

Technical Letter

Letter #1 of 2

BOOK NO. 514M • Perpetual Calendar • MODEL 6U50

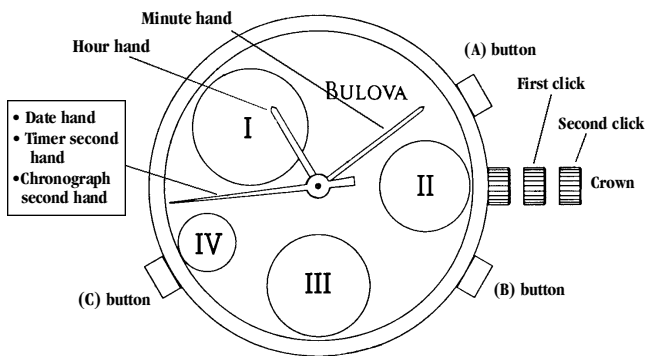
Your watch has the following functions:

- **Hand-type calendar.** –Year (with recognition of leap year),month,date, day. Can be set quickly.No need of adjustment at months end.
- **Timer (I):** – Minutes and seconds (can be set up to 60 minutes in units of 1 minute).
- **Timer (II): with automatic chronograph.** – Minutes and seconds (can be set up to 60 minutes in units of 1 minute).Chronograph starts when timer finishes.
- **Chronograph.** –Hour,minute,second,and 1/10 second (can measure up to 4 hours. Measurement is repeated continuously after 4 hours unless stopped).Measurement of split time. Storage of split times (up to five).
- **Other functions.** – Warning for incomplete initial setting.

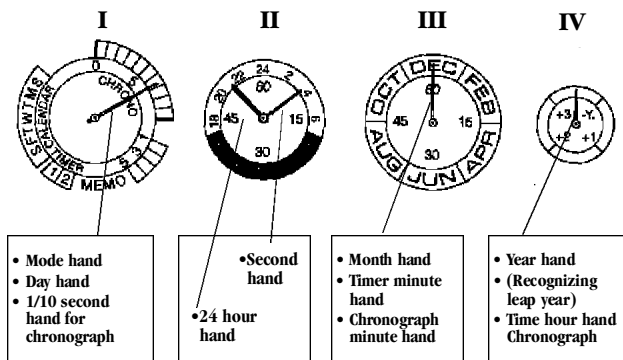
Note: When storing watch do not pull the crown out to the first or second click position. Leave the crown in the running or “in” position.

A. YOU WILL FIND IT CONVENIENT TO REFER TO THE BELOW ENLARGED VIEW DURING THE READING OF THE WATCH'S OPERATING INSTRUCTIONS.

Overall view of all functions



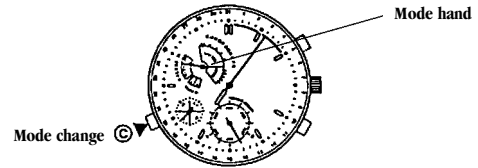
Enlarged view of sub-dials



B. BEFORE USING THIS WATCH.

Before using this watch be sure to confirm that all the functions are set up properly by using the following procedure:

1. Confirmation of calendar mode

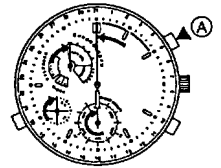


Confirm the mode hand is at the calendar mode.

- If it is not at the calendar mode, press the (C) button one or more times to set it to the calendar.

2. Initial monitoring

If the (A) button is pressed and held for 1 second or more, all calendar hands move quickly and stop for about 10 seconds. If the hands are positioned as follows, the watch is correct.



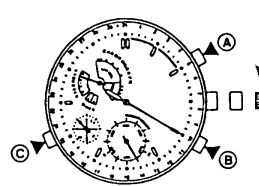
- Each calendar hand:Year,month,date, and day hands are at the 12 o'clock position (top). If any hand is not at the 12 o'clock position, set it to the correct position according to the procedure shown below. (section C)

Note: If this watch receives a strong shock,its initial position may shift. In this case, check the hand position. If its initial position has shifted, correct it according to “Setting to Initial Position” in the next section “C.”

C. HOW TO SET WATCH TO INITIAL POSITIONS

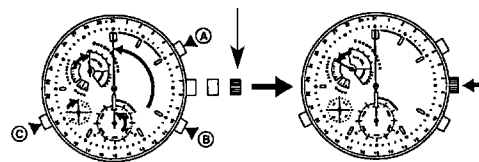
1. All reset operation

Pull the crown out to the second click (arrow)



- Press the (A), (B), and (C) buttons at the same time.
- About 2 seconds after the (A), (B), and (C) buttons are released, the date hand, day hand (mode hand), and month/year hands move, and all the functions of the watch are reset. At this time, a “beep” sounds for confirmation.

