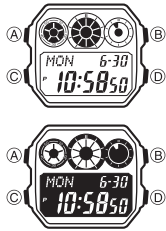


Operation Guide 3426

About This Manual



- Depending on the model of your watch, display text appears either as dark figures on a light background or light figures on a dark background. All sample displays in this manual are shown using dark figures on a light background.
- 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.

E

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E-1

Procedure Lookup

The following is a handy reference list of all the operational procedures contained in this manual.

To set the time and date.....	E-7
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To toggle between 12-hour and 24-hour timekeeping.....	E-10
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To configure countdown timer settings.....	E-21
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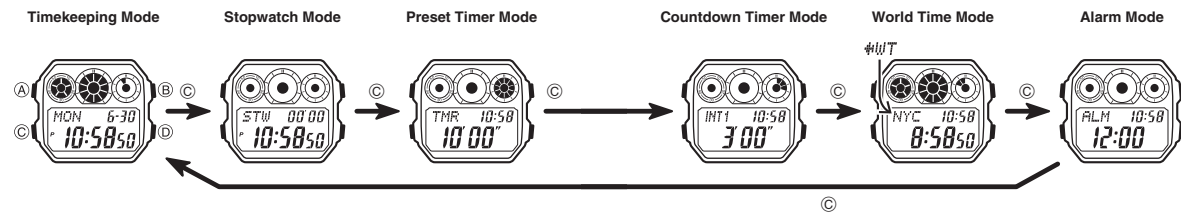
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To view the time for another city code.....	E-26
To toggle a city code time between Standard Time and Daylight Saving Time.....	E-27
To set the alarm time.....	E-28
To stop the alarm tone after it starts to sound.....	E-29
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E-3

General Guide

- Press (C) to change from mode to mode.
- In any mode (except when a setting screen is on the display), press (B) to illuminate the display.



E-4

E-5

Timekeeping

Use the Timekeeping Mode to set and view the current time and date.

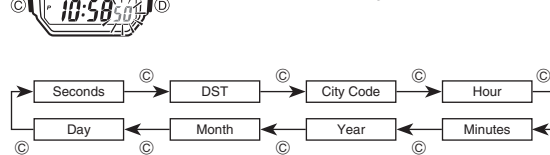
Read This Before You Set the Time and Date!
The times displayed in the Timekeeping Mode and World Time Mode are linked. Because of this, make sure you select a city code for your Home City (the city where you normally use the watch) before you set the time and date.

- For full information on city codes, see the "City Code Table" at the back of this manual.

E-6

To set the time and date

- In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.
- Press (C) to move the flashing in the sequence shown below to select other settings.



E-7

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

Screen	To do this:	Do this:
50	Reset the seconds to 00	Press (D).
0 FF	Toggle between Daylight Saving Time (0 FF) and Standard Time (0 FF)	
T Y C	Change the city code	Use (D) (east) and (B) (west).
10:58	Change the hour or minutes	Use (D) (+) and (B) (-).
14	Change the year	
6-30	Change the month or day	

- See "Daylight Saving Time (DST)" on page E-9 for details about the DST setting.
- Press (A) to exit the setting screen.

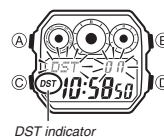
E-8

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 screen.
 - Press (C) to display the DST setting screen.
 - Press (D) to toggle between Daylight Saving Time (0 FF displayed) and Standard Time (0 FF displayed).
 - Press (A) to exit the setting screen.
- The DST indicator is on the display while Daylight Saving Time is turned on.



DST indicator

E-9

To toggle between 12-hour and 24-hour timekeeping

In the Timekeeping Mode, press **(D)** to toggle between 12-hour timekeeping and 24-hour timekeeping.

- With the 12-hour format, the **P** (PM) indicator appears for times in the range of noon to 11:59 p.m. and no indicator appears to the left of the hour digits 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.
- The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is applied in all other modes.
- The **P** indicator is not displayed with the Timekeeping Mode time on the Preset Timer Mode, Countdown Timer Mode, World Time Mode, and Alarm Mode screens.

E-10

Stopwatch

Initial Stopwatch Mode Screen



Timekeeping Mode time

The stopwatch lets you measure elapsed time. The upper display and lower display can be used for official timing of an event or game.

- The measurement range of the upper display is 59 minutes 59 seconds.
- The measurement range of the lower display is 99 minutes 59 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.
- All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing **(C)** (page E-4).

E-11

Elapsed Time Screen

Minutes Seconds

- This time measurement cannot be paused. It shows the total elapsed time since the timing operation started.
- Press **(D)** to pause and resume elapsed time measurement.
- This time measurement (1/100 second) cannot be paused.

