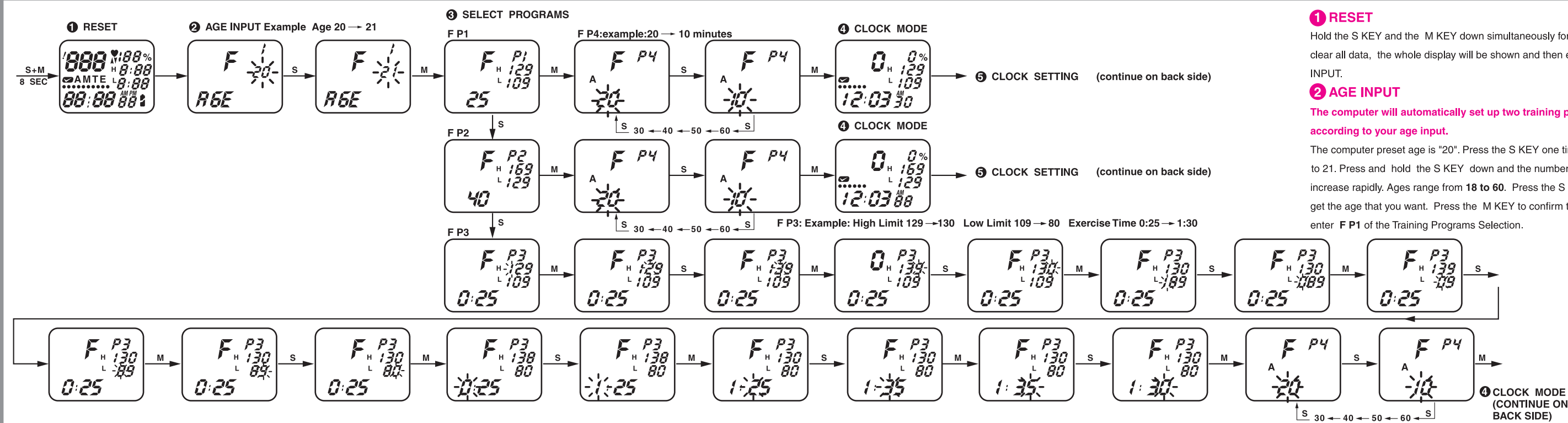


20 Function Heart Rate Monitor with New Exercise Technology (Please read these operating instructions before starting, even if you are experienced users)



1 RESET

Hold the S KEY and the M KEY down simultaneously for 8 seconds to clear all data, the whole display will be shown and then enter AGE INPUT.

2 AGE INPUT

The computer will automatically set up two training programs according to your age input.

The computer preset age is "20". Press the S KEY one time to advance to 21. Press and hold the S KEY down and the numbers will increase rapidly. Ages range from 18 to 60. Press the S KEY until you get the age that you want. Press the M KEY to confirm the age and enter F P1 of the Training Programs Selection.

3 TRAINING/FREE PROGRAMS SELECTION

FP1: Automatic Fat Burning program

According to your age input, the computer will automatically set the high/low Fat Burning Zone limits (refer to **Target Heart Chart**) and exercise time of 25 minutes over the Low Target Zone limit. Press the M KEY to select this program and then enter the selection mode F P4 of the **Average Heart Rate** Calculation Period. Pressing S KEY will enter F P2.

FP2: Automatic Cardiovascular Strength Training Program

According to your age input, the computer will automatically set the high/low Cardiovascular Zone limits (refer to **Target Heart Chart**) and exercise time of 40 minutes over the low Target Zone limit. Press the M KEY to select this program and then enter selection mode F P4 of the Average Heart Rate Calculation Period. Pressing S KEY will enter F P3.

Select free program(F P3) if your age is outside of the 18-60 range or if you want to set your own **Target Zone and Exercise time**. To remind you again, please consult your doctor for comments about exercise frequency and duration appropriate for your age, highest and lowest heart rate limits etc.

