

PULSE QT-PRO – STRAPLESS HEART RATE MONITOR SPORTSWATCH

Warranty

“Customer satisfaction is our guarantee”

Aussie Fit Sport Science has been developing and marketing unique and innovative fitness/exercise products since 1984. Your new (pulse®) QT Strapless HR Monitor Sportswatch is manufactured to very high international standards and uses Salutron, California, U.S.A. patented technology and is guaranteed against manufacturer defect for one year from date of purchase. If a manufacture defect is found please return the watch to the address below with a description of the problem, it will be repaired or replaced.

A new lithium CR2025 3 volt battery should last over 12 months with normal use, however because battery life is dependent on elapsed time since its installation at the factory and the influence of temperature and humidity and shelf life, the original battery is not covered by guarantee. When the battery fades it should be replaced by a qualified watchmaker to ensure continued water resistance. Battery replacement is available by sending the watch to the below address with \$25.00 payment and return address/contact for return post.

50 metres water resistant is a classification for swimming, showering etc. (pulse®) QT should not be worn snorkeling or SCUBA diving nor any buttons be pushed underwater. Heart Rate cannot be detected underwater by this monitor but can be detected out of water whilst wet, e.g. at the end of a swim lap.

Do not wear under conditions where the sensors can be clogged with dirt, dust, glue, resin, soap, etc. or under working conditions where the watch can be scratched or damaged.

Wishing you happy training and success in your fitness pursuit.

Dr Peter Bethune PhD

Aussie Fit Sport Science P/L, 3 Vantage Point Drive, Burleigh Heads, Queensland 4220, Australia. Tel/fax (07) 5576 3688, email : sales@aussiefitsport.com.au www.aussiefitsport.com.au

1.0 Introduction

Thank you for your purchase. This watch includes 5 functional modes: Current Time, Heart Rate Chronograph, Memory, Timer and Instant Heart Rate Mode.

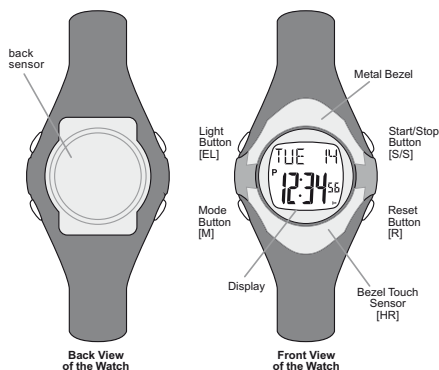
With this watch, you can get ECG accurate heart rate readings without using the chest strap!

Simply put the watch on your wrist, touch the sensor/s located on the face of the watch (see dia. 6.3) and your heart rate will be displayed in the digital window within seconds!

WARNING !

- DO NOT use this Watch for commercial or professional purposes.
- Make sure that you fully understand the functions and limitations of this watch before using it.
- This Watch is a supplementary device for measuring heart rate; it is NOT a substitute for medical devices. You should periodically compare the heart rate reading acquired by this watch with the reading from a doctor.
- Consult a doctor or trainer before setting your Upper and Lower heart rate limits.

2.0 Designation of the Watch



3.0 Buttons Operation Summary

Mode Button [M]

- Press to select one of the functional modes
- In function modes: Hold to select setting display
- In any setting display: Press to choose between different settings.
- Press and hold the button to exit setting sequence.

Start/ Stop Button [S/S]

- In Current Time Mode: Press to show Alarm Time and Hold to enter the setting of Daily Alarm Mode
- In Heart Rate Chronograph Mode: Press to start the counting or take Laps, Hold to stop counting.
- In Timer Mode: Press to start or stop counting.
- In setting displays: Press to change the settings.

Reset Button [R]

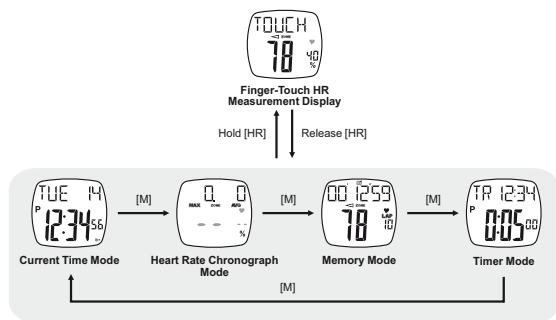
- In Heart Rate Chronograph Mode: Press to select sub-functional modes. When the counting is stopped, Hold to reset display to zero
- In Timer Mode (Stop Counting): Hold to reset the timer to target time
- In setting displays: press to change the settings.

