CITIZEN.

Setting Instructions for
Movement Caliber 6850

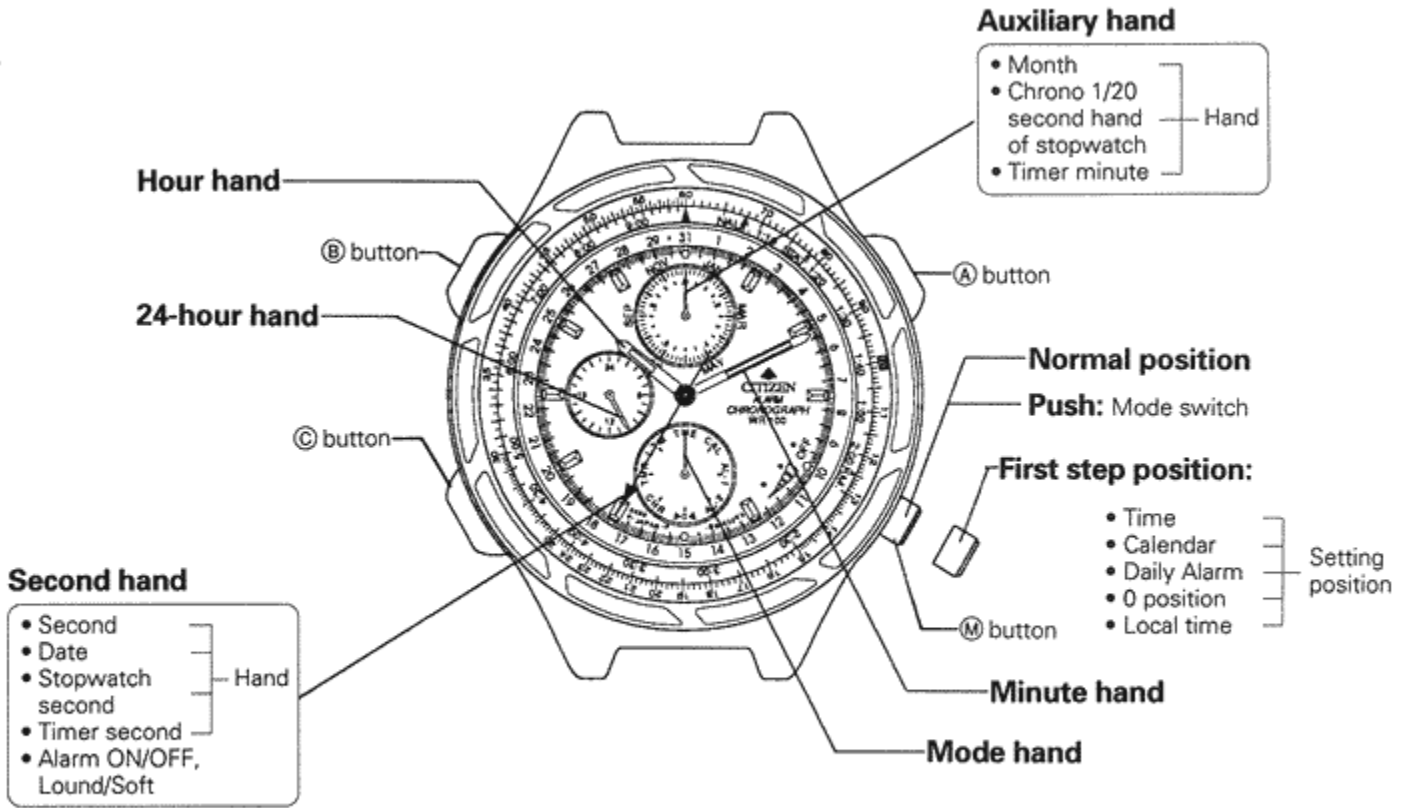**Contents** (click on a topic)

1 MAIN COMPONENTS

Auxiliary hand
- Month
- Chrono 1/20 second hand of stopwatch — Hand
- Timer minute

Hour hand

Ⓑ button

24-hour hand

Ⓒ button

Ⓐ button

Normal position

Push: Mode switch

First step position:
- Time
- Calendar
- Daily Alarm — Setting position
- 0 position
- Local time

Ⓜ button

Minute hand

Mode hand

Second hand
- Second
- Date
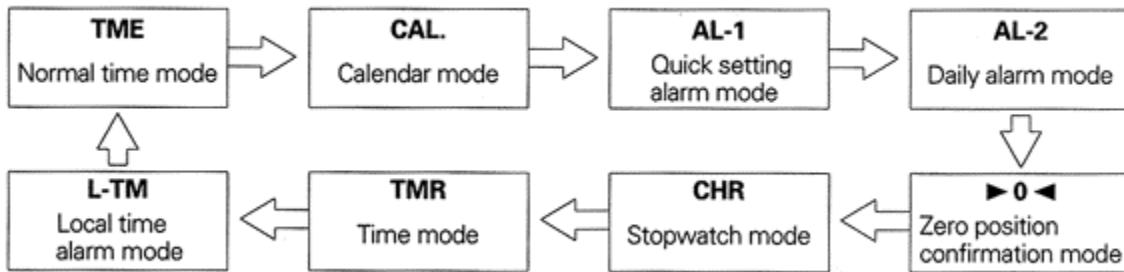- Stopwatch second — Hand
- Timer second
- Alarm ON/OFF, Lound/Soft

- ◯ indicates functions of main watch hand.

2 MODE CHANGE-OVER
Push the **(M)(lower right)** button in the normal position to switch between modes as shown

TME Normal time mode	⇒	CAL. Calendar mode	⇒	AL-1 Quick setting alarm mode	⇒	AL-2 Daily alarm mode
⇧						⇩
L-TM Local time alarm mode	⇐	TMR Time mode	⇐	CHR Stopwatch mode	⇐	►0◄ Zero position confirmation mode

Note:
Always check the mode hand to ensure the watch is set in the desired mode durin guse, since pressing the **(M)(lower right)** button unknowingly during operation may occur
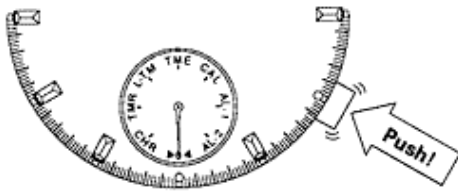
3. BEFORE USE

Before use, follow the procedures below to ensure that all watch components are in proper working order:

Confirm the Zero position setting:

To **"0"** mode
(Zero position confirmation mode)

- All hands, except the mode hand, move to the '0' position
- The 24-hour hand is synchronized with the hour/minute hands

Each hand positioned as listed below confirms the '0' position setting is correct:

Hour Hand	0 hour
Minute Hand	0 Minutes
Second Hand	0 Seconds
24-Hour Hand	0 hour
Auxiliary Hand	0 minutes

If the watch hands are not positioned as above, follow the **Zero Position Setting** procedures to ensure proper use.

