

Co-Pilote WWII Watch

Instruction Manual

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Quick Start Guide B

Co-drivers:

You can use this watch to carry out any or all of the following tasks:

A) In Chrono Time: Select a prestart option (the default is Next Whole Minute). When you reach a stage start, press the START/STOP button anytime during the minute before your given start time. The Chrono will start automatically on the next minute (the stage start time). At the end of the stage press the START/STOP button again to show the stage time and time of day at the end of the stage. You can store this in memory and compare with your time card.

B) In Recall Modes: you can view your stage times. For each stage you can see the stage time, the cumulative time and the time of day at the end of the stage.

You can amend individual stage times so that they agree with your given time.

You can use the stage zero option to enter time penalties

C) In Timer mode: you can use a bank of 6 timers to carry out a variety of tasks:

- Set timers for Service time (45 min, 20 min etc.) Start the timer when you enter the service area
- Set timers for the road section time allowed to reach the stage
- You can link the timers to cover road sections, service and stages for each leg of the rally.
- You can set individual prestart times for unlinked timers
- You can link the timers to the chrono time mode so that the timers start when the chrono time is started.
- Timers can count down or up

Quick Start Guide A

NOTE before start:

Please note that this is for getting start only. Please read the instruction for detail as well.

General:

1. Go to Time of Day mode and set time of day, date and 12/24 hour, Day/Month or Month/Day display options. (Please see Chapter 9.1)
2. In Time of Day mode, deselect the Modes you do not require. (Please see Chapter 4.1)
3. Daily Alarm: Set alarm (Please see Chapter 10.1)
4. Stopwatch: Time format option (Please see Chapter 8.1)
5. Decide how you want to use the backlight function (Please see Chapter 3.1)
6. Decide if you want the watch to beep or flash alarm signals (Please see Chapter 10.1)
7. Read the instructions.

Quick Start Guide C

Example of Timer Usage:

TC/SS	1st Car	Location	Targ. Time	
SS6 7	36.86m	15h50 16h35	45min	T1 countdown 45m linked/chrono link
SS7 8	29.92m	16h38 17h14	36min	T2 countdown 36m linked to T3
SS8 9A	45.32m	17h17 18h13	56min	T3 countdown 56m linked to T4
	158.95m		45min	T4 countdown 45m linked to T5
9B 9C	39.37m	18h58 19h58	1h00	T4 countdown 1hr unlinked

Go to the relevant Modes you require to use and set up your preferred settings:

- i) Time of day: Set time of day to rally time (Please see Chapter 9.1)
- ii) Chrono Time: pre-start option, Next minute, instant, delay up to 59 min or prestart on an entered time of day (Please see Chapter 5.0 to 5.2), time format option 1/100th sec, 1/10th sec, nearest sec or 1/10,000th hour (Please see Chapter 5.2.1).
- iii) Timer pre-start option (same as Chrono time option for unlinked timers). (Please see Chapter 6.3) Set target times and timer linking options (Please see Chapter 6.2)

Quick Start Guide D

Aviators:

You can use this watch to carry out any or all of the following tasks:

- At the simplest level, you can record the start time of day, flight duration and end time of day for a flight.
- You can capture navigation sector times for each flight, and if sector distances are entered prior to the flight, you can record average speeds for each sector and the total flight distance and average speed.
- You can amend all sector data at the end of a flight distance if desired. This can be done in both flight and flight log modes.
- You can store up to 99 flights in Flight Log mode. (this data is retained even if the watch battery is changed)

Simple use of flight timer:

Go to flight mode by using MODE button.

1. Press START/STOP button at start of flight.
2. If on navigation exercise press split/reset at each waypoint to record flight sector 1, 2 etc up to 20 sectors.
3. At end of flight press start/stop to stop the flight timer.
4. To clear display and record the details simply press reset button, this places the records into "flight log" and the display will be cleared ready for next flight.
5. Total numbers of flight recorded is 1-99

Flight Log review: Go to Flight log mode by MODE button

The display shows total number of flights, total duration of flights and finally time of day.

1.0 Introduction

Thank you for purchasing of this unique watch.

You can personalise the watch to choose only the functions you need. Although the functions are primarily aimed at rally co-drivers and aviators, they are also appropriate for most timing applications from Athletics to Yachting.

The watch has been built to withstand tough conditions and is water resistant to 5 atm.

- Read the instruction before using the watch.
- Do not open the watch case other than by using the battery door.
- Avoid exposing your Watch to extreme conditions for an unreasonable time.
- Clean your Watch with a soft cloth from time to time.
- Store your Watch in a dry place when it is not in use.

Quick Start Guide E

Review individual flights as follows

1. In flight log mode press either START/STOP or SPLIT/RESET to scroll forwards or backwards through the individual flight records.

The top two lines of display shows flight number and date. The second line is total flight duration. The third line is flight start time, and the fourth line is flight end time.

If sector distances have been entered then the top two lines alternate showing "flight number and date plus flight duration" and then "overall flight distance and average speed".

2. In any of the last ten flights individual sectors can also be reviewed by pressing the "set" button. Then pressing start/stop or split reset scrolls up or down through all recorded sectors for the chosen flight.
3. Simply pressing mode button at any time returns display to Flight log start screen.

To insert sector/flight distances before flight:

Go to Flight Mode: press and hold SET button till distance unit flashes.

Select units via START/STOP button, press set button once again to select desired sector or flight distance. Press START/STOP button increases distance, MODE button decreases distance. Holding either button down scrolls increasing quickly. If further sectors are required simply press SET button again to set additional sectors. Press reset button to exit setting operation.

To insert sector/flight distances After flight:

Refer to instructions Chapter 11.4 and 12.3 for more details.

2.0 Features

This is the only user pre-settable watch with these features:

- Deselect functions which are not required. These can be restored when needed.
- Three pre-start options: Next whole minute start, Delay start, Start at a given time of day.
- Store up to 30 stage times in memory. Memory recall gives stage time and time of day as well as cumulative time. Simple stage time amendment function. Stage 0 for entering time penalties.
- Six Presettable countdown/up timers. Can be linked to stopwatch, or to each other, or to run independently. Can be linked to Chrono Time, timer sequence continues even Chrono time is restarted.
- Setting and amending timers, memory and time of day is easy with the ability to (nudge) increase or decrease settings for each chosen digit.
- Independent 99 memory stopwatch with cumulative and lap split times
- Flight time records data for up to 20 sectors including speed, time and (entered) distance. Start and finish time of day and date.
- Flight Log stores data of up to 99 Flights including all sector details for the previous 9 flights with the ability to amend sector data.
- Calculator for time, distance, speed. Enter any two variables to calculate.

3.0 Buttons and Its Functions - Mode, Start/Stop and Set



Mode [M]

- Scroll through modes
- Decrement during setting
- Press and Hold in time of day to enter Mode select/deselect

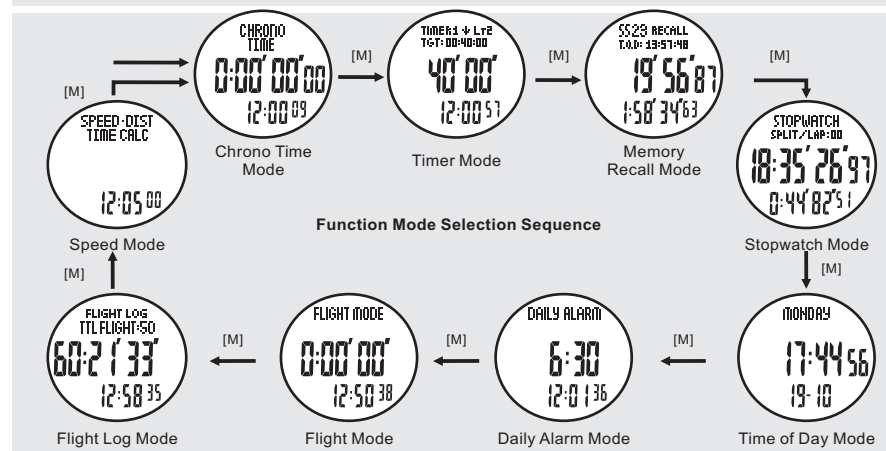
Start/Stop [S/S]

- Start or stop Chrono time stopwatch/independent stopwatch/ timer/Flight timer
- Increment during setting
- Scroll/read memory records in Recall, Stopwatch, Flight Log and Calculations modes
- Toggle alarm enable in Daily Alarm mode

Set [S]

- Hold for about 2 seconds to activate setting
- Move to next item during setting
- Exit from setting after adjustment of the last item
- Select a timer in Timer mode
- Activate reading of sector data in Flight Log mode
- Scroll through variables during calculation setting in Speed, distance and time calculator mode

4.0 Operation of the Watch - Function Mode Diagram



Operation of the Watch

- Press the [M] button to scroll through the nine modes per the above diagram. Hold down the button to scroll through faster. A beep will sound when entering each mode. The pitch of the Chrono Time Mode is different to the others so that user recognize this mode by sound when scrolling.
- When Timer or Memory Recall modes are accessed for more than 3 seconds, press the [M] button to return to Chrono Time Mode.