Light Button [EL]

- In any mode/display, press to turn ON the EL back light for about 3 seconds.

Note: The button operations are summarized above, for detailed operating instructions, please continue reading.

4.0 Major Function Modes



5.0 Current Time Mode

Current Time Mode

- Current Time Mode includes two functional displays:
 - 1) Current Time Display
 - 2) Daily Alarm Display

Current Time Display

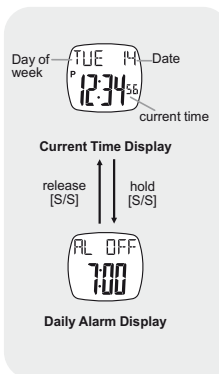
- The day of week and date exhibits on the 1st row of display.
- The current time (hour, minute, second) exhibits on the 2nd row of display.

Daily Alarm Display

- The preset daily alarm time (hours, minutes) exhibits on the display.

To Select between the Current Time Display and Daily Alarm Display

- Press and hold the [S/S] button to show the Daily Alarm Display.
- When you release the [S/S] button within 2 seconds, it will go back to the Current Time Display.
- If you hold more than 2 seconds, it will go to alarm setting display.



5.1 Current Time Mode - Setting Sequence

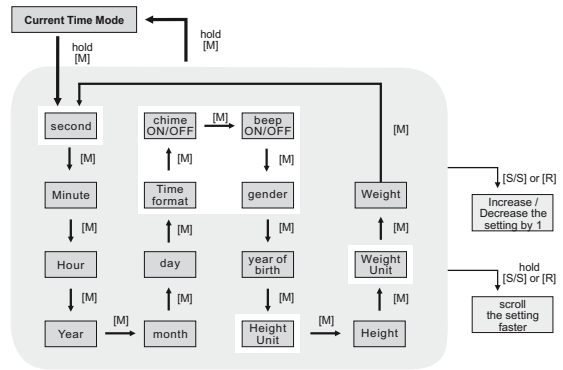
To Set the Current Time Mode

- To set the current time, date, and other settings, press and hold the [M] button for about 2 seconds to select the setting display (the second digits will start flashing).

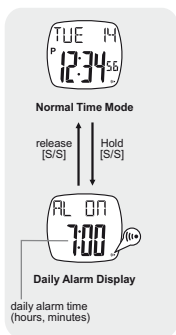
The Setting Sequence

- When the second digits start flashing, press the [M] button to move the flashing following the setting sequence of the diagram in previous page or press the [S/S] or [R] button to reset the second digits to zero.
- If one of the settings (minute, hour, year, month, day, 'BIRTH'-birth year, 'HGT'-height, 'WGT'-weight) is flashing, press the [S/S] or [R] button to scroll through the setting (hold the button down to scroll the setting at a faster pace).
- When the '12HR' or '24HR' icon is flashing, press the [S/S] or [R] button to switch between '12HR' (12 hour format) and '24HR' (24 hour format).
- When the hourly chime (CHIME) or beep tone (BEEP) 'on' or 'off' icon is flashing, press the [S/S] or [R] button to turn ON ('on') or OFF ('off'). And when the hourly chime is ON, indicator will be appeared and the watch will beep once on every hour.
- When the Gender 'F' or 'M' icon is flashing, press the [S/S] or [R] button to switch between 'F' (Female) and 'M' (Male).
- When the Height Unit 'In' or 'CM' icon is flashing, press the [S/S] or [R] button to switch between 'In' (Inch) and 'CM' (Centimeter).
- When the Weight Unit 'KG' or 'LB' icon is flashing, press the [S/S] or [R] button to switch between 'KG' (Kilogram) and 'LB' (Pound).
- When the setting is completed, press and hold the [M] button for about 2 seconds to exit the setting sequence. The setting display will return to Current Time Mode automatically if there is NO key-stroke for about 1 minute.

5.1 Current Time Mode - Setting Sequence



5.2 Current Time Mode - Daily Alarm



Daily Alarm Display

- In the Daily Alarm Display, Alarm Time (hours, minutes) appears on the 2 row of the display.

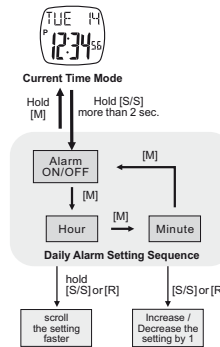
Daily Alarm ON and OFF

- When the Daily Alarm Indicator ' (•) ' appears (which means the daily alarm is ON), the watch starts beeping at the alarm time.