ZERO POSITION SETTING

1. Pull the (M) button out to the first step position
   Push the (A) button to set the second hand to the 0 second position
   Push the (B) button to set the Auxiliary feature hand to the 0 hour position
   Push the (C) button to set the hour, minute and 24-hour hands to the 0 hour, 0 minute position

2. Be sure to push the (M) button in to its normal position. This completes the Zero Position Setting

   Press and hold down the (A), (B), or (C) buttons to activate the quick-advance feature
   A strong shock may cause the hands to move
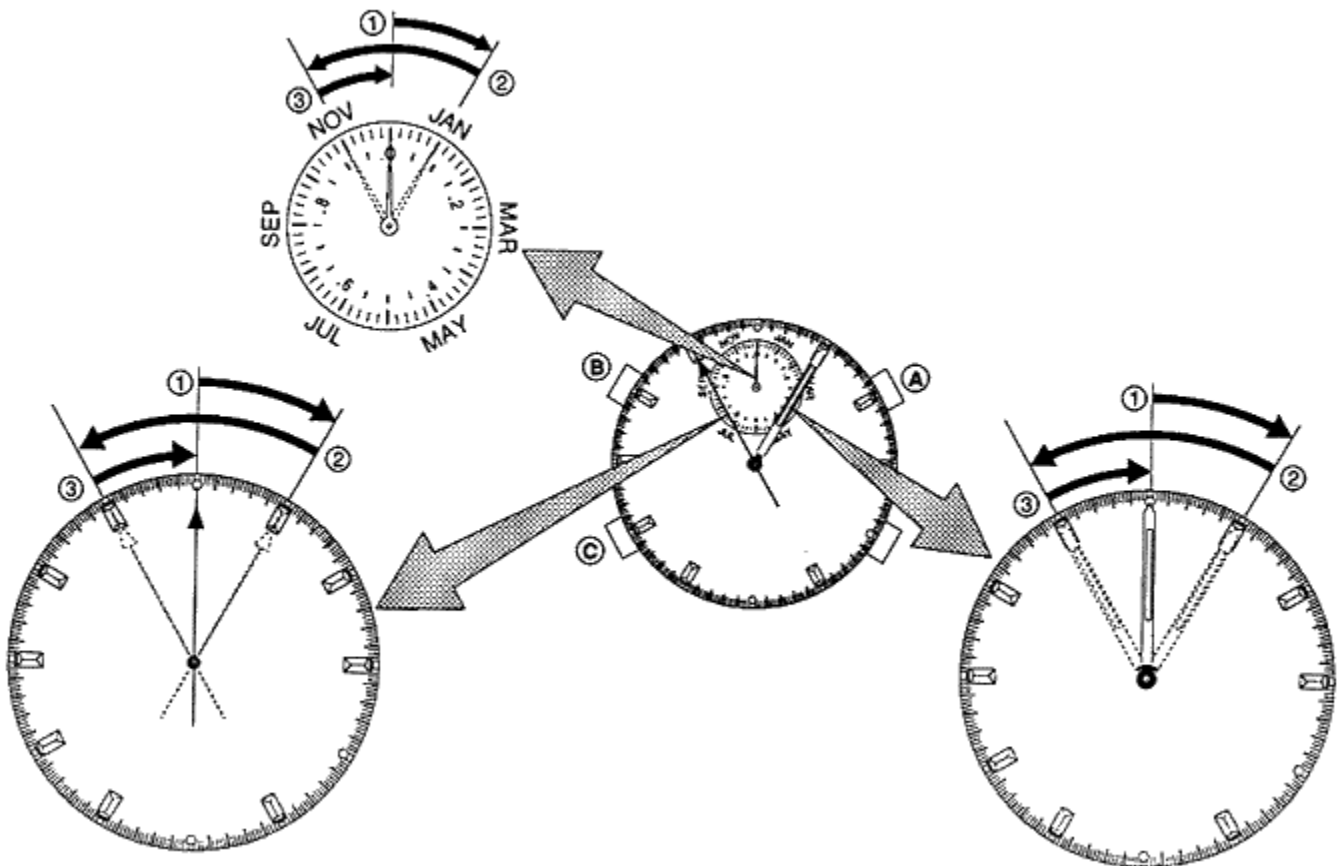
4. HOW TO SET AND OPERATE EACH MODE

1. HAND MOVEMENT DEMONSTRATION

To **"0"** mode
(Zero position confirmation mode)

Pushing of the (A), (B) and (C) button at once will cause the second, minute and auxiliary feature hands to stop in the '0' position after moving through the following stages.

Minute Hand: (1)+5min ->(2) -10min -> (3) +5min
Second Hand: (1)+5sec ->(2) -10sec -> (3) +5sec
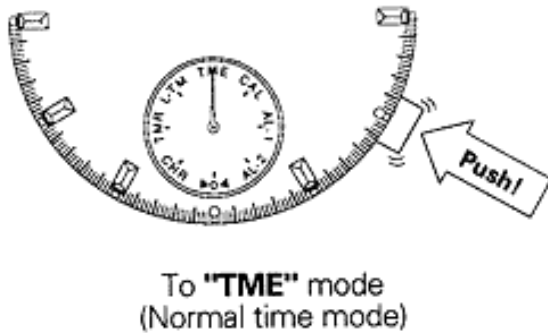**Aux. Hand. :** (1)+5   ->(2) -10   -> (3) +5
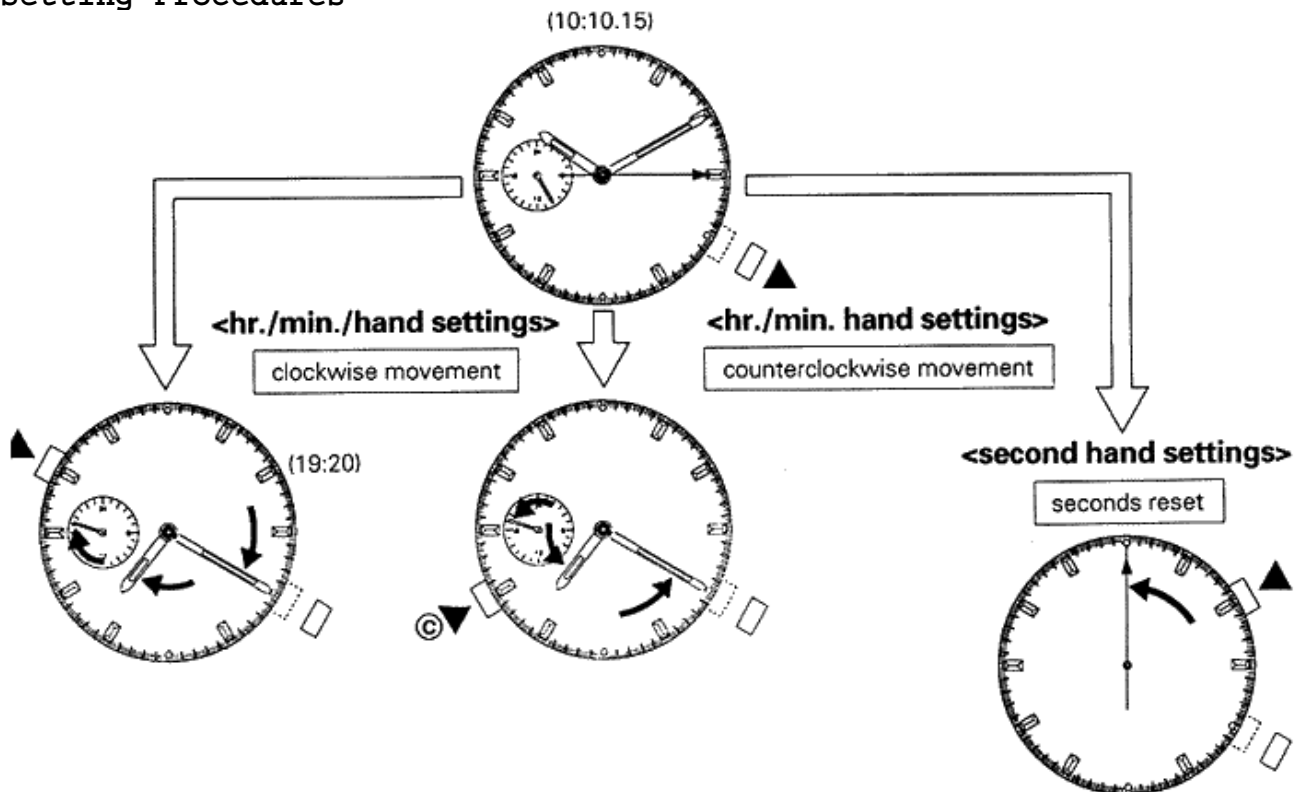
2. SETTING THE TIME