3.1 Buttons and Its Functions - Split/Reset and Light



Split/Reset [S/R]

- Take a split time in Chrono Time and Stopwatch modes
- Store stage times into memory in Chrono Time mode
- Exit from setting
- Reset Split times to zero in Chrono/Time and Stopwatch modes
- Reload Timer values during timer is not running
- Search stage memories/flight log memories /sector records in reverse direction
- Reset variables after calculation in Speed, distance time calculator mode
- Moves to next sector in Flight mode

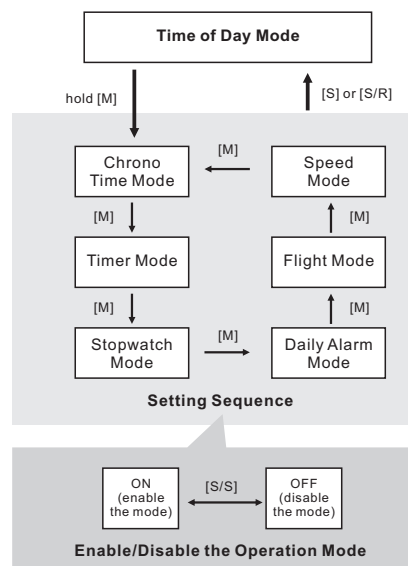
Light [EL]

- Toggle 12/24 Hour display format during setting Time of Day mode
- Turn on backlight for 10 seconds.
- Press and hold for 2 seconds to toggle Night mode enable.

Night Mode

When the night mode function is activated, the display will remain illuminated for 10 seconds after any button press.

4.1 Operation of the Watch - Enable /Disable the Mode Function



The watch includes nine modes (refer to Chapter 4.0). They are all activated when the watch is powered up. The user has the option to disable functions which are not required and re-enable them if required in the future. This applies to all modes except Time of day mode.

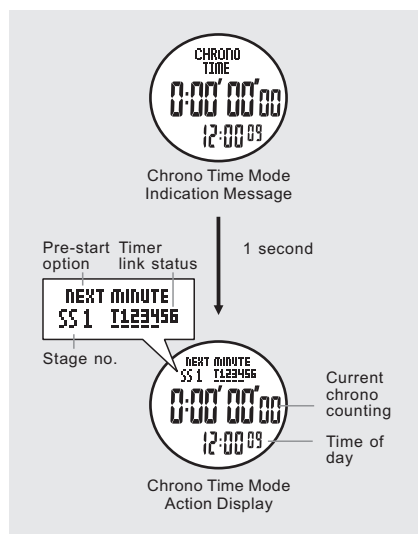
To Disable Modes:

- In time of day mode, press and hold [M] button for 2 seconds to select the setting display.
- Each mode will appear in the sequence shown in the diagram starting with "Chrono Time" mode. Press [M] to scroll through the modes until you reach the one(s) you want to deselect (or reselect).
- Change the flashing ON digit by pressing [S/S] to deselect. If deselected, change the flashing OFF digit by pressing [S/S]
- Press [S] or [S/R] buttons to return to Time of Day mode.

NOTE:

- With the exception of the Daily Alarm mode, modes cannot be deselected if they are running.
- If Chrono Time mode is deselected, then memory recall will also be deselected. Similarly if Flight Mode is deselected, Flight Log will also be deselected.
- If Timer mode is deselected but Timer 1 is linked to Chrono Time mode, then Timer mode will be reselected automatically when Chrono Time is started.

5.0 Chrono Time Mode - An Overview



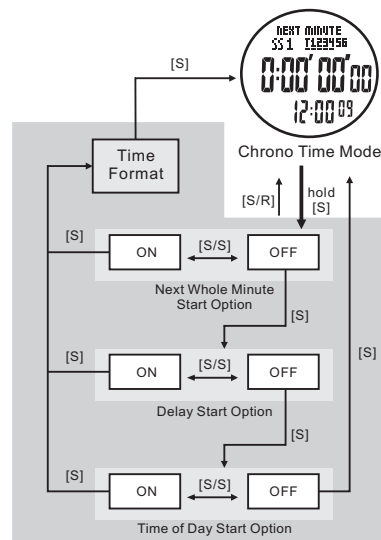
Chrono Time Mode Function

- This mode has time of day and stopwatch functions on the same display. The stopwatch counts down from/to the pre-start time and the stopwatch starts automatically after the selected pre-start time has elapsed/arrived. There are all together three pre-start options (please see 5.1).
- Split times can be taken when the stopwatch is stopped. The Elapsed time (stage time) and the Time of day at the point of stopping are shown. The time of day and stage time digits flash until the data is put into memory. Up to 30 (stage) times can be stored in memory.
- The time measurement unit can be selected from four options: 1/100th second, 1/10th second, 1 second and 1/10,000th hour.

Chrono Time Mode Display

- The matrix display will show:
 - The pre-start option selected
 - The current stage/memory number
 - Timer status: Linked timer are underlined, running timer are flashing.
- The middle display shows the pre-start countdown status then running stopwatch
- The bottom display shows the Time of Day (Flashing if frozen).

5.2 Chrono Time Mode - Setting the Chrono Pre-Start Option

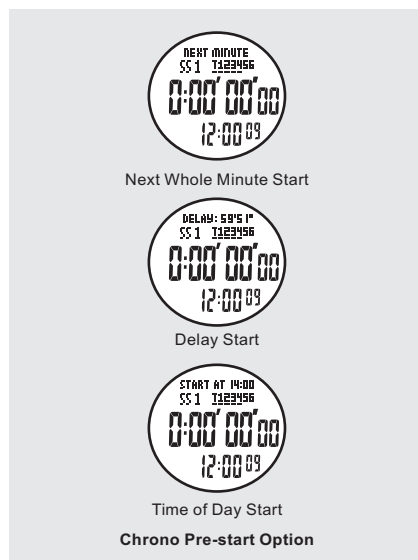


How to Set the Chrono Pre-start Option

- In Chrono Time mode, Hold down the [S] button for about 2 seconds to enter setting mode. In setting mode, press the [S] button to scroll through the 3 pre-start options:
 - In setting mode, the first display will show **NEXT MINUTE** with a flashing ON (if selected) or OFF (if not selected). Press [S/S] Start/Stop button to toggle between on or off.
 - If the above is OFF then press [S] to move to **DELAY START**. Press [S/S] to toggle between on or off. If ON is selected, Press [S] to move to delay start time setting. The flashing digits are seconds. Press [S] to move to the minutes digits. Press [S/S] to increment and [M] buttons to decrement the digits.
 - If the above is OFF then press [S] to move to **START TIME**. Enter the start time by moving from second, to minute to hour using the [S] button and press [S/S] to increment and [M] buttons to decrement the digits.
- Press [S/R] to exit the pre-start option setting.

NOTE: Turning a pre-start option ON will automatically disables the other two options. If all three options are turned off, the default setting will be **NEXT WHOLE MINUTE**.

5.1 Chrono Time Mode - Chrono Pre-Start Option



Chrono Pre-Start option

- The stopwatch counts down from/to the pre-start time and the stopwatch starts automatically after the selected pre-start time has elapsed/arrived. See 5.2 on how to set the three pre-start options.

Next Whole Minute Start Option

- Press [S/S] button and the display will count down to the next whole minute and the stopwatch will start on the next whole minute.

