

# **ACCUSPLIT EAGLE 920HRM**

## **Heart Rate Monitor**

### **1.0 Introduction**

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

With this watch, you also get ECG accurate heart rate readings without the use of a chest strap! How? Simply put the watch on your wrist, place two fingers on the sensors located on the face of the watch, and watch your heart rate display in the digital window within seconds!

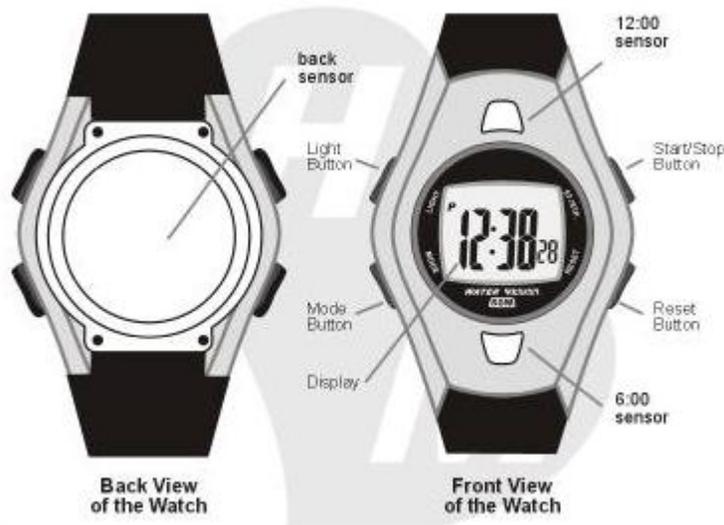
#### **WARNING!**

- 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 with this watch with the reading from a doctor
- Consult a doctor or trainer

### **2.0 Care and Maintenance**

- Read this manual thoroughly before using the watch.
- Avoid rough usage or severe impacts to the Watch.
- Store watch in a dry place when it is not in use.
- When the battery runs out, it is recommended to have a professional replace the battery.
- Clean your watch occasionally with a soft moistened cloth.
- DO NOT expose the watch to chemicals such as gasoline and alcohol; these chemicals will damage the Watch.

### **3.0 Diagrams of the watch**



## 4.0 Button Operation Summary

### [mode] Button

- Press the button to select one of the 5 functional modes
- In functional modes: Press and hold the button to select setting display
- In any setting display: Press the button to choose between different settings. Press and hold the button to exit setting sequence.

### [start/stop] Button

- In Current Time Mode: press the button to select between the Date Display and Time Display
- In Daily Alarm Mode: Press the button to select between ON and OFF for daily alarm
- In Chronograph Mode and Timer Mode: Press the button to start/stop the counting
- In setting displays: press the button to scroll through the settings.

### [reset] Button

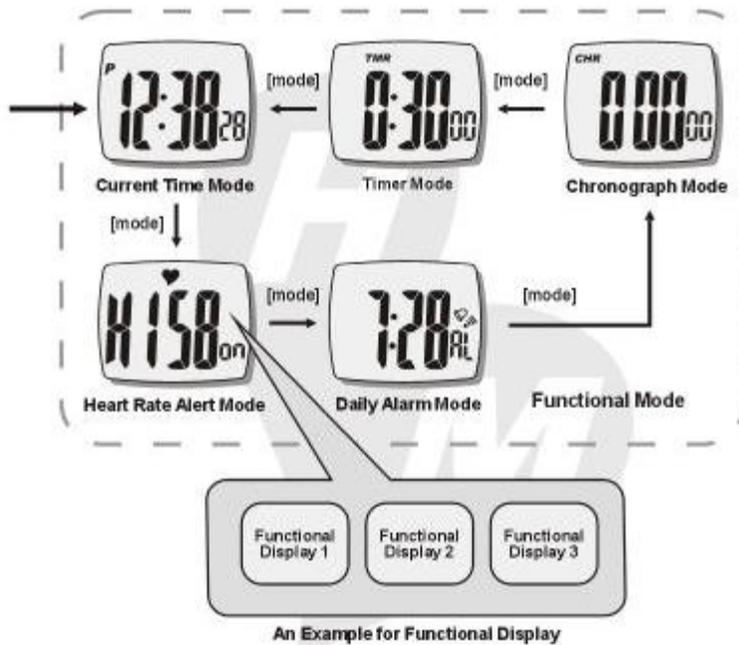
- In Daily Alarm Mode: Press the button to select between ON and OFF for hourly chime
- In Chronograph Mode (stop-counting): Press the button to reset to zero display
- In Timer Mode (stop-counting): Press the button to reset the timer to target time
- In setting displays: press the button to scroll through settings.