FP3: Freely Programmable Target Zone & Exercise Time

The original stored target zone and the exercise time 25 minutes of F P3 mode are the same as F P1. In F P3 mode you can freely set high/low target zone limits and exercise time by changing the flashing digits. Press the S KEY or hold the S KEY down (same method as Age Input) to increase numbers of the first digit of the high limit. Press the M KEY to confirm and then shift to 2nd digit. All other digits for high/low limits and exercise time can be adjusted by the same method. Once these are set enter F P4 AVERAGE HEART RATE CALCULATION PERIOD Selection mode

NOTE 1. Low/High Target Zone Limit Range: 35-250 BPM
2. Low Limit must not be higher than High Limit
3. Exercise time range: 0-9:59:59 (H/M/S)

FP4 Selection of Average Heart Rate Calculation Period

6 optional calculation periods of 10, 20, 30, 40, 50 and 60 minutes are provided for average heart rate calculation and display. Press S KEY to select the period you want, then press the M KEY to CLOCK MODE.

Read Me First

For accurate readings and best performance, please read the following suggestions.

- ★The skin types of people and their heart rate signals vary. You may need to take some time to be familiar with the Transmitter Strap to achieve stable signals. So please be patient, especially during the cold, dry winter months.
- ★Dry conductive rubber skin contact will cause erroneous readings or "0" heart rate display, so please moisten the chest strap for accurate readings.
- Use water, ECG gel or other conductive liquids to moisten the conductive rubber skin contact. DO NOT use Vaseline or oils which may insulate the Transmitter making it unable to detect the heart rate signals.

★Heart rate display may drop to "0" or jump to "250" when near high tension power lines and transformers, or any electromagnetic devices such as television, computer, cell phone, mechanical watches etc. Execute "MODE CLEAR" to clear all records and leave the area of interference to get your actual heart rate displayed again.

★Dehydration and alcohol consumption can affect the detection and accuracy of the heart rate display. For accurate readings, do not use the Transmitter and wait until your body is back to normal levels.

★Body hair can affect the detection and transmission of heart rate. If necessary, trim and shave the hair to keep a smooth transmitter contact.

★Transmitter conductive rubber skin contact should be flat on your body when you adjust the chest strap.

For certain individuals, the computer will work better if the transmitter is worn either more to the left side, a little higher, a little lower or possibly upside down.

1. →

WARNING

1. This heart rate monitor is designed to measure and display your heart rate during physical activity when in a good state of health. It is not a medical device, nor is it intended for medical diagnostic purposes.
2. Please consult a doctor for advice on exercise frequency and duration appropriate for your age, highest and lowest heart rate limits etc. Please stop exercising if you feel uncomfortable, faint, or dizzy.
3. Do not put on the Heart Rate Transmitter if you are using any device to adjust or aid your heart rate (i.e. Pace Maker)
4. The transmitter does not work in water. Please do not immerse this device in water.

MAIN WATCH UNIT



♥ Heart rate symbol

[A] Current heart rate display

[B] Percentage of cardiovascular strength

/Efficiency percentage of preset exercise time

[C] High Target Zone Limit/Total time over High Target Zone Limit

[D] Low Target Zone Limit/Total time over Low Target Zone Limit

[E] Function Mode display: Clock display/Average heart rate/Maximum heart rate/STOPWATCH/Exercise time countdown