Changing the time from 10:10:15 to 19:20:00

<(M) button in the normal position>

To **"TME"** mode
(Normal time mode)

(10:10.15)

- The hour/minute hand is based on the 12-hour clock system. Use the 24-hour hands as a reference under normal time setting procedures to determine morning or afternoon times

Setting Procedures

(10:10.15)

<hr./min./hand settings>
clockwise movement

<hr./min. hand settings>
counterclockwise movement

<second hand settings>
seconds reset

(19:20)

Resetting the second hand
- Pressing the (A) button while the second hand is between 0-29 seconds will not alter the minute hand position
- Pressing the (A) button while the second hand is between the 30-59 seconds position will advance the minute hand to the next full minute position
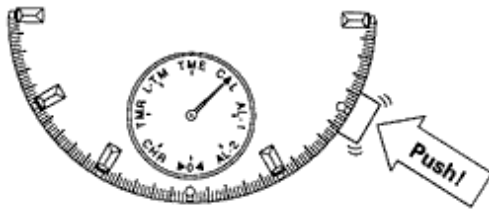
↓

Push the (M) button in to the normal position

❖ Press and hold down either the (B) and (C)
  buttons to use the quick-advance feature
❖ Quick-advance function: Hand movement is about
  twice as fast after the first revolution.
  (clockwise movement only)
❖ The hour/minute/24-hour hands are synchronized

3. SETTING THE CALENDAR (CAL)
Changing the calendar from May 5 to Sept. 9.

Automatic Calendar System
The calendar feature on this watch requires
no adjustment at the end of the month.
Adjustment for Feb 29 during a leap year
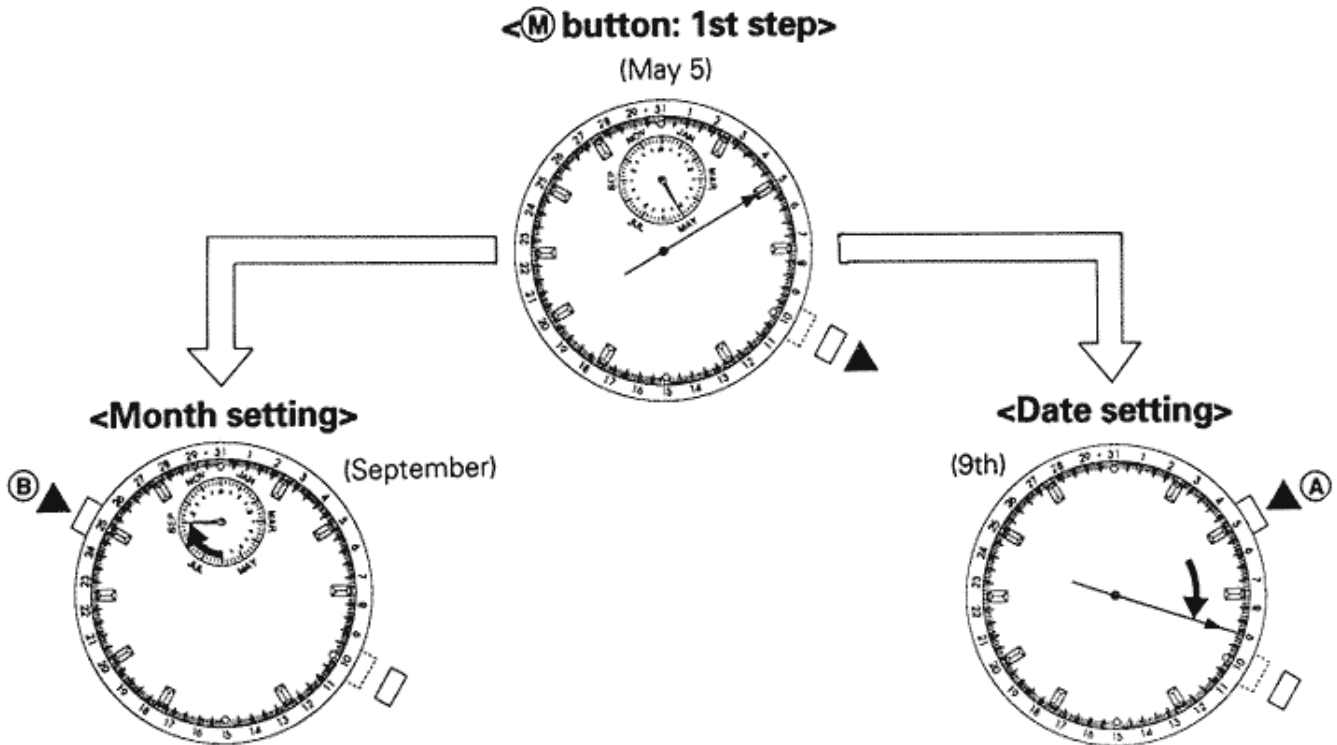
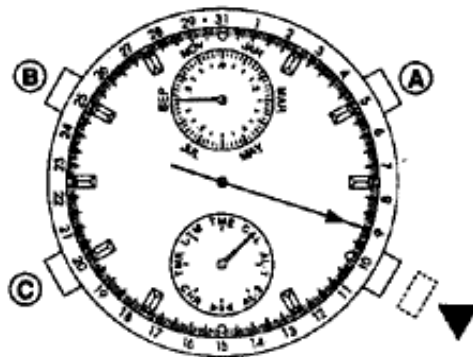To **"CAL"** mode

<(M) button normal position)

(May 5)

↓

Setting Procedures

❖ Press and hold down either the (A) or (B) button for the quick-advance feature.
❖ The month and date must be independently set.

<(M) button: 1st step>
(May 5)

<Month setting>
(September)

<Date setting>
(9th)

<Press the (M) button in to the normal position>
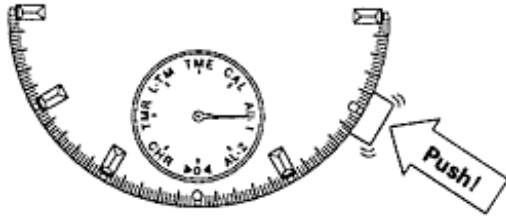Calendar setting complete at Sep. 9

Automatic Calendar Correction System
When a non-existent date is entered, the watch will automatically set the date to the 1st of the following month when the (M) button is pushed in to the normal position.
Example: Feb 30 -> March 1st

# 4. SETTING THE QUICK-SET ALARM (AL-1)

Quick-Set Alarm Function
When the alarm is OFF the hr./min./sec/24-hour hands display the current time. This feature allows the alarm to be easily set to the desired time within the 23 hour 59 minute maximum limit. **Following one ring of the alarm (10 seconds) the alarm setting is automatically cleared from memory and the auxiliary time display returns to the current set time.**

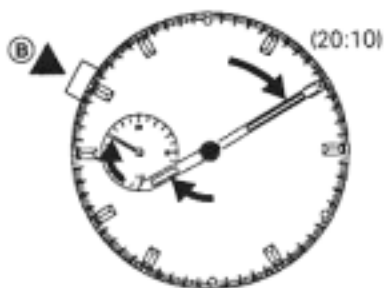**Alarm can be set in this position**
(M) button in normal position

<Sound monitor>

(5 seconds)
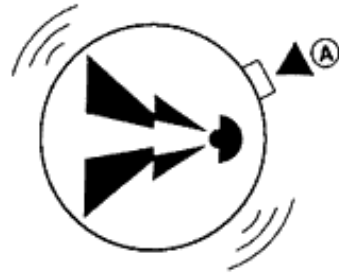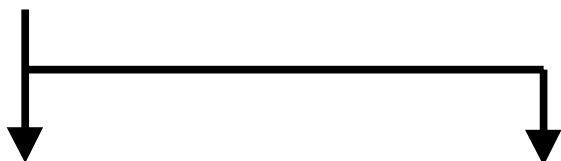
Setting Procedures

