Counter Mode, use ① to scroll through the Day Counter records.

## To delete a Day Counter record

- 1. In the Day Counter Mode, scroll through the records and display the one you want to delete

- to delete.

  2. Hold down (A) until the flashing cursor appears on the display.

  3. Press (B) and (D) at the same time to delete the record.

   The message CLR appears to indicate that the record is being deleted. After the record is deleted, the cursor appears on the display and Timekeeping Mode current date is set as the target date, ready for input.

  4. Input data or press (A) to exit the setting screen.

## Stopwatch

time 1/100 sect A \*ST \*\*\*\* 00 \B 

The stopwatch lets you measure elapsed time, split times, and two finishes.

- and two finishes.

   The display range of the stopwatch is 23 hours, 59 minutes, 59.99 seconds.

   The stopwatch continues to run, restarting from zero

- The stopwarch continues to run, restarting from zero after it reaches its limit, until you stop it.
   The stopwarch measurement operation continues even if you exit the Stopwarch Mode.
   Exiting the Stopwarch Mode while a split time is frozen on the display clears the split time and returns to elapsed time measurement.
- All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing ©

## To measure times with the stopwatch

Display time of first runner.

## Elapsed Time **▶**(D) (D) -Start Re-start Stop Split Time (D) Split Start Split release Ston Two Finishes (D) (A) Split release Split Display time of second runner.

## Countdown Timer



The countdown timer can be set within a range of 1 minute to 24 hours. An alarm sounds when the countdown reaches zero

Countdown timer functions are available in the
 Countdown Timer Mode, which you enter by pressing
 ©.

To set the countdown start time

1. In the Countdown Timer Mode, hold down (A) until the hour setting of the countdown start time starts to flash, which indicates the setting screen.

Press © to move the flashing between the hour and minute settings.
 While a setting is flashing, use ⑥ (+) and ⑧ (-) to change it.
 To set the starting value of the countdown time to 24 hours, set ②:○○
 Press ⑥ to exit the setting screen.

# To use the countdown timer

- Press (D while in the Countdown Timer Mode to start the countdown timer.

   When the end of the countdown is reached, the alarm sounds for 10 seconds or until you stop it by pressing any button. The countdown time is automatically reset to its starting value after the alarm stops.
- Press 

  while a countdown operation is in progress to pause it. Press 

  again to
- Press () While a countdown operation is in progress to pause it. Press () again to resume the countdown.
   To completely stop a countdown operation, first pause it (by pressing (iii)), and then press (iii). This returns the countdown time to its starting value.
   The countdown timer measurement operation continues even if you exit the Countdown Timer Mode.

# **Backlight**



The backlight uses an EL (electro-luminescent) panel that causes the entire display to glow for easy reading in the dark. The watch's auto light switch automatically turns on the backlight when you angle the watch towards your face in the dark.

The auto light switch must be turned on (indicated by

the auto light switch on indicator) for it to operate.

See "Backlight Precautions" for other important information about using the backlight.

To turn on the backlight manually
In any mode, press (a) to illuminate the display for about one second.
The above operation turns on the backlight regardless of the current auto light switch setting

# About the Auto Light Switch

Turning on the auto light switch causes the backlight to turn on for about one second, whenever you position your wrist as described below in any mode. Note that this watch features a "Full Auto EL Light," so the auto light switch operates only when available light is below a certain level. It does not turn on the backlight under bright

Moving the watch to a position that is parallel to the ground and then tilting it towards you more than 40 degrees causes the backlight to turn on.





# Warning!

- warning:

   Always make sure you are in a safe place whenever you are reading the display of the watch using the auto light switch. Be especially careful when running or engaged in any other activity that can result in accident or injury. Also take care that sudden illumination by the auto light switch does not
- Also take care that sudden illumination by the auto light switch does not surprise or distract others around you.

  When you are wearing the watch, make sure that its auto light switch is turned off before riding on a bicycle or operating a motorcycle or any other motor vehicle. Sudden and unintended operation of the auto light switch can create a distraction, which can result in a traffic accident and serious personal injury.

To turn the auto light switch on and off
In the Timekeeping Mode, hold down (®) for about two seconds to toggle the auto light
switch on (♣ৡ displayed) or off (♣ৡ not displayed).

• The auto light switch on indicator (♣ৡ) is on the display in all modes while the auto

light switch is turned on.

## **Battery**

This watch is equipped with a solar cell and a rechargeable battery (secondary battery) that is charged by the electrical power produced by the solar cell. The illustration shown below shows how you should position the watch for charging.

