twilight

INSTRUMENTOS DE MEDICIÓN INDUSTRIAL

Cronómetro

Multifunción

AC-AX602M500DEC

ACCUSPLIT
STOPWATCH COMPANY of the WORLD

ACCUSPLIT

ACCUSPLIT.
E**X**CLUSIVE

**AX602M500
AX602M500DEC
DIGITAL QUARTZ
STOPWATCHES**

**OPERATING
INSTRUCTIONS**

IMPORTANT NOTE

This stopwatch can store up to 500 split/lap times. However please note when there are 5 free memories left, the icon "FULL" will blink to remind you of the nearly full situation. Whenever the storage is full, extra split/lap times will NOT be stored into memory even though you reset your stopwatch and start a new event. Extra split/lap times will only be shown on the display but not recorded.

In order for the stopwatch to record the lap/split times again, you must delete the data in the DATA memory. Please refer to the "Data Mode" section in the instruction manual for how to delete the memory.

INSTRUCTIONS

Introduction

You are about to enjoy an advanced Cumulative and Lap memory professional digital quartz stopwatch with advanced timing features. Models AX602M500 & AX602M500DEC Stopwatches include Time of day, Daily Alarm, Chronograph stopwatch, 500 memory, Data register, Countdown timer, Stroke Measurement timer, and Pacer (from 5 to 240 beats per minute).

Model AX602M500DEC Decimal Stopwatch includes Decimal timing (1/100 of a sec, 1/1000 of a minute, 1/100,000 of an hour).

Model AX602M500 Speed Stopwatch includes Speed Measurement.

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General Features

- ACCUSPLIT X case with ergonomic design and no-fail buttons
- 4 button operation
- Large LCD display with contrast adjustment
- 12/24 hour display
- Time of day and chime
- Daily alarm
- Full 1/100 second chronograph with working range from 0 to 19 hr. 59 min. 59.99 seconds with 500 memory records of split and lap time.
- Recall function for recorded split and lap times
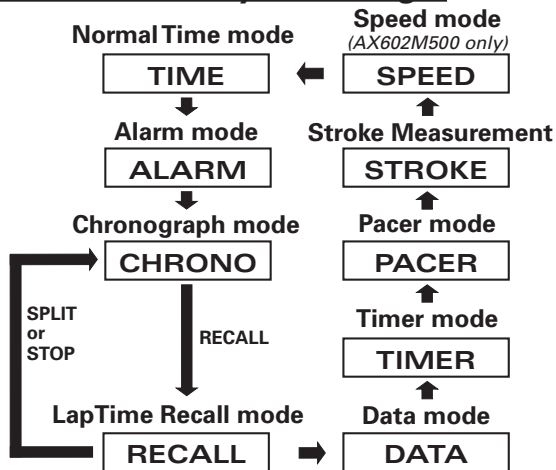- Count-Down timer with working range from 0 to 19 hr. 59 min. 59.9 seconds

- Three operating modes (Countdown Repeat, Countdown Stop, Countdown then count up) for countdown timer
- Stroke/Stride measurement basing on "3"
- Speed measurement (AX602M500 Model only)
- Decimal second, minute and hour chronograph (AX602M500DEC Model only)
- Beep sound selectable
- Uses long life Lithium CR2032 battery for years of use between battery changes
- Low battery check

The operation of the stopwatch is divided into nine modes. As you choose each "mode", a message will be displayed for a second before you enter the mode:
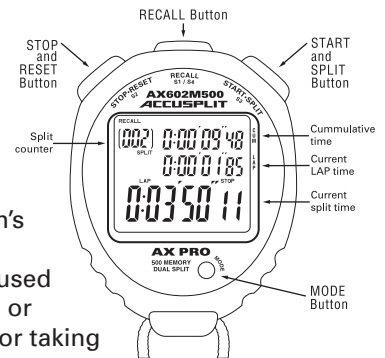
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6-7

Press MODE to cycle through:

Normal Time mode
TIME ⬅ SPEED
Speed mode *(AX602M500 only)*

⬇ ⬆

Alarm mode
ALARM
STROKE
Stroke Measurement

⬇ ⬆

Chronograph mode
CHRONO
PACER
Pacer mode

SPLIT or STOP ⬇ RECALL ⬆

TIMER
Timer mode

⬆

LapTime Recall mode
RECALL ➡ DATA
Data mode

RECALL Button

STOP and RESET Button
START and SPLIT Button

STOP-RESET RECALL START-SPLIT

AX602M500 ACCUSPLIT

Split counter
Cummulative time
Current LAP time
Current split time

AX PRO
500 MEMORY
DUAL SPLIT
MODE Button

Button Operation

- **MODE** - used to change the watch's operating mode
- **START • SPLIT** - used to start the timer or stopwatch, and for taking split and lap times
- **RECALL** - used to recall recorded split and lap times (memories)
- **STOP • RESET** - used to stop and reset the stopwatch or timer

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This is only a brief description of these buttons. Detailed uses of the buttons are different in particular functions and will be described later in the instructions.

