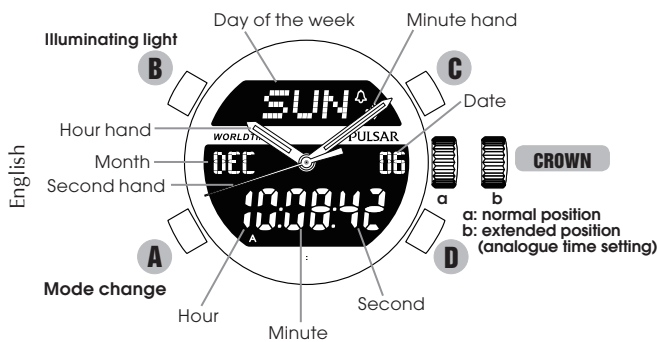# PULSAR

CAL. N021
DUO-DISPLAY QUARTZ

ENGLISH

- ● Analogue time display
- ● Digital time and calendar
- ● Chronograph
- ● Data recall function
- ● Timer
- ● 3-channel alarm
- ● World time function
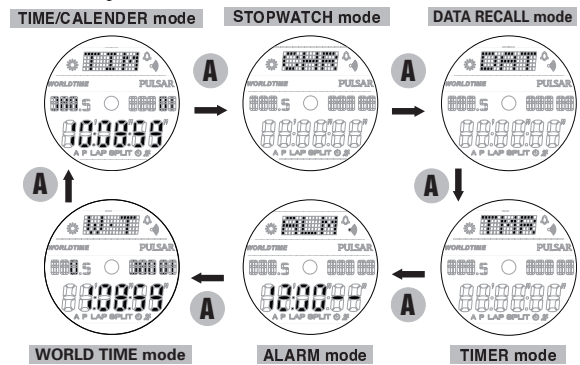- ● Illuminating light
  (Electroluminescent panel)

English

CROWN/BUTTONS AND DISPLAYS

Illuminating light

B

Day of the week

Minute hand

C

Date

Hour hand

Month

Second hand

A

Mode change

Hour

Minute

Second

CROWN

a: normal position
b: extended position
(analogue time setting)

D

* The analogue and digital displays are separately illustrated in the following sections of this manual for the purpose of explanation.

2

English

A With each press, the mode in the digital display changes in the following order.

TIME/CALENDER mode   STOPWATCH mode   DATA RECALL mode

A → **A** →

A ↑   **A** ↓

WORLD TIME mode   ALARM mode   TIMER mode
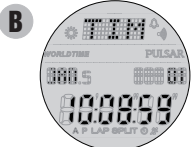
A ← **A** ←

3

English

ILLUMINATING LIGHT

B Press to turn the illuminating light on.

B

The built-in electroluminescent backlight illuminates the display for approximately 3 seconds for easy viewing in darkness.

NOTES
- ◆ The electroluminescent panel loses its luminance as, the battery becomes weaker with use. Also, its luminance level decreases gradually with use.
- ◆ When the illuminating light becomes dim, replace the batteries. If the light remains dim after the batteries are replaced, have the electroluminescent panel replaced by the retailer from whom the watch was purchased.
- ◆ While the illuminating light is used, the watch gives out a slight noise. However, this is normal and not a malfunction.

4

English

SCREW DOWN CROWN
[for models with screw down crown]

Unlocking the crown
1 Turn Crown counterclockwise until you no longer feel the threads turning.
2 Crown can be pulled out.

Locking the crown
1 Push Crown back into normal position.
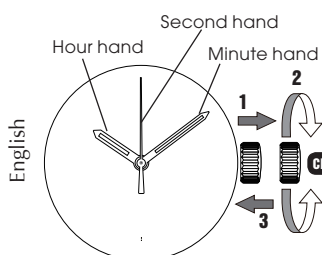2 Turn Crown clockwise while pressing it lightly until tight.
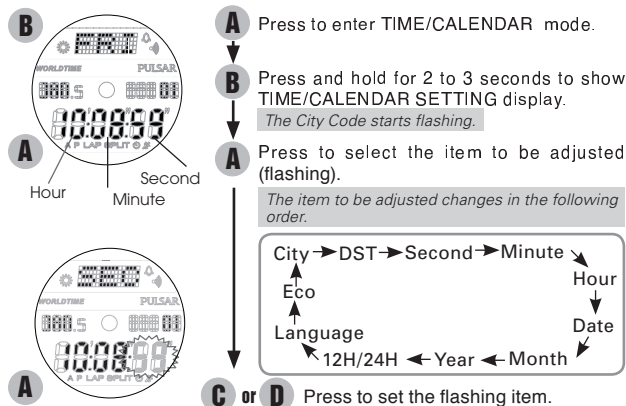
5

TIME/CALENDAR MODE

ANALOGUE TIME SETTING

Hour hand
Second hand
Minute hand

* This illustration is simplified for the purpose of explanation.