2. Setting calendar to initial position



Keep the crown at the second click (arrow at crown). For below, if any one of the (A), (B), and (C) buttons is pressed and held, the corresponding hand moves quickly.

- Press the (A) button to set the date hand to the 12 o'clock position.
- Press the (B) button to set the month/year hand to the 12 o'clock position.**
- Press the (C) button to set the day (mode) hand to the 12 o'clock position.
- Press the crown to the normal position and the day (mode) hand moves to the Sunday and initial calendar setting is completed.

After the power cell is replaced, be sure to perform the above initial setting. If it is not performed, the calendar, timer, and chronograph will not work correctly.

Please Note:

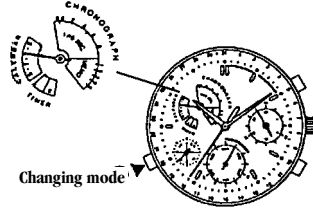
If the date hand moves quickly counterclockwise: This is caused by the initial setting incompleteness. In this case, perform initial setting again to set the watch to the initial position.

**Month and year hands are synchronized. Each revolution of the month hand advances year hand one year. For correct year see leap year chart in section “E.”

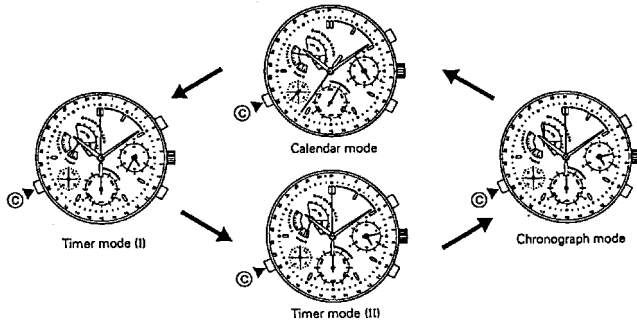
D. HOW TO CHANGE FUNCTIONS

This watch has the functions of calendar, timers I and II, and chronograph with split time memory. When using any one of these functions, press the (C) button and set the mode hand to the desired mode.

[Indication of mode]



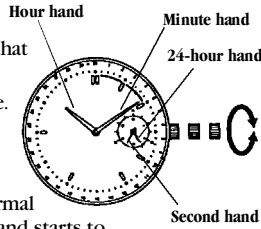
Keep the crown at the normal position. Every time the (C) button is pressed, the mode hand moves to the next mode position and a beep will sound for confirmation.



Note: Operation of Timers I and II and chronograph are cancelled when the mode is changed.

E. HOW TO SET TIME

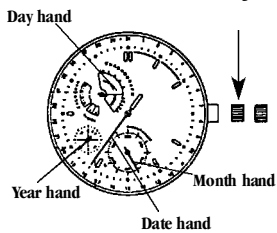
- Pull the crown to the second click (arrow) so that the second hand stops at 0 second position.
- Rotate the crown to right or left to set the time. The 24-hour hand is interlocked with the hour hand. Use the 24-hour time display to confirm AM and PM.
- After the time is set, press the crown to the normal position to a time signal etc., and the second hand starts to indicate correct time.



The calendar cannot be changed by setting the time.

F. HOW TO SET CALENDAR

1. Pull the crown to the first click (arrow)

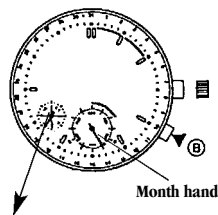


Leap year list

L.Y.	1996	L.Y.	2000	L.Y.	2004	L.Y.	2008
1	1997	1	2001	1	2005	1	2009
2	1998	2	2002	2	2006	2	2010
3	1999	3	2003	3	2007	3	2011

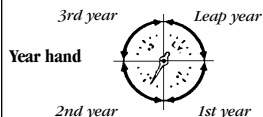
2. Set the year and month

- Confirm how many years have passed by this year since the last leap year in advance. (see chart above).
- Every time the (B) button is pressed, the month hand moves clockwise by one month. If it is pressed and held, the month hand moves quickly. The year hand is synchronized with the month hand.



Recognition of leap year

This hand indicates a leap year and how many years have passed after it.

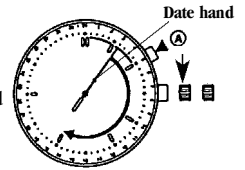


It takes four years for this hand to rotate by one turn.