- For example, at 11:54:32 Press [S/S], the display will countdown in seconds to 0 and the stopwatch will start running at 11:55:00

Delay Start Option

- Select the pre-start delay. This can be anything from 0 for instant start, up to 59 minutes 59 seconds (Please see Chapter 5.2)

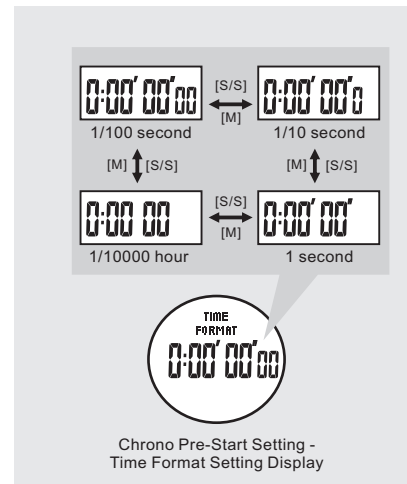
- Press [S/S] button and the stopwatch will count down from the pre-start delay time to 0 and the stopwatch will start running.

Time of Day Start Option

- Select Start Time option and enter the time of day (hour minute second) that you want the stopwatch to start.

- Press [S/S] button and the stopwatch will count down to the set time of day and the stopwatch will start running.

5.2.1 Chrono Time Mode - Setting the Stopwatch Time Format



Time Format

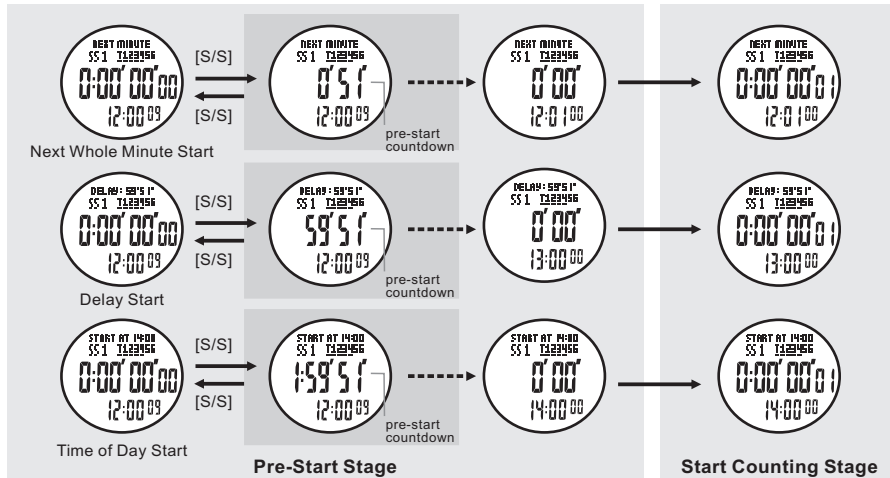
- The Time Format (measurement unit) of the stopwatch can be set among 1/100th second, 1/10th second, 1 second and 1/10,000th hour.

How to Set the Time Format

- After setting the Chrono Pre-Start option, press the [S] button to enter TIME FORMAT and all digits will be flashing.
- Press the [S/S] or [M] Button to select the required time format per the diagram.
- Press the [S] button to exit setting display.

NOTE: The default setting is 1/100th second .

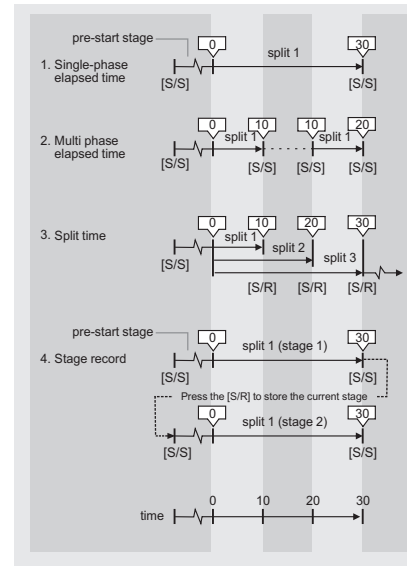
5.3 Chrono Time Mode - Using the Chrono Pre-Start Option



How to Use the Chrono Pre-Start Option

- Press the [S/S] button to start the pre-start countdown. To abort the pre-start during the countdown, press the [S/S] button. This will reset the countdown ready to restart.
- When the pre-start countdown reaches zero, the stopwatch will start automatically.
- The pre-start countdown will have the same alarm beep sequence as the Timers (Please see Chapter 6.3)

5.5 Chrono Time Mode - Using the Stopwatch



- Start the stopwatch by pressing [S/S] to activate the pre-start function (refer to Chapter 5.3)

How to View a Split Time

- When the stopwatch is counting, press the [S/R] button to view a split time. The split time will be displayed for 10 seconds and the time of day display is flashing.
- The stopwatch continues to count internally and returns to the cumulative running time display after 10 seconds.

How to Stop the Stopwatch

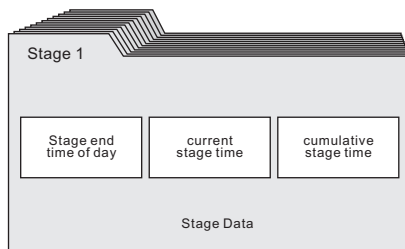
- Press [S/S] button to stop counting while the stopwatch is running.
- The display will show the stage number, total stage time and time of day at the stage end. The Time of Day and stage number will be flashing.

How to Store the Current Stage time into memory

- Press the [S/R] button to store the current stage into memory after the stopwatch was stopped.
- After storing the stage data into memory, the stage number will be increased by 1 and the time of day will stop flashing. The previous lap time remains on the display until the [S/S] button is pressed to start the next stage. Please refer to Chapter 5.4 for more details on memory recall.

NOTE: When the Stopwatch count up to 23 hours 59 minutes 59.99 seconds, it will continue counting but will start from the zero.

5.4 Chrono Time Mode - Stopwatch Memory

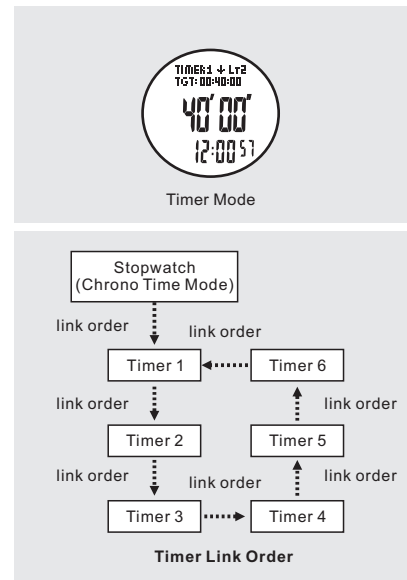


Stopwatch Function

- The Stopwatch in Chrono Time mode is single display measuring elapsed time, cumulative split times and cumulative elapsed time.
- The total elapsed time for each stage (after pressing [S/ST] start /stop button together with the stage end Time of Day, can be stored into memory by pressing the [S/R] Split/Reset button. Up to 30 Stage times can be stored in memory. When more than 30 times have been taken, a FULL message appears.
- The following data can be reviewed for each of the 30 stages:
 - Current stage time: the total cumulative time for the stage
 - Stage end time of day: the time of day when the stage time is stopped.
 - Cumulative stage time: The cumulative time for all the stages.

NOTE: Stored stage times can be reviewed in Recall Mode. Current stage times can be adjusted and this will automatically adjust the cumulative time. And there is a stage 0 available for entering time penalties.

6.0 Timer Mode - An Overview



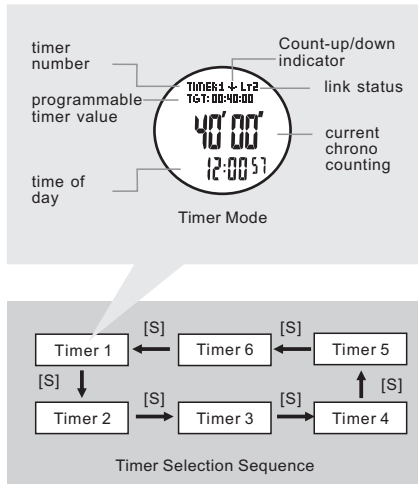
Timer Mode Function

- Timer mode contains a bank of six independent timers. Each timer has the following options:
 - Select from three pre-start options for each timer
 - Link timers to the next timer so as to run consecutively. For example if timer 1 is linked to timer 2, then when timer 1 counts to zero, the display will show timer 2 starting to count automatically.
 - Timers can count down or up to a preset target time.
- Timer 1 has the added option of being linked to Chrono Time mode. After selected, Timer 1 will start at the same time as the stopwatch starts in Chrono Time. But the timer sequence will continue until completed even if the Chrono Time stopwatch is stopped.
- The measurement unit is 1 second and the target time value can be set from 0 to 23 hours 59 minutes and 59 seconds.

