BLKM

splitX

Sun A 1000

* MCH-002

Thanks for your purchasing of this professional stopwatch. Its advanced Japanese CMOS, combined scientific mechanical theory makes sure your valuable purchasing of a professional stopwatch. Besides normal functions of stopwatches, it has distinct advantage: rowing frequency, temperature, counter, countdown, pacer and decimal stopwatch. **Content** 1.Summary 1 1. Summary 1.Segregated period ,Lap & Split ,The number of memory · Segregated period 4. Rowing Frequency Operation 7 **Stopwatch Instruction Manual** Stopwatch period 2 5. Environment Temperature and Counter Operation BLK001 BLK002 BLKN BLK001 BLK002 300/400/500 Stopwatch period 1+Stopwatch period 2+···+Stopwatch period N+Rowing frequency period 1+ Rowing frequency 2+···+Rowing frequency M=300/400/500Memory 6.Countdown Operation 10 N lap & split of Stopwatch 8. Clock , Alarm & Button mute Operation 12 Lap1 Lap3 split2 split3_ splitX-1 SPLIT $Lap1(split1)+Lap2(split2)+\cdots+LapX(splitX)=The number of N in stopwatch$ 2).Buttons & Functions 14. Cut-off the Display.....14 Button A START/SPLIT Button B RESET/STOP Button C RECALL Button D MODE 15.Display Contrast Control......14 Button E BACKLIGHT 16.Care and Maintenance......15 -1-Timing range:99H59M59.99S 2. Product Main Features When the stopwatch is reset, Deress C button for 3 seconds,the bottom row will switch to SPLITand LAP RUNNING CHRONO. **4.**Countdown Timer 1.Chronograph When the buttom row displays SPLIT RUNNING CHRONO, the carresponding prompt is: LAP is displayed on the upper row, SPLIT is displayed on the middle row. Two countdown timers are pre-settable and 99 hours 59 minutes 59 seconds for each Display of lap, split, and running chronograph time. · If not set one countdown timer, the other one is workable. - Measure up to: • 99 hour 59 minute and 59.99 second to 1/100 second (For conventional hourly ⑤.Pacer 999 nour 59 inlinet and 577 sports) 9999.999 minute to 1/1000minute (For decimal units / For Industry) 99.99999 nour to 1/100000 hour (For decimal units / Industry) 999999.99 second to 1/100 second (For decimal units / For Instory). 3 When the bottom row displays LAP RUNNING CHRONO, the corresponding - Pre-settable from 5 beeps/minute to 320 beeps/minute prompt is: SPLIT is displayed on the upper row, LAP is display on the middle row. Display of pacer frequency, beeps and time. 6.Clock OAfter the stopwatch is reset, the setected travel RUNNING CHRONO mode of the bottom row is automatically saved. - 300/400/500 recallable lap and split memories. - The memory can be recalled during operation and after reset. - Segregated memory (BLK) - Display hour, minute, second, year, month, date, week, and alarm, auto calendar 12/24 hours format option 50<u>0</u> 00 00 000 0000 000 7.Other features - Display of best (BES), slowest (SLO), and average (AVE) lap time for the laps traversed for each segregated period (BLK). After the stopwatch is reset, long Press B button for 3 seconds to ON/OFF display switch between conventional stopwatch and decimal stopwatch timing. Note: After the stopwatch switches the timing unit, all memories are automatically cleared. Depress A to start timing. Button mute Low battery display *0 00000o Lap counter (000-999) Convertible to decimal stopwatch, time unit: hour (H) or minute (M) or second(S). Display contrast adjustment Decimal stopwatch - LED backlight 2. Rowing Frequency Restore factory settings Depress A to read the 1st lan time. - Display the rowing frequency: stroke/minute LAP is shown at the upper row. SPLIT is shown at the middle row; SPLIT RUNNING CHRONO is shown at the bottom row.(for the bottom travel SPLIT RUNNING CHRONO mode). - Measure range: 10-180 strokes/minute. 3. Chronograph Operation - 300/400/500 scores can be read from the memory Depress D button to select the operating mode. The chronograph indicator "CHRONO" is shown.And the memory balance number MEM is shown in the first row left side. Depress B button, the first line shows BLK on the left, means the current segregated period *0 0:00 25az The memory can be recalled during operation and after reset. or SPLIT is shown at the uppper row,LAP is shown at the middle row,LAP RUNNING CHRONO is shown at the bottom row(for the bottom travle LAP RUNNING CHRONO mode) - Segregated memory (BLK) Display of best (BES), slowest (SLO), and average (AVE) rowing frequency for each segregated period (BLK). number. Depress B to scan display the remaining laps and the current segregated period number BLK. ~ 00:00'25'06 3. Environment Temperature and Counter - Display the current environment temperature. - Temperature measure range: -40 °C ~ +60 °C (-40 °F ~ 140 °F). Depress A to display the 2nd lap time, and the lap counter is shown in the left up corner. *00:000453s (<u>00000000</u> <u>20000000</u> <u>00000000</u> Simultaneous counting and timing. 30000 ISOS - Counting range:0~99999. Depress A to display the 3rd lap time, and depress A again to display the 4th lap time. Operate as above procedure, the lap counters within 300/400/500will be shown. *00000000 &-3s *0000000 000 (00°6 -2-Depress B to stop counting. The upper right shows the current lap, the upper left shows the current segregated period number. current number's corresponding memorized year, month, date, week, and start time. The number means the memory sequential number, and the largest is the latest memory, smallest is the earliest memory. Press B to choose the period MCH. 50 (00 (①.After the stopwatch stops timing or is reset (with memory), Depress C button to enter recall, and Depress C button continuously to read the memory in the following order: AVE→BES→SLO →1→2→3...