### **About This Manual**

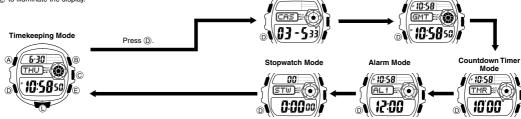


- · Button operations are indicated using the letters shown
- in the illustration.

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

### **General Guide**

Press 
to change from mode to mode.
In any mode, press 
to illuminate the display.



Telememo Mode

## Timekeeping



Use the Timekeeping Mode to set and view the current time and date. You can also use the Timekeeping Mode to select either audible beeper or vibration alert for alarms.

To set the time and date



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

  to move the flashing in the sequence shown below to select other settings.



3. When the setting you want to change is flashing, use (E) and (B) to change it as

To change this setting	Perform this button operation
Seconds	Press © to reset to 00.
DST	Press ⓒ to toggle between Standard Time (마투) and Daylight Saving Time (마시).
Hour, Minutes, Year, Month, Day	Use (E) (+) and (B) (-) to change the setting.

- 4. Press (a) to exit the setting screen.
  5ee "Daylight Saving Time (DST)" for details about the DST setting.
  For information about specifying how long the display of the watch remains illuminated, see "To specify the illumination duration".
- The day of the week is displayed automatically in accordance with the date (year. month, and day) settings

# 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

# To toggle the Timekeeping Mode digital time between DST and Standard Time 1. In the Timekeeping Mode, hold down (a) until the seconds start to flash, which indicates the setting



screen.

2. Press ① once and the DST setting screen appears.

3. Press ② to toggle between Daylight Saving Time (ON displayed) and Standard Time (OFF displayed).

4. Press ③ to exit the setting screen.

• The DST indicator appears on the display to indicate that Daylight Saving Time is turned on.

To toggle between 12-hour and 24-hour timekeeping In the Timekeeping Mode, press ® to toggle between 12-hour timekeeping and 24-

- In the Irmekeeping Mode, press (§) to toggle between 12-hour timekeeping and 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 no 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.  $\bullet$  The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is

Vibration Alert
When Vibration Alert is turned on, the watch vibrates instead of sounding a beeper.
This lets you use the watch without disturbing others with beeping sounds.

• Vibration Alert can be used to replace alarm sounds.

• For information about selecting the alert type, see "To switch between vibration alert and because steal" below.

- and beeper alert" below.
  For information about countdown timer alerts, see "Countdown Timer"
- For information about the daily alarm and hourly time signal alerts, see "Alarms". Watches with a metal band may produce a noise when a vibration operation is performed. This is due to vibration of the metal band, and does not indicate malfunction of the watch.

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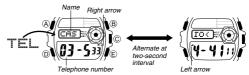
To switch between vibration alert and beeper alert

Vibration alert on indicator indic

World Time Mode

# <u>Telememo</u>

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



- See "Sort Table" for details on how the watch sorts records.
  All of the operations in this section are performed in the Telememo Mode, which you enter by pressing ①.

# To create a new Telemo



- 1. In the Telememo Mode, press © to display the
  - in the reference wode, press ⊚ to display the remaining memory screen.

     If the message FULL appears on the display, it means that memory is full. To store another record, you will first have to delete some of the records stored is comment.



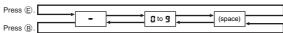
- Hold down (A) until the flashing cursor (....) appears in the name area of the display.
   In the name area, use (E) and (B) to cycle through characters at the cursor position. The characters cycle in the sequence shown below.



- 4. When the character you want is at the cursor position, press ① to move the cursor to the right.

  5. Repeat steps 3 and 4 as required to input all of the characters of the name.
- You can input up to eight characters for the name.
   After you input the name, press ① 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 is at the 12th digit of the number, moving it to the right (by pressing ①) causes it to jump to the first character in the name.

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



- 8. When the character you want is at the cursor position, press ① to move the cursor
- 9. Repeat steps 7 and 8 as required to input all of the digits of the phone number.

   You can input up to 12 digits for the number.

  10. Press (a) to store your data and return to the Telememo record screen (without the
- The name can show only three characters at a time, so longer text scrolls continuously from right to left. The last character of the name is the one with the
- continuously from right to left. The last character of the manners are one with the symbol.

   The number can display up to six digits at a time. For longer numbers, the display will alternate between the first six digits and the last six digits at two-second intervals. A right arrow (•) on the right side of the display indicates the first six digits are displayed, while a left arrow (•) on the left side indicates the last six digits.