<hour/minute settings>

Clockwise

<hour/minute settings>

Counterclockwise

<Quick-set alarm auto ON function>

Alarm ON: second hand stops in the '0' position
**Alarm OFF:** Hr./min./sec./24-hour hands display the current time
❖ Press and hold down either the (B) or (C) button for the quick-advance setting feature
❖ Quick-advance function: Hand movement is about twice as fast after the first revolution (clockwise movement only)
❖ The hour/minute/24-hour hands are synchronized

After adjusting the hour and minutes, the second hand returns to the '0' position and stops. **The alarm is now ON.**
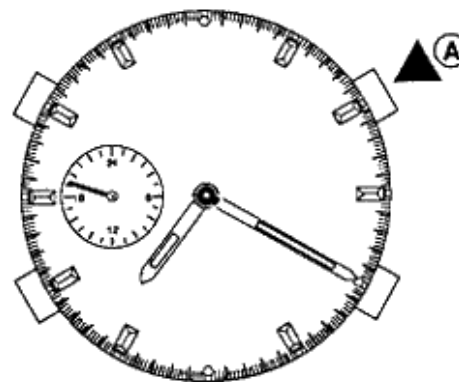
<Alarm quick-set is complete>
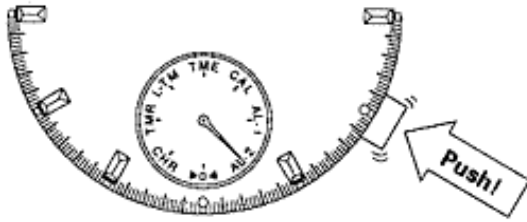
(20:10)

<Canceling the quick-set alarm>
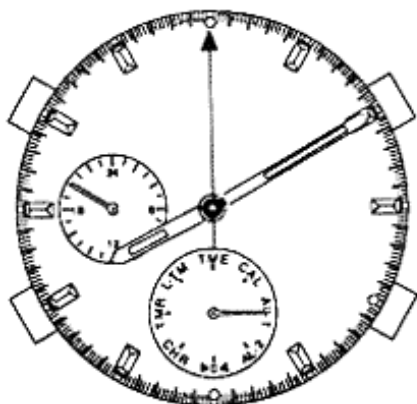
• Press the (A) button after setting the quick-set alarm and the hour/minute/scond/24-hour hands will display the current time. **The quick-set alarm will be turned OFF>**
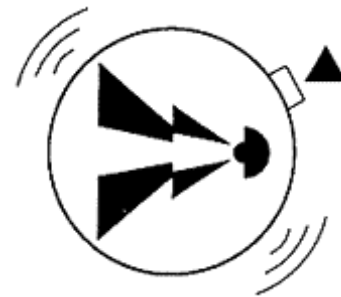
5. SETTING THE DAILY ALARM

Setting the alarm to ring every day at 15:00 (3:00 pm)

- **Daily Alarm Function**
  After the alarm time has been set once, the alarm will sound everyday at the same time for 15 seconds

- **Alarm Sound Switch**
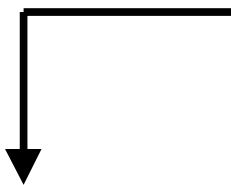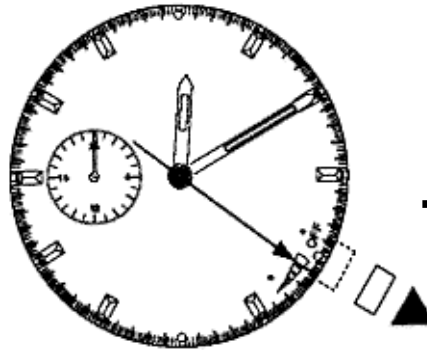 The switch allows you to choose between 2 levels of sound (loud or soft) for the alarm

<(M) button normal position>   **<Sound monitor>**

Setting Procedures

<(M) button pulled out to 1st step position>

<Hour/Minute setting>   **<Hour/Minute setting>**

clockwise   counterclockwise

(15:00)   (15:00)
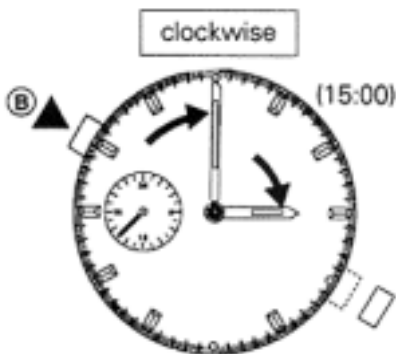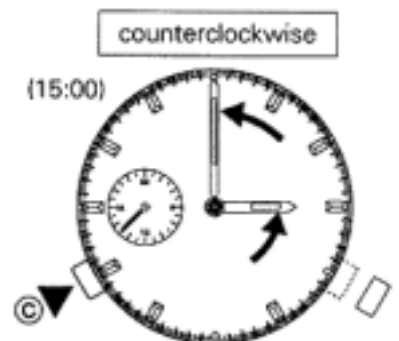
- ❖ Press and hold down either the (B) or (C) button to use the quick-advance feature
- ❖ Quick-advance function: Hour and minute hand movement is about twice as fast after the first revolution (clockwise movement only)
- ❖ Use the 24-hour system to ensure morning and afternoon, (am/pm), are set correctly.

Daily alarm auto ON
Daily alarm sound selector
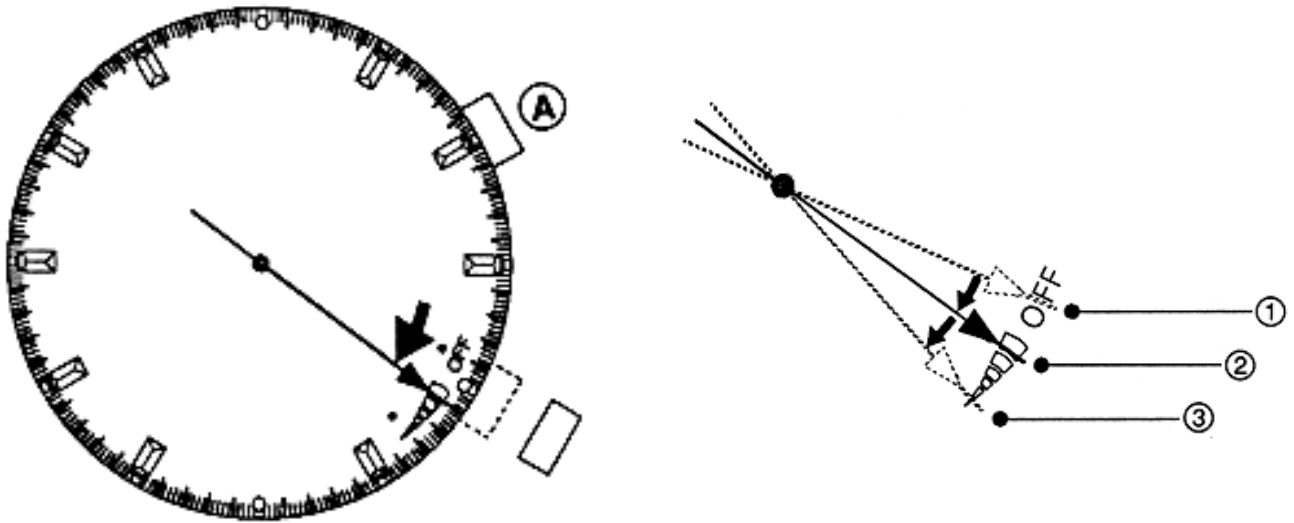
- Pull the (M button out to the first step position (one click out). The second hand moves to position (2) and the alarm is turned ON.
- Press the (A) button to switch between a softer or louder sound level.)the level of the alarm sound in position (3) is softer than position (2)) or to switch alarm OFF (position 1)