To measure times with the stopwatch

Elapsed Time



*1 Elapsed time measurement in the lower display continues.

E-12

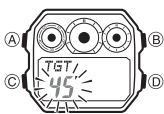
Using the Watch for Official Timing of a Sport Event

After you set a game or event time, the watch will sound an alarm when the time in the lower display reaches that time.

If the event is interrupted for some reason, you can press **(D)** to pause and resume timing in the upper display. The lower display shows the total elapsed time since the start of the timing operation. You can calculate the total amount of time that play was interrupted (lost time or injury time) by subtracting the upper display time from the lower display time.

E-13

To set the event time



1. In the Stopwatch Mode, hold down **(A)** until the current event time setting starts to flash in the lower display. This is the setting screen.
 - If the current event time is not displayed, use the procedure under "To reset elapsed time measurement to zero" (page E-15) to display it.
2. While a setting is flashing, use **(D)** (+) and **(B)** (-) to change it.
 - You can set the event time in the range of 1 minute to 60 minutes, in 1-minute units.
 - "- -" indicates there is no event time set.
3. Press **(A)** to exit the setting screen.

To start timing at the beginning of an event

When the current time in the lower display reaches the event start time, press **(D)** to start timing.

- This will display elapsed time measurement in the upper and lower displays.

E-14

To pause timing

1. Press **(D)**.
 - This stops elapsed time measurement in the upper display.
 - Elapsed time measurement in the lower display continues.
2. To resume elapsed time measurement in the upper display, press **(D)** again.

When the preset event time is reached

- The watch will sound an alarm when the elapsed time measurement in the lower display (total elapsed time since timing started) reaches the preset event time.
- Elapsed time measurement continues to be performed even after the preset event time is reached.

To reset elapsed time measurement to zero

1. Press **(D)**. This stops elapsed time measurement in the upper display.
 - Elapsed time measurement in the lower display continues.
2. Hold down **(A)** until the initial Stopwatch Mode screen appears.

E-15

Preset Timer

Timekeeping Mode time



Preset timer time

The watch includes a number of different preset times that you can select for the countdown start time. An alarm sounds when the countdown reaches zero.

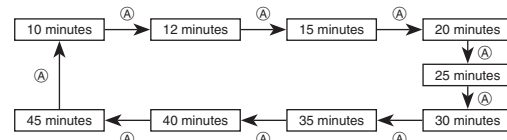
- The following are the preset start times, all in minutes: 10, 12, 15, 20, 25, 30, 35, 40, 45.
- You can also select auto-repeat, which automatically restarts from the preset start time you selected, whenever zero is reached.
- All of the operations in this section are performed in the Preset Timer Mode, which you enter by pressing **(C)** (page E-4).

E-16

To perform a preset timer operation



1. In the Preset Timer Mode, use **(A)** to scroll through the preset times until the one you want to use is displayed.



E-17

Auto-repeat on indicator



Number of repeats



- To turn on auto-repeat, hold down **(A)** while a start time selection screen is displayed. The number of repeats will appear in the lower display.
- Frequent use of auto-repeat and the alarm can run down battery power.

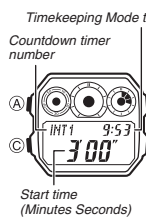
2. Press **(D)** to start the countdown timer.
 - Press **(D)** while a countdown operation is in progress to pause it. Press **(D)** again to resume the countdown.

- When the end of the countdown is reached, the alarm sounds for 10 seconds or until you stop it by pressing any button.
- When the end of the countdown is reached while auto-repeat is turned off, the watch will go into an elapsed time operation and display how much time has elapsed since the end of the countdown was reached. The elapsed time operation will stop automatically when it reaches 60 minutes. At that time the countdown timer start time selection screen will appear.
- When the end of the countdown is reached while auto-repeat is turned on, a new countdown starts from the selected preset start time. The number of repeats is displayed in the lower display. The number of repeats display changes to "- -" when the count reaches 100.
- To stop a countdown operation completely, first pause it (by pressing **(D)**), and then press **(A)**. This will display the initial Preset Timer Mode screen.

E-18

E-19

Countdown Timer



With the countdown timer, you can set up to nine start times, which are counted down in sequence one after the other.

The countdown timer can be used for interval training (for example, three minutes running with **INT1**, 1 minute rest with **INT2**, five minutes running with **INT3**) or for timing an multi-period event (for example, 45 minutes of play with **INT1**, 15 minutes rest with **INT2**, 45 minutes play with **INT3**).