[F] Time bar in seconds/current cardiovascular strength level

[G] Function Mode symbols

[H] Target Zone Indicator

[I] AM/PM display for 12 Hour format

[J] Weak battery symbol

[K] Visual alarm indication

2. →

20 FUNCTIONS AND OTHER FEATURES

1 20 FUNCTIONS

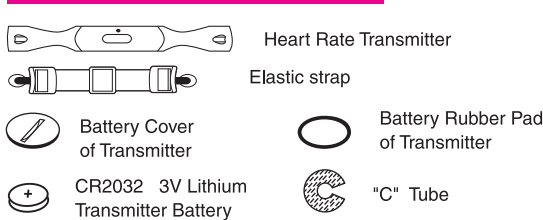
1. Two automatic training programs in accordance to age input.
F P1 (Fat Burning Program), F P2 (Cardiovascular Strength Building Program)
2. F P3 (Freely programmable Target Zone and Exercise time setting)
3. Three step audible alarms
A: Every 30 seconds one "beep" when current heart rate is over Low Target Zone Limit
B: Every 30 seconds four "beeps" when current heart rate is over High Target Zone Limit
C: Every 10 seconds four short "beeps" when current heart rate is over your age's **Maximum Pulse Limit (MPL:refer to Target Heart Chart)**.
4. Two step visual alarms
! Symbol appears when current heart rate is over High Limit
Symbol flashes when current heart rate is over your age's MPL
5. Percentage of current cardiovascular strength
6. Efficiency percentage of preset exercise time
7. Preset exercise time countdown
8. Current heart rate display 35-250 Beats per minute
9. Maximum heart rate recorded 35-250 Beats per minute
10. Average heart rate in 6 optional periods 35-250 Beats per minute
11. Total time over Low Limit 12. Total time over High Limit
13. Stopwatch 9:59:59 (Hour/Minute/Second)
14. 12/24 Hour clock 15. Target Zone Indicator
16. Target Zone re-settable and re-checkable
17. Current cardiovascular strength level
18. Time bar in seconds 19. Unique transmission LED indicator
20. EL backlight

2 OTHER FEATURES

- Weak battery detection
- Replaceable batteries
- Auto Power Saving
- Water resistant
- 3V Lithium Batteries(Two CR2032) included

3. →

ACCESSORIES & ATTACHMENT



WATCH BATTERY REPLACEMENT

The watch includes one 3V CR2032 lithium battery. When display of weak battery for replacement is on, replace the battery with a new CR2032 battery or equivalent.

1. Use a screw driver to loosen the screws on the back cover. Separate the back cover from the front case.
2. Carefully remove the clear plastic cover.
3. Use a small screw driver to unlock the metal spring and to tilt out the old battery.
4. Slide a new CR2032 battery into position.
5. Press the metal spring back to the lock position to secure the new battery.
6. Place the plastic cover back on and assemble the back cover onto the front case.
7. Tighten the screws and promptly dispose of the old battery.

Note: 1. Do not lose any O-rings or the metal spring.
2. Removing the watch battery will erase all data recorded and reset the watch receiver.



4. →

TRANSMITTER BATTERY INSTALLATION

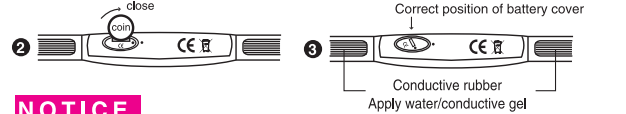
Slide the CR2032 battery at an angle and make sure during battery installation that the battery is first pressed against the side contact (positive electrode) and then pressed into the battery compartment.

Place the battery rubber pad (O-ring) and battery cover properly into the case then close the cover, tightening it with a coin or similar object

The rubber pad(O-ring) ensures water proof protection of the battery compartment.

IMPORTANT

Make sure to close the battery cover very tightly as below illustrated to prevent sweat and moisture from spoiling the battery compartment.



NOTICE

Apply water or conductive gel to moisturize the conductive rubber which must be in proper contact with your chest skin to detect your heart rate for best performance.

WARNING

1. The user should not wear the transmitter during swimming.
2. This is not a diving instrument, and therefore buttons should not be operated (put to use) while under water.
3. Keep the transmitter clean especially the two parts of conductive rubber.
4. Do not store the transmitter in a wet environment. It must be stored in a cool dry place. Moisturized electrodes and activated transmitter will shorten the battery's life.
5. Do not store the transmitter near high voltage power lines, televisions, cellular phones...etc. to avoid electromagnetic interference from shortening the life of the battery.