CROWN

1 Pull out when the second hand is at the 12 o'clock position.

The second hand will stop on the spot.

CROWN

2 Turn to set the hour and minute hands to the correct time.

To set the hands accurately, advance the minute hand four to five minutes ahead of the correct time, then slowly move it back to the exact minute(s).

3 Push back simultaneously with a time signal.

6

DIGITAL TIME/CALENDAR SETTING

A Press to enter TIME/CALENDAR mode.

B Press and hold for 2 to 3 seconds to show TIME/CALENDAR SETTING display.

The City Code starts flashing.

A Press to select the item to be adjusted (flashing).

The item to be adjusted changes in the following order.

City → DST → Second → Minute →
Eco ↑ ↓ Hour
Language ↑ ↓ Date
↳ 12H/24H ← Year ← Month ↙

C or D Press to set the flashing item.

B
A
A
Hour   Second
Minute
A

With each press of the button C (or D), the flashing digits increase (or decrease).

The flashing digits move quickly if the button C or D is kept pressed.

B Press to confirm the settings and return to TIME/CALENDAR mode.

NOTES
• If the watch is left untouched in the TIME/CALENDAR SETTING display with the digits/item flashing, it will automatically return to the TIME/CALENDAR mode in 2 to 3 minutes.
• The calendar automatically adjusts for odd and even months including February of leap years up to 2065.
• Once the year, month and date have been set, the day of the week is automatically set.
• **Setting the second**
  To reset the second digits to "00," press either button C or D in accordance with a time signal while the second digits are flashing. If button C or D is pressed while the second digits count any number between "30" and "59," one minute is added and the seconds digits are immediately reset to "00."
• **12-/24-hour indication setting**
  • When the 12-hour indication is selected, "A" indicator appears for the morning and "P" indicator appears from the afternoon.

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• When setting the hour digits in the 12-hour indication, check that AM/PM is properly set.
• **Language setting**
  Select your language among English(ENG), French(FRA), German(GER) and Spanish(SPN). The month and day of the week are displayed in the selected language.
• **Eco mode**
  • When no operation is performed for longer than a pre-set time, the watch automatically enters the eco mode and the display is turned off to reduce battery consumption.
  • Select the transition time to eco mode from among 1 hour (1H), 3 hours (3H), 6 hours (6H) and 12 hours (12H). To deactivate the eco mode, select OFF.
  • When the stopwatch or timer is not reset, the eco mode will not be activated.

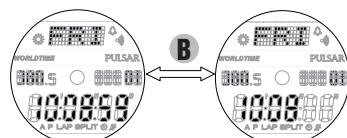**Confirmation Sound for Button Operation**
Press the button C and D simultaneously to alternately turn on the confirmation sound.

HOW TO HIDE THE SECOND

• If you prefer a time display without second, keep pressing down the button B for four seconds in the Time/Calendar mode.

B

HOW TO CHECK THE HOME CITY

• To check which city is currently selected, press the button D. The city code will be shown on the display.

City code

D

10
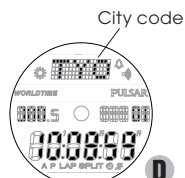
HOW TO SET THE HOURLY TIME SIGNAL

• With each press of button C, the hourly time signal will be alternately engaged or disengaged. Accordingly, the hourly time signal mark will appear or disappear indicating whether the hourly time signal is ON or OFF.

Hourly time signal mark

C

The hourly time signal is disengaged (OFF).

The hourly time signal is engaged (ON).
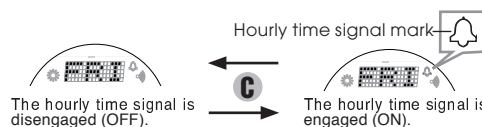
Note on unusual display:
If all the segments of the display light up in the TIME/CALENDAR SETTING display with the digits flashing, it is normal and not a malfunction. In such a case, press button A, B, C or D to return to the TIME/CALENDAR mode, and then set the time/calendar again.
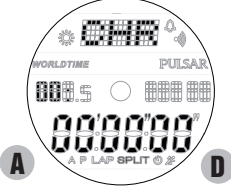
B   C
A   D
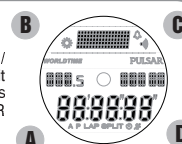
STOPWATCH MODE

- The stopwatch can measure up to 99 hours 59 minutes 59 seconds and 99 in 1/100 second increments.
- Up to 100 split or lap records can be taken.
- The split or lap records can be recalled in DATA RECALL mode.
  For details, refer to "HOW TO USE THE DATA RECALL FUNCTION".