- The watch performs an alert operation (beeper) when any timer reaches zero.
- An alert operation (about one second) is performed when any countdown timer (except for the last one in the series) reaches zero. When the last countdown timer in the series reaches zero, an alert operation is performed for about five seconds.

- You can turn on an auto-repeat feature that restarts the timer sequence from the beginning when the end of the last timer is reached.
- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing **C** (page E-5).

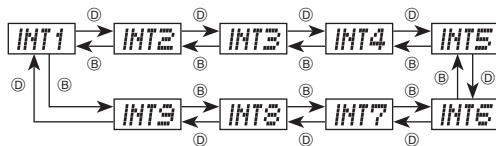
To configure countdown timer settings



- In the Countdown Timer Mode, hold down **A** until the countdown timer number starts to flash. This is the setting screen.
- Use **D** (+) and **B** (-) to scroll through the countdown timer numbers until the one you want to set is displayed.

E-20

E-21



3. Press **C** to move the flashing in the sequence shown below to select other settings.



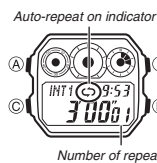
4. While a setting is flashing, use **D** and **B** to change it as described below.

Screen	To do this:	Do this:
INT1	Change the countdown timer number	Use D (+) and B (-).
3:00	Change the minutes (00-59)	
	Change the seconds (00-55, 5-second units)	
↔	Toggle auto-repeat on (↔) and off (—)	Press D .

- Any timer whose start time is 00:00 will not be used during the countdown timer operation.
- There is no auto-repeat for individual countdown timers. In the Countdown Timer Mode, auto-repeat repeats the entire set of timers.

E-22

E-23



5. Set the times of all of the timers that you want.

6. Press **A** to exit the setting screen.

- When auto-repeat is turned on, the number of repeats will appear in the lower display.
- Frequent use of auto-repeat and the alarm can run down battery power.

To perform a countdown timer operation

In the Countdown Timer Mode, press **D** to start the countdown of the lowest numbered countdown timer that has a start time setting that is not zero.

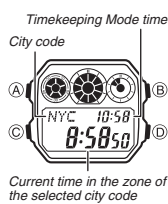
- To pause the countdown timer that is currently counting down, press **D**. Press **D** again to resume the countdown.
- During a countdown timer operation, any countdown timer whose start time is zero (00:00) is skipped.

- The first countdown timer of the series is the lowest numbered one with a start time that is not zero. The final countdown timer of the series is the highest numbered one with a start time that is not zero.
- While auto-repeat is turned off, the watch beeps when each countdown timer reaches zero. An alarm will sound for about five seconds when the final countdown timer reaches zero.
- While auto-repeat is turned on, the watch beeps once when each countdown timer reaches zero. A five-second alert operation is performed when the final countdown timer reaches zero, unless the start time of the final countdown timer is 10 seconds or less. In such a case, the alert operation for the final countdown timer is only one second long.
- Timing restarts from the first timer when the final countdown timer reaches zero. The number of repeats is displayed in the lower display. The number of repeats display changes to "-1" when the count reaches 100.
- An ongoing countdown timer operation continues to be performed even if you exit the Countdown Timer Mode.
- To stop a countdown timer operation, first press **D** to pause the countdown of the current timer, and then press **A**. This will display Countdown Timer 1 (INT1).

E-24

E-25

World Time



World Time shows the current time in 48 cities (29 time zones) around the world.

- When you enter the World Time Mode, the data you were viewing when you last exited the mode appears first.
- All of the operations in this section are performed in the World Time Mode, which you enter by pressing **C** (page E-5).

To view the time for another city code

In the World Time Mode, press **D** to scroll eastward through city codes.

- For full information about city codes, see the "City Code Table" at the back of this manual.
- If the current time for a city is wrong, check your Timekeeping Mode time and Home city code settings and make necessary changes.

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

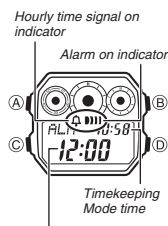


- In the World Time Mode, use **D** to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
- Hold down **A** for about one second to toggle between Daylight Saving Time (DST displayed) and Standard Time (DST not displayed).
- The DST indicator is on the display 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 affected.

E-26

E-27

Alarm



When the Daily Alarm is turned on, the alarm sounds for 10 seconds at the preset time each day. When the Hourly Time Signal is turned on, the watch beeps every hour on the hour.

- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing **C** (page E-5).

To set the alarm time

- Hold down **A** while in the Alarm Mode until the hour digits start to flash on the display. The hour digits flash because they are selected.
- This operation automatically turns on the alarm.