### [light] Button

- In any functional mode/display, press the button once 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.

## 5.0 Functional Modes and Display



## Functional Modes

This watch includes 5 functional modes:

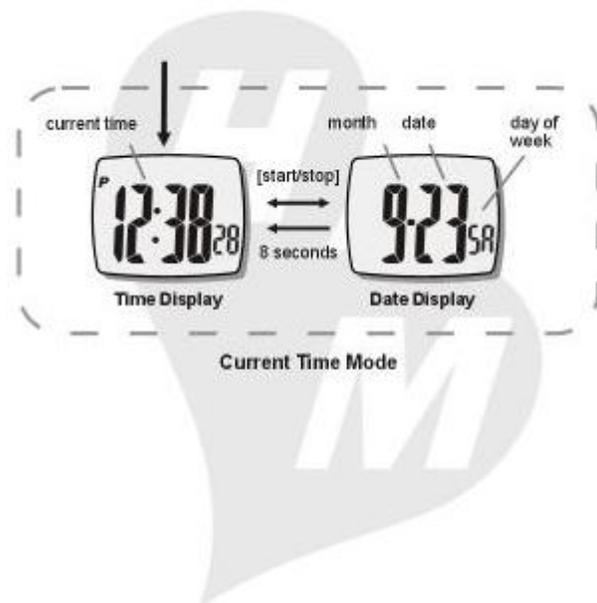
- 1) Current Time Mode
- 2) Heart Rate Alert Mode
- 3) Daily Alarm Mode
- 4) Chronograph Mode
- 5) Timer Mode.

Every functional mode has one or more functional displays; these functional displays provide the supplementary information to the corresponding functional mode.

### To Switch among the Functional Modes and Displays

To select among the above functional modes, press the [mode] button following the adjacent diagram.

## 6.0 Current Time Mode



### Current Time Mode

Current Time Mode includes two functional displays:

- 1) Time Display
- 2) Date Display

### Time Display

The current time (hour, minute, second) exhibits on the display.

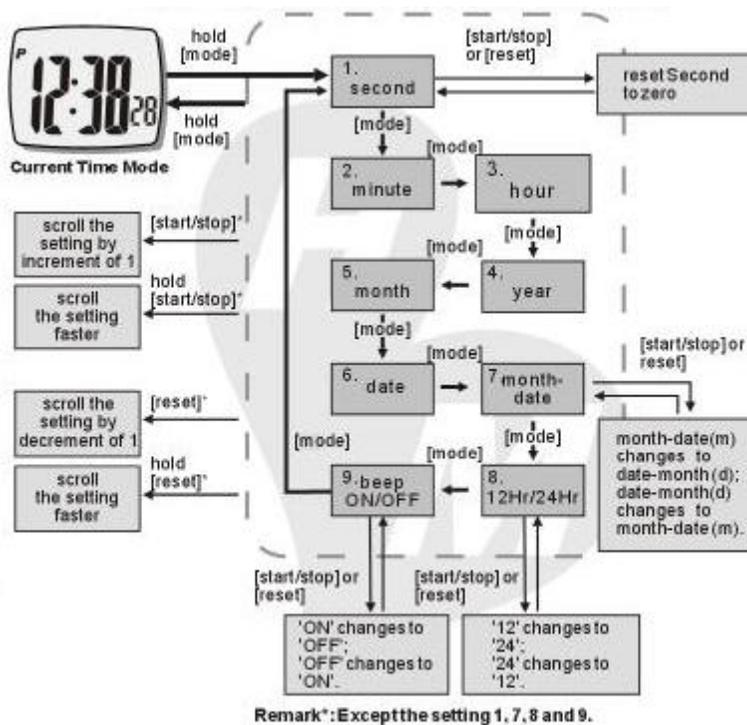
### Date Display

- The month, date and day of week exhibit on the display.
- The date format (month-date or date-month) can be set in the Current Time Mode Setting. Check the coming '6.1 Setting the Current Time Mode' Section for more detail on how to set the date format.

### To Select between the Time Display and Date Display

- Press the [start/stop] button once to select between the Time Display and Date Display.
- The Date Display will change to Time Display automatically if NO keystroke has been activated for about 8 seconds.

