# Instruction of Watch Movement



# Cal. YM87A

# **CHRONOGRAPH**

- Yacht timer

# ◆ Display



# ◆ Crown and button operation

	Mode	Crown position		
		N : normal	1 : 1st click	2 : 2nd click
Crown		Free	Turn clockwise for date change	Time setting
Button A	Time	Single-time alarm stop Sound demonstration (more than 2 seconds)	Mode change	[*1]
	Timer	Start Stop	Mode change	
	Yacht timer	Start Stop Restart	[5] →[6] →[10] Mode change	
	Chrono graph	Start Stop	Mode change	
	Alarm	Regular alarm stop Sound demonstration (more than 2 seconds)	Mode change	
Button B	Time	Single-time alarm time setting Single-time alarm stop	Free	Time setting for small watch. [*1]
	Timer	Reset	Timer time setting (1~10 minutes)	
	Yacht timer	Reset 1 minute adjustment Split Split release	Free	
	Chrono graph	Reset Split Split release	Free	
	Alarm	Regular alarm stop	Regular alarm time setting	

The order of mode change : [TIME]  $\rightarrow$  [TMR]  $\rightarrow$  [Yacht 5]  $\rightarrow$ [Yacht 6]  $\rightarrow$ [Yacht 10]  $\rightarrow$  [CHR]  $\rightarrow$  [ALM]

#### [\*1] Small watch hand, center hand and mode hand position adjustment

If the small watch hands are not adjusted to the current time or the center hand and the mode hand are not in the "0" position, follow the procedures below to set them.

- (1) Pull the crown out to the 2nd click position.
  - When the stopwatch or timer or yacht timer is measuring, if the crown is pulled out to the 2nd click position, it will be automatically reset.
  - If the alarm has been set and the crown is pulled out to the 2nd click position, the small watch hands will turn to indicate the current time.
- (2) Set the small watch hands.

Press the button A for 5 seconds.

- The small watch hands turns a full round and can now be set to the correct position.

Press the button B repeatedly to set it to the "0" position.

(3) Set the center hand.

Press the button A.

- The center hand turns a full round and can now be set to the correct position.

Press the button B repeatedly to set it to the "0" position.

(4) Set the mode hand.

Press the button A.

- The mode hand turns a full round and can now be set to the correct position.

Press the button B repeatedly to set it to the "0" position.

Press the button A for 2 seconds here will allow you to resume the procedure again as indicated by the arrow if necessary.

(5) Push the crown back to the normal position.

Tips: When setting the hands, the hand moves quickly if the button B is kept pressed.

#### ◆ How to set time

- (1) Pull the crown out to the 2nd click position when the second hand is at the 12 o'clock position.
  - When the stopwatch or timer or yacht timer is measuring, if the crown is pulled out to the 2nd click position, it will automatically reset the stopwatch hands to "0" position.
  - If the alarm has been set and the crown is pulled out to the 2nd click position, the small watch hands will turn to indicate the current time.
- (2) Turn the crown to set the hour and minute hands.

Take a.m./p.m. into consideration when setting the hour and minute hands to the desired time.

- The hands be set to the time a few minutes ahead of the current time, taking into consideration the time required to set the small watch hands.
- When setting the minute hand, advance it 4 to 5 minutes ahead of the desired time and then turn it back to the exact time.
- (3) Push the crown back to the normal position.

#### ◆ How to set date

- (1) Pull the crown out to the 1st click position.
- (2) Turn the crown to set the date.
  - Do not set the date between 9:00 p.m. and 1:00 a.m..
- (3) Push the crown back to the normal position.

Tips: When the date change during daytime, it happens when a.m./p.m. is wrongly set. Advance the hour hand by 12 hours.

# How to set mode indicator

- (1) Pull the crown out to the 1st click position.
- (2) Press the button A to set the mode indicator point at your desired mode.

  With each press of the button A, the mode indicator turns in the following order to show the selected mode.

$$[TIME] \rightarrow [TMR] \rightarrow [Yacht 5] \rightarrow [Yacht 6] \rightarrow [Yacht 10] \rightarrow [CHR] \rightarrow [ALM]$$

(3) Push the crown back to the normal position.

# How to use single-time alarm function



- · The single-time alarm can be used in the time mode.
- Indicator of the small watch hour and the small watch minute hands.
  - Single-time alarm OFF : Current time
  - Single-time alarm ON : Single-time alarm time
- The single-time alarm can be set to ring only once at a designated time within the coming 12 hours.
- The alarm time can be set in one minute increments.
- When the mode is changed from time mode, the single-time alarm is reset.

# ■ How to set the single-time alarm time

Press the button B repeatedly to set the small watch hands to the desired alarm time.

- The small watch hands move quickly when the button B is kept pressed.

They stop when the hands reach to the current time.

Release and press the button B, the small watch hands will start moving again.

#### ■ How to stop the alarm

At the designated time the alarm rings for 20 seconds, and it is automatically disengaged as it stops. To stop it manually, press any button.