2. Press **C** to change the selection in the following sequence.



3. While a setting is flashing, use **D** and **B** to change it as described below.

Screen	To do this:	Do this:
12:00	Change the hour and minutes	Use D (+) and B (-). • With the 12-hour format, set the time correctly as a.m. or p.m. (P indicator).

4. After you set the alarm time, press **A** to return to the Alarm Mode.

To stop the alarm tone after it starts to sound
Press any button.

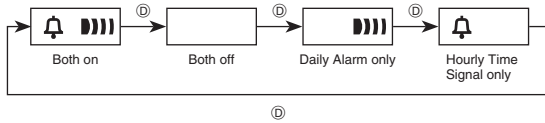
Alarm time (Hour : Minutes)

E-28

E-29

To switch the Daily Alarm and Hourly Time Signal on and off

Press (D) while in the Alarm Mode to change the status of the Daily Alarm and Hourly Time Signal in the following sequence.



To test the alarm

Hold down (D) while in the Alarm Mode to sound the alarm.

E-30

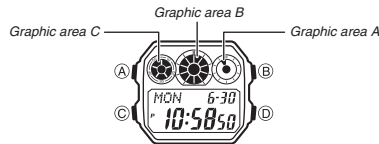
E-31

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.

Graphic Areas

The following describes the information indicated by the three graphic areas in each mode.



E-32

E-33

Button Operation Tone

The button operation tone sounds any time you press one of the watch's buttons. You can turn the button operation tone on or off as desired.

- Even if you turn off the button operation tone, the alarm, the Hourly Time Signal, the countdown timer alarm, and the event time alarm all operate normally.

To turn the button operation tone on and off
In any mode (except when a setting screen is on the display), hold down (C) to toggle the button operation tone on (⌘ not displayed) and off (⌘ displayed).

- Holding down (C) to turn the button operation tone on or off also causes the watch's current mode to change.
- ⌘ is displayed in all modes when the button operation tone is turned off.

E-34

E-35

- 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.

World Time

- The seconds count of the World Time is synchronized with the seconds count of the Timekeeping Mode.
- All World Time Mode times are calculated from the current Home City time in the Timekeeping Mode using UTC time differential values.
- The UTC differential is a value that indicates the time difference between a reference point in Greenwich, England and the time zone where a city is located.
- The letters "UTC" is the abbreviation for "Universal Time Coordinated", which is the world-wide scientific standard of timekeeping. It is based upon carefully maintained atomic (cesium) clocks that keep time accurately to within microseconds. Leap seconds are added or subtracted as necessary to keep UTC in sync with the Earth's rotation.

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E-37

Specifications

Accuracy at normal temperature: ±30 seconds a month

Timekeeping: Hour, minutes, seconds, p.m. (P), month, day, day of the week

Time format: 12-hour and 24-hour

Calendar system: Full Auto-calendar pre-programmed from the year 2000 to 2099

Other: Home City code (can be assigned one of 48 city codes); Daylight Saving Time (summer time)/Standard Time

Stopwatch

Measuring units: Upper display: 1 second; Lower display: 1 second

Measuring capacities: Upper display: 59'59"; Lower display: 99'59.99"

Measuring modes: Elapsed time, event time

Preset Timer

Measuring unit: 1 second

Preset Start Times: 10, 12, 15, 20, 25, 30, 35, 40, 45 minutes

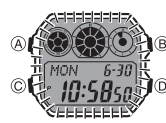
Timer modes: Elapsed time, Auto-repeat

Measurement of elapsed time for up to 60 minutes after the countdown reaches zero

E-38

C

Illumination



This watch has an LED (light-emitting diode) panel that causes the entire display to glow for easy reading in the dark.

- See "Illumination Precautions" (page E-37) for more important information.

To illuminate the display

In any mode, press (B) to turn on illumination.

Mode	Graphic Area A	Graphic Area B	Graphic Area C
Timekeeping	Timekeeping Mode minutes	Timekeeping Mode seconds	Timekeeping Mode 10-seconds
Stopwatch	Stopwatch Time minutes	Stopwatch Time 1/20-second	Stopwatch Time 10-seconds
Preset Timer	Preset Time minutes	Preset Time 1/20-second	Preset Time 10-seconds
Countdown Timer	Countdown Time minutes	Countdown Time 1/20-second	Countdown Time 10-seconds
World Time	World Time Mode minutes	World Time Mode seconds	World Time Mode 10-seconds
Alarm	No indication	No indication	No indication

Scrolling

The (B) 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 at high speed. This is true except when the countdown timer number is flashing on the Countdown Timer Mode screen (page E-21).