## 6.1 Setting the Current Time Mode



### To Set the Current Time Mode

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

### The Setting Sequence

- When the seconds digits start to flash, press the [mode] button to move the flashing following the setting sequence of the adjacent diagram or press the [start/stop] or [reset] button to reset the second digits to zero.
- If one of the settings (minute, hour, year, month, date) is flashing, press the [start/stop] or [reset] button to scroll through the setting (hold the button down to scroll the setting at a faster pace).
- When the '**month-date**' or '**date-month**' digits is flashing, press the [start/stop] or [reset] button to switch between month-date ('**m**' icon appear) and date-month ('**d**' icon appear).
- When the '**12**' or '**24**' icon is flashing, press the [start/stop] or [reset] button to switch between '**12**' (12 hour format) and '**24**' (24 hour format).
- When the beep '**on**' or '**oF**' icon is flashing, press the [start/stop] or [reset] button to switch between '**on**' (key tone ON) and '**oF**' (key tone OFF).
- When the designated setting appears, press and hold the [mode] button for about 2 seconds to exit the setting sequence. The setting display will change to Current Time Mode automatically if NO key-stroke has been activated for about 1 minute.

## 7.0 About Heart Rate Measurement

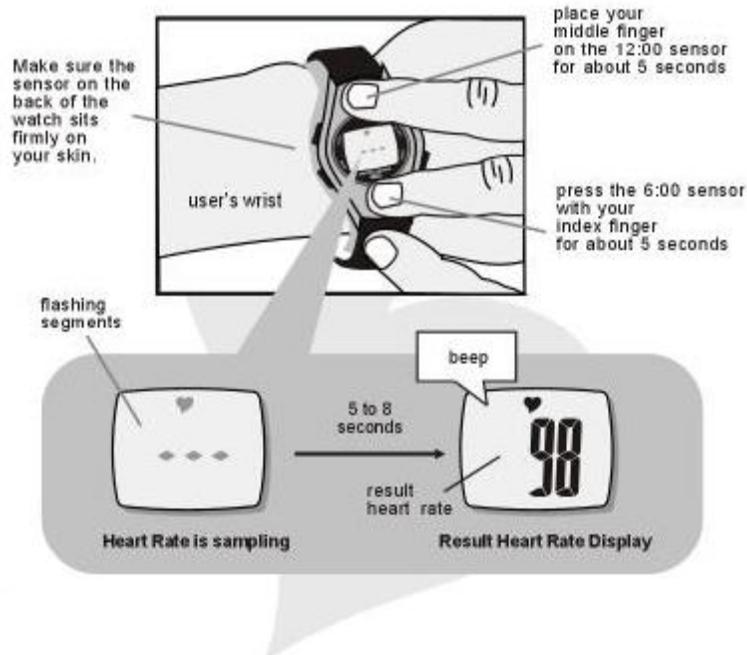


In exercise or sports, your heart naturally speeds up in pumping blood to the body in accordance with your increased energy level. This watch can calculate that increase expressed as the number of beats per minutes (bpm) to determine a safe target heart rate for each individual.

### PRECAUTIONS/TIPS

1. A heart rate sensor is located on the back of the watch. The back sensor must make firm contact with the user's skin during measurement.
2. DO NOT take heart rate measurement when diving or under water.\
3. Clean the back cover occasionally by applying a few drops of water; wipe it dry with a paper towel, removing any residual grease.
4. DO NOT use hand cream; it will insulate the signal between the skin and the sensors.
5. Clean skin and fingers with soap and water for better signal transmission.
6. DO NOT use the fingertips where the skin is dry and thick. For those with extremely dry skin, moisten fingers and wrist with tap water or apply a conductive gel.
7. Hold the watch firmly when taking measurement in motion.
8. During the measurement, avoid any awkward motion. Awkward motion creates undesired muscle noise; hence an erogenous heart beat reading may result.

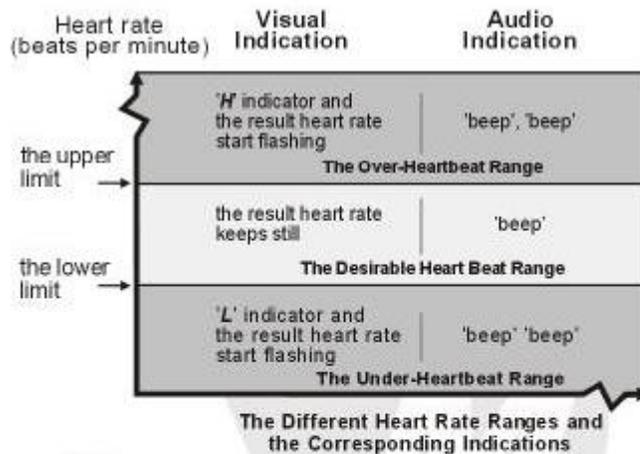
## 7.1 Heart Rate Measurement



### Heart Rate Measurement

- In any functional mode, press the 6:00 sensor with your index finger and your middle finger place on the 12:00 sensor located on the face of the watch.
- Rest your thumb on the side of your wrist. Make sure the sensor on the back of the watch sits firmly on your skin.
- You will hear a beep tone once your heart rate has been acquired (this usually take 5-8 seconds).
- Remove your fingers from the sensors and view your heart rate.
- Your heart rate will be displayed for 5 seconds before the screen returns to previous mode.