<Push the (M) button in to the normal position>
Alarm setting is complete
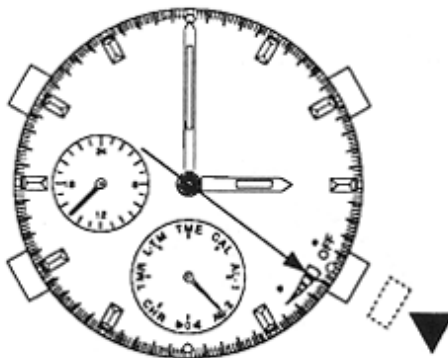
6. STOPWATCH OPERATION (CHR)

- Max. stopwatch range: 60 minutes in 1/20 second intervals
  The auxiliary hand displays in 1/20 second increments
- Starting from the stopwatch reset state, the auxiliary hand advances for 1 minute.
  The number of elapsed minutes exceeding 1 minute are displayed.
- The hour/minute/24-hour hands display the current time in the stopwatch mode.
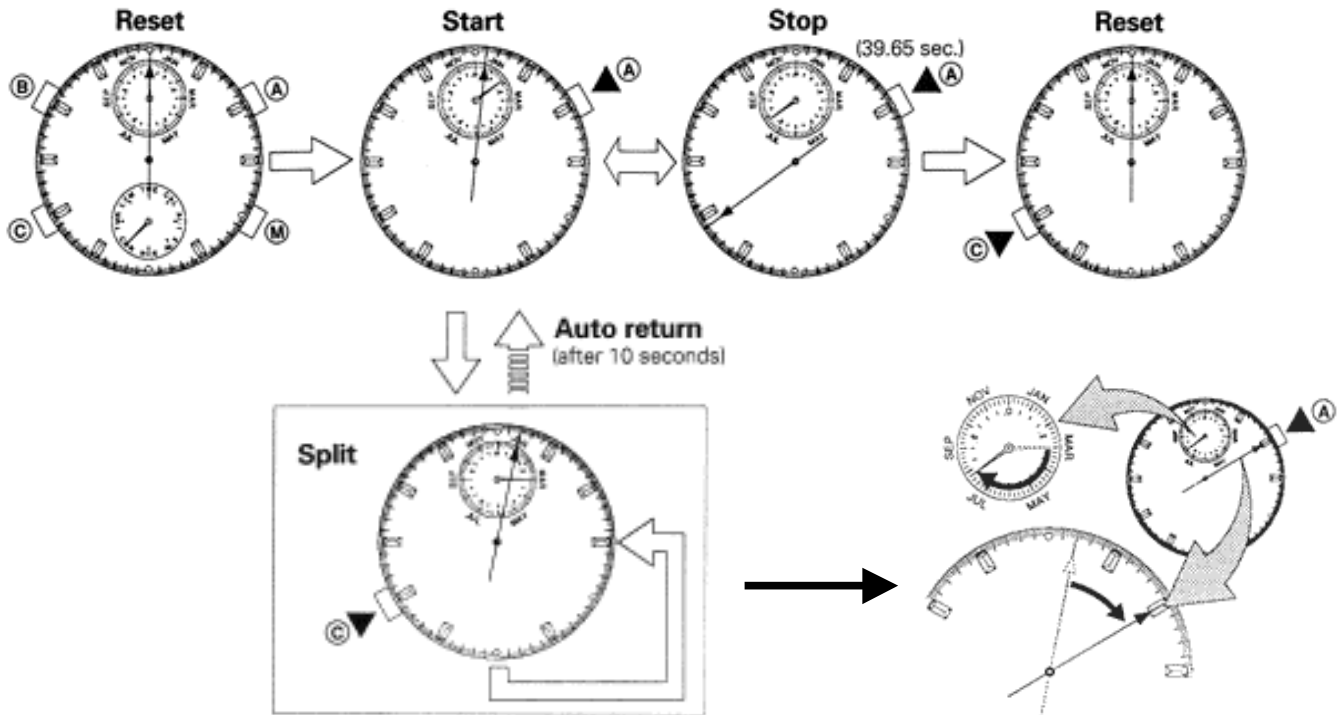
1/20 second Display (effective only timings exceeding 1 minute)
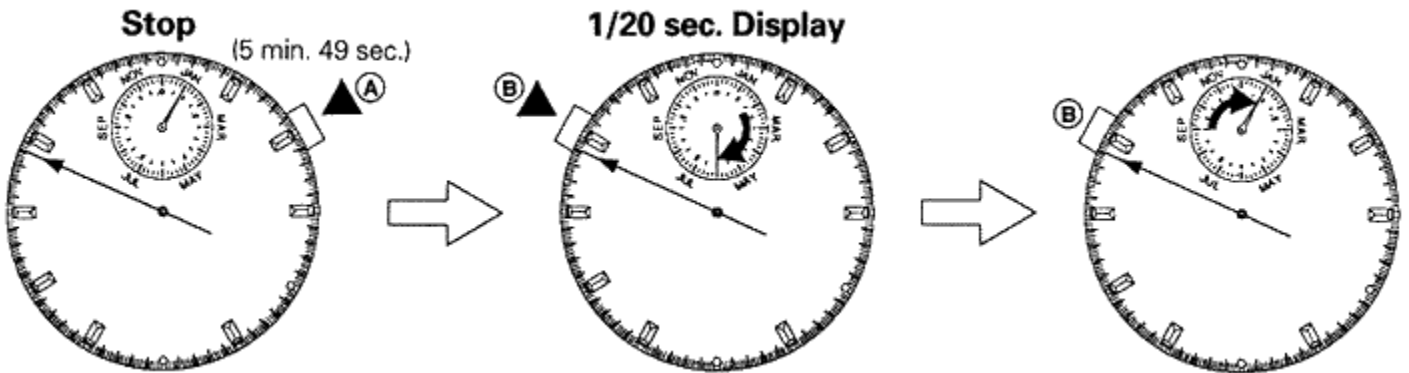
- 1/20 second displays only while the (B) button is held down

- Release the (B) button to display the number of elapsed minutes with the auxiliary hand.

7. SETTING THE TIME

- **Max. timer range** 60 minutes in 1 minute increments
- **Fly-back function:** This feature allows you to press the (C) button after the timer countdown has started to return to the beginning of the timer setting and automatically start the countdown over again
- The hour/minute.24-hour hands display the current set time in the timer mode.

Setting the timer to 10 minutes
<Timer setting procedures>
 (M) button normal position

- Timer settings are made with the auxiliary hand
- Auxiliary hand (timer minutes)
- Second hand (timer seconds)

Countdown proceeds at the same time

Start

Flyback

Stop

Time up!