Daily Alarm Sound

- The alarm beeps for 1 minute when the daily alarm function is turned ON.
- You can stop the beeping by pressing any button.

5.3 Current Time Mode - Setting the Daily Alarm



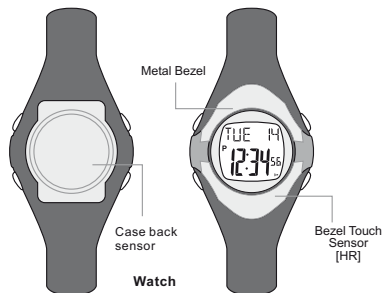
To Set the Daily Alarm Function

- In the Current Time Mode: Press and hold the [S/S] button for more than 2 seconds to enter the alarm setting display (the 'on' or 'off' will start flashing).

The Setting Sequence

- Press the [M] button to select between Alarm ON/OFF, hour and minute setting.
- When the 'hour' or 'minute' digit flashes on the display, press the [S/S] or [R] button to turn ON or OFF the alarm.
- When the 'hour' or 'minute' digit flashes on the display, press the [S/S] or [R] button to scroll through the setting (hold down the button to scroll the setting at a faster pace).
- Press and hold the [M] button for about 2 seconds to exit the setting sequence.
- The setting display will change to Current Time Mode automatically if there is NO key-stroke for about 1 minute.

6.0 Heart Rate Measuring - Sensors Configurations



6.2 Heart Rate Measuring - Heart Rate Zone

	AROBIC	FAT-B	HEALTH	USR
Upper Limit	65%	Above Zone 75%	80%	User defined
Lower Limit	50%	In Zone 55%	Below Zone 65%	

What is Heart Rate Zone

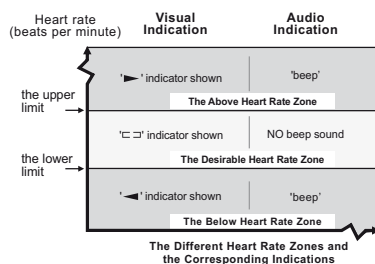
- Some training/exercise levels like 'aerobics', 'fat burn' or 'health' require exercise effort within certain heart rate zones during exercise.

WARNING: Consult a doctor or trainer prior to setting the heart rate alert zone for serious cardio-fitness training.

How to Select a Zone (for Heart Rate Zone Alert)

- In general, user may get the cardio-fitness training advices from those prestigious organizations' website, for example:
 - <http://www.americanheart.org/presselect.jhtml?identifier=4736> by American Heart Association, and
 - http://en.wikipedia.org/wiki/Heart_rate#Training_zones by Wikipedia.
- This Watch includes three pre-defined heart rate zones ('AROBIC', 'FAT-B' and 'HEALTH') and one user-defined heart rate zone ('USR') for user selection.
- The upper and lower limit of these Zones is shown on the adjacent diagram. Check chapter 6.6 for the details on how to select a Zone.

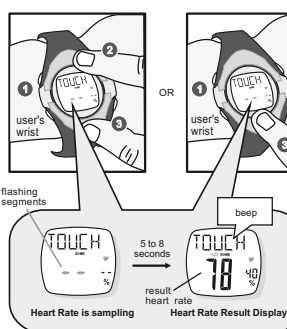
6.2.1 Heart Rate Measuring - Heart Rate Zone Alert



Note:

- When taking a heart rate measurement, various visual indicators will be displayed according to the different zones. A single beep will sound to alert whether heart rate is out of the present zone.
- Please refer chapter 6.6 for details on turn ON/OFF Zone Alert.

6.3 Heart Rate Measuring - Finger-Touch Measurement



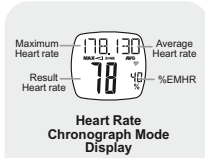
Measuring Heart Rate by Finger-Touch

- Following the steps below, you can measure your heart rate by touching the sensor on the watch.
 - Make sure the sensor on the back of the watch sits firmly on your skin.
 - Place your index finger on the metal bezel (Optional).
 - Place your thumb (or index finger if not touching the metal bezel) on the bezel touch sensor [HR] and keep holding for about 5 seconds. When the heart rate is detected, the heart rate will be displayed on the screen.

NOTE:

- You can exit this mode by pressing any button. (Except [EL] button)
- For more detail of viewing different exercise information, please refer chapter 6.5. / For more details on Zone Setting, please refer chapter 6.6.