5. →

PUTTING ON THE HEART RATE TRANSMITTER

Please be sure that the LED flashing light is above logo, this is the correct position for the most stable heart rate transmission.

Position the heart rate transmitter and adjust the elastic strap to fit your chest snugly as shown.



To check for proper operation, the ♥ symbol on the watch will flash upon receiving a pulse signal. The watch will then take a few seconds to display the initial current heart rate.

NOTE 1. If you get irregular pulses, please execute "RESET" to clear all records. Hold the S KEY and the M KEY down simultaneously for 8 seconds.
2. Keep a distance not over 80 CM (30") between the watch and Heart Rate Transmitter for good wireless reception as illustrated.

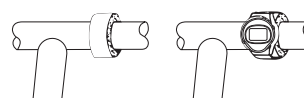
UNIQUE TRANSMISSION LED INDICATOR

A red Transmitter LED will flash indicating the transmitter is in operation. Adjust the transmitter position to keep the LED indicator flashing consistently for accurate readings.

NOTE : If the watch does not display heart rate readings when the Heart Rate symbol flashes for over two minutes, please check the watch battery installation and execute a **RESET** to the watch.

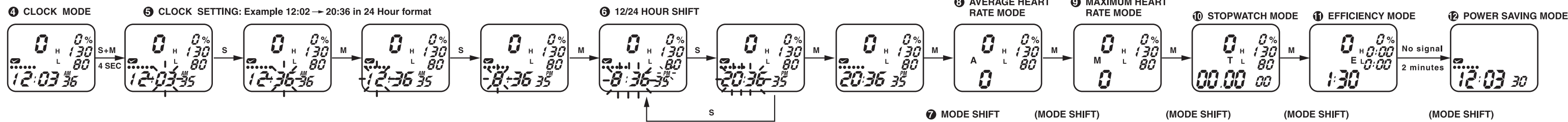
MOUNTING WATCH ON BIKE HANDLEBAR

Attach "C" Tube on handlebar, then mount the watch onto "C" Tube and tighten it securely.

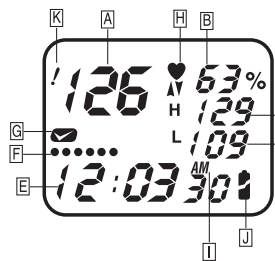


6. →

20 Function Heart Rate Monitor with New Exercise Technology (Please read these operating instructions before starting, even if you are experienced users)



④ CLOCK MODE



- A: Current heart rate display
B: Percentage of current cardiovascular strength compared with your age's MPL (Maximum Pulse Limit: refer to **Target Heart Chart**)
C: High Target Zone Limit
D: Low Target Zone Limit
E: **Clock display**
F: **Time Bar in seconds** Each bar one second
G: Clock mode indicator
H: Target Zone symbol
 ▲ Current heart rate is over High Target Zone Limit
 ▼ Current heart rate is below Low Target Zone Limit
 ▲▼ Current heart rate is in Target Zone
I: AM/PM for 12 Hour format
J: Weak battery symbol (replacement required)
K: Visual alarms symbol

⑤ CLOCK SETTING

Hold the S KEY first and press the M KEY down simultaneously for 4 seconds, the "minute" digits will then be flashing. To advance the minutes, press the S KEY until you get the minutes that you want. Press and hold the S KEY down and the numbers will increase rapidly. Press the M KEY and the "hour" digits will be flashing, press the S KEY until you get the hours that you want. Press the M KEY and now, hours and minutes will be flashing.

⑥ 12/24 HOUR FORMAT SHIFT

To shift clock display to 24 Hour format press the S KEY. Press the S KEY again to shift back to the original 12 Hour format. Press the M KEY to finish clock setting and enter **CLOCK MODE**.