NOTE for Linking

- A timer cannot be linked to another timer if it is running.
- If a timer (e.g. Timer 2) links to a previous timer (e.g. Timer 1), Timer 2 cannot be started manually. If all timers are linked, then only timer 1 can be started manually.
- Linking all timers including timer 6 to timer 1 creates the option of a repeating countdown.
- If a timer is linked but set to 0, the sequence will still be valid.
- The target time for a timer can be changed if it is not running. Even if it is linked to a timer which is running.

6.1 Timer Mode - Timer Mode Display

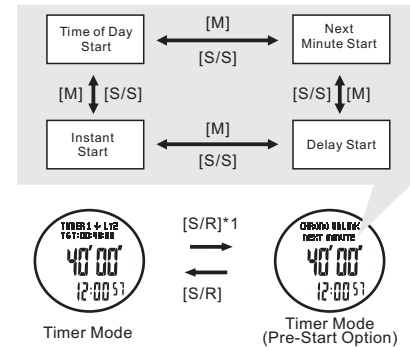


Timer Mode Display

- The default display is the timer currently running. Timer 1 will be shown if no other timer is active.
- The display shows the following information:
 - The matrix display shows the timer number, count-up or count-down status. Linking status and programmable target time
 - The Middle display shows the timer counting
 - The bottom display shows the time of day

NOTE: To select a timer from the six available, in Timer mode press the [S] Set button to scroll through per the adjacent diagram.

6.3 Timer Mode - Timer Pre-Start Options



Remark : If a Timer is linked to a previous timer (Chrono Timer for Timer 1), the pre-start setting will be overridden and the timer will start when the previous (linked) timer ends.

Pre-Start Options

- There are Four pre-start options available for **unlinked timers**. They are "Next Minute Start", "Delay Start", "Instant Start" and "Time of Day Start".

How to Select the Pre-Start option

- Press the [S] button to select the required timer.
- Press and hold the [S/R] button for 2 seconds until "INSTANT START" option appears. Use the [S/S] or [M] buttons to scroll through the pre-start options.
- Press the [S/R] button to return to timer display to enter pre-start times

How to set the Pre-start times for Delay start and Time of Day start:

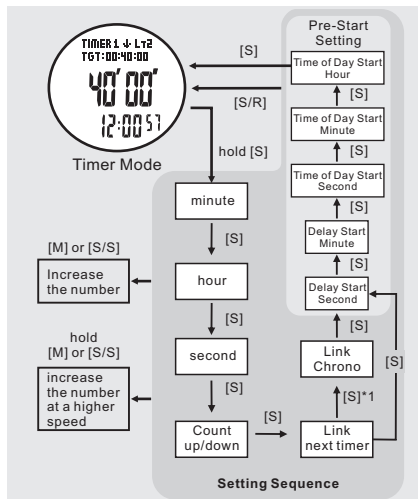
- Press the [S] Start button to scroll through to the required timer. Then Press and hold the [S] button to enter setting mode and "DELAY START" option will be shown with flashing digits.
- When a flashing digit has been selected, press the [S/S] button for increment or [M] button for decrements. (**Note:** holding down the buttons will increase the rate of change.) Then press [S] to scroll to the next digits. If instant start is required, ensure all digits are set to zero.

Timer Alarm Sound

- Timer sounds/flashes backlight at 10, then at 5, 4, 3, 2 and 1 minute intervals. Then every 10 seconds until the last 10 seconds, then sounds/flashes at every second. Finally, there will be a 3-second-flash/beep at 0 second.

NOTE: The alarm signal (sound or backlight) is selected in Daily Alarm Setting. (Chapter 10.1)

6.2 Timer Mode - Setting the Timer



Remark1: Link Chrono setting only for Timer 1

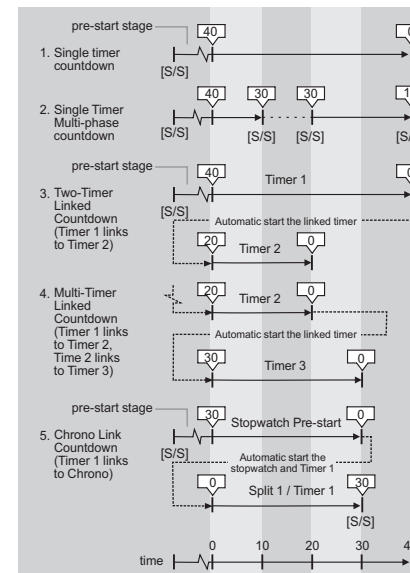
How to Set the Timer

- Select the timer (say timer 1) to set by scrolling through using the [S] Set button. Press and hold the [S] set button for about 2 seconds to select the settings (for say timer 1) display. The minute digits will be flashing.
- Press the [S] button again to move to the digits which are to be set (see the diagram opposite)
- When a flashing digit has been selected use the [S/S] Start stop button to increase the values and [M] button to decrease the values. Note: holding down the buttons will increase the rate of change.
- The setting sequence for each timer is
 - Set target time
 - Select count down or count up
 - Select to link to next timer
 - Select and set pre-start option (Please see Chapter 6.3)
 - Select Chrono link option (timer 1 only)

NOTE:

- Timer 1 has the added option of being linked to Chrono Time mode. When this option is selected, Timer 1 will start at the same time as the stopwatch starts in Chrono Time. **But the timer sequence will continue until completed even if the Chrono Time stopwatch is stopped.**
- If Timer 1 is linked to Chrono Time and Timer 6 is linked to Timer 1, then the priority will be given to Chrono link.

6.4 Timer Mode - Using the Timer



How to Start/Stop the Timer

- When timer 1 is unlinked to Chrono Time, or when any other timer is unlinked to previous timer, press the [S/S] button. The pre-start sequence will begin and the timer will start counting when the pre-start is zero.

- For all running timers, linked or unlinked, press the [S/S] button to stop the selected timer.

How to Reload the target Timer

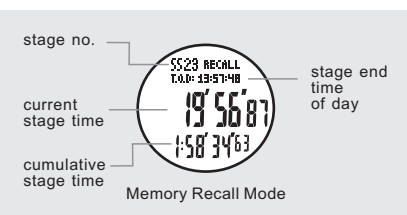
- When the timer is stopped before the target time is reached, press the [S/R] button to reload the time value.

(Note: The target time for a linked timer can be changed even when the previous timer to which it is linked is running.)

How Linked Timers work

- If Timer 1 is linked to the Chrono Time mode, then Timer 1 will start when the Chrono Time stopwatch starts.
- If two or more timers are linked together, the next timer will start automatically when the previous timer reaches zero.
- When the previous linked timer reaches zero. Linking all timers including timer 6 to timer 1 creates the option of a repeating countdown.

7.0 Memory Recall Mode - An Overview



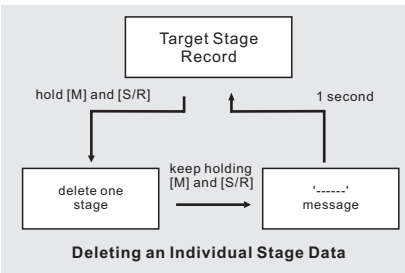
Stage Recall Function

- The Memory Recall Mode shows stage time data stored from the Chrono Time Mode for up to 30 stages.
- Individual stage times can be amended and the cumulative times will be automatically updated.
- Individual stages can be deleted and the cumulative data will be automatically updated.
- Time penalties can be entered in stage 0 and the cumulative time will be updated.

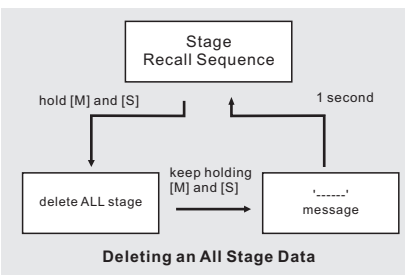
Memory Recall Mode Display

- When entering Memory Recall Mode, the latest stage will be displayed:
 - The matrix display shows the Stage number and Time of day the stage ended.
 - The middle display shows the stage time.
 - The lower display shows the cumulative time.

7.2 Memory Recall Mode - Deleting the Stage Data



Deleting an Individual Stage Data



Deleting an All Stage Data

Stage Data Deletion

- Individual stage data or all stage data can be deleted during the Memory Recall Mode.