→Last memory(matimum memory corresponds to 300/40/500 extensities exist recalls. *0 0:070266 om row shows the stop time. Press C check corresponding memory. Depress C button continuously to read the memory in the following order: AVE—BES—SLO—1—2—3—...—Last memory—stop time—Current segregated memory display interface Depress A or D button to exit recall and return to the stopwatch reset status (3). If there is no memory during counting, it cannot go into the RECALL mode when press 300/400/500) —stop time ,exit recall. When RECALL is displayed , Depress A or B or D button to exit recall and enter the displayed refrace when timing stops HAE 00:00,5008 Depress C to display RECALL, the arerage(AVE) lap time is when RECALL is usplayed, Depress A of B of D dutin to extract and chief the display interface when thing stops. ②.When the stopwatch is timing, Depress C button to enter recall, and the bottom row is still running. Depress C button Continuously to read the memory in the following order: AYE→BES→SLO →Last second memory→Last 3rd memory→...2→1→Last 20 shown at the upper row. Memory number is shown at the middle ©.Delete operation: after the stopwatch is reset, press C to check the segregated period memory, and it shows RECALL. Press B to choose the one you need to delete, and confirm the sequence number after MCH is the one you want to delete, and then hold B button for 2 seconds can delete the current data. If the current memory is deleted, the BES 00:00 1506 first memory,exit recall. When Recall is displayed: 3 Depress C again to display the best(BES) LAP time. Depress A button to store a memory and exit recall at the same time. Depress B button to stop timing and exit recall at the same time, Depress B button to exit recall and return to the stopwatch timing status. The fastest LAP number is shown at the middle row upper row will display Ed with a long beep, and the sequence number will be deleted too. If hold button B over 6 seconds, it will display ALLCLEArEd with a long beep, you can delete all the memory data. Note: During the delete process, there will have "BiBiBi" prompt. ③If either some segregated period's LAP or SPLIT time is more than 100 hours, the AVE, BES and SLO display function will be disabled. scő 00:00 2506 Depress C again to display the slowest(SLO) LAP time the slowest LAP number is shown at the middle row. (a). If the lap counter is greater than the remaining memory, the stored data more than the memory should be deleted when calculate the AVE, BES and SLO. Sun R 800 12- 803 4 M[H-001] hold B button 12- 803 4 M[H-00] hold B button 12- 803 4 M[H-00] ⑤. The stored memory can be recalled during the STOP or RUNNING status ®.If the first lap number shows the remaining memory is 000, or the middle line"——" flash during lap counting, it means that the memory is already full. Then the 00002006 Depress C again to recall the 1st LAP data following. lap counting cannot be stored. You need to delete the memory before ①When it has the segregated memory, the memorized lap & split total number will less than 300/400/500, because for each period, it needs to memorize AVE, BES, SLO, STOP time, segregated period number, date, start time. 4. Rowing Frequency Operation It will measure once every 3 times rowing to calculate the current rowing times per ___ 00:00'45'12 Depress C again to recall the 2nd LAP data. (00) 20 Depress D to select the rowing frequency mode, and the rowing Depress D to return the CHRONO to the stopped status. Depress indicator "STROKE" is shown. And the memory balance number (500) ----MEM is shown in the first row left side. Depress B button, the first line shows BLK on the left, means the current segregated period TO COTOZIO A to restart counting or B to reset to "0" Depress B to scan display the remaining MEM and the current segregated period number BLK. ___ 00:0 100 ie (D)After pressing B to reset to "0", press C will enter into the RECALL mode. The bottom row shows the segregated period number, middle row and upper row are the Depress C again to recall the 3rd LAP data -5-₹ 40- 3 current number's corresponding memorized year, month, date, week, and start time. The number means the memory sequential number, and the largest is the latest memory, smallest is the earliest memory. Press B to choose the period MST, Press B to choose the period MST, Press C to check corresponding memory. press C button continuously to read the memory in the following order: AVE - BES - SLO - I - 2 - 3 - ... - Last memory AVE - BES - SLO - I - 2 - 3 - ... - Last memory AVE - BES - SLO - I - 2 - 3 - ... - LastDepress A to start measuring the rowing frequency, the bottom Depress C again to display the SLO rowing frequency and the serial number. Depress C continuously to circle display the AVE, BES and SLO rowing frequency. • ->+/-/--/- Depress C continuously to read the memory from the current group to the first group. Depress A after rowing 3 times to read the rowing frequency at the bottom row, it will automatically changes to display at the middle row and flash at the bottom row after 1 second.