Example: Orient the watch so its face is pointing at a light source.

- Note that charging efficiency drops when any part of the solar cell is blocked by clothing, etc.
   The illustration shows how to position a watch with a resin band.



- Storing the watch for long periods in an area where there is no light or wearing it in such a way that it is blocked from exposure to bright light can cause rechargeable battery power to run down. Be sure that the watch is normally exposed to bright light er possible
- whenever possible.

  This watch employs a solar cell that converts light into electricity, which charges a built-in rechargeable battery. Normally, the rechargeable battery should not need replacement, but after very long use over a number of years, the rechargeable battery may lose its ability to achieve a full charge. Should you notice problems wi getting the rechargeable battery to a full charge, contact your dealer or CASIO distributor about having the rechargeable battery to placed.

  The rechargeable battery should be replaced with a CASIO-specified ML2016 battery only. Other rechargeable batteries can cause damage to the watch.

  All data stored in memory is deleted, and the current time and all other settings return to their initial factory defaults whenever battery owner drops to I evel 5 and

- return to their initial factory defaults whenever battery power drops to Level 5 and when you have the battery replaced.

  Turn on the watch's Power Saving function and keep it in an area normally exposed to bright light when storing it for long periods. This helps to keep the rechargeable battery from going dead.

# **Battery Power Indicator**

The battery power indicator on the display shows you the current status of the rechargeable battery's power.



Power Saving on (S)/ Charge (C)/Recover (R)

| Level | Battery Power indicator | Function Status  |
|-------|-------------------------|--|
| 1     | ###<br>###              | All functions enabled.                                     |
| 2     | H·L                     | All functions enabled.                                     |
| 3     | H · L                   | All functions enabled.                                     |
| 4     | (Charge Soon Alert)     | Beeper tone, backlight, display, and buttons are disabled. |
| 5     |                         | All functions, including timekeeping, are disabled.        |

- The flashing charge (C) indicator at Level 4 tells you that battery power is very low,
- and that exposure to bright light for charging is required as soon as possible.
   At Level 5, all functions are disabled and settings return to their initial factory At Level 3, all intuitions are disabled and settings feating to their intuitions are disabled and settings after the rechargeable battery is charged, but you need to set the time, date, and all other settings after the battery is recharged to Level 3 from Level 5. Though the time appears on the display after the battery is charged to Level 4 (indicated by flashing charge (C) indicator), you will not be able to change the time, date, and all other settings until the battery reaches
- be able to charge the time, date, and all other settings until the battery reaches Level 3 (no charge (C) indicator).

  Leaving the watch in direct sunlight or some other very strong light source can cause the battery power indicator to temporarily show a reading that is higher than the actual battery level. The correct battery power indicator should appear after a few minutes.

  If you use the backlight or any of the alarm functions a number of times during a short period, the recover (R) indicator appears on the display and the following operations become disabled until battery power recovers.

  Backlight: Beeper func

Backlight; Beeper tone
After some time, battery power will recover and the recover (R) indicator will
disappear, indicating that the above functions are enabled again.

# **Charging Precautions**

Certain charging conditions can cause the watch to become very hot. Avoid leaving the watch in the areas described below whenever charging its rechargeable battery. Also note that allowing the watch to become very hot can cause its liquid crystal display to black out. The appearance of the LCD should become normal again when the watch returns to a lower temperature

Warning!
Leaving the watch in bright light to charge its rechargeable battery can cause it to become quite hot. Take care when handling the watch to avoid burn injury. The watch can become particularly hot when exposed to the following conditions for long periods.

On the dashboard of a car parked in direct sunlight

Too close to as incandescent lamp

Under direct sunlight

After a full charge, timekeeping remains enabled for up to about six months, while the watch is used under the conditions described below.