How to Delete an Individual Stage Data

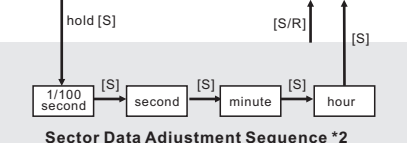
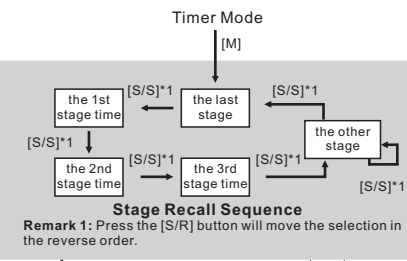
- Press the [S/S] or [S/R] buttons to select the required stage to be deleted.
- Press and hold the [M] and [S/R] buttons until "DEL RECORD?" is displayed.
- Keep holding the both buttons for about 3 seconds and a '-----' message will be displayed if the data is deleted.

Note: After a stage has been deleted, all later stage numbers in memory will be reduced by 1 and the cumulative time recalculated for each stage

How to Delete All Stage Data

- Press and hold the [M] and [S] buttons until "DEL ALL RECORDS?" is displayed.
- Keep holding the both buttons for about 3 seconds and a '-----' message will be displayed if all data are deleted.
- The Memory Recall Mode will display two rows of lines to denote that the memory is empty.

7.1 Memory Recall Mode - Reviewing and Amending Stage Times



Remark 2: Items inside Sector Data Adjustment Display depends on the time format set previously. For example, if 1/10 second is set, setting 1/10 second will be displayed instead of 1/100 second. If 1/10000 hour is set, only 1/10000 hour will be displayed for setting.

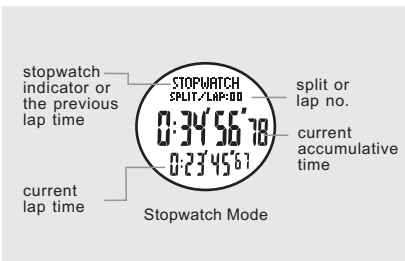
How to Review the Stages

- The latest stage is shown when entering Memory Recall mode.
- Press the [S/R] or [S/S] button to scroll through the stages. **Pressing [S/S] button will move directly to stage 0.**

How to Adjust the Current Stage Time

- Scroll as above to select the stage to be amended. Then press and hold the [S] button for about 2 seconds until the digits flash.
- Select the digits to be changed by pressing the [S] button.
- When a flashing digit has been selected use the [S/S] button to increase the values or [M] button to decrease the values. (**Note:** holding down the buttons will increase the rate of change)
- Press the [S/R] button to return to recall mode.

8.0 Stopwatch Mode - An overview



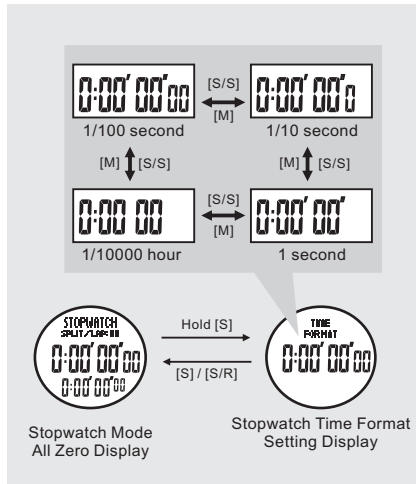
Stopwatch Mode Function

- This is an independent 99 memory triple display stopwatch
- The stopwatch measures lap and cumulative split times
- This mode includes a function to transfer the current lap time to the Speed mode to calculate speed or distance. (Please see Chapter 13.1)
- The time measurement unit can be selected from four options: 1/100th second, 1/10th second, 1 second and 1/10,000th hour.

Stopwatch Mode Display

- The matrix display shows the previous lap time and lap number.
- The middle display shows the cumulative lap time
- The lower display shows the current lap running time

8.1 Stopwatch Mode - Setting the Time Format



Time Format

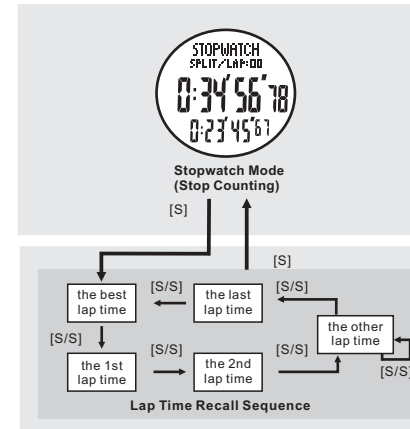
- The Time Format (measurement unit) can be selected from four options: 1/100th second, 1/10th second, 1 second and 1/10,000th hour.

How to Set the Time Format

- Make sure the stopwatch is not running and all digits are set to zero
- Press and hold the [S] Set button to enter the time format display
- Press the [S/S] Start/Stop or [M] Mode buttons to select from the different time formats per the adjacent diagram
- Press [S] or [S/R] buttons to exit time format setting

NOTE: The default measurement unit is 1/100th second.

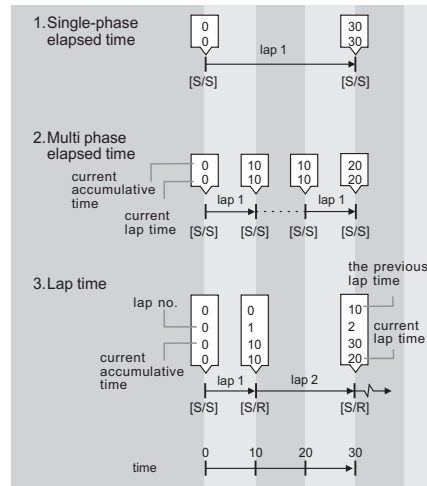
8.3 Stopwatch Mode - Recalling the Lap Time



How to Recall Lap Time

- Press the [S] Set button to show the Best lap and lap time.
- Then press [S/S] button to recall other lap times per the adjacent diagram. (Hold down the [S/S] button to scroll through lap times faster.)
- During the recall process, press the [S] button to return to the stopwatch display.
- Data stored in memory will be erased when stopwatch is reset.

8.2 Stopwatch Mode - Using the Stopwatch



How to Start/Stop the Stopwatch

- When the stopwatch has been reset and all digits are zero, press the [S/S] button to start counting.
- Press the [S/S] button again to stop the counting. The elapsed time will appear on the display.

How to View and Store a Lap Time

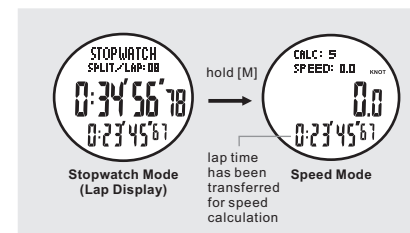
- Press the [S/R] button to view and store a lap time when the stopwatch is counting.
- The lap time will be displayed with flashing digits for 5 seconds.
- The stopwatch continues to run internally. The display returns to running time after 5 seconds

How to Reset the Stopwatch

- Press the [S/S] button to stop the stopwatch
- Review and record all data stored in memory (Please see Chapter 8.3)
- Press the [S/R] button to reset the stopwatch and clear all items from memory

NOTE: When the Stopwatch count up to 23 hours 59 minutes 59.99 seconds, it will continue counting but will start from zero.

8.4 Stopwatch Mode - Transfer the Lap Time to Calculator



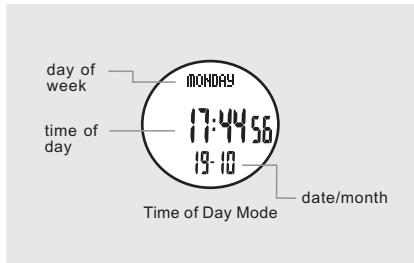
How to Transfer Lap Time to Calculator Mode

- Press the [S/S] Start/Stop button to stop the stopwatch.
- Press and Hold the [M] Mode button for about 2 seconds until the display switches to Calculator mode. The lap time will be shown at the bottom of the display.
- Please see Chapter 13.1 to see how to calculate speed and/or distance.

NOTE:

- Each transfer of a lap time will initiate a separate calculation. Up to 9 calculations can be performed per session. (Please see Chapter 13.0)

9.0 Time of Day Mode - Time of Day Mode Display



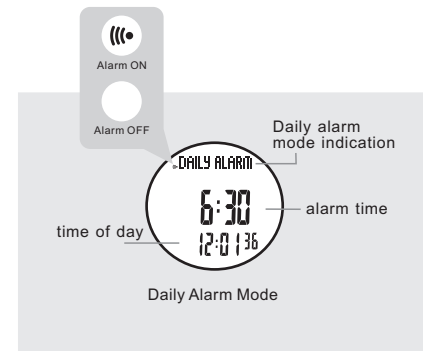
Time of Day Mode Function

- This mode provides the Time of Day function including current time, day of week, and date.