**To recall Telememo records** In the Telememo Mode, use  $\widehat{\mathbb{E}}$  (+) and  $\widehat{\mathbb{B}}$  (-) to scroll through Telememo records as shown below.



- To edit a Telememo record

  1. In the Telememo Mode, use (£) (+) and (£) (-) to scroll through the records and display the one you want to edit.

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

- **To delete a Telememo record** 1. In the Telememo Mode, use (E) (+) and (B) (-) to scroll through the records and display the one you want to delete
- 2. Hold down (a) until the flashing cursor appears on the display.

  3. Hold down (a) and (b) at the same time until the watch beeps and CLEAR stops flashing on the display.
- 3. Hold down (a) and (b) at the same time until the watch beeps and CLEAR stops flashing on the display.
  The message CLEAR appears, which indicates that the record is being deleted. After the record is deleted, the cursor appears on the display, ready for input.
  4. Input data or press (a) to return to the Telememo record screen.

### World Time

Timekeepina Mode time A 10:58 B 5:5850**/**®

City code Current time in

- The World Time Mode shows you the current time in 28 cities (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
- All of the operations in this section are performed in the World Time Mode, which you enter by pressing ①.

DST indicator

To view the time in another city
While in the World Time Mode, press (E) to scroll through the city codes (time zones)
eastwardly or (B) to scroll westwardly.
• For full information on city codes, see the "City Code Table".

- To toggle a city code time between Standard Time and Daylight Saving Time

  1. In the World Time Mode, use (a) and (b) to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.

  2. Hold down (b) to toggle Daylight Saving Time (DST indicator displayed) and Standard Time (DST indicator displayed). 6:50 SE
  - not displayed). Note that you cannot switch between Standard Time and Daylight Saving Time while GMT is selected as the

  - and Daylight Saving I Ime while 13M I is selected as the city code.

    The **DST** indicator will appear whenever you display a city code for which Daylight Saving Time is turned on. Note that the DST/Standard Time setting affects only the currently displayed city code. Other city codes are not

# To set the current time in the World Time Mode



- In the World Time Mode, use (£) and (£) to select the city code whose time you want to set.

  2. After you select a city code, hold down (Â) until the hour setting of the World time starts to flash, which indicates
- the setting screen.
  3. Use ① to move the flashing between the hour and
- 4. When the setting you want to change is flashing, use  $\stackrel{\textstyle \frown}{\mathbb{E}}$  (+) and  $\stackrel{\textstyle \frown}{\mathbb{B}}$  (-) to change
- When setting the world time using the 12-hour format, take care to set the time
- when setting the World unle using the 12-ribut infinital, take care to set the time correctly as a.m. (no indicator) or p.m. (P indicator).

  5. Press (a) to exit the setting screen.

  Note that you cannot make settings for individual city codes. Daylight Saving Time (summer time) advances the time setting of all the World Time Mode cities by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

### Countdown Timer



The countdown timer can be set within a range of one minute to 60 minutes. The currently selected alert operation (beeper or vibration) is performed when the end of the countdown is reached. The countdown timer has two modes: auto-repeat and elapsed time. A progress alert (beeper or vibration) signals the progress of the countdown. All of this makes the countdown timer a valuable tool for timing the start of a yacht race.

\*\*You can select either beeper alert or vibration slept for.\*\*

- You can select either beeper alert or vibration alert for the alarm. The explanations in this section are based on
- the beeper alert, unless stated otherwise.

   All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing 

  ⑤.

Configuring Countdown Timer Settings
The following are the settings you should configure before actually using the countdown timer.

Countdown start time and reset time

Timer mode (auto-repeat, elapsed time)
See "To configure countdown timer settings" for information about setting up the

You can set a "reset time," which is a kind of alternate countdown start time. After you set a reset time, you can recall it with the press of a button any time a countdown

operation is in progress. Timer Mode The countdown timer gives you a choice of two modes: auto-repeat and elapsed time.

# Auto-repeat

- Auto-repeat automatically restarts the countdown from the countdown start time whenever zero is reached.

   Auto-repeat mode is best when timing the starts of match races.

   Even if you start a countdown operation from the reset time, the countdown automatically restarts from the countdown start time whenever it reaches zero.

   Auto repeat timing repeats up to seven times.