①.Depress C to check the current segregated period memory, and it will display "RECALL" when the rowing frequency display "STOP" or measuring.

②.If the rowing frequency is over 180 or under 10, the test result will display Err, and it won't be stored and won't be counted into the data of AVE, BES and SLO.

(a) If the rowing frequency is greater than the remaining memory, the stored data more than the memory should be deleted when calculate the AVE, BES and SLO.

flash during rowing process, it means that the memory is 200, or the middle line"——"
flash during rowing process, it means that the memory is already full. Then the
following rowing cannot be stored. You need to delete the memory before usage.

§When it has the segregated memory, the memorized rowing frequency number will
less than 300/400/500, because for each period, it needs to memorize AVE, BES, SLO,
STOP time, segregated period number, date, start time.

Note:

①. After pressing B to reset to "0", press C will enter into the RECALL mode. The bottom row shows the segregated period number, middle row and upper row are the

Depress A to restart or B to reset to "0"

Depress D to return the rowing frequency to the stopped status.

middle row and flash at the bottom row after 1 second.

Depress A again after rowing 3 times to get the 2nd rowing frequency. The former data displayed at the middle row will change to the upper row, the current data will display at the middle row after display shortly at the bottom row. The bottom

Depress A again as above operation to get the 3rd rowing

Depress B to stop the rowing frequency, and it will display "STOP". The upper left shows the current segregated number, the upper right shows the memory numbers. The bottom row shows the latest rowing frequency.

Depress C to check the current segregated period memory and it will display "RECALL", the AVE rowing frequency and memory number will display at the upper row.

96-1 Depress C again to display the BES rowing frequency and the

-8-

row will flash.

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memory→Current segregated memory display interface Press A or D button to exit recall and return to the STROKE status

2). If there is no memory during the rowing frequency measuring, it cannot go into the

RECALL mode when press C.

RECALL mode when press C.

3. Delete operation: after the rowing is reset, press C to check the segregated period memory, and it shows RECALL. Press B to choose the one you need to delete, and confirm the sequence number after MST is the one you want to delete, and then hold B button for 2 seconds can delete the current data. If the current memory is deleted, the upper row will display Ed with a long beep, and the sequence number will be deleted too. If hold button B over 6 seconds, it will display ALLCLEArEd with a long beep, you can delete all the memory data. During the delete process, there will have "BiBiBi" prompt.