## 8.0 Heart Rate Alert Function



**Note:**

When user taking a heart rate measurement, various visual indications will be displayed according to range. Besides, one or two beep(s) will sound to alert the user whether his or her heartbeat is out of the preset range.

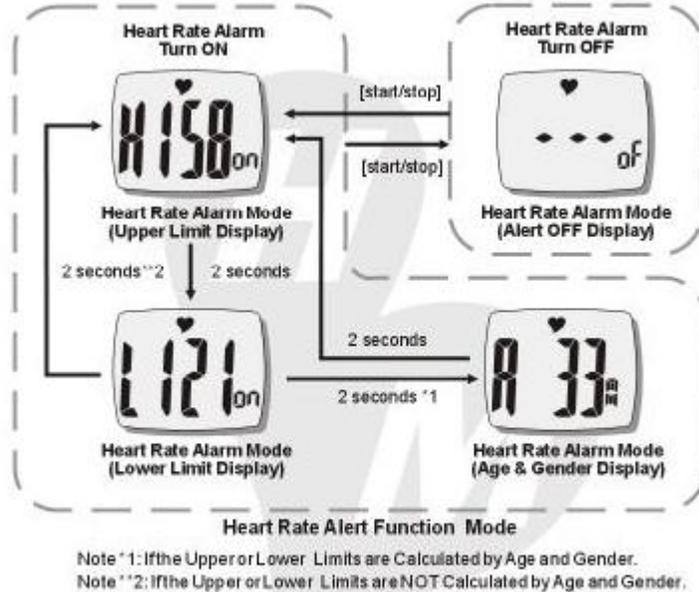
### About the Heart Rate Alert Function

- By presetting a target heart rate range, you can activate the heart rate alert function. This function helps prevent the user from going over or under a target heart rate.
- In course of doing exercise or sports: When the user takes a heart rate measurement that is out of the preset desirable range, this watch will beep twice. Hence, the user could render the appropriate actions such as slow-down or speed up the exercise.
- For example, some training sessions may require the trainee maintaining his / her heartbeat at a predefined range (the desirable range) to achieve training objective. This watch can remind the trainee whether his/her heartbeat is out of the objective range all the time.

### Upper & Lower Limits and Desirable Heart Rate Range

- The desirable heart rate range is the realm that defined by the upper and lower limits. Check the adjacent diagram to see the relationship between ranges and the limits.
- These limits can be obtained by the following:
  1. Get the limits by consulting a doctor or trainer
  2. Calculate the limits by using the user's age and gender.
- Check section 8.2 (*Setting the Heart Rate Alert Mode*) for more detail on setting the Limits.

## 8.1 Heart Rate Alert Mode



### When Heart Rate Alert Function is ON

The following displays will be appeared on the display every 2 seconds:

- 1) Upper Limit Display - the preset upper limit that set for the heart rate alert function
- 2) Lower Limit Display - the preset lower limit that set for the heart rate alert function
- 3) Age and Gender Display (see note 1) - the age and gender that set for the upper and lower limit calculation.

### When Heart Rate Alert Function is OFF

The '---' and 'oF' will be appeared on the display.

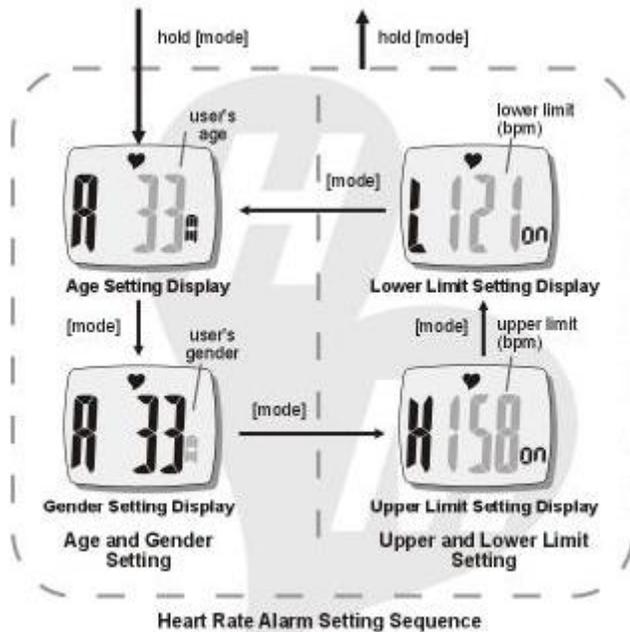
### Select ON or OFF in Heart Rate Alert Function

To select ON or OFF in Heat Rate Alert Function, press the [start/stop] button once.