### Elapsed Time

- Elapsed Time
  When the end of the countdown is reached in the elapsed time mode, the timer
  automatically switches to an elapsed time measurement operation.

   The elapsed time mode is best when timing the speed of yachts during ocean races.

   The elapsed time operation is performed in one-second increments up to 99 hours,
  59 minutes, 59 seconds.

### **Countdown Timer Alert Operations**

While a countdown is in progress, the watch performs various different alert operations, so you can keep informed of the countdown status, without looking at the watch display. The following explains each of the countdown timer alert operations.

### Countdown End Alert

The following countdown alert operations are performed for each of the final ten seconds of the countdown, and when the countdown reaches zero.

Countdown	Beep	Vibration	
Final seconds 10 through 6 (5 times)	High pitch	2 each	
Final seconds 5 through 1 (5 times)	Lower pitch	1 each	
When the countdown reaches zero	Longer beep	Longer vibration	

· Except in the Stopwatch Mode, all buttons are disabled while a countdown end alert operation is being performed.

Progress Alert are two types of progress alert: a reset time alert and a reset period progress

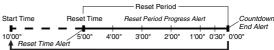
The reset time alert is similar to the alert operations performed for each of the final 10 seconds of a countdown. For the reset time alert, the watch performs an alert operation for each of the final 10 seconds before the reset time is reached.

Except in the Stopwatch Mode, all buttons are disabled while a reset time alert is

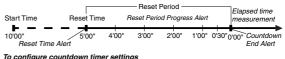
Reset Period Progress Alert
The reset period is the portion of the countdown between the reset time and zero.
During the reset period, the watch performs an alert operation at the top of each
minute, and at the point 30 seconds before the end of the countdown is reached. Each
reset period progress alert operation consists of four short beeps or two vibrations, depending on the type of alert that is selected.

# Countdown Timer Examples

Countdown start time: 10 minutes; Reset time: 5 minutes; Timer mode: Auto-repeat



Countdown start time: 10 minutes; Reset time: 5 minutes; Timer mode: Elapsed time



# To configure countdown timer settings



- Ilmer settings
  1. While the countdown start time is on the display in the Countdown Timer Mode, hold down (A) until the countdown start time setting starts to flash, which indicates the setting screen.
  If the countdown start time is not displayed, use the procedure under "To use the countdown timer" to display in the countdown timer.
- display it.

  2. Press ① to move the flashing in the sequence shown



3. When the setting you want to change is flashing, use E and B to change it as

described b	GIOW.				
Setting	Screen	Button Operations			
Start Time	<b>70.00</b> "	Use (E) (+) and (B) (-) to change the setting.  • You can set a start time in the range of 1 to 60 minutes in 1-minute increments.			
Reset Time	= \$ <b>00</b>	Use (E) (+) and (B) (-) to change the setting.  • You can set a reset time in the range of 1 to 5 minutes in 1-minute increments.			
Timer Mode	>\\\\\	Press (E) to toggle between the auto-repeat mode ((TX)) and the elapsed time mode (————————————————————————————————————			

- 4. Press (A) to exit the setting screen.
- The reset time setting must be less than the countdown start time setting.



ner
In the Countdown Timer Mode, press © to start the countdown timer.
• The countdown timer measurement operation continues even if you exit the Countdown Timer Mode.
• The table below describes button operations you can

perform to control countdown operations

To do this:	Do this:
Stop the countdown operation	Press ©.
Resume a stopped countdown operation	Press © again.
Display the countdown start time	While the countdown is stopped, press (B).
Stop the countdown operation and display the reset time	Press B.
Start the countdown from the displayed reset time	Press ©.

The table below describes button operations you can perform during an elapsed time measurement operation in the elapsed time mode.

To do this:	Do this:
Stop the elapsed time operation	Press ©.
Resume a stopped elapsed time operation	Press © again.
Display the countdown start time	While the elapsed time is stopped, press (B).
Stop the elapsed time operation and display the reset time	Press B.
Start the countdown from the displayed reset time	Press ©.

# Alarms



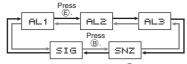
The Alarm Mode gives you a choice of three one-time alarms and one snooze alarm.
When an alarm is turned on, an alert operation (beep or vibration) is performed when the alarm time is reached. You can also turn on an Hourly Time Signal (SIG) that causes the watch to beep or vibrate every hour on the hour.