# Operating Conditions

- Watch is not exposed to light

  Display on 18 hours per day, sleep state 6 hours per day

  1 backlight operation (1.5 seconds) per day

  10 seconds of alarm operation per day

Charge Times
Exposing the watch to light for the periods shown below each day restores the power used by the above operating conditions

| Exposure Level (Brightness)                           | Approximate<br>Exposure Time |
|---|------------------------------|
| Outdoor Sunlight (50,000 lux)                         | 5 minutes                    |
| Sunlight Through a Window (10,000 lux)                | 24 minutes                   |
| Daylight Through a Window on a Cloudy Day (5,000 lux) | 48 minutes                   |
| Indoor Fluorescent Lighting (500 lux)                 | 8 hours                      |

· Stable operation is promoted by frequent charging

## Recovery Times

The table below shows the amount exposure that is required to take the battery from

| Exposure Level  | Approximate Exposure Time |  |          |           |          |  |  |
|---|---------------------------|--|----------|-----------|----------|--|--|
| (Brightness)  | Level 5 Level 4           |  | Level 3  | Level 2   | Level 1  |  |  |
| Outdoor Sunlight (50,000 lux)                         | 33 hours                  |  | 3 hours  | 16 hours  | 2 hours  |  |  |
| Sunlight Through a Window (10,000 lux)                | 166 hours                 |  | 16 hours | 80 hours  | 12 hours |  |  |
| Daylight Through a Window on a Cloudy Day (5,000 lux) |                           |  | 33 hours | 162 hours | 25 hours |  |  |

The above exposure time values are all for reference only. Actual required exposure times depend on lighting conditions.

. 10<u>:58</u>50

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.

## Power Saving Function

Power saving on indicator



When turned on, the Power Saving function automatically puts the watch into a sleep state whenever it is left in an area where it is dark for about one hour in the Timekeeping Mode or Auto Display screen. The sleep state is indicated by a blank screen with Power Saving on (\$) indicator flashing on it. In the sleep state, all functions are enabled, except for the display.

• Wearing watch inside the sleeve of clothing can cause it to enter the sleep state.

- The watch will not enter the sleep state between 6:00 AM and 9:59 PM. If the watch is already in the sleep state when 6:00 AM arrives, however, it will remain in the sleep state.

- To recover from the sleep state

  Perform any one of the following operations.

   Move the watch to a well-lit area. It can take up to five seconds for the display to turn
- Press any button.Angle the watch towards your face for reading.

# To turn Power Saving on and off



# Auto Display



Auto Display continually changes the contents of the digital display.

To turn off Auto Display
Press any button (except for (a) to turn off Auto Display.
This returns to the Timekeeping Mode.

# To turn on Auto Display

Hold down © for about three seconds until the watch

Note that Auto Display cannot be performed while a setting screen is on the display.

# Auto return features

- After you perform any button operation (except for the backlight button) in any mode, pressing © returns directly to the Timekeeping Mode.

  If you leave the watch in the Data Bank, Alarm, and Day Counter Mode for two or
- If you leave the watch in the Data Bank, Alarm, and Day Counter Mode for two or three minutes without performing any operation, it automatically changes to the Timekeeping Mode.

  If you leave a screen with flashing digits or a cursor on the display for two or three minutes without performing any operation, the watch automatically saves any settings you have made up to that point and exits the setting screen.

# Data and Setting Scrolling

The (B), (C), and (D) buttons are used in various modes and setting screens to scroll through data on the display. In most cases, holding down these buttons during a scroll operation scrolls through the data at high speed.

# Initial Screens

When you enter the Data Bank, Alarm, or Day Counter Mode, the data you were viewing when you last exited the mode appears first.

- Timekeeping

  Resetting the seconds to @@ while the current count is in the range of 30 to 59 causes the minutes to be increased by 1. In the range of 00 to 29, the seconds are reset to @@ without changing the minutes.

  The year can be set in the range of 2000 to 2039.

  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 you have the watch's battery replaced or when battery power drops to Level 5.

## UTC

The letters "UTC" stands for "Universal Time Coordinated," which is the world-wide scientific standard of timekeeping. It is based upon carefully maintained atomic (cesium) clocks that accurate to within microseconds. Leap seconds are added reference point for UTC is Greenwich, England.

- The electro-luminescent panel that provides illumination loses power after very long.
- use.

   The illumination provided by the backlight may be hard to see when viewed under
- The match may emit an audible sound whenever the display is illuminated. This is due to vibration of the EL panel used for illumination, and does not indicate
- The backlight automatically turns off whenever an alarm sounds.
- . Frequent use of the backlight shortens the battery life

- Auto light switch precautions

  Wearing the watch on the inside of your wrist and movement or vibration of your arm can cause the auto light switch to activate and illuminate the display. To avoid running down the battery, turn off the auto light switch whenever engaging in activities that might cause frequent illumination of the display.



- More than 15 degree too high

   The backlight may not light if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.

   The backlight turns off in about one second, even if you
  - keep the watch pointed towards your face.
- Static electricity or magnetic force can interfere with proper operation of the auto light switch. If the backlight does not light, try moving the watch back to the starting position (parallel with the ground) and then tilt it back toward you again. If this does not work, drop your arm all the way down so it hangs at your side, and then bring it back up again
- back up again.