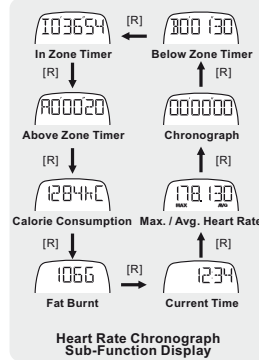
6.4 Heart Rate Measuring - Heart Rate Chronograph Mode



Heart Rate Chronograph Mode

- Heart Rate Chronograph Mode is the function mode that shows the heart rate related information and using the chronograph.
 - The watch will show the last measured heart rate when the Heart Rate Chronograph mode is selected.
 - If there is no heart rate measured before, "-" will be shown instead.
 - The Maximum heart rate and the Average heart rate during measurement will also be shown on the 1st row.
- NOTE:**
- The Maximum and Average Heart Rate calculation will be calculated based on the result from the previous measurement.
 - Holding in the R button in the Heart Rate Chronograph Mode will reset all the calculations and records stored in the watch, including Chronograph, Zone Timer, Fat and Calorie consumption.

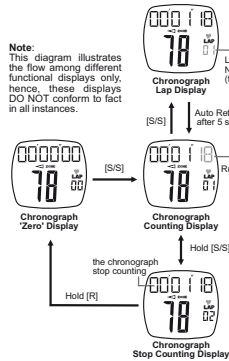
6.5 Heart Rate Measuring - Heart Rate Chronograph Sub-function Displays



Heart Rate Chronograph Mode and the Sub-Function Displays

- In the Heart Rate Chronograph Mode, there are 8 different displays for showing the exercise information. They are:
 - Maximum / Average Heart Rate Display,
 - Chronograph Display,
 - Below Zone Timer Display,
 - In Zone Timer Display,
 - Above Zone Timer Display,
 - Calorie Consumption Display,
 - Fat Burnt Display and,
 - Current Time Display.
- Press [R] to scroll different Sub-Function Displays from the top row of the display.

6.5.1 Heart Rate Measuring - Chronograph Display



To Use the Chronograph

- In 'Zero' Display, press the [S/S] button once to start the counting. When it is counting, hold the [S/S] button to stop the counting, and the accumulative elapsed time will appear.
- Press the [S/S] button once to take a Lap Record.

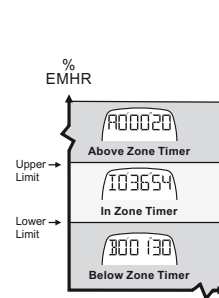
To Reset the Chronograph

- When the chronograph is stopped, hold the [R] button to reset the chronograph (ready for a new counting).

NOTE

- When the Chronograph is reset, the records will also be reset.

6.5.2 Heart Rate Measuring - Zone Timer Display



Heart Rate Zone Timer

- This watch provides 3 Heart Rate Zone Timers: In Zone Timer, Above Zone Timer and Below Zone Timer, which can count the time of user's heart rate in or out of the Heart Rate Zone.

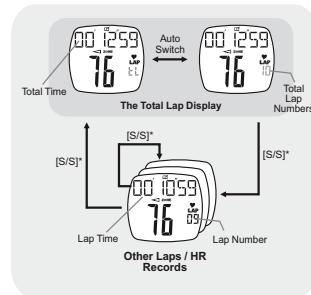
NOTE: The Heart Rate Zone Timer that corresponds with the current heart rate will start counting automatically when the Heart Rate is detected in the Heart Rate Chronograph Mode. To stop the counting, exit the Heart Rate Chronograph Mode.

For example, "FAT-B" (55% to 75%EMHR) is set for the Heart Rate Zone Alert, the Below Zone Exercise Timer will start counting automatically if the current heart rate falls into the 'below' zone like 40% of EMHR.

- Press [R] to view the different timer according to the sequence in chapter 6.5.

These readings will be updated to the Heart Rate Chronograph Mode display. PLEASE NOTE: ALL CALCULATIONS REQUIRE THE INPUT OF FREQUENT QUICK TOUCH HEART RATE INPUT BY THE USER!

7.0 Memory Mode



Memory Mode

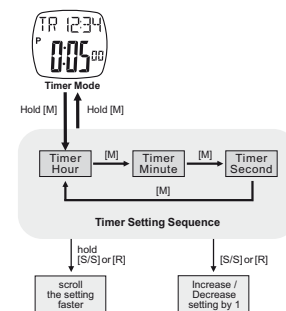
- This watch can record up to 25 Lap Times during exercise to be reviewed at a later time.
- The Lap Time exhibits on the 1st row of display.
- The last measured Heart Rate will exhibit on the left hand side of the 2nd row of display.
- The Lap Number exhibits on the right hand side of the 2nd row of display.