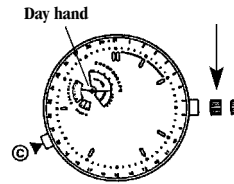
Example: If the year hand is at the +2 position, this year is the second after the last leap year.

3. How to set the date.

- Keep the crown at the first click (arrow).
- Every time the (A) button is pressed, the date hand moves clockwise by one day. If it is pressed and held, the date hand moves quickly.



4. How to set the day.



- Keep the crown at the first click (arrow).
- Every time the (C) button is pressed, the day hand moves counterclockwise by one day. The day hand moves quickly from Saturday to Sunday clockwise.

5. Push the crown to the normal position.

- Push the crown to the normal position. If it is kept at the first click, the calendar does not change.

Do not set the calendar between 11:00pm and 1:00am. Calendar setting during this period may not stay correct.

This watch does not need to be adjusted at each months and at each leap year.

Example:

- No need of adjustment at month end:
Ex. the date is automatically changed from Nov. 30 to Dec. 1
- No need of adjustment in leap year:
Ex. the date is automatically changed from Feb. 29 to Mar. 1 in leap year and from Feb. 28 to Mar. 1 in normal year.

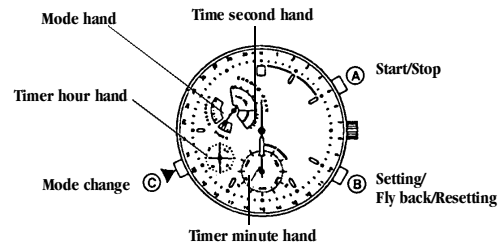
G. HOW TO USE TIMERS

This watch has two timer functions (I) and (II).

1. How to use timer (I)

- This timer can be set up to 60 minutes in one minute increments.
- Once a time is set, it is stored until another time is set.

a. Set the watch to timer mode (I)



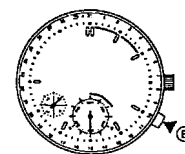
- Press the (C) button one or more times to set the mode hand to Timer (I) mode. At this time, the second hand of the timer moves quickly to the 0 second (top) position and stops there, and the minute and hour hands move quickly to the previous set values and stop there.

The 0 minute and 60 minutes of the timer are at the same position, but 0 minute and 60 minutes can be distinguished by the position of the hour hand of the timer.

Timer hour hands is at 0 hour: Timer minute hand is at 0 minute.

Timer hour hand is at 1 hour: Timer minute hand is at 60 minute.

b. Setting the timer



Please note that the figure shows that the timer is set to 60 minutes previously

- Every time the (B) button is pressed, the timer minute hand moves clockwise by 1 minute. If the button is pressed and held, the hand moves quickly. It does not move clockwise more than 60 minutes, however. After it reaches 60 minutes, it moves counterclockwise (It moves clockwise and counterclockwise between 0 minute and 60 minutes). The timer hour hand also moves clockwise and counterclockwise between 0 hour and 1 hour as the minute hand moves.

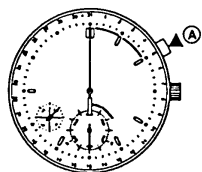
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c. Starting/stopping the timer



With the timer set, when (A) button is pressed, the timer starts (with a “beep”). At the same time the timer minute hand moves counterclockwise one minute, and the timer one second. Every time the timer second hand reaches 0 seconds the timer minute hands moves counterclockwise one minute. If the (A) button is pressed while the timer is operating, the timer stops. If the button is pressed again, the timer starts again.

d. Timer Finish

When Time reaches the full set time, the watch will “beep” for 10 seconds. When the beep stops the timer hand returns to the starting position.
The set time of the timer is maintained even if the watch is set to another mode, until another set time is entered.

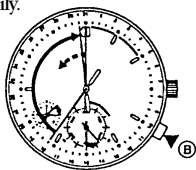
Fly-back function

If the timer is started by mistake, it can be started again easily.

If the (B) button is pressed while the timer is operating, a “beep” sound comes out for confirmation, and the timer will start again from the beginning.

[Resetting of timer]

If the (B) button is pressed while the timer is stopped, the timer returns to the set time.



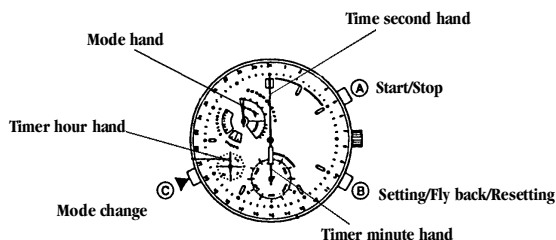
Caution

If the watch is changed to another mode while the timer (I) is operating (in running or stopping condition), the measurement is cancelled, but the “start” setting is kept.