  Under certain conditions, the backlight may not light until about one second after you turn the face of the watch towards you. This does not necessarily indicate malfunction of the backlight.

# City Code Table

| City<br>Code | City           | UTC<br>Differential | Other major cities in the same time zone  |
|--------------|----------------|---------------------|---|
| PPG          | PAGO PAGO      | -11.0               |   |
| HNL          | HONOLULU       | -10.0               | PAPEETE   |
| ANC          | ANCHORAGE      | -9.0                | NOME  |
| LAX          | LOS ANGELES    | -8.0                | VANCOUVER, SAN FRANCISCO, LAS VEGAS,<br>SEATTLE, DAWSON CITY                              |
| DEN          | DENVER         | -7.0                | EL PASO, EDMONTON   |
| CHI          | CHICAGO        | -6.0                | MEXICO CITY, HOUSTON, DALLAS/FORT WORTH, NEW ORLEANS, WINNIPEG                            |
| NYC          | NEW YORK       | -5.0                | MIAMI, MONTRÉAL, DETROIT, BOSTON,<br>PANAMA CITY, HAVANA, LIMA, BOGOTA                    |
| CCS          | CARACAS        | -4.0                | LA PAZ, SANTIAGO, PORT OF SPAIN   |
| RIO          | RIO DE JANEIRO | -3.0                | SAO PÁULO, BUENOS AIRES, BRASILIA,<br>MONTEVIDEO  |
|              |                | -2.0                |   |
|              |                | -1.0                | AZORES, PRAIA   |
| LON          | LONDON         | +0.0                | DUBLIN, LISBON, CASABLANCA, DAKAR,<br>ABIDJAN   |
| PAR          | PARIS          | +1.0                | MILAN, ROME, BERLIN, MADRID, FRANKFURT,<br>AMSTERDAM, VIENNA, ALGIERS, STOCKHOLM, HAMBURG |
| CAI          | CAIRO          |                     | ISTANBUL, ATHENS, HELSINKI, BEIRUT,   |
| JRS          | JERUSALEM      | +2.0                | DAMASCUS, CAPE TOWN   |
| JED          | JEDDAH         | +3.0                | MOSCOW, KUWAIT, RIYADH, ADEN, ADDIS<br>ABABA, NAIROBI                                     |
| THR          | TEHRAN         | +3.5                | SHIRAZ  |
| DXB          | DUBAI          | +4.0                | ABU DHABI, MUSCAT   |
| KBL          | KABUL          | +4.5                |   |
| KHI          | KARACHI        | +5.0                | MALE  |
| DEL          | DELHI          | +5.5                | MUMBAI, KOLKATA   |
| DAC          | DHAKA          | +6.0                | COLOMBO   |
| RGN          | YANGON         | +6.5                |   |
| BKK          | BANGKOK        | +7.0                | JAKARTA, PHNOM PENH, HANOI, VIENTIANE   |
| HKG          | HONG KONG      | +8.0                | SINGAPORE, KUALA LUMPUR, TAIPEI, PERTH,<br>BEIJING, MANILA, ULAANBAATAR                   |
| TYO          | TOKYO          | +9.0                | SEOUL, PYONGYANG  |
| ADL          | ADELAIDE       | +9.5                | DARWIN  |
| SYD          | SYDNEY         | +10.0               | GUAM, MELBOURNE, RABAUL   |
| NOU          | NOUMEA         | +11.0               | PORT VILA   |
| WLG          | WELLINGTON     | +12.0               | CHRISTCHURCH, NADI, NAURU ISLAND  |