(5 seconds)
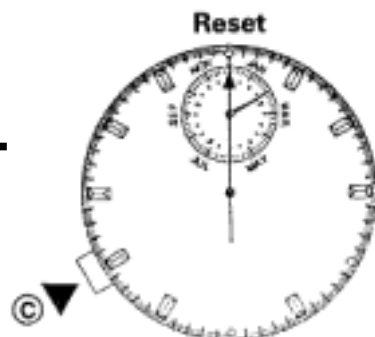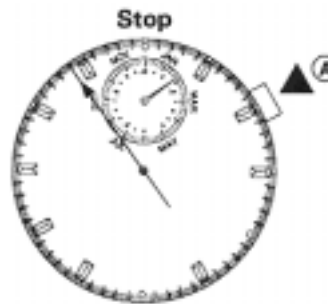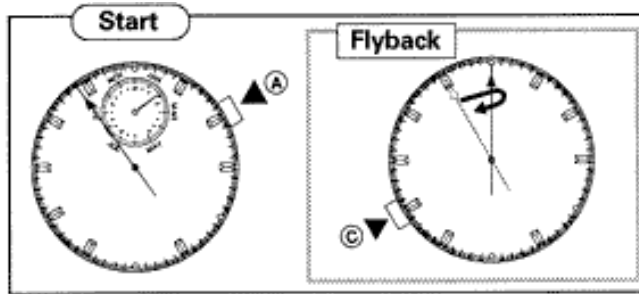
Reset

(returns to timer start position)

❖ A confirmation beep sounds with each start, stop, reset and fly-back operation
❖ Press and hold down the (B) button to use the quick-advance feature while setting the timer

8. SETTING THE LOCAL TIME (L-TME)
Changing the local time from 10:20 to 15:20 (3:20 p.m.)
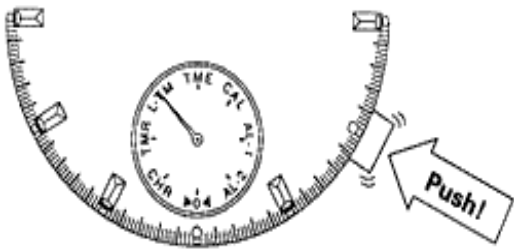
Local time is the time in the current location. On trips, the dual time feature can be used by setting the watch to the local time.

Push!

Setting Procedures

<(M) button normal position>

(10:20)

<(M) button: 1st step position>

<Hour/minute setting>

clockwise
(15:20)

<Hour/minute setting>

counterclockwise
(15:20)
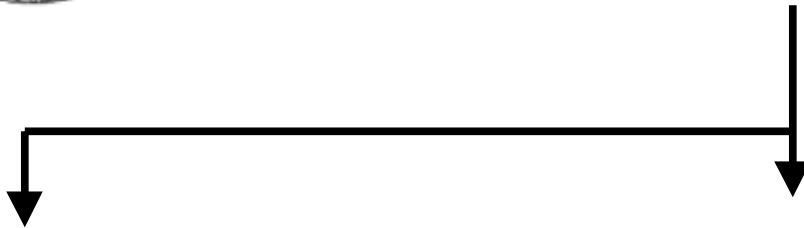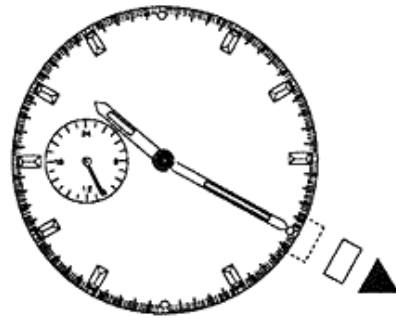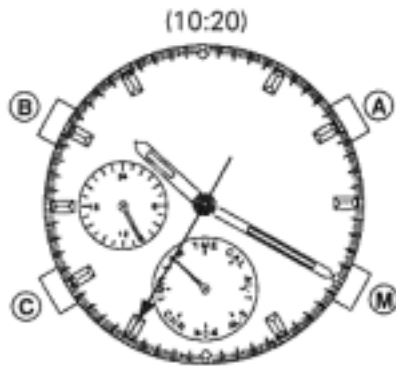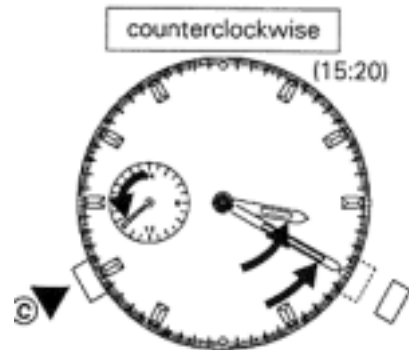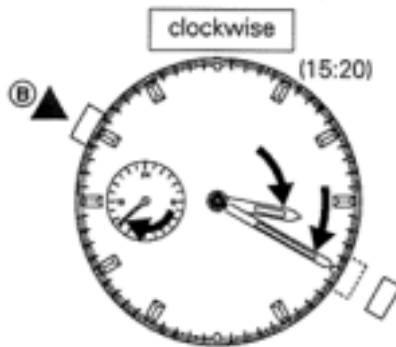
- Press and hold down either the (B) or (C) button to use the quick-advance feature
- Hour/minute/24-hour hands are synchronized
- Minute hand is adjustable in 30-minute increments only. Second hand is not adjustable.

<Push the (M) button in to the normal position>
Local time setting is complete at 15:20 (3:20 p.m.)
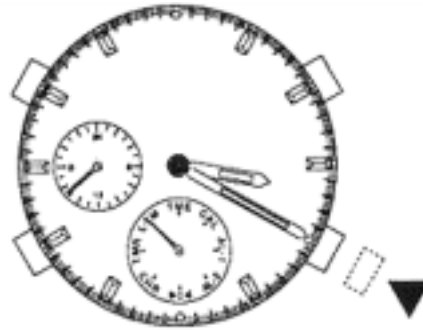
9. MONITORING IN THE NORMAL TIME MODE
a. Calendar Monitor

Auto return to nomal time display (after 10 seconds)

Current time

Calendar monitor
(Sept. 9)

• Push the Ⓐ or Ⓒ button to cancel the calendar monitor.
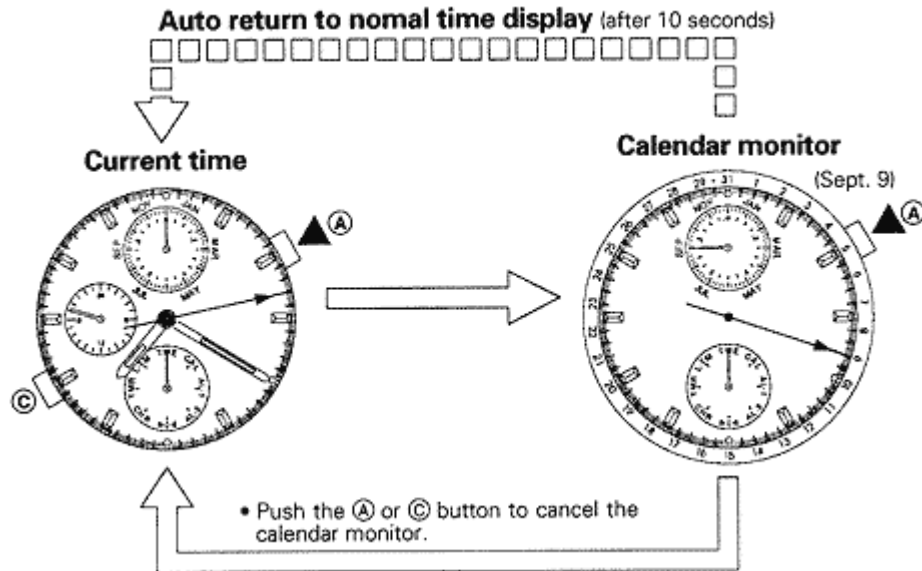
b. Daily Alarm (AL-2) Set Monitor

Auto return to normal time display (after 10 seconds)

Current time

Daily Alarm settings monitor
(15:00; alarm ON)