- There are four alarms numbered AL1 through AL3 There are four alarms numbered HL 1 through HL 3, and SNZ. You can configure SNZ as a snoose alarm only. Alarms AL 1 through AL 3 can be used as one-time alarms only.
   All of the operations in this section are performed in the Alarm Mode, which you enter by pressing ①.

# To set an alarm time



1. In the Alarm Mode, use (E) (+) and (B) (-) to scroll through the alarm screens until the one whose time you want to set is displayed.



- 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 ① to move the flashing between the hour and minute settings.
- 4. While a setting is flashing, use (E) (+) and (B) (-) to change it.
- Fress (a) to exit the setting screen.

  When setting the alarm time using the 12-hour format, take care to set the time correctly as a.m. (no indicator) or p.m. (P indicator).

# **Alarm Operation**

The alert operation (beep or vibration) is performed at the preset time for about 10 seconds, regardless of the mode the watch is in. In the case of the snooze alarm, the alert operation is performed a total of seven times, every five minutes, or until you turn the alert of the slower of the snooze.

- the alarm off.

  Pressing any button stops the alert 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 snooze alarm setting screen

To test the alarm In the Alarm Mode, hold down (E) to perform the currently selected Alarm Mode alert

### To turn an alarm on and of

Alarm on indicato



- 1. In the Alarm Mode, use (E) and (B) to select an alarm.
- 2. Press © to toggle it on and off.

   Turning on a one-time alarm (AL1, AL2, AL3)
- Iurning on a one-time alarm (HL1, HL≥, HL∃) displays the alarm on indicator on its Alarm Mode screen. Turning on the snooze alarm (SNZ) displays the alarm on indicator and the snooze alarm indicator o its Alarm Mode screen.
   In all modes, the alarm on indicator is displayed for any local this consolity to made. alarm that is currently turned on. When the snooze alarm is on, the snooze alarm indicator is displayed in all
- The alarm on indicator flashes while an alert operation
- is being performed.

  The snooze alarm indicator flashes during the 5-minute intervals between alarms



Hourly time signal

- To turn the Hourly Time Signal on and off

  1. In the Alarm Mode, use (a) and (b) to select the Hourly Time Signal (5 I G).
  2. Press (c) to toggle it on (Hourly Time Signal on indicator to displayed).

  The Newty Time Signal on indicator is displayed in all the time Signal on indicator is displayed.
  - The Hourly Time Signal on indicator is displayed in all modes when the Hourly Time Signal is turned on.

# Stopwatch



- The stopwatch lets you measure elapsed time, split times, 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 after it reaches its limit, until you stop it.

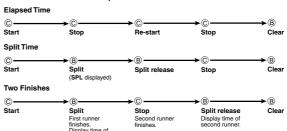
   The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
- if you exit the Stopwatch Mode If you exit the Stopwatch Mode.

  Exiting the Stopwatch 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



# Illumination



The watch has 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 illuminates the display when you angle the watch toward

- illuminates the display when you angle the watch towar your face.

   The auto light switch must be turned on (indicated by the auto light switch on indicator) for it to operate.

   See "Illumination Precautions" for other important information about using illumination.

- To turn on illumination manually
  In any mode, press ① to illuminate the display.

   You can specify 1.5 seconds or 3 seconds as the illumination duration. See "To specify the illumination duration" for more information
- The above operation turns on illumination regardless of the current auto light switch setting.

# About the Auto Light Switch

Turning on the auto light switch causes illumination to turn on, whenever you position your wrist as described below in any mode.

Moving the watch to a position that is parallel to the ground and then tilting it towards you at more than 40 degrees causes illumination to turn on. Wear the watch on the outside of your wrist



- 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 startle or distract others around you.

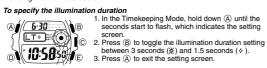
  When you are wearing the watch, make sure that its auto light switch is turned off before riding on a bicycle or operating a motorcycle or any other motor vehicle. Sudden and unintended operation of the auto light switch can create a distraction, which can result in a traffic accident and serious personal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

# **Operation Guide 2943**

- To turn the auto light switch on and off
  In any mode, hold down ① for about two seconds to toggle the auto light switch on
  (AUTO EL displayed) and off (AUTO EL not displayed).

  In order to protect against running down the battery, the auto light switch will turn
  off automatically approximately six hours after you turn it on. Repeat the above
  procedure to turn the auto light switch back on if you want.

  The auto light switch on indicator (AUTO EL) is on the display in all modes while the
  auto light switch is turned on.