Based on data as of December 2001

# Day of the Week List

|     | Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|-----|--------|--------|---------|-----------|----------|--------|----------|
| ENG | SUN    | MON    | TUE     | WED       | THU      | FRI    | SAT      |
| POR | DOM    | SEG    | TER     | QUA       | QUI      | SEX    | SÁB      |
| ESP | DOM    | LUN    | MAR     | MIÉ       | JUE      | VIE    | SÁB      |
| FRA | DIM    | LUN    | MAR     | MER       | JEU      | VEN    | SAM      |
| NED | ZON    | MAA    | DIN     | WOE       | DON      | VRI    | ZAT      |
| DAN | SØN    | MAN    | TIR     | ONS       | TOR      | FRE    | LØR      |
| DEU | SON    | MON    | DIE     | MIT       | DON      | FRE    | SAM      |
| ITA | DOM    | LUN    | MAR     | MER       | GIO      | VEN    | SAB      |
| CES | NED    | PON    | ÚTE     | STŘ       | ČTV      | PÁT    | SOB      |
| SVE | SÖN    | MÅN    | TIS     | ONS       | TOR      | FRE    | LÖR      |
| POL | NIE    | PON    | WTO     | ŚRO       | CZW      | ΡIĄ    | SOB      |
| EΛΛ | KYP    | AEY    | TPI     | TET       | ПЕМ      | ПАР    | ZAB      |
| ROM | DUM    | LUN    | MAR     | MIE       | JOI      | VIN    | SÅM      |
| TÜR | PAZ    | PZT    | SAL     | Sar       | PER      | CUM    | CTS      |
| PYC | BC     | ПН     | BT      | CP        | ЧТ       | ПТ     | CB       |
| JPN | SUN    | MON    | TUE     | WED       | THU      | FRI    | SAT      |

## **Character List**

- ENG: (space) ABCDEFGHIJKLMNOP@RSTUVWXYZ@! .;:()/+-0123456789
- ESP: (espacio) A ÁBCDEÉFGHIÍJKLMNÑOÓP@RSTUÚ ÜVWXYZ@!?', •.;:()/+-0123456789
- FRA: (espace) A Å B C G D E É È É Ë F G H I Î Ï J K L M N O Ô Œ P @ R S T U Ù Ô Ü V W X Y Z æ ! ? ',' .; : ( ) / + 0 1 2 3 456789
- NED: (Spatie) A B C D E F G H I J K L M N O P @ R S T U V W X Y Z a ·/, .;:()/+-0123456789
- DAN: (Mellemsrum) A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Æ Ø Å æ ! ? ', ', ', '; '( ) / + 0 1 2 3 4 5 6 7 8 9
- DEU: (Leerzeichen) A ÄBCDEFGHIJKLMNOÖP@RSTUÜV WXYZa!??,,;;()/+-0123456789
- ITA: (spazio) A À B C D E É È F G H I Ì Î J K L M N O Ó Ò P @ R S T U
  Ù V W X Y Z æ ! ? ' , ' . . ; : ( ) / + 0 1 2 3 4 5 6 7 8 9
- CES: (prostor) AÁBC ČDĎEÉĚFGHI Í JKLMNŇOÓP@RŘSŠ TŤUÚŮVWXYÝZŽæ!?','.;:()/+-012345
- SVE: (Mellanslag) A B C D E F G H I J K L M N O P & R S T U V W X Y Z Å Ä Ö æ ! ? ' , " . ; : ( ) / + 0 1 2 3 4 5 6 7 8 9
- POL: (epacja) A B C Ć D E F F G H I J K L Ł M N Ń O Ó P Q R S Ś T U V W X Y Z Ź Ż Đ ! ? ' , . . ; : ( ) / + 0 1 2 3 4 5 6 7 8 9
- ΕΛΛ: (διάστημα) ΑΒΓΔΕΖΗΘΙΪΚΑΜΝΞΟΠΡΣΤΥΫΦΧΨΩ۵ !??,,,;;()/+-0123456789
- ROM: (spațiu) A Ă ÂBCDEFGHI Î JKLMNOP@RS \$T I UVW
- ŶŻā!??,°.;:()/+-0123456789 TÜR: (boşluk)ABC⊊DEFGĞHIİJKLMNOÖP@RS\TUÜ VWXYZƏ!?','.;:()/+-0123456789
- РУС: (npoбen) АБВГДЕЁЖЗИЙКЛМНОПРСТУФХЦЧШЩ ЪЫЬЭЮЯЪ!? ', ° .; : ( )/+-0123456789
- JPN: (スペース) フィウェオカキのケコサシスセソタチツテトナニタネノハヒフェ
- E4xEp135UNUC75D7+61+9613" ABCDEFGH IJKLMNOP@RSTUVWXYZa!??,".;:()/+ -0123456789