A Press to enter STOPWATCH mode.

D Press to reset the stopwatch to 00'00"00.

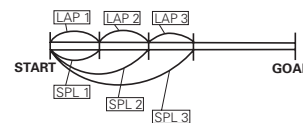**D** Press to choose a display either with split time or with lap time.

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STOPWATCH OPERATION

When a new measurement is started, the perviously stored data will be automatically deleted.
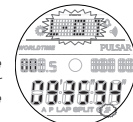
<Standard measurement >

C START   **C** STOP   **D** RESET

<Lap/Split time measurement>

**C** START   **D** LAP/SPLIT   **D** LAP/SPLIT   **C** STOP   **D** RESET

NOTES
- When the stropwatch is working, the stopwatch mark flashes.
- When a split or lap time is taken, the measured time will be shown on the display along with the split or lap number for 7 seconds, and then the display automatically returns to the ongoing measuring display.

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- When the total number of split or lap records reaches 100, "FULL" and "L-100" will be alternately shown on the display. After that, even if the button D is pressed, no more record will be taken.
- Even if the STOPWATCH mode is changed to a different mode while the measurement is in progress, it continues counting properly. After using the stopwatch, be sure to stop the function in order to conserve the battery life.
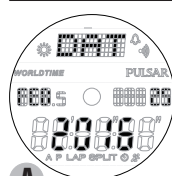
14
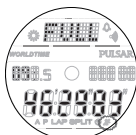
HOW TO USE THE DATA RECALL FUNCTION

- Up to 100 measurement data can be recalled.
- The "total time," each "lap time," "best lap time and best lap number,"and "average lap time" will be presented.
- The measurement data will be stored until the next measurement is started.

HOW TO RECALL MEASURED DATA

A Press to show DATA RECALL mode.

C or **D** Press to view the data in the order below.

Press the button C to view the data in the ascending order and press the button D to view the data in the descending order. The data is shown quickly if each button is kept pressed. When the best lap time is shown, "BEST" and the best lap number are alternately displayed.
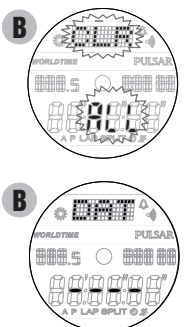
DAT — TOTAL — L-01 — L-07 — BEST — AVG
                                    L-03

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HOW TO DELETE THE DATA

B Press to delete all the data stored.

B Press and hold for 2 to 3 seconds to confirm the deletion of the data.
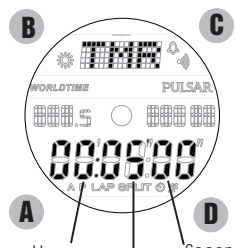
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TIMER MODE

- The timer can be set 10 seconds up to 99 hours 59 miuntes and 59 seconds.

TIMER SETTING

Hour   Minute   Second

A Press to enter TIMER mode.

B Press and hold for 2 to 3 seconds to show TIMER SETTING display.
The second digits start flashing.

A Press to select the item to be adjusted (flashing).

Second → Minute → Hour

C or **D** Press to set the flashing digits.

With each press of the button C (or D), the flashing digits increase (or decrease).

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The flashing digits move quickly if the button C or D is kept pressed.

B Press to confirm the TIMER setting.

TIMER OPERATION

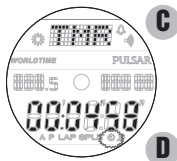**C** Press to start the timer.

**C** Press to stop the timer.

D Press to reset the timer.

Remember to reset the timer by pressing the button D for next use.

The warning sound starts to beep from 3 seconds before the set time is up. When the time is up, the timer beeps for 5 seconds. To stop the beep manually while sounding, press any of the buttons.

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ALARM MODE

● The three-channel daily alarm sounds at a designated time every 24 hours. Each alarm channel can be engaged or disengaged independently.
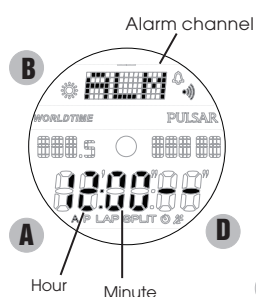
Alarm channel

A Press to enter ALARM mode.

D Press to select an alarm channel.

B Press and hold for 2 to 3 seconds to show ALARM SETTING display.
The hour digits start flashing.

A Press to select the item to be adjusted (flashing).

Hour ⇄ Minute

C or **D** Press to set the flashing digits.