### Heart Rate Alert Indications

- 1) When your heart rate results fall within the set range: The watch will beep once, and the digits will remain still.
- 2) If your heart rate is higher than the set range: The watch will beep twice, and the 'H' indicator and acquired heart rate reading will start flashing.
- 3) If your heart rate is lower than the set range: The watch will beep twice, and the 'L' indicator and acquired heart rate reading will start flashing.

## 8.2 Setting the Heart Rate Alert Mode



### To Set the Heart Rate Alert Mode

To preset your target heart rate:

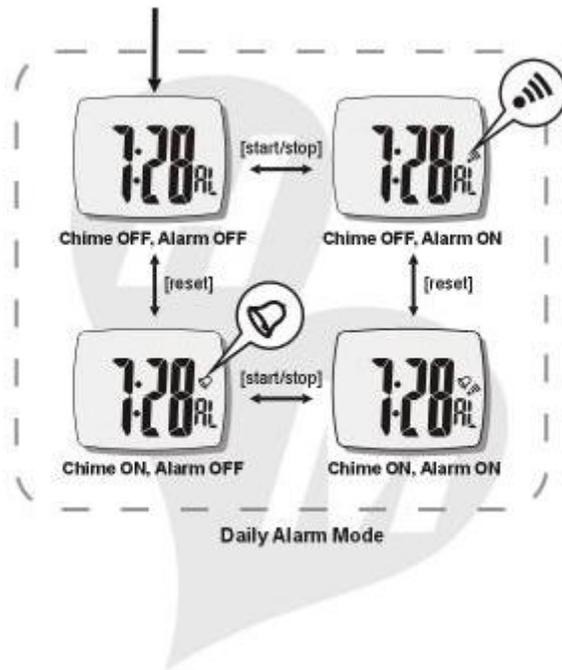
- 1) Input your target heart rate range (lower and upper limits), or
- 2) Input your age and gender (lower and upper limits will be automatically calculated).

To set the heart rate alert mode, press and hold the [mode] button for about 2 seconds to select the setting display (the '**age**' digits will start flashing).

### The Setting Sequence

- When the '**age**' digits start to flash, press the [mode] button following the sequence of the adjacent diagram, or press the [start/stop] or [reset] button to scroll through the setting (hold the button down to scroll at a faster pace). If the '**gender**' is flashing, press the [start/stop] or [reset] button to scroll the setting between '**M**' (male) and '**F**' (female).
- If one of the settings (upper limit and lower limits) is flashing, press the [start/stop] or [reset] button to scroll through the setting (hold the button down to scroll at a faster pace).
- When the designated setting appears, press and hold the [mode] button for about 2 seconds to exit the setting sequence. The setting display will change to Current Time Mode automatically if NO keystroke has been activated for about 1 minute.

## 9.0 Daily Alarm Mode



### Daily Alarm Mode

- The Alarm Time (hours, minutes) appears on the display.

### To Turn the Daily Alarm ON and OFF

- Press the [start/stop] button once to choose ON or OFF.
- When the Daily Alarm Indicator '🔔' appears (the daily alarm is ON), the watch starts beeping at the alarm time for about 30 seconds.

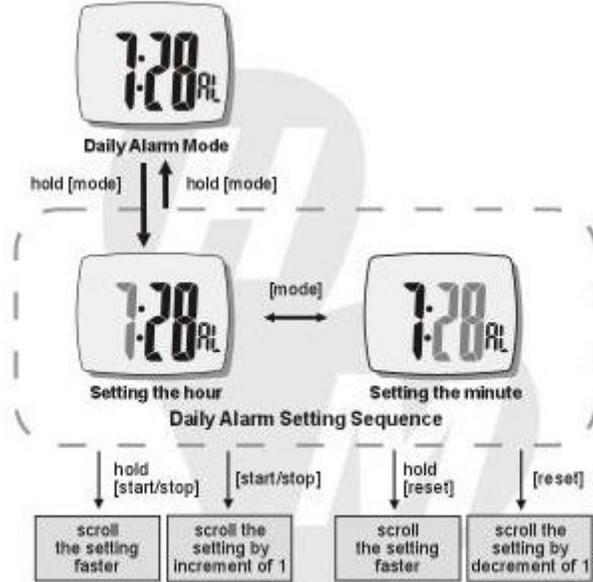
### To Turn the Hourly Chime ON and OFF

- Press the [reset] button once to choose ON or OFF.
- When the Hourly Chime Indicator '🔔' appears (the hourly chime is ON), the watch will beep once on the hour.