## Sort Table

| 1   | (space) | 13  | 3  | 25  | =  | 37  | Ť        | 49  | 7  | 61  | À        | 73  | ő            |
|-----|---------|-----|----|-----|----|-----|----------|-----|----|-----|----------|-----|--------------|
| 2   | 7       | 14  | 7  | 26  |    | 38  | 1        | 50  | ÷  | 62  | Ă        | 74  | E            |
| 3   | 4       | 15  | ŧ  | 27  | ñ  | 39  | 3        | 51  | ī  | 63  | Â        | 75  | É            |
| 4   | 7       | 16  | 7  | 28  | =  | 40  | =        | 52  | .* | 64  | Ä        | 76  | È            |
| 5   | I       | 17  | 7  | 29  | 7  | 41  | Ų        | 53  | 15 | 65  | Ã        | 77  | Ě            |
| 6   | त्रं    | 18  | Ŧ  | 30  |    | 42  | iL       | 54  | +  | 66  | Ą        | 78  | Ê            |
| 7   | ħ       | 19  | 7  | 31  | ±. | 43  | Ŀ        | 55  | 1  | 67  | В        | 79  | Ë            |
| 8   | ÷       | 20  | ÷  | 32  | 7  | 44  | <u> </u> | 56  | 3  | 68  | <b>C</b> | 80  | Ę            |
| 9   | 9       | 21  | ÷  | 33  | Ξ  | 45  | 7        | 57  |    | 69  | Ç        | 81  | F            |
| 10  | 7       | 22  | Ť  | 34  | -  | 46  | =        | 58  |    | 70  | ć        | 82  | G            |
| 11  | ⊒       | 23  | =  | 35  |    | 47  | -        | 59  | А  | 71  | č        | 83  | Ğ            |
| 12  | *       | 24  | 7  | 36  | ₹  | 48  | 7        | 60  | Á  | 72  | D        | 84  | Н            |
| 85  | I       | 97  | Ń  | 109 | R  | 121 | Ô        | 133 | Æ  | 145 | Н        | 157 | л            |
| 86  | í       | 98  | Ň  | 110 | Ř  | 122 | Ü        | 134 | ø  | 146 |          | 158 | M            |
| 87  | ì       | 99  | Ñ  | 111 | s  | 123 | Ö        | 135 | å  | 147 | Ī        | 159 | N            |
| 88  | Î       | 100 | 0  | 112 | ś  | 124 | Ū        | 136 | Ä  | 148 | ï        | 160 | ≘            |
| 89  | ï       | 101 | ó  | 113 | š  | 125 | w        | 137 | ö  | 149 | ĸ        | 161 | <del>-</del> |
| 90  | İ       | 102 | ò  | 114 | 5  | 126 | ×        | 138 | Б  | 150 | A        | 162 | 0            |
| 91  | J       | 103 | ô  | 115 | Т  | 127 | Υ        | 139 | В  | 151 | Ë        | 163 | п            |
| 92  | К       | 104 | ö  | 116 | Ť  | 128 | Ý        | 140 | т  | 152 | ж        | 164 | P            |
| 93  | L       | 105 | ő  | 117 | Ţ  | 129 | z        | 141 | Δ  | 153 | 3        | 165 | Σ            |
| 94  | Ł       | 106 | Œ  | 118 | U  | 130 | ź        | 142 | д  | 154 | И        | 166 | C            |
| 95  | М       | 107 | Р  | 119 | Ú  | 131 | ž        | 143 | E  | 155 | Й        | 167 | т            |
| 96  | N       | 108 | Q. | 120 | Ù  | 132 | ż        | 144 | z  | 156 | К        | 168 | Υ            |
| •   |         |     |    |     |    |     |          |     |    |     |          |     | =            |
| 169 | Ÿ       | 175 | ц  | 181 | ь  | 187 | ?        | 193 | :  | 199 | 0        | 205 | 6            |
| 170 | У       | 176 | У  | 182 | Э  | 188 | .7       | 194 | (  | 200 | 1        | 206 | 7            |
| 171 | Φ       | 177 | Ш  | 183 | Ю  | 189 | 7        | 195 | )  | 201 | 2        | 207 | 8            |
| 172 | Х       | 178 | Щ  | 184 | Я  | 190 |          | 196 | _  | 202 | 3        | 208 | 9            |
| 173 | Ψ       | 179 | Ъ  | 185 | a  | 191 |          | 197 | +  | 203 | 4        | 1   |              |
| 174 | Ω       | 180 | ы  | 186 | !! | 192 | - 3      | 198 |    | 204 | 5        |     |              |

- Character 2 through 58 are for Japanese.
- Character 2 diruugii so are ini sapanese.
   Character 44 (Ä) is for German, character 136 (Ä) is for Swedish.
   Character 104 (Ä) is for German and Turkish, character 137 (Ä) is for Swedish.
   Character 138 through 184 are for Russian and/or Greek.