Time of Day Mode Display

- The Matrix display shows the day of the week
- The middle display shows the time of day
- The lower display shows the day / month date

10.0 Daily Alarm Mode - Daily Alarm Display



Daily Alarm Mode Function

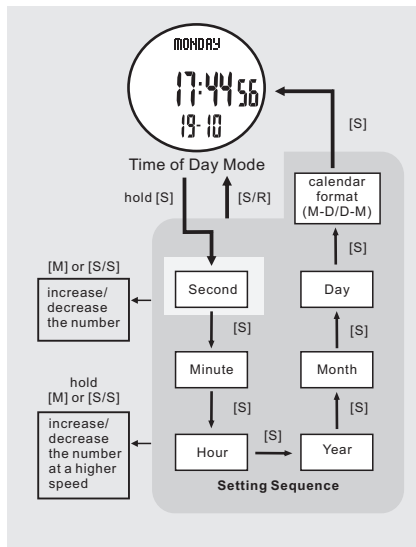
- This mode provides the Daily Alarm function which activates at the pre-defined time of day.
- Press the [S/S] button to turn ON or OFF the alarm in Daily Alarm Mode. When alarm is enabled, '(((●))' will be appeared.
- When the pre-defined alarm time arrives, the beep or flashing alarm will be activated for 60 seconds.
- When the alarm signal is activated, press any button to stop the alarm.

NOTE: The alarm signal chosen in Alarm Mode will also apply to all other relevant modes (Please see Chapter 10.1).

Daily Alarm Mode Display

- The Top / Matrix display shows the Alarm mode and on/off status
- The middle display shows the daily alarm time set
- The bottom display shows the time of day.

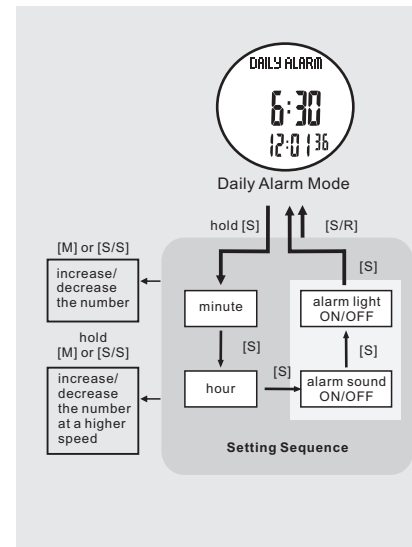
9.1 Time of Day Mode - Setting the Time of Day/Date



How to Set the Time of Day/Date

- In Time of Day Mode press and hold the [S] button until the seconds digits flash.
- Pressing the [S] button to scroll through and choose the settings need to be changed per the diagram. You can change the following settings:
 - Time of Day and date values
 - Calendar format (Day/Month or Month/Day display)
 - 12 or 24 hour format
- When a flashing digit has been selected press the [S/S] button for increment or press the [M] button for decrement. (**Note:** Holding down the buttons will increase the rate of change.)
- Press the [EL] Light button to change between 12 and 24 hour format display
- Press the [S/R] Split/Reset button to exit and return to time of day mode.

10.1 Daily Alarm Mode - Setting the Daily Alarm Time



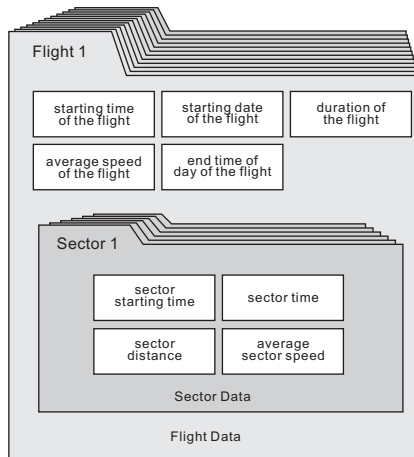
How to Set the Daily Alarm Time

- In Alarm Mode, press and hold the [S] button until the minute digits flash.
- Pressing the [S] button to scroll through and choose the settings to be changed per the diagram. You can change the following settings:
 - Daily Alarm value
 - Alarm sound on/off
 - Alarm light on/off
- When a flashing digit has been selected press the [S/S] button for increment or press the [M] button for decrement. (**Note:** Holding down the buttons will increase the rate of change.)
- Press the [S/R] Split/Reset button to exit.

NOTE:

- If the alarm sound is set to OFF, then the watch will be completely silent.
- If both sound and light are set to OFF, the sound option will turn ON as a default.
- These settings also apply to the TIMER and CHRONO TIME modes

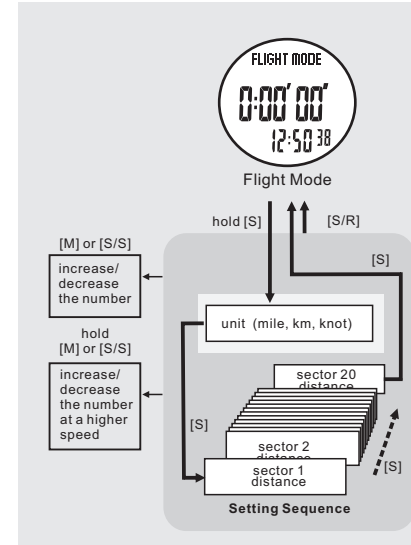
11.0 Flight Mode - An Overview



Flight Mode Function

- This mode enables the recording of time, distance and speed relating to an individual flight. The data can be collected by flight and sector within the flight.
- This function can be used as a simple flight stopwatch with automatic flight data logging.
- Distance can be measured in miles, kilometres or knots
- Up to 20 sectors per flight can be recorded
- The flight start and end times of day and date are also recorded
- Sector times, distances and speeds are calculated and can be viewed during a flight
- Sector data can be amended at the end of the flight and cumulative data is automatically updated
- Up to 99 Flights can be stored into the Flight Log (Please see Chapter 12.0)

11.2 Flight Mode - Setting the Sector Unit and Distance

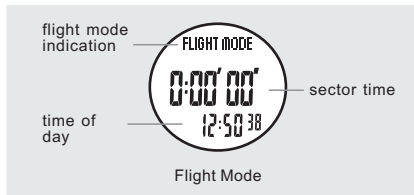


How to Set the Flight Unit and Distance

- In flight mode, enter the setting display by holding the [S] button until the unit digits flash.
- Press the [S/S] button to scroll and select flight unit from KM (Kilometers), KNOT (knots) and MILE (miles).
- Press the [S] Button again to move to the flashing distance digits.
- To enter the sector distance: Press the [S/S] button to increase the values or the [M] button to decrease the values. (Note: holding down the buttons will increase the rate of change.)
- Press [S] again to move to the next sector and repeat the process to enter the sector distance as described above.
- Press the [S/R] Set/Reset button to exit and return to Flight Mode.

NOTE: The distance setting range is 0.0 to 999.9 miles, 0.0 to 1609.2 km and 0.0 to 869.8 knots.

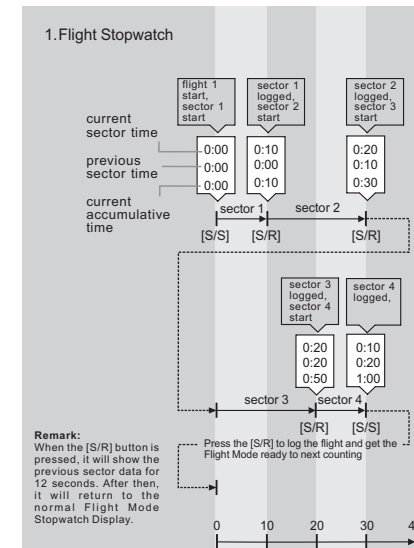
11.1 Flight Mode - Flight Mode Display



Flight Mode Display

- Pre flight - The top matrix display shows the flight mode indicator, Flight number and sector number.
- In Flight - The top matrix display shows the current sector and the cumulative flying time, previous sector time, sector distance and average speed.
- The middle display shows to current sector running time.
- The lower display shows the time of day

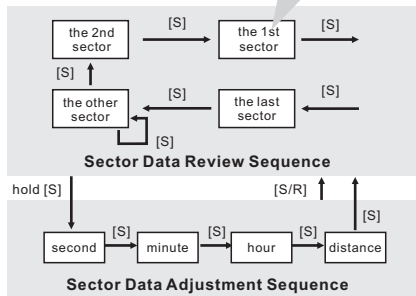
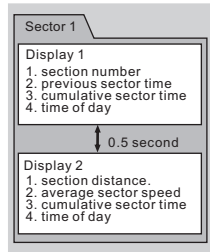
11.3 Flight Mode - Using the Flight Stopwatch