Auto Return Features

- If you leave the watch in the Alarm Mode for two or three minutes without performing any operation, it changes to the Timekeeping Mode automatically.
- If you leave a screen with flashing digits on the display for two or three minutes without performing any operation, the watch exits the setting screen automatically.

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 2099.

Illumination Precautions

- Illumination loses power after very long use.
- Illumination may be hard to see when viewed under direct sunlight.
- Illumination turns off automatically whenever an alarm sounds.
- Frequent use of illumination runs down the battery.

Countdown Timer

Number of Timers: Up to 9

Measuring unit: 1 second

Input range: 59'55" (1-minute increments and 5-second increments)

Other: Auto-repeat timing

World Time: 48 cities (29 time zones)

Other: Daylight Saving Time/Standard Time

Alarm: Daily alarm, Hourly time signal

Illumination: LED (light-emitting diode)

Other: Button operation tone on/off

Battery: One lithium battery (Type: CR2025)

Approximately 10 years on type CR2025 (1 stopwatch elapsed time operation per week (10-second alarm when timing reaches preset event time); 1 preset timer operation per week (10-second alarm when countdown reaches zero); 1 countdown timer operation per week (8 1-second beeps when any countdown timer reaches zero, 5-second alarm when last countdown timer reaches zero), daily alarm operation 10 seconds per day, 1.5 seconds of illumination per day)

E-39



City Code Table

L-1

City Code Table

City Code	City	UTC Differential	Other major cities in same time zone
PPG	Pago Pago	-11	
HNL	Honolulu	-10	Papeete
ANC	Anchorage	-9	Nome
YVR	Vancouver	-8	Las Vegas, Seattle/Tacoma, Dawson City
SFO	San Francisco		
LAX	Los Angeles		
DEN	Denver	-7	El Paso, Edmonton
MEX	Mexico City	-6	Winnipeg, Houston, Dallas/Fort Worth, New Orleans
CHI	Chicago		
MIA	Miami	-5	Montreal, Detroit, Boston, Panama City, Havana, Lima, Bogota
NYC	New York		
CCS*	Caracas	-4	La Paz, Santiago, Port Of Spain
YYT	St. Johns	-3.5	
RIO	Rio De Janeiro	-3	Sao Paulo, Buenos Aires, Brasilia, Montevideo
RAI	Praia	-1	

L-2

City Code	City	UTC Differential	Other major cities in same time zone
LIS	Lisbon	0	Dublin, Casablanca, Dakar, Abidjan
LON	London		
BCN	Barcelona	+1	Amsterdam, Algiers, Hamburg, Frankfurt, Vienna, Stockholm, Madrid
PAR	Paris		
MIL	Milan		
ROM	Rome		
BER	Berlin		
ATH	Athens	+2	Helsinki, Beirut, Damascus, Cape Town
JNB	Johannesburg		
IST	Istanbul		
CAI	Cairo		
JRS	Jerusalem		
MOW**	Moscow	+3	Kuwait, Riyadh, Aden, Addis Ababa, Nairobi
JED	Jeddah		
THR	Tehran	+3.5	Shiraz

L-3

City Code	City	UTC Differential	Other major cities in same time zone
DXB	Dubai	+4	Abu Dhabi, Muscat
KBL	Kabul	+4.5	
KHI	Karachi	+5	
MLE	Mate		
DEL	Delhi	+5.5	Mumbai, Kolkata
DAC	Dhaka	+6	Colombo
RGN	Yangon	+6.5	
BKK	Bangkok	+7	Jakarta, Phnom Penh, Hanoi, Vientiane
SIN	Singapore	+8	Kuala Lumpur, Taipei, Manila, Perth, Ulaanbaatar
HKG	Hong Kong		
BJS	Beijing		
SEL	Seoul	+9	Pyongyang
TYO	Tokyo		
ADL	Adelaide	+9.5	Darwin

L-4

City Code	City	UTC Differential	Other major cities in same time zone
GUM	Guam	+10	Melbourne, Rabaul
SYD	Sydney		
NOU	Noumea	+11	Port Vila
WLG	Wellington	+12	Christchurch, Nadi, Nauru Island

* In December 2007, Venezuela changed its offset from -4 to -4.5. Note, however, that this watch displays an offset of -4 (the old offset) for the CCS (Caracas, Venezuela) city code.

** The above is current as of June 2013. This watch does not reflect the change in the Moscow (MOW) time offset to +4. Because of this, you should leave the summer time setting turned on (which advances the time by one hour) for Moscow (MOW).

- This table shows the city codes of this watch.
- The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

L-5