With each press of the button C (or D), the flashing digits increase (or

Hour   Minute

19

---

decrease).
The flashing digits move quickly if the button C or D is kept pressed.

**B** Press to confirm the alarm setting and return to ALARM mode.

NOTES
- *If the watch is left untouched in the ALARM SETTING display with the digits flashing, it will automatically return to the ALARM mode in 2 to 3 minutes.*
- *When the 24-hour indication is selected in the TIME/CALENDAR mode, the alarm is also displayed in the 24-hour indication.*
- *When setting the hour digits in the 12-hour indication, check that AM/PM is properly set.*

Sound Demonstration Function (Alarm sound preview)

Each alarm has a different sound. To test the alarm sound, press the button C for 2 seconds or more.

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Engagement/disengagement of the alarm

With each press of the button C in the ALARM mode, the alarm will be alternately engaged or disengaged. When at least one alarm is engaged, the alarm mark appears on the display.
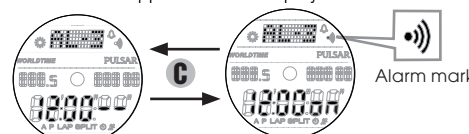
Alarm mark

The alarm is disengaged (OFF).   The alarm is engaged (ON).

How to stop the alarm manually while sounding

The alarm sounds for 20 seconds at the designated time and automatically stops. To stop the alarm manually while sounding, press any of the buttons A, B, C, or D.
Doing this in any display can stop the alarm.

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WORLD TIME MODE

● Time in the 44 cities and regions around the world can be displayed.
● Daylight saving time can also be set (except GMT).
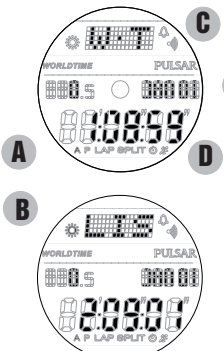
A Press to enter WORLD TIME mode.

C or **D** Press to select the city code whose local time you want to display on the watch.

Press the button C to scroll the city code in the ascending order and press the button D to scroll the city code in the descending order. The city code scrolls quickly if each button is kept pressed.

B If necessary, press to set daylight saving time.

The daylight saving time mark appears on the display and the time is advanced one hour.

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CITIES AND TIME DIFFERENCES

Time difference from GMT	City code	City name	Time difference from GMT	City code	City name
0	GMT		+3.5	THR	Teheran
0	LIS	Lisbon	+4	DXB	Dubai
0	LON	London	+4.5	KBL	Kabul
+1	PAR	Paris	+5	KHI	Karachi
+1	ROM	Rome	+5.5	DEL	Delhi
+1	BER	Berlin	+6	DAC	Dacca
+2	ATH	Athen	+6.5	RGN	Yangon
+2	CAI	Cairo	+7	BKK	Bangkok
+3	MOW	Moscow	+7	JKT	Jakarta
+3	JED	Jeddah	+8	SIN	Singapore
+3	BGW	Baghdad	+8	HKG	Hong Kong

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Time difference from GMT	City code	City name	Time difference from GMT	City code	City name
+8	BJS	Beijing	-8	YVR	Vanvouver
+9	SEL	Seoul	-8	LAX	Los Angeles
+9	TYO	Tokyo	-7	DEN	Denver
+9.5	ADL	Adelaide	-6	CHI	Chicago
+10	GUM	Guam	-5	NYC	New York
+10	SYD	Sydney	-5	YMQ	Montreal
+10	OOL	Goldcoast	-5	BOS	Boston
+11	NOU	Noumea	-4	SDQ	Santo Domingo
+12	WLG	Wellington	-3	BUE	Buenos Aires
-10	HNL	Honolulu	-3	RIO	Rio de Janeiro
-9	ANC	Anchorage	-1	PDL	Azores

In some countries, the daylight saving time may be in effect. The time difference and daylight saving time of various countries are subject to change, according to the governments of respective countries or regions.

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BATTERY CHANGE

2 Years

Battery life : Approx. 2 years

Battery : SEIKO SR626SW, 1 piece (for analogue display)
SEIKO CR2016, 1 piece (for digital display)

● The battery life may be less than 2 years if:
  · the alarm is used more than once a day,
  · the stopwatch is used more than one hour a day,
  · the illuminating light is used more than once a day.
● **Even if either of the two batteries has run down, replace both of them with new ones.**
● As the batteries are inserted at the factory to check the function and performance of the watch, their actual lives once in your possession may be less than the specified period.
● When the batteries expire, be sure to replace them as soon as possible to prevent any malfunction.
● We recommend that you contact an AUTHORIZED PULSAR DEALER for battery replacement.
● The watch is equipped with a battery life indicator that enables you to know when the battery needs to be replaced. When the indicator appears, EL backlight and sound (ALARM/ TIMER) are invalid.