How to Use the Flight Stopwatch

- Press the [S/S] button to start timing sector 1 of the flight. The start time will be stored in memory.
 - During the timing process, the following data will be shown alternating at 5 second intervals:
 - The sector number and the cumulative flight time
 - The current sector time
 - The Time of Day
 - Press the [S] button during the flight will show data for previous sectors in the flight.
 - Press the [S/R] button to store the sector data into memory and start the next sector and the following displays will be shown alternately for 12 seconds:
 - Display 1: The Sector number, current Sector time and previous sector time, current cumulative sector time and time of day.
 - Display 2: The Sector distance, average sector speed, current cumulative sector time and time of day.
 - At the end of the flight, press the [S/S] button. 'END' will flash to indicate that the stopwatch has stopped and the following displays will show alternately:
 - Display 1: Sector number and END, Last sector time. Total cumulative sector times, Time of day.
 - Display 2: Total average speed and total distance. Total cumulative sector times, Time of day.
 - Press the [S/R] Split/Reset button to enter flight data into Flight Log. (Please see Chapter 12) If the [S/S] button is pressed before entering flight data into flight log, then the stopwatch will continue timing the last sector.
- NOTE:** If sector distances are not entered then no speed or distance data will be shown.

11.4 Flight Mode - Reviewing the Sector and Flight Data



How to Review the Sector and Flight Data

- Press the [S] button at anytime during the flight to scroll back through previous sector data per the adjacent diagram. The sector data will be shown in alternating screens.
- Press the [S/R] Split /Reset Button to return to the current sector when scrolling previous sectors, or the display will automatically return to the current sector after 30 seconds.

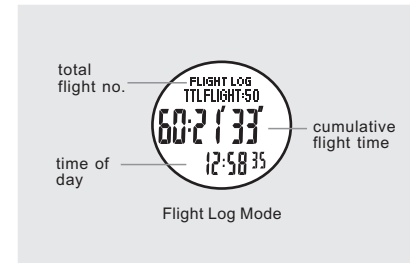
How to Adjust the Distance and Sector Time

- Follow the above steps to review the required sector. Press and hold the [S] Button for about 2 seconds to select the flashing digits need to be changed.
- Press the [S] button again to select the flashing digits need to be changed.
- When a flashing digit has been selected press the [S/S] button for increment or press the [M] button for decrement. (**Note:** holding down the buttons will increase the rate of change.)

NOTE: Changing the sector time will automatically update the cumulative time, the corresponding sector speed and the overall average speed

- Press the [S/R] button to exit the Adjusting mode.

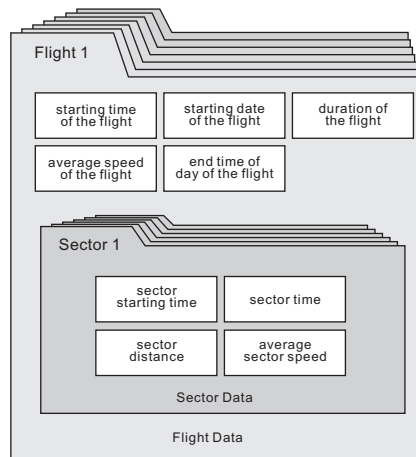
12.1 Flight Log Mode - Flight Log Mode Display



Flight Log Mode Display

- When entering Flight Log Mode, the display will show the following:
 - The matrix display shows the total number of flights.
 - The middle display shows the cumulative flying time.
 - The bottom display shows the current time of day.

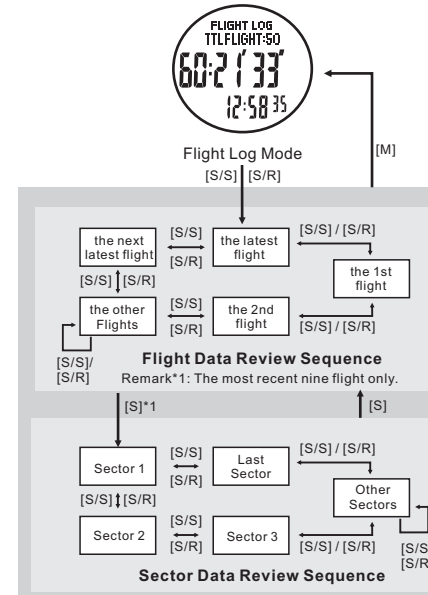
12.0 Flight Log Mode - An Overview



Flight Mode Function

- This mode provides the flight log archive history of data generated by the Flight mode (Please refer to Chapter 11.0)
- The flight log shows the following data for up to 99 flights :
 - The Start time and date of the flight,
 - The duration of the flight,
 - The average speed of the flight and
 - The end time and date of the flight.
- In addition the following sector data is stored for the latest 9 flights:
 - The sector starting time,
 - The sector time,
 - The sector distance and
 - The average sector speed.

12.2 Flight Log Mode - Reviewing the Flight and Sector Data



How to Review the Flight Data

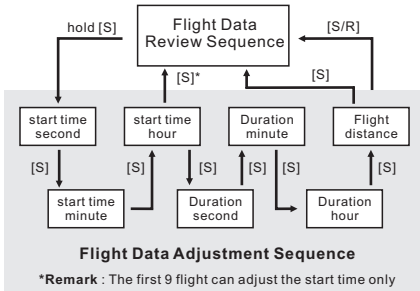
- In Flight Log Mode, press the [S/S] button or the [S/R] button to scroll through the flights for review. Data will be displayed for the latest flight.
- The following displays will be shown alternately:
 - Display 1: Flight number, with start date, total flight time (duration). Flight Start Time and Flight End Time.
 - Display 2: The Total Flight Distance, with average (all sectors) speed, Flight Start Time and Flight End Time.
- Press the [S/S] or [S/R] button to select another flight to review. The '>' indicator will appear by the most recent 9 flights.

How to Review the Sector Data

- Press the [S] button when the '>' appears to start the sector review. The data for Sector 1 will be displayed.
- The following displays will be shown alternately:
 - Display 1: Sector number, with start time, sector distance, sector time, cumulative sector time.
 - Display 2: The Sector average speed, overall average speed so far, sector time and cumulative sector time.
- Press the [S/S] or [S/R] button to select another sector to review.
- Press the [S] button once to return to Flight Search

NOTE: If sector distances are not entered then no speed or distance data will be shown.

12.3 Flight Log Mode - Adjusting the Flight and Sector Data

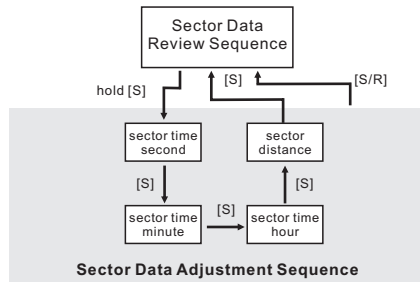


Sector and Flight Data Adjustment

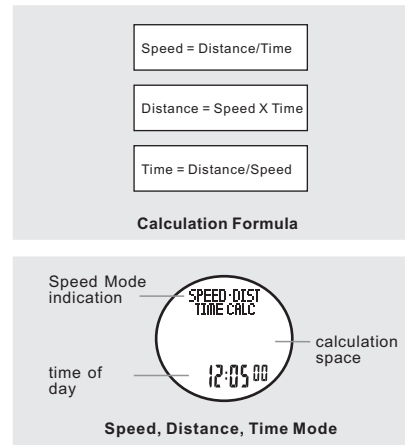
- The following flight/sector data can be adjusted during the Flight/Sector Data Review Sequence.
 - Flight data without sector details:** The flight start time, flight duration and flight distance.
 - Flight data with sector details (latest 9 flights):** The flight start time, sector times and sector distance.
- NOTE:** The flight duration and flight distance which will be updated automatically when sector times and sector distance are changed. The average speed and total average speed figures will also be recalculated.

How to Adjust the Flight/Sector Data

- Select a Flight that need to be changed. Press and hold the [S] Button for about 2 seconds to enter the setting display.
 - Press the [S] button again to select the flashing digits to change. Refer to the diagram opposite.
 - When a flashing digit has been selected press the [S/S] button for increment or the [M] button for decrement. (**Note:** Holding down the buttons will increase the rate of change.)
- Note:** Changing the Flight/Sector time will automatically update the cumulative time, the corresponding Sector speed and the overall average speed.
- Press the [S/R] Button to exit the adjusting mode.