• Push the Ⓑ or Ⓒ button to cancel monitring.
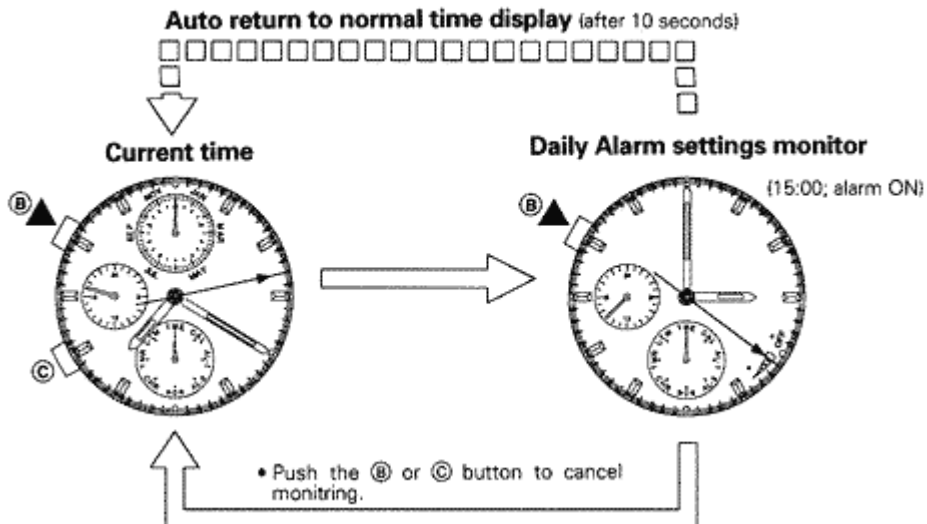
❖ Press the (B) button while monitoring the calendar to monitor the alarm (AL-2) settings.
❖ Press the (A) button while monitoring the daily alarm (AL-2) to monitor the calendar settings.
❖ Both of the above monitor modes automatically return to the current time after 10 seconds **(auto-return).**

10. ALL RESET FUNCTION

The all reset function is used following a battery replacement or other abnormal watch movement.
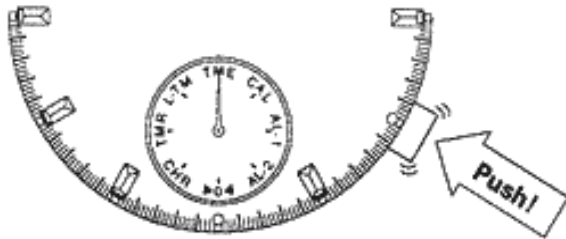
The **ALL reset function** can be activated in any mode

All Reset Procedure
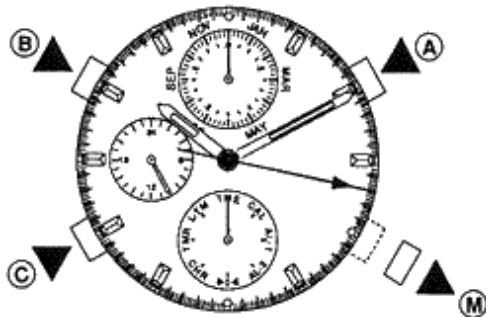
1. Pull the (M) button out to the first step position.
2. Push and hold down the (A), (B) and (C) button simultaneously for more than 2 seconds.
3. Release all three buttons and a confirmation tone (beep) will sound and the minute, second, auxiliary hands will move slightly. Push the (M) button in to the normal position after completing the above procedures.
4. **Set all hands (except mode hand) to '0'. (see section BEFORE USE: "Zero Positioning setting"**, and then set the time.

11. CALCULATOR OPERATION

The following points should be considered when using the calculator function
Use the calculator as a standard measurement device
The calculators scale cannot be used for unit measurement.

Calculator

1) Elapsed Time Calculations

Example: How long will it take a car traveling 80kph to go 400 kilometers?

Calculation: Align 80 on the outer scale with the Speed Index (/\) mark on the inner scale. The position on the outer scale at 40 will now be lined up with 5:00 (5 hours) on the inner scale.

2) Speed Calculations

Example: If a car goes 180km in 2 hours 30 minutes, how fast was the car traveling?

Calculation: Align 18 on the outer scale with 2:30on the inner scale. TheS peed index(/\) mark on the inner scale will line up with 72 (km).

3) Distance Calculations

Example: How far will a car go if it travels at 60kph for 1 hour 20 minutes?

Calculation: Align 60 on the outer scale with the Speed Index (/\) mark on the inner scale. The position on the inner scale at 1:20 will now be lined up with 80 (km) on the outer scale.

4) Fuel consumption Rate Calculations
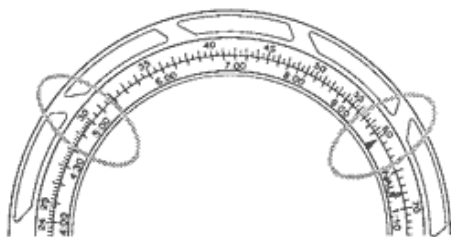
Example: If a car travels 5 hours and uses 30 liters of fuel, how many liters of fuel per hour does the car use?

Calculation: Align 30 on the outer scale with 5:00 on the inner scale. The Speed Index(/\) mark will now be lined up with 60 (6 liters/hr) on the outer scale.

5) Total Fuel Consumption Calculations
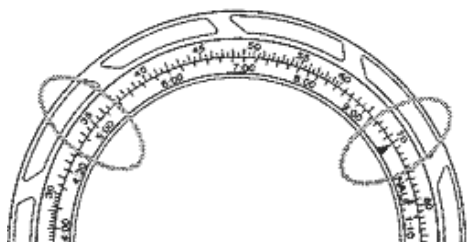
Example: How many liters of fuel does the car need to travel 5 hours if a car burns 7 liters per hour?

Calculation: Align 70 on the outer scale with the Speed Index (/\) mark on the inner scale. The position on the inner scale at 5:00 will now be lined up with 35 (liters) on the outer scale.

6) Travel Time Calculations
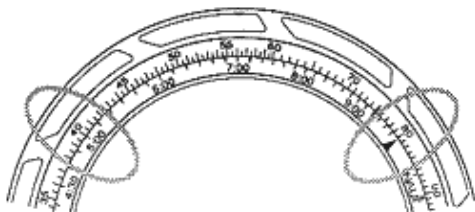
Example: If a car has 40 liters of fuel and burns it at a rate of 8 liters per hour, how many hours will the car be able to travel?

Calculation: Align 80 on the outer scale with the Speed Index (/\) mark on the inner scale. The position on the outer scale at 4O will now be lined up with 5:00 (5 hours) on the inner scale.

7) Conversion Calculation

Kilometer, mile and knot conversion calculations are possible.

Example: One mile equals how many kilometers?

Calculation: Align 1 On the outer scale with the mile mark (/\) (or STAT mark) on the inner scale. The Km mark (/\ will point to 1.6 km on the outer scale. At the same time, the Knot mark (/\ (or NAUT mark (/\) = nautical mile) will point to approx. 86.6 knots (0.886 nautical miles) on the outer scale.
The conversion becomes 1 mile = 1.6 km = 0.86 knots.

5. SPECIFICATIONS

Movement Caliber Number	6850
Type	Analog Quartz Multi Function, Multi Hand
Accuracy	+/- 20 sec. At normal operating temp. (5°c –35°c)

Additional Functions

- Hand type calendar (month, date, no need of adjustment at end of month)

- Alarm 1 (Quick Set alarm)
  maximum setting range : up to 23 hours 59 minutes by 1 minute after the next minute at current time.
- Alarm 2 (Daily Alarm)

- Stop Watch
  Minute, second, 1/20 second (Maximum measuring range: 60 minutes)
  Measurement of split time

- Timer
  Maximum setting range: 60 minutes by 1 minute increments

- Local Time
  Hour and minute (set by 30 minutes. Seconds cannot be adjusted.)

- Other Functions
  Calendar Monitor
  Daily Alarm Set monitor
  Zero Second Return Function

Power Cell	Silver Oxide Battery (SR927W)
Life of Power Cell	Average life is approximately 2 years. Note, that age of watch as well as alarm, timer and chronograph use affect the life of the battery.