### Daily Alarm Sound

- The alarm beeps for 30 seconds when turned ON.
- You can stop the beeping by pressing any button (except the [light] button).

## 9.1 Setting the Daily Alarm Mode



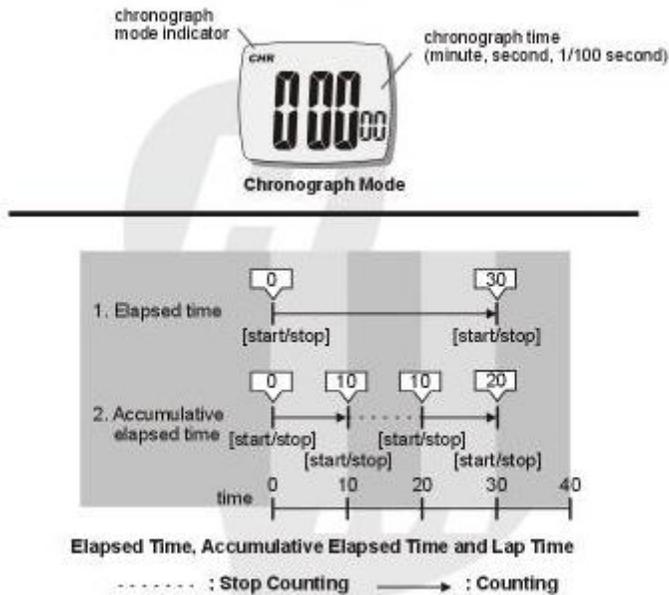
### To Set the Daily Alarm Mode

To set the Daily Alarm Mode: press and hold the [mode] button to select the setting display (the '**hour**' digits will start flashing).

#### The Setting Sequence

- When the '**hour**' digits start to flash, press the [mode] button to select between hour and minute setting, or press the [start/stop] or [reset] button to scroll through the setting (hold the button down to scroll the setting at a faster pace).
- When the '**minute**' digit flashes on the display, press the [start/stop] or [reset] button to scroll through the setting (hold the button down to scroll the setting at a faster pace).
- Press and hold the [mode] button for about 2 seconds to exit the setting sequence.
- The setting display will change to Current Time Mode automatically if NO keystroke has been activated for 1 minute.

## 10.0 Chronograph Mode



### Chronograph Mode

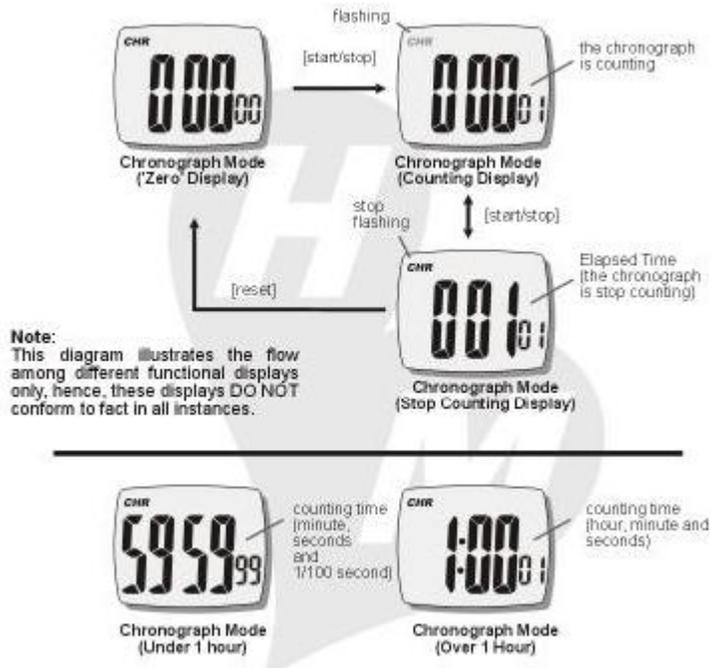
Chronograph Mode measures 2 different periods of time:

- 1) Elapsed time
- 2) Cumulative elapsed time

### Chronograph Display

- The display shows the 'Zero' display, if the watch or the chronograph has been reset.
- The Chronograph Mode Indicator '**CHR**' exhibits on the upper row of the display.
- The chronograph time (hours, minutes, seconds and 1/100 second) exhibits on the lower row of the display.
- The maximum counting range of the chronograph is 99 hours, 59 minutes and 59.99 seconds. If the accumulated time is over the previous range, the chronograph will recycle and continue counting at 00 hours, 00 minutes and 00.00 seconds again.