13.0 Speed, Distance, Time Calculator Mode - An Overview



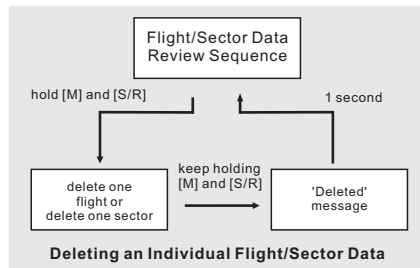
Speed Mode Function

- Enter data for any two variables from Speed, Distance, Time and the calculator will compute the third variable.
- Up to 9 calculations can be retained.

Speed Mode Display

- At entering this Mode, the display shows:
 - The matrix display shows the Speed:Dist:Time Calc heading.
 - The Calculation is performed in the middle of the screen.
 - The lower display shows the current Time of Day.

12.4 Flight Log Mode - Deleting the Flight and Sector Data



Sector and Flight Data Deletion

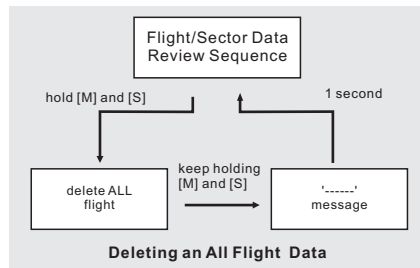
- An individual flight/sector data or all flight/sector data can be deleted during the Flight/Sector Data Review Sequence.

How to Delete an Individual Flight/Sector Data

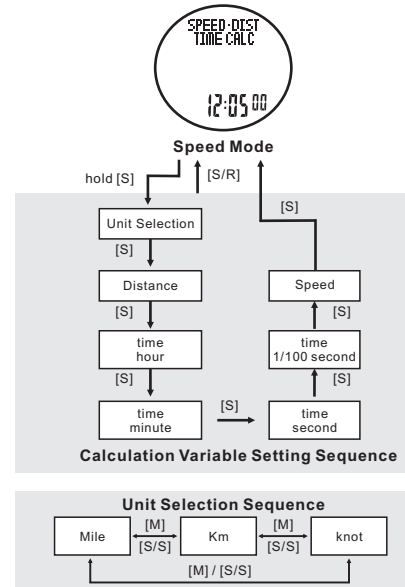
- When the required Flight/Sector has been selected, press and hold both the [M] and [S/R] buttons until "DELETE ONE FLIGHT?" is displayed. Keep holding the two buttons until "FLIGHT xx DELETED" is shown. Where 'xx' is the Flight number.
- After Deletion, the Flight/Sector Data Review Screen will appear.

How to Delete All Flight Data

- While in Flight/Sector Data Review, press and hold both the [M] and [S] buttons until "DELETE ALL FLIGHTS?" is displayed. Keep holding the two buttons until "-----" is shown.
- After Deletion the Flight/Sector Data Review Screen will appear.



13.1 Speed, Distance, Time Calculator Mode - Making a Calculation



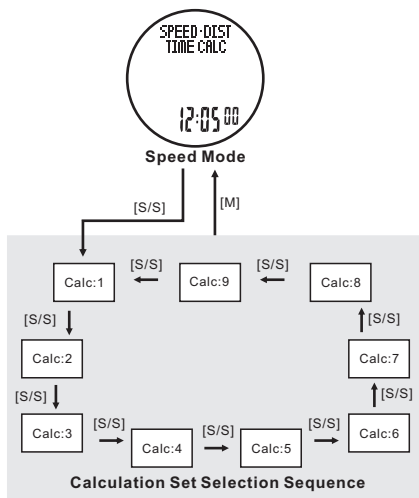
How to make a Calculation

- Press the [S/S] Button to scroll to a fresh calculation screen (if required).
- Select the setting display by pressing the [S] button until the Unit digits flash (Upper display)
- Press the [S/S] button to scroll and choose from KM (Kilometers), KNOT (knots) and MILE (miles).
- Press the [S] Button again to move to the flashing Distance, Time or Speed digits (Middle display)
- When a flashing digit has been selected, press the [S/S] button for increment or the [M] button for decrement. (**Note:** holding down the buttons will increase the rate of change.)
- The Result of the calculation will be shown in the required variable.
- Press the [S/R] Set/Reset button to exit and return to Flight Mode.
- Please refer to Chapter 13.2 and 8.4 about transferring lap times from the Stopwatch mode.

Calculation Rules

- Only two variables need to be entered to perform a calculation of the third variable.
- When a calculation has been performed the variables making up that calculation can be changed.
- If three variables exist and speed is changed, the distance will be recalculated. If the distance or time is changed the speed will be recalculated.
- An Error message "ERR" will occur if the calculation includes a division by zero. When the Time or Speed values are too small an overflow message "OFL" will be shown.
- Calculations showing error messages will not be retained.

13.2 Speed, Distance, Time Calculator Mode – Amending Calculations



How to Reviewing the Calculations

- Press the [S/S] button to scroll through the 9 calculations.
- The calculation number is shown on the top row of the display

How to Reset the Calculation Variables

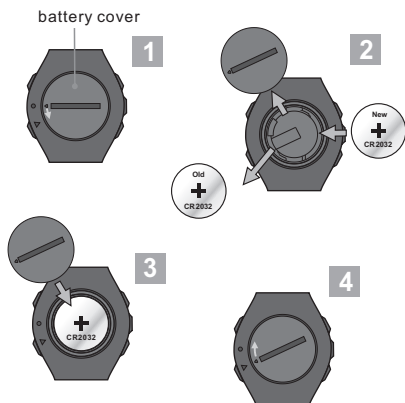
- When the required calculations is shown, press the [S/R] button to reset all of the variables for that calculations to zero.

Lap Time Transferred from Stopwatch Mode

- When a Lap Time is imported from the Stopwatch mode, the current calculation set will store the Lap Time.
- The calculation variables setting display will then be shown and distance or speed data can be entered.
- The transferred Lap Time will overwrite any previous Lap Time setting in the calculation set.

14.0 Battery Replacement

- Close position maker
- ▼ Open position maker



Low Battery

- The battery which powers you watch should last for 18 months depending on usage. However as the battery is inserted at the factory when the watch is assembled, its actual life from the date of purchase may be less than 18 months.
- When the battery is low, a battery indicator flashes on the display. We recommend to change the battery at this moment.

How to Replace the battery

- Turning the battery cover anticlockwise until the arrow aligned with the open position marker (arrow), and then turning one step slightly further for allowing the battery cover come out.
- Move aside the battery cover. Replace the old battery with a new CR2032, and the '+' side facing upward.
- Replace the battery cover.
- Turning the battery cover clockwise until the arrow aligned with the close position marker (dot).

NOTE

- When the battery is removed, all data stored will be lost with the **exception of the FLIGHT LOG data which will be retained**. So make sure you have recorded any other stored data you wish to keep.

15.0 Specifications

Chrono Time Mode

- Time of day and date keeping
- Hour format: 12/24 hour display
- Calendar format: Selectable Date-Month or Month-Date display mode
- Three independent pre-start operation.
- Stopwatch measuring unit: 1/100, 1/10, 1 second or 1/1000 hour chronograph
- Stopwatch working range: 0 to 23 hours 59 minutes, 59.99 seconds
- Recall function for those recorded stage times

Daily alarm Mode

- Daily alarm for time of day

Timer Mode

- Six timers for count-up or count-down operation, with working range from 0 to 23 hours 59 minutes, 59 seconds.
- Four type of independent pre-start operation.
- Linking function is available among these six timers.
- For Timer 1, selectable linking to stopwatch function of the Chrono Time Mode.

Alarm Type (for both timer and alarm)

- Selectable audible sound alarm or flashing backlight alarm

Stopwatch Mode

- 99 lap memories are available for independent stopwatch.

Flight Mode/Flight Log Mode

- Flight data 99 sets.
- Sector data 20 sets.

Speed Mode

- Calculation set: 9 sets

Battery

- Lithium type battery CR2032

16.0 CE Certificate

This is to certify that the Fastime Copilote RWII fully conforms to the protection requirements of the following EC Council Directives: on the approximation of the laws of the member states relating to:

Directive 89/336/EEC Title Electromagnetic Compatibility

Applicable Standards:
Electromagnetic Compatibility
EN55022 (1994 class B)
EN55024 (1998)

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United Kingdom www.astopwatch.com