To Recall Records

- In the Memory Mode, press [S/S] or [R] button to select which record you want to check.

*Press [R] to review in reverse direction

8.0 Timer Mode - Setting Sequence



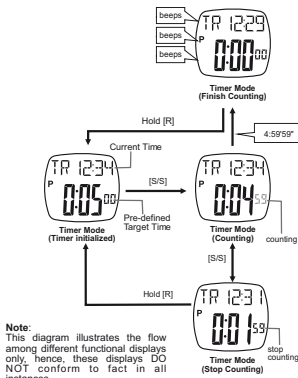
To Set the Timer Mode

- To set the pre-defined target time in timer mode, press and hold the [M] button for about 2 seconds (the 'Hour' digits will start flashing)

The Setting Sequence

- When the 'Hour' digits start to flash, press the [M] button to move the flash following the sequence of the adjacent diagram.
- When one of the settings (hour, minute, second) is flashing, press the [S/S] or [R] button to scroll through the setting (hold down the button to scroll the setting at a faster pace).
- Press and hold the [M] button for about 2 seconds to exit the setting sequence.
- The setting display will return to Timer Mode automatically if NO keystroke has been activated for about 1 minute.

8.1 Timer Mode - Using Timer



To Use the Timer Mode

- Once a target time has been set (for example 3 hours), press the [S/S] button once to start the countdown. The countdown time will be displayed continuously throughout the countdown.
- To stop counting, press the [S/S] button once.

To Reload the Timer

- Hold the [R] button to reload the timer to the preset target time when the counting is stopped.
- To start the counting at a target time, set a new value for the pre-defined target time. Check the previous chapter 8.0 for more detail on how to set the Target Time.

Timer Alarm Sound

- When the timer reaches the last 10 seconds, the watch will beep once for each second left. When it hits zero, the watch will beep for about 15 seconds
- You can stop the beeping by pressing any button.

Note: This diagram illustrates the flow among different functional displays only, hence, these displays DO NOT conform to fact in all instances.

9.0 Potential Causes for NO Heart Rate Reading or Long Response Time

- Cause: Dry Skin.**
Solution: Apply conductive gel or saliva thoroughly to finger and wrist. Even water will help if conductive gel is not available.
- Cause: Not firmly with user's skin.**
Solution: Make sure the Watch is placed securely on wrist.
- Cause: Muscle tremors caused by holding too hard.**
Solution: Make sure the Watch is placed securely on wrist.
- Cause: Dead skin on wrist, finger or chest.**
Solution: Usually rubbing your skin with a towel will help.
- Cause: A thin layer of body grease insulate the ECG signal which prevents the Chest Strap or Watch from picking up one's ECG.**
Solution: Wipe wrist and the back of the watch with a tissue or soft towel.
- Cause: Hairy skin.**
Solution: Apply conductive gel to wrist.
- Cause: Irregular heartbeats.**
Solution: N/A It is difficult to consistently pick up a reading for those with irregular heart beats. Inconsistent response times are expected for those with arrhythmia.
- Cause: Battery Low.**
Solution: It might be due to the battery level of the watch is low. Replace the battery and try again.

10.0 Specifications

Current Time Mode

- Time System: am, pm, hour, minute, second
- Time Format: 12-hour or 24-hour format
- Calendar: date and day of week display (Auto-Calendar function for day of week and leap year)

Daily Alarm

- Daily alarm and hourly chime
- Alarm Sound: 1 minute

Timer Mode

- Resolution: 1 second
- Measuring Range: 9 hours 59 minutes 59 seconds
- Timer sounds: Last 10 seconds will beep each second and continue for a further 15 seconds.

Memory Mode

- Lap Time Recall
- Total Time Recall

Back Light

- Back Light Type: Electro-Luminescent (EL) back light

Heart Rate Chronograph Mode

Chronograph

- Resolution: 1/100 second
- Measuring Range: 9 hours 59 minutes 59.99 seconds
- Maximum: 25 Laps

Heart Rate Zone Timer

- Resolution: 1 second
- Measuring Range: 9 hours 59 minutes 59 seconds

Calorie Consumption

- Range: 0 to 9999 kilo-calorie

Fat Burnt

- Range: 0 to 9999 gram

Heart Rate Measurement

- Buttonless Finger Touch Measurement
- Range: 40 to 200 bpm
- Heart Rate Zone Alert