## 10.1 Using the Chronograph Mode



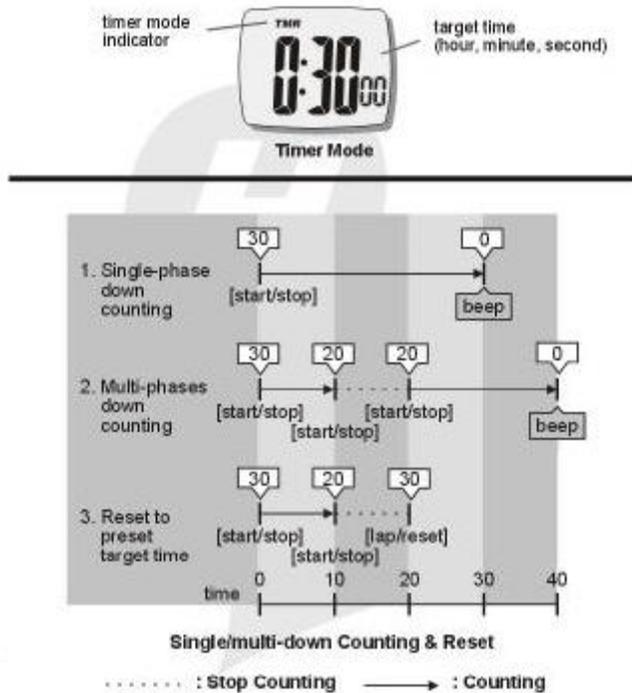
### To Use the Chronograph Mode

- In 'Zero' Display, press the [start/stop] button once to start the counting. When it is counting, press the [start/stop] button once again to stop the counting, and the elapsed time of which the chronograph is counting will appear.
- When the elapsed time is displaying, repeat the above mentioned key operations to get the accumulative elapsed time or press the [reset] button to reset the chronograph (ready for a new counting). Check the coming 'To Reset the Chronograph' Section for more detail on how to reset the chronograph.

### To Reset the Chronograph

- To reset the chronograph to 'Zero', press the [reset] button once when the chronograph has stopped counting.

## 11.0 Timer Mode



### Timer Mode

- This Watch has a countdown timer to keep track of a fixed period of time (target time) entered by the user.

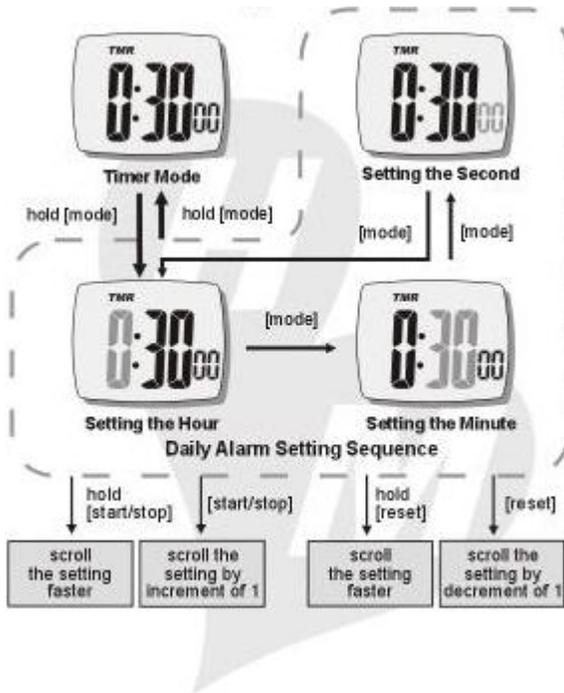
### The Target Time

- The user can set a target time of up to 99 hours, 59 minutes 59 seconds.

### Timer Display

- The Timer Mode Indicator '**TMR**' exhibits on the upper row of the display.
- The target time (hours, minutes and seconds) exhibits on the lower row of the display.