■ How to cancel the alarm time you have set

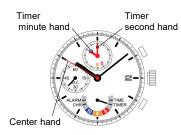
Press the button B until the small watch hands stop and indicate the current time. Change the time mode to another mode.

■ How to preview the sound demonstration

Press the button A for longer than 2 seconds.

- The alarm sound can be heard while the button A is kept pressed.

#### ♦ How to use countdown timer function

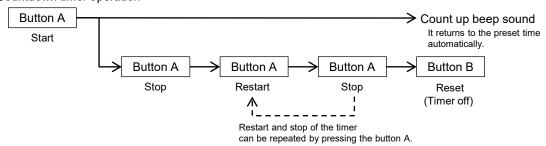


- The countdown timer can be set 10 minutes with beep sound.
- · It is necessary to set the time before use.
- The timer and the center hands turns counterclockwise.

#### ■ How to set the countdown timer

- (1) Pull the crown out to the 1st click position.
- (2) Press the button A to set the timer mode indicator.
- (3) Press the button B for timer setting.
  - The timer can be set to a maximum of 10 minutes in 1 minute increments.
  - The timer hand will back to "1" minute after "10" minutes
- (4) Push the crown back to the normal position.

# ■ Countdown timer operation

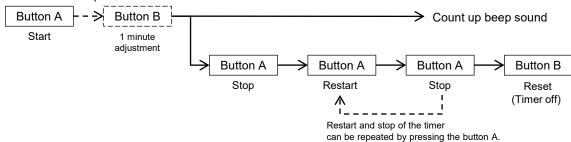


# ◆ How to use yacht timer function



- The yacht timer can be set 3 pre-set countdown time with beep sound.
- · The countdown time can be selected as a mode.
  - 5 minutes
  - 6 minutes - 10 minutes
- · When the timer counting, the timer and the center hands turns counterclockwise.
- · After finishing countdown timer, the chronograph starts automatically.
- When the timer counting, another pre-set time can't be selected.
- How to set the yacht timer
  - (1) Pull the crown out to the 1st click position.
  - (2) Press the button A to set the yacht timer mode indicator.
    - The order of mode change : [Yacht 5] →[Yacht 6] →[Yacht 10]
  - (3) Push the crown back to the normal position.

#### ■ Countdown timer operation



# How to use stopwatch function

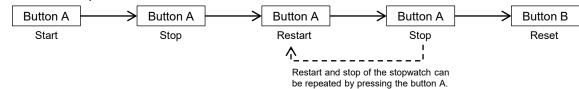


- The stopwatch can measure up to 59'59"8 in 1/5 second increments.
- When the measurement reaches 12 hours, the stopwatch automatically stops counting.

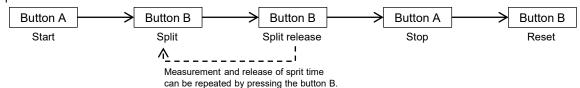
#### Standard measurement



Accumulated elapsed time measurement



■ Split time measurement



#### ■ Measurement of two competitors



- The stopwatch 1/5 second hand is capable of timing 12 hours. (60 seconds x 720 times)
- The stopwatch minute hand is capable of timing 12 hours. (60 minutes x 12 times)
- Before using the stopwatch, be sure to check that the crown is set at the normal position and that the stopwatch hands are reset to the "0" position.
  - If the stopwatch hands do not return to the "0" position when the stopwatch is reset to "0", follow the procedure in "Small watch hand, center hand and mode hand position adjustment".

# ♦ How to use regular alarm function



- · The regular alarm can be set to sound at a designated time everyday.
- · The regular alarm can be set to 12 hours.
- · The alarm time can be set in one minute increments.
- The beep sound of regular alarm is available only at the alarm mode.

#### ■ How to set the alarm

- (1) Pull the crown out to the 1st click position.
- (2) Press the button A to set the alarm mode indicator.
- (3) Press the button B repeatedly to set the alarm hands to the desired alarm time.
  - The alarm hands move quickly when the button B is kept pressed.
- (4) Push the crown back to the normal position.

#### ■ How to stop the alarm

At the designated time the alarm rings for 20 seconds, and it is automatically disengaged as it stops. To stop it manually, press any button.

■ How to cancel the alarm time

Change the mode except the alarm mode.

How to preview the sound demonstration

Press the button A for longer than 2 seconds.

- The alarm sound can be heard while the button A is kept pressed.

# Power depletion warning function

When the battery nears its end, the small second hand moves at two-second intervals instead of the normal one-second intervals. In that case, have the battery replaced with a new one as soon as possible.

While the small second hand is moving at two-second intervals, the alarm will not ring even if it is engaged.
 This is not a malfunction.

The watch remains accurate while the small second hand is moving at two second intervals.

#### System reset

When an abnormal display appears, reset the built-in integrated circuit.

- (1) Pull the crown out to the 2nd click position.
- (2) Press the buttons A and B at the same time for longer than 2 seconds.
- (3) Push the crown back to the normal position.