5.Environment Temperature and Counter Operation

Depress D to select the environment temperature/counter mode and the counter indicator "[n:" is shown. The Upper row shows the measured temperature
The middle row shows the time of counting operation

The bottom row shows the counter Press button C to Switch celsius °C or Fahrenheit °F Press button A once, the bottom row is increased by I, and the middle row starts timing at the same time

cnt 20C 00:00'00'00

Press button A continuously, and continue to add the bottom row

Press button B to stop the timing, and then press button B to clear the counting

6.Countdown Operation



Press button D to select the countdown mode, and the countdown indicator "TP" is shown, the upper row is displaying the 1st countdown timer, the middle row is for the 2nd countdown timer. The bottom row is for four digit counter. Hold button B for 2 seconds to enter the countdown timer and round setting: the 1st countdown digit for hour will blink, press button A to set the number, press button B to select the digit adjusted, in turn: hour, minute, second for the 1st countdown; hour, minute, second for the 2nd countdown timer and number of rounds in the bottom row.



Press A to start the 1st countdown timer with "1"at the top right corner blinking and the timer into counting down. When the 1st group countdown timer approaches "0", it will return to its original set value and start the 2nd group countdown timer with

4 BiBi sounds indication. When the 2nd countdown timer approaches "0", the 2nd group timer will return to its original set value and return to the 1st group countdown timer with 2 BiBi sounds indication, when the number of rounds in the bottom row is not set, the counter in the bottom row will automatically increase by 1, when the number of round in the bottom row is set to a value, the counter in the bottom row will be automatically reduced by 1. At any time during countdown, pressing A will stop counting.

Destring only the 1st group countdown timer, no setting the 2nd countdown timer, then the 1st group countdown timer will count circulatory.

Setting only the 2nd group countdown timer, no setting the 1st countdown timer, the 2nd group countdown timer will count down once, without circulation. When the 2nd countdown timer counts to 0, the bottom 4 digits will advance or be reduced by 1 -11automatically. Press A again to restart the 2nd countdown timer.

(3) When both countdown timers are not set, it will default the 1st group countdown timer as 10 hours, then the 2nd group timer keeps 0, and count circulatory in every 10 hours.

(4) When the number of rounds in the bottom row is not set, the counter in the bottom row will automatically count in sequence. when the number of bottom rows is set to a value, the number of rounds will be automatically reduced by 1, when the time of each round reaches zero, when the number of rounds is reduced to zero, the time will be automatically stopped and the number of rounds will return to its original set value

automatically. Press A again to restart the 2nd countdown timer

7. Pacer Operation



Press button D to select the PACER mode, and the pacer indicator "P" "[" is shown, the upper row is displaying the FREQUENCY, the middle row is for numbers of beats. The bottom row is for timing.



Press button C to select the frequency.e.g: 5,10,15,20,25,30,35 ,40,45,50,55,60,65,70,75,80,85,90,95,100,105,110,115,120,150, 180,240,320,



Press A to start the Pacer. When the frequency 60 is selected, there will be a Beep sound of 60 times / minute, the middle row displays the numbers of beats, the bottom row displays the time duration. Press A again to stop the pacer with "STOP" showing, then press B to reset the pacer beats and time

8. Clock, Alarm & Button mute Operation

Press the button D to select CLOCK mode: The alarm hour, minute, year, month, date, week, hour, minute, second are displayed as left graph showing. Hold button

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B for 2 seconds into Clock setting mode, Press B to select the digit, and press A to adjust, press D to return clock mo

MOU 15:00 H 1 A 13:11 to

Note:

(D. Alarm will start ringtone automatically for 60 seconds when alarm time setting, in CLOCK mode, press button C to turn on or turn off the alarm ringtone. When alarm is on, the symbol "tuton" will display; when alarm is off, no "tuton" symbol.