## 11.1 Setting the Timer Mode



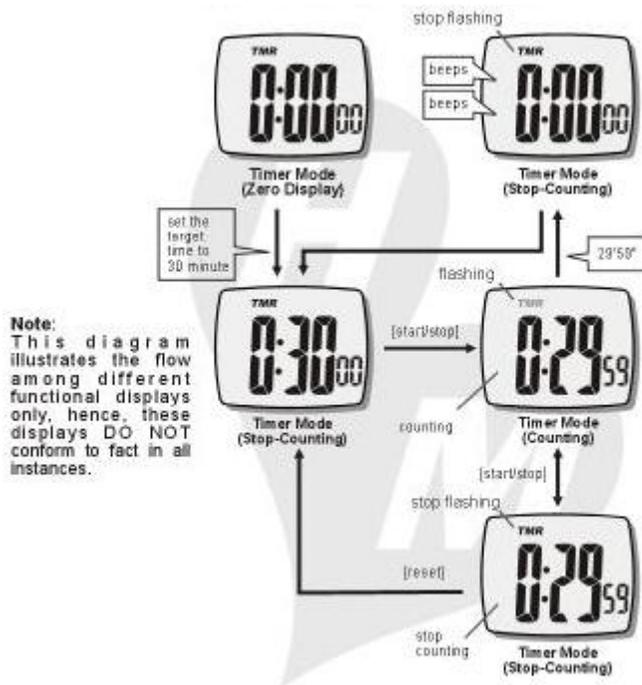
### To Set the Timer Mode

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

### The Setting Sequence

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

## 11.2 Using the Timer Mode



### To Use the Timer Mode

- Once a target time has been set (for example 30 minutes), press the [start/stop] button once to start the countdown. The countdown time will be displayed continuously throughout the countdown.
- To stop countdown, press the [start/stop] button once.

### To Reset the Timer

- To reset the timer to the preset target time before the countdown reaches zero, press the [reset] button once (when the timer has stopped counting).
- To start the counter at a target time, set a new value for the target time. Check the previous '11.1 Setting the Timer Mode' Section for more detail on how to set the Timer Mode.

### Timer Alarm Sound

- When the timer nears the last 5 seconds, the watch will beep once for each second left. When it hits zero, the watch will beep for about 10 seconds
- You can stop the beeping by pressing any button (except the [light] button).

## **12.0 Specifications**

### **Current Time Mode**

- Hour, minute and second
- Month, day, day of week and year
- 12 / 24 hour format selectable
- Month-day/Day-month selectable
- Auto calendar from year 2000 to 2099
- Hourly Chime on the hours

### **Hearth Rate Alert Mode**

- Measuring range: 43 to 200 beats per minute
- 1 Heart Rate Alert (upper and lower limit)

### **Daily Alarm Mode**

- Daily Alarm: 1 daily alarm
- Alarm Duration: about 30 seconds

### **Chronograph Mode**

- Resolution: 1/100 second
- Counting range: 99 hours, 59 minutes, 59.99 seconds
- Measuring mode: Elapsed time and accumulative elapsed

### **Timer Mode**

- Resolution: 1 second
- Setting limit: 99 hours, 59 minutes, 59 seconds
- Alarm sound: 1 beep at the 5,4,3,2 and 1 second(s).
- Alarm sound: 3 beeps at 0 second for about 10 seconds.

### **Others**

- Electro-luminescent backlight

### **13.0 Potential Causes for: NO Heart Rate Reading or Long Response Time**

**1) Cause: Dry Skin.**

Solution: Apply conductive gel or saliva thoroughly to fingers and wrist area. (Even water will help if conductive gel is not available).

**2) Cause: Fingers are not placed firmly over the sensors.**

Solution: Make sure fingers (not the tips) lay flat and firmly over the sensors and watch is placed securely on wrist. Do not use the very tips of your fingers (i.e. visualize tip toeing with your fingertips.) Fingertips do not allow for enough contact, therefore, ECG will not be picked up.

**3) Cause: Muscle tremors, caused by: A) Pressing down too hard on the sensors with fingertips. B) Person is in motion and holding the watch in an awkward manner.**

Solution: It is best to place your index finger on the 6:00 sensor, and middle finger on the 12:00 sensor. This will ensure good and consistent readings even while walking or jogging with arms swung naturally.

**4) Cause: Dead skin on wrist.**

Solution: Usually rubbing your skin with a towel will help.

**5) Cause: A thin layer of body grease can insulate the ECG signal-basically prevents the back sensor on the watch from picking up one's ECG.**

Solution: Wipe wrist and the back of watch with a tissue or soft towel.

**6) Cause: Hairy arms.**

Solution: Apply conductive gel to wrist area.

**7) 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.

### **14.0 Manufacturer's Information**

This watch is made for ACCUSPLIT, Inc. in PR China.

The watch carries a five year warranty, with no proof of purchase required. Service during the first year of ownership is free. A service fee of \$15 is required after the first year of ownership.

Please make any inquiries to:

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