2. How to use timer (II)

- Timer (II) can be set up to 60 minutes in units of 1 minute.
- When this time finishes, the watch automatically jumps to the chronograph mode, and the chronograph is started automatically (auto chronograph function).*
- A “beep” sounds on start and on stop.

a. Set the watch to timer mode (II)



- Press the (C) button one or more times to set the mode hand to Timer (II) mode. At this time, the second hand of the timer moves quickly to the 0 second (top) position and stops there, and the minute and hour hands move quickly to the previous set values and stop there.

b. Set/start/stop the timer

Timer (II) is set, started, and stopped by the same method as timer (I). See the explanation of timer (I).

c. Start up of timer and auto chronograph function

When the timer finishes, a “beep” sounds for 2 seconds and the timer hands are changed to the chronograph function.* Also, you will hear a warning “beep” at 10, 5, 3, and 1 minute, and 50, 40, 30, 20, 10, 5, 4, 3, 2, and 1 second before the timer ceases.

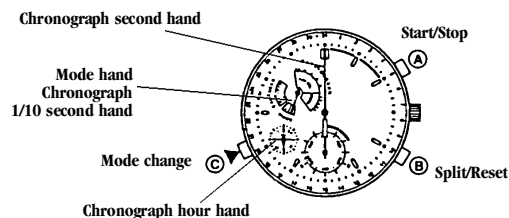
For the chronograph function, see the section of the chronograph in section “H”.

Note: If the watch is changed to another mode while the timer (II) is operating (in running or stopping condition), the measurement is cancelled, but the start setting is kept.

H. HOW TO USE CHRONOGRAPH

The chronograph measures time in the unit of 1/10 second up to 4 hours. After 4 hours, it repeats the measurement from 00.

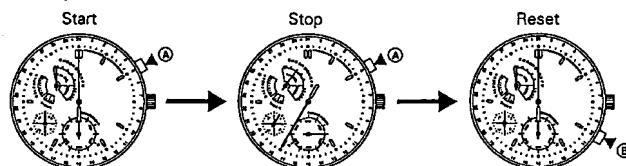
1. Set the watch to the chronograph mode



Press the (C) button one or more times to set the mode hand to the chronograph mode.

At this time, the 1/10 second (mode) hand, second hand, minute hand, and hour hand of the chronograph are reset to the “0” position.

2. Simple measurement



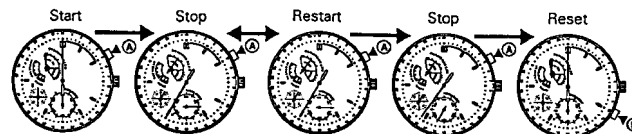
Press the (A) button once to start chronograph

If the (A) button is pressed again, the chronograph stops. **When the chronograph is stopped, the 1/10 second hand indicates the correct time.**

If the (B) button is pressed while the chronograph is stopped, all the chronograph hands are reset to “0”.

The 1/10 second hand moves for 1 minute after start, then it waits at 00 second position.

3. Use as integrating stop watch

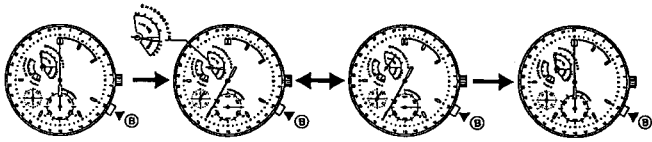


4. Measurement of split time

(up to 5 splits; or 5 finishing times for each chrono start)

- After the chronograph is started, split time is indicated by pressing (B) button.
- If button (B) is not pressed for 10 seconds under the split indication mode, the hands will advance automatically back to the elapsed chronograph time.
- Up to five split times can be stored, and they can be called up afterwards. *(see Split time next panel).*

5. Split time call



Up to the last data (five data maximum) can be called by pressing the (B) button.

- The stored split times can be called after the chronograph is reset.
- If the (B) button is pressed once, the mode hand indicates the first split time.
- If the button is pressed twice, the hand indicates the data in 1/10 second. Every time the (B) button is pressed, the next data is called, up to five data maximum.
- After the last data (if only two data have been stored, the second one) is called, if the (B) button is pressed, the chronograph is automatically reset after about 10 seconds.
- The stored data are maintained even if the watch is set to another mode, as long as the chronograph is not started again.

Caution

If the watch is changed to **Run/Stop Mode** while the chronograph is measuring, the measurement is cancelled. The stored split times are maintained, however.