# Reference

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

### **Auto Return Feature**

If you leave a screen with flashing digits 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.

## Scrolling

The (B) and (E) 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.

- Timekeeping

  Resetting the seconds to III 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 III without changing the minutes.

  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 no 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.

- With the 24-hour format, times are displayed in the range of 0:00 to 23:59, without any indicator.
  The year can be set in the range of 2000 to 2039.
  The watch's built-in full automatic calendar 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.

### **Illumination Precautions**

- The electro-luminescent panel that provides illumination loses power after very long
- Illumination may be hard to see when viewed under direct sunlight.
- The watch 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
- vibration) is performed.

   Frequent use of illumination runs down the battery.

Auto light switch precautions

Wearing the watch on the inside of your wrist, movement of your arm, or vibration of your arm can cause frequent activation of the auto light switch and illumination of 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.



- Illumination may not turn on if the face of the watch is
- Illumination may not turn on the face or the watern is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
   Illumination turns off after the preset illumination duration (see "To specify the illumination duration"), 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 illumination does not turn on, try moving the watch back to the starting position (parallel with the ground) and then tilt it back towards 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
- Under certain conditions, illumination may not turn on until about one second after you turn the face of the watch towards you. This does not necessarily indicate
- malfunction of the auto light switch.

   You may notice a very faint clicking sound coming from the watch when it is shaken back and forth. This sound is caused by mechanical operation of the auto light switch, and does

### Sort Table

1	(space)	10	Ι	19	R	28	0	37	(II)
2	A	11	J	20	S	29	1	38	
3	8	12	X	21	Т	30	2	39	
4		13		22	J	31	3	40	
5	D	14	М	23	V	32	4	41	/
6	E	15	Z	24	W	33	5		
7	F:::	16	0	25	X	34	6		
8	G	17	Û.	26	Υ	35	7		
9	Н	18	0	27	Z	36	8		

# City Code Table

City Code	City	GMT Differential	Other major cities in same time zone	
PPG	Pago Pago	-11.0		
HNL	Honolulu	-10.0	Papeete	
ANC	Anchorage	-09.0	Nome	
LAX	Los Angeles	-08.0	San Francisco, Las Vegas, Vancouver, Seattle/Tacoma, Dawson City	
DEN	Denver	-07.0	El Paso, Edmonton	
CHI	Chicago	-06.0	Houston, Dallas/Fort Worth, New Orleans, Mexico City, Winnipeg	
NYC	New York	-05.0	Montreal, Detroit, Miami, Boston, Panama City, Havana, Lima, Bogota	
CCS	Caracas	-04.0	La Paz, Santiago, Port Of Spain	
RIO	Rio De Janeiro	-03.0	Sao Paulo, Buenos Aires, Brasilia, Montevideo	
		-02.0		
		-01.0	Praia	
GMT			Dublin, Lisbon, Casablanca, Dakar, Abidjan	
LON	London	+00.0	, ,	
PAR	Paris	+01.0	Milan, Rome, Madrid, Amsterdam, Algiers, Hamburg, Berlin, Frankfurt, Vienna, Stockholm	
CAI	Cairo		Helsinki, Istanbul, Beirut, Damascus,	
JRS	Jerusalem	+02.0	Cape Town, Athens	
JED	Jeddah	+03.0	Kuwait, Riyadh, Aden, Addis Ababa, Nairobi, Moscow	
THR	Tehran	+03.5	Shiraz	
DXB	Dubai	+04.0	Abu Dhabi, Muscat	
KBL	Kabul	+04.5	·	
KHI	Karachi	+05.0	Male	
DEL	Delhi	+05.5	Mumbai, Kolkata	
DAC	Dhaka	+06.0	Colombo	
RGN	Yangon	+06.5		
BKK	Bangkok	+07.0	Jakarta, Phnom Penh, Hanoi, Vientiane	
HKG	Hong Kong	+08.0	Singapore, Kuala Lumpur, Beijing, Taipei, Manila, Pe Ulaanbaatar	
TYO	Tokyo	+09.0	Seoul, Pyongyang	
ADL	Adelaide	+09.5	Darwin	
SYD	Sydney	+10.0	Melbourne, Guam, Rabaul	
NOU	Noumea	+11.0	Port Vila	
WLG	Wellington	+12.0	Christchurch, Nadi, Nauru Island	

. Based on data as of June 2004.