(In the clock display interface, long press button A for 3 seconds to turn on/off the button tone and the button tone prompt "**)) "displays/disappears"

9. Decimal stopwatch operation

The difference between a decimal stopwatch and a conventional stopwatch is that it uses a different minimum timing unit.



rent minimum timing unit.

The minimum timing unit of the conventional stopwatch is

0.01 seconds, and the maximum timing is 100 hours.

The minimum timing unit of the decimal stopwatch is 0.001 minutes, the maximum timing is 10000 minutes, which is

prompted by M
Or 0.00001 hours, the maximum time is 100 hours, which is prompted by H
Or 0.01 seconds,the maximum time is 1000000 seconds,

which is prompted by S. Decimal stopwatch timing unit is optional.

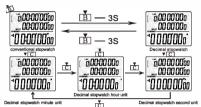


Depress D button to select the operating mode, The chronograph indicator "CHRONO" is shown. After the stopwatch is reset, long press button B for 3 seconds to switch

stopwatch is reset, long press button B for 3 sections to switch stopwatch display. All timing operations of the decimal stopwatch are the same as those of the conventional stopwatch. After the decimal stopwatch is reset, long press button B for 3 seconds to return to the conventional stopwatch display.

Note: After the stopwatch switches the timing unit, all memories are automatically

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10.Backlight Operation

Press button E open the backlight for 5s.

NOTE: for backlight function consume a lot of battery power, please use it when

11. Button mute operation



In the clock display interface, long press button B for 2 seconds to enter the setting of alarm, calendar clock and button tone ON/OFF, Sound select "[]]" to indicate that there is a button tone in the button operation, """ prompt display. Select "DFF" to mute the button operation, """ prompt disappears, or in the clock display interface, long press button A for 3 seconds to turn on/off the button tone and the button tone prompt " •)) "displays/disappears

12.LOW Battery Indication And Battery Replacement

When the battery power is insufficient, the low power symbol " " is displayed, and there is no backlight at this time, when the low battery symbol " " flashes, there is no backlight and sound, and the timing can still " flashes, there is no backlight and sound, and the timing can still

When the low battery symbol " [] " is displayed, the battery needs to be

replaced
①.Loosen the screws on the back cover and remove the back cover.
②.Take out the old battery, install a new CR2032 lithium battery upward according to the direction of Battery "+", cover the back cover and tighten the

13.Restore Factory SettingsIn any display mode, press and hold the four button A, B, C and D at the same time to reset the full display and enter the clock display.

14. Cut-off the Display ①.When the stopwatch is during transportation or in stock, the display can be set at CUT-OFF to save the battery.

②.In clock mode, press button A and B together for more than 3 seconds, the middle row displays "IFF" and rings once indicating off. All other functions are reset except the normal running time of the clock

3. In the mode of CUT-OFF, press any button for more than 2 second to

15. Display Contrast Control

①.In clock mode, press C button for 3 seconds to enter the display contrast control.

2. The contrast control digits in the 1st row is blinking, the second and third row display zero, press A to advance, press B to reduce, the adjustment range is $1\sim15$. If no operation in 1 minute, or press C, it will exit the contrast control. And the default contrast control is 10.



16. Care and Maintenance

①. The stopwatch is designed to withstand accidental contrast with water such as splashes or rain, but it is not designed for use in water. Do not operate the buttons when the stopwatch is wet.

②. The operation temperature range is-5°C \sim 50°C, Do not leave your stopwatch under direct sunlight or in very high temperature for a long time, the display may become black. Do not leave your stopwatch in very low temperature as this may cause a slight time loss or gain and the change of digits becomes slow. In both cases, the above conditions will be corrected when the stopwatch return to normal temperature.

3. The stock environment needs to be ventilated and dry with the temperature

⑤.The integrated circuit in your stopwatch can be affected by static electricity. If the static electricity is very strong, a permanent damage can occur. Be careful of the screen of the TV set and the wearing of clothing made of synthetic material in dry weather, in such case a very strong static electricity can be generated.

(5).Be careful not to drop your stopwatch or hit it against hard surface, as it may cause a mechanical damage.

6.Do not expose your stopwatch to solvents such as gas-online and alcohol, spray of cosmetics, cleaners, paints etc., as they may cause damage to the

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