7. →

⑦ MODE SHIFT

Press the M KEY to enter the next AVERAGE HEART RATE MODE and all other modes.

CLOCK RESETTING

Press the M KEY to shift to the Clock Mode, hold the S KEY first and press the M KEY (holding both down) for 4 seconds. The "Minute" digits will then be flashing for resetting.

MODE CLEAR

In every mode, hold the S KEY and press M KEY once, the records or modes will be simultaneously cleared to ZERO or will return to preset value.

CHANGING AGE INPUT

Press the M KEY to shift to Mode. Press the S KEY only for over 8 seconds, the watch will return to F1 for AGE INPUT change.

CHANGING PROGRAMS

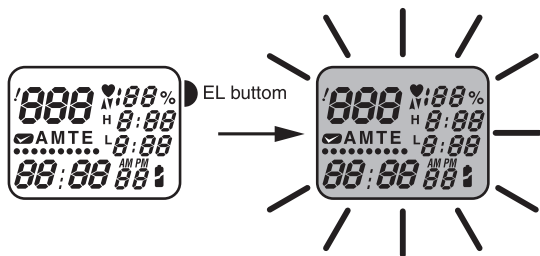
Press the M KEY to shift to Mode. Press the S KEY only for over 8 seconds. The watch will return to F1 for training program change.

EL Backlight

Press EL key to illuminate the watch for 3~4 seconds.

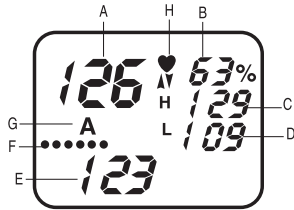
Remark : 1. Battery consumption will lessen with long term use of the EL Backlight

2. EL Backlight is not visible in daylight



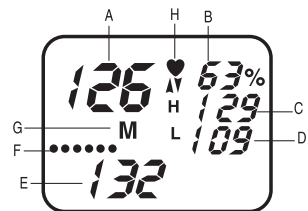
8. →

⑧ AVERAGE HEART RATE MODE



- A: Current heart rate display
B: Percentage of current cardiovascular strength compared with your age's MPL
C: High Target Zone Limit
D: Low Target Zone Limit
E: **Average heart rate display as per preset average period** (Refer to F P4)
F: **Current cardiovascular strength level** (Each bar • 10%)
G: AVERAGE HEART RATE MODE symbol
H: Target Zone indicator (same as CLOCK MODE)
I: AM/PM for 12 Hour format
J: Weak battery symbol (replacement required)
K: Visual alarm symbol

⑨ MAXIMUM HEART RATE MODE



- A: Current heart rate display
B: Percentage of current cardiovascular strength compared with your age's MPL
C: High Target Zone Limit
D: Low Target Zone Limit
E: **Your maximum heart rate record**
F: Current cardiovascular strength level
G: MAXIMUM HEART RATE MODE symbol
H: Target Zone indicator (same as CLOCK MODE)
I: AM/PM for 12 Hour format
J: Weak battery symbol (replacement required)
K: Visual alarm symbol

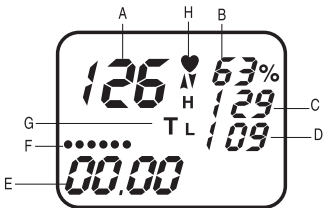
9. →

⑩ STOPWATCH MODE

Press the M KEY to shift to STOPWATCH MODE. The symbol will not flash. Press the S KEY to activate Stopwatch and the symbol will flash. Press the S KEY again to stop flashing. Press the S KEY for continuous time count.
Hold the S KEY and press the M KEY one time to clear record.
Stopwatch range: 00:00:00 (Minute/Second/Second%) ~ 9:59:59 (Hour/Minute/Second)

NOTE

In STOPWATCH MODE, the watch will not enter the POWER SAVING MODE once Stopwatch is activated. Stop STOPWATCH or shift to other mode to enter Power Saving Mode.