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● **Necessary procedure after battery change**
After the battery is replaced with a new one, or when an abnormal display (failing digits, etc.) appears, follow the procedures below to reset the built-in IC. The watch will resume its normal operation.
Press button A, B, C and D at the same time for 2 to 3 seconds until the display becomes blank, and "16-1-1 (FRI)" will be displayed as the buttons are released". Before using the watch, set the time, calendar and alarm.

⚠ WARNING

● **Do not remove the battery from the watch.**
● **If it is necessary to take out the battery, keep it out of the reach of children. If a child swallows it, consult a doctor immediately.**
● **Never short-circuit, tamper with or heat the battery, and never expose it to fire. The battery may burst, become very hot or catch fire.**

⚠ CAUTION

● **The battery is not rechargeable. Never attempt to recharge it, as this may cause battery leakage or damage to the battery.**

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TO PRESERVE THE QUALITY OF YOUR WATCH

WATER RESISTANCE

● **Non-water resistant**

If "WATER RESISTANT" is not inscribed on the case back, your watch is not water resistant, and care should be taken not to get it wet as water may damage the movement. If the watch becomes wet, we suggest that you have it checked by an AUTHORIZED PULSAR DEALER or SERVICE CENTER.

● **Water resistance (3 bar)**

If "WATER RESISTANT" is inscribed on the case back, your watch is designed and manufactured to withstand up to 3 bar, such as accidental contact with splashes of water or rain, but it is not designed for swimming or diving.

● **Water resistance (5 bar)***

5 bar WR

If "WATER RESISTANT 5 BAR" is inscribed on the case back, your watch is designed and manufactured to withstand up to 5 bar and is suitable for swimming, yachting and taking a shower.

● **Water resistance (10 bar/15 bar/20 bar)***

10/15/20 bar WR

If "WATER RESISTANT 10 BAR", "WATER RESISTANT 15 BAR" or "WATER RESISTANT 20 BAR" is inscribed on the case back, your watch is designed and manufactured to withstand up to 10 bar/15 bar/20 bar and is suitable for taking a bath, shallow diving, but not for scuba diving. We recommend that you wear a PULSAR Diver's watch for scuba diving.

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* Before using the water resistance 5, 10, 15 or 20 bar watch in water, be sure the crown is pushed in completely.
Do not operate the crown when the watch is wet or in water. If used in sea water, rinse the watch in fresh water and dry it completely.
* When taking a shower with the water resistance 5 bar watch, or taking a bath with the water resistance 10, 15 or 20 bar watch, be sure to observe the following:
  • Do not operate the crown when the watch is wet.
  • If the watch is left in warm water, a slight time loss or gain may be caused. This condition, however, will be corrected when the watch returns to normal temperature.

NOTE:
Pressure in bar is a test pressure and should not be considered as corresponding to actual diving depth since swimming movement tends to increase the pressure at a given depth. Care should also be taken on diving into water.

TEMPERATURES

+50°C
- 5°C

Your watch works with stable accuracy within a temperature range of 5° C and 35° C (41° F and 95° F). Temperatures over 50° C (122° F) may cause battery leakage or shorten the battery life.

Do not leave your watch in very low temperatures below −5° C (+23° F) for a long time since the cold may cause a slight time loss or gain. However, the above conditions will be corrected when the watch returns to normal temperature.

MAGNETISM

Your watch will be adversely affected by strong magnetism. Keep it away from close contact with magnetic objects.

SHOCKS & VIBRATION

Light activities will not affect your watch, but be careful not to drop your watch or hit it against hard surfaces, as this may cause damage.

CHEMICALS

Be careful not to expose the watch to solvents, mercury, cosmetic spray, detergents, adhesives or paints. Otherwise, the case, bracelet, etc. may become discolored, deteriorated or damaged.

CARE OF CASE AND BRACELET

To prevent possible rusting of the case and bracelet caused by dust, moisture and perspiration, wipe them periodically with a soft dry cloth.

PERIODIC CHECK

2 - 3 Years

It is recommended that the watch be checked once every 2 to 3 years. Have your watch checked by an AUTHORIZED PULSAR DEALER or SERVICE CENTER to ensure that the case, crown, buttons, gasket and crystal seal remain intact.

PRECAUTION REGARDING CASE BACK PROTECTIVE FILM

If your watch has a protective film and/or a sticker on the case back, be sure to peel them off before using your watch.

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