PRECAUTIONS ABOUT CARE AND HANDLING OF WATCHES

TEMPERATURE CARE
Avoid temperature extremes. Exposing your watch to high temperatures, such as placing it on the dashboard of a vehicle or use in a hot tub, may cause the watch to malfunction, shorten battery life or damage certain components. Leaving the watch in extreme cold temperatures may cause irregular timekeeping until the watch returns to normal operating temperature.

SHOCK-RESISTANT
The watch may be worn while playing golf or other activities, but avoid severe shocks such as dropping it on a hard surface.

MAGNETIC-RESISTANT
No problem should occur from using the watch around ordinary household electric appliances such as TV sets or stereos. Keep away from magnets.

CHEMICAL/GAS RESISTANT
Do not expose the watch to chemicals or gases for long periods.

WATCH CLEANING
Stains, waterspots and accumulated dirt on the case, crystal or band should be removed with a soft cloth to prevent damage and premature wear.

HANDLING OF WATER-RESISTANT WATCHES
Although water-resistant watches are warranted, steps should be taken to avoid damage that may result from accidents or mishandling:

■ Do not operate the crown or push-button in the water or while the watch is wet. Tighten screw lock crown completely.

■ Should the watch become immersed in water, dry it off right away. If the watch comes in contact with salt water, be sure to rinse it thoroughly in warm fresh water to remove any trace of salt.

■ If a watch is wet from cleaning or by accident, never store it in a closed container. It should be dried immediately or taken to a watchmaker or jeweler if moisture is inside the case to prevent damage from rust.

■ Vital components necessary to resist the entrance of moisture deteriorate with time and use. Gaskets, crowns and other materials should be replaced every year or two to ensure that water resistant quality remains at factory specifications.

CARE FOR METAL BRACELETS
To extend the life and maintain the good appearance of the metal watch bracelet, the following recommendations are given:

■ Be aware that since the watch and bracelet is worn next to the skin, it collects dust and perspiration and becomes soiled if not cleaned regularly. This is particularly true of the inner parts of the links or mesh of the bracelet.

■ Soil and rust, when present in a bracelet, are dissolved by perspiration and can cause staining of cuffs and irritation of the skin in some instances.

■ Heavy perspiration should be wiped off the watch and bracelet with a soft dry cloth. The bracelet should be cleaned occasionally by using an old toothbrush and warm soapy water after which the soap is thoroughly rinsed with clear water and the bracelet dried completely. The foregoing manner of cleaning should not be done if the watch is not water-resistant but should instead be done by your jeweler.

CARE FOR STRAPS
LEATHER
■ Heavy perspiration, if not removed from a leather strap, can wash out the natural oils and cause the leather to become dry and deteriorate. Any moisture should be blotted with a soft dry cloth or paper towel and the strap allowed to dry naturally.

■ Salt residue and soil can be removed from the leather by cleaning with a dampened soft cloth and mild soap or saddle soap.

■ Occasionally, the inside surface of the strap should be cleaned by using a soft cloth dampened with alcohol.

■ The strap should always be worn a little loosely (one finger space between wrist and strap) to allow air to circulate thus causing any moisture to evaporate.

RUBBER
■ Rubber straps should be washed frequently with mild soap and warm water using a soft brush.

■ Thorough cleaning, using the same method, should especially be done after use in salt water.

■ Solvents, oils, perspiration, tanning lotion and salt can cause rubber to deteriorate if not removed.

Marking on the Dial	Marking on the Caseback	Face washing, splashes, sweat, raindrops, etc.	Swimming	Skin diving (diving without air tanks)	Scuba diving (diving with air tanks)	Water-resistant characteristics
NONE	NONE	NO	NO	NO	NO	Non water-resistant watch and must be kept away from water.
NONE	WATER RESIST	OK	NO	NO	NO	An ordinary water-resistant watch and can withstand splashes, sweat, rain-drops and etc. for daily life use.
WR100M WR10bar WR150M	WATER RESIST	OK	OK	OK	NO	For frequent use with water. It is not specially designed for scuba diving.
WR200M	WATER RESIST	OK	OK	OK	OK	For skin and scuba diving. Usable up to the respective indicated depths.

See instruction book for further information

Water Resistance

The water-resistant quality of our timepieces is offered in varying degrees depending on the model. This ranges from non-water resistant models to those suitable for SCUBA diving. Water resistance of our timepieces is measured in BAR or Barometric Pressure. Each BAR of pressure is equal to 14.5 pounds per square inch of pressure.

Water resistance is measured when the watch is at a static, or motionless state. As the watch is moved in water, such as from the motion of swimming, pressure is added from velocity. While you may be swimming in a pool at surface level, the watch may be experiencing forces equal to that of 100 feet of water pressure (3 BAR). Diving into a pool can cause forces on the watch to exceed those pressures. As such, you should always allow a margin of safety when exposing your watch to moisture. Never "push the limit" of the degree of water resistance of your timepiece.

A primary factor to keep in mind about water resistance is that periodic maintenance is needed to maintain original factory specifications for water resistance. When a watch is new, it meets specifications for water resistance as indicated on the case back. However, as the watch ages, the gaskets that seal the watch become dry and brittle, diminishing its water resistant quality. Exposure to environments such as chlorinated pools, salt water or soaps from showering can accelerate drying of the gaskets. We recommend that the gaskets be changed at least every 18 to 24 months to maintain the water resistant quality of your timepiece. If the watch is frequently exposed to chlorinated pools, soaps salt water, etc., we recommend that the gaskets be changed on a yearly basis.

From time to time, you may notice condensation that appears then goes away after a short period of time. This is a normal occurrence and happens primarily from sudden temperature changes. When there are sudden temperature changes such as entering a cool building from the hot out of doors, or jumping into pool on a hot day the watch may fog. Conversely, if you go to the cold outdoors from a warm building, fogging may occur. As long as the fogging clears in a short period of time, there is no need for concern.

Be sure the crown is completely pushed in prior to any contact with moisture. If your model is equipped with a screw down crown, be sure it is properly seated against the case. Do not operate the crown or any push button when the watch is wet as this may allow the entrance of moisture. . If at anytime, you notice moisture in your timepiece that does not clear in a short period of time, you should send your timepiece as soon as possible to the nearest Authorized Service Center for inspection.

You can determine the level of water resistance of our watches from the markings on your case-back. Additionally, models that are water resistant to 100 or 200 meters have an indication on the dial as well. The case-backs and dials are normally marked as follows:

The case back has no indication of water resistance
This indicates the watch is a non water-resistant model and is not designed for contact with moisture at all. Caution should be exercised to avoid any contact with moisture, such as when washing your hands or from a rainstorm.

"Water Resist"
This watch is designed to withstand water from accidental splashing, such as from washing your hands or rain. Any submersion into water may result in the entrance of moisture.

"Water Resist 10BAR" or "W.R. 10BAR", Dial marked "WR100"
This watch is designed to withstand water pressure up to 333 feet. This includes water exposure from accidental splashing and rain, but also from showering, swimming in a pool and snorkeling. Be sure to rinse the watch with fresh water after exposure to a chlorinated pool, salt water, soaps, etc. After rinsing with fresh water, be sure to dry the exterior with a soft cloth.

"Water Resist 20BAR" or "W.R. 20BAR", Dial marked "WR200"
This watch is designed to withstand water pressure up to 666 feet. This includes all exposure to water up to and including recreational SCUBA diving. Be sure to rinse the watch with fresh water after exposure to a chlorinated pool, salt water, soaps, etc. After rinsing with fresh water, be sure to dry the exterior with a soft cloth.

Special Note about Jacuzzis and Hot Tubs
The various components used in the manufacture and assembly of your watch expand at various rates. This results in a loss of the sealing capabilities of gaskets, which may allow moisture to enter. In addition, heat from these sources can cause deformation of certain materials leading to mechanical failures. For these reasons, you should remove your watch before entering a hot tub or Jacuzzi.