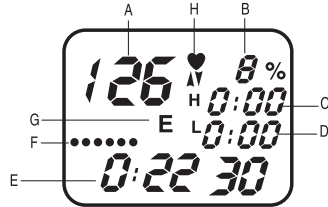


- A: Current heart rate display
B: Percentage of current cardiovascular strength compared with your age's MPL
C: High Target Zone Limit
D: Low Target Zone Limit
E: **Stopwatch display**
F: Current cardiovascular strength level
G: MAXIMUM HEART RATE MODE symbol
H: Target Zone indicator (same as CLOCK MODE)
I: AM/PM for 12 Hour format
J: Weak battery symbol (replacement required)
K: Visual alarm symbol

10. →

⑪ EFFICIENCY MODE

Press the M KEY to shift to STOPWATCH MODE. The symbol will not flash. Press the S KEY to activate EFFICIENCY MODE and the symbol will flash. Press the S KEY again to stop EFFICIENCY MODE.
Hold the S KEY and press the M KEY once to clear all the modes records and reload preset exercise time (Refer to F P1/F P2/F P3).



- A: Current heart rate display
B: **Efficiency Percentage of Preset Exercise Time**
Formula: % = $\frac{\text{Total time over Low Limit of Target Zone}}{\text{Preset Exercise Time}} \times 100\%$
C: **Total time over High Target Zone Limit**
D: **Total time over Low Target Zone Limit**
E: **Preset Exercise Time countdown**
 = Preset Exercise Time - Total time over Low Target Zone Limit
F: Current cardiovascular strength level
G: Efficiency Mode symbol
H: Target Zone indicator (same as CLOCK MODE)
I: AM/PM for 12 Hour format
J: Weak battery symbol (replacement required)
K: Visual alarm symbol

⑫ AUTO POWER SAVING

When the watch does not receive any signal or input for 2 minutes, the power will be automatically saved and the watch will display the CLOCK time/symbol/bar only:
AUTO POWER SAVING Mode is automatically released when the S KEY or the M KEY is pressed.

NOTE

The watch will not enter Auto Power Saving Mode if the AGE INPUT or CLOCK SETTING does finish setting or if STOPWATCH MODE is activated.

11. →

FINDING YOUR TARGET HEART ZONE

Training in your Target Heart Zone is important and it is recommended that you consult your personal doctor or physician. Recent research has indicated that optimal use of fat as energy occurs **when your heart beats per minute (BPM) is between 55% and 65% of your Maximum Pulse Limit (MPL)**.

Refer to the chart below to find your Target Heart Zone for your age.

1. FAT BURNING ZONE

Your heart rate during exercise should be at 55% to 65% of your Maximum Pulse Limit (MPL) if you are in good health and either a beginner or intermediate exerciser (one who has done some prior aerobic activity).

2. CARDIOVASCULAR STRENGTH ZONE

Good aerobic condition/advanced exercisers can select a target heart zone at 65% to 85% of their Maximum Pulse Limit (MPL).

TARGET HEART CHART (BPM)

AGE	20	25	30	35	40	45	50	55	60
MPL	200	195	190	185	180	175	170	165	160
85% MPL	170	166	162	157	153	149	145	140	136
65% MPL	130	127	124	120	117	114	111	107	104
55% MPL	110	107	105	102	99	96	94	91	88

TROUBLE SHOOTING

- **No heart rate display**
Heart Rate Transmitter not properly positioned.
Low/Dead Transmitter battery
- **Black display**
Temperature is too hot.
Directly exposed to sunlight too long.
- **No Display**
Dead battery.
Receiver watch battery not properly installed.
- **Display fades**
Poor battery contact.
- **Irregular data appears**
Execute "MODE CLEAR" or "RESET"
- **Unable to enter Power Saving Mode**
AGE INPUT/CLOCK SETTING not finished.
STOPWATCH Mode is activated.

12.