Pressing [MODE] button will toggle among the modes above. Note that there is no auto-return function in the stopwatch. Whenever you change modes, the stopwatch will remain in that mode until the [MODE] button is pressed again.

Time of Day Mode

The starting point for operating your stopwatch is TIME OF DAY. If TIME OF DAY is not displayed, press [Mode] until it is.
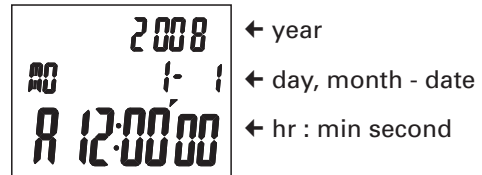Year : - 2008
Date : - January 1
Day of week : - Monday
Time : - 12:00 am

The display format is as below :

```
           2008      ← year
AO       1- 1        ← day, month - date
A 12:00 00           ← hr : min second
```

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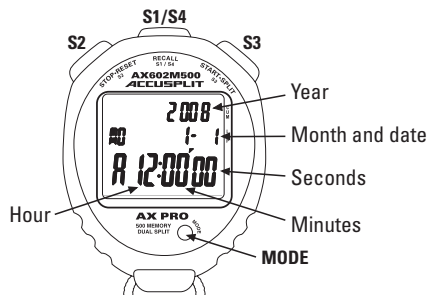ACCUSPLIT products use a common setting procedure known as S1-S2-S3-S4.

S1 (2 sec) - Enter set function OR
S1 (4 sec) - Enter set function & clear the current settings
S2 – Select field to be set (selected field will flash)
S3 – Set field to desired settings
S4 – Exit setting function

S1/S4
S2   S3
Year
Month and date
Seconds
Hour
Minutes
MODE

During clock display, press [START • SPLIT] to switch between 12 hr and 24 hr display mode. To toggle chime ON or OFF, you can press [STOP • RESET]. The bell icon will be ON or OFF correspondingly.

Normal Time Setting

Press and hold [RECALL] (S1) for 2 seconds to enter setting mode. The normal time setting starts with second. The second digits will be flashing. You can change the flashing digit by pressing [START • SPLIT] (S3) button. To speed up the setting you can press and hold [START • SPLIT] for longer than 2 seconds to activate fast setting. To select other digits, press [STOP • RESET] (S2) button. The setting order is: Second, Minute, Hour, Year, Month, Date, month-date (m-d) or

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date-month (d-m), Sound ON or OFF, Contrast (darkness of the digits - default is 9), then back to Second, and recycles again.

Note: when the second is to be set, press [START • SPLIT] to reset the second digits to zero. At the end of setting, press [RECALL] (S4) or [MODE] to exit from the setting mode and back to Time of Day Display.
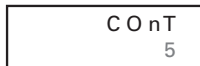
Display for Sound ON or OFF setting :
(Let the current status be "ON".)

S O U n d
O n

Press [START • SPLIT] to toggle Sound ON or OFF.

S O U n d
O n

Display for contrast adjustment:
(Let the current contrast be "5")

C O n T
5

Press [START • SPLIT] consecutively to advance the contrast up to 16, then cycle back to 1. The contrast setting will be shown on the display.

C O n T
1 6

NOTE:

• The hour digits may be displayed in 12 hr or 24 hr format.

• The year digits can be set from 2000 to 2099. The date adjusts automatically for odd and even months including February of leap years. The day of week also adjusts automatically after you set the date.
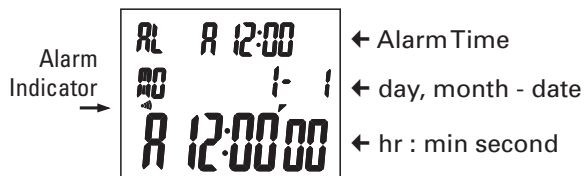
Alarm Time Mode

Press [MODE] until you enter Alarm mode. This mode is used for displaying the daily alarm time and allows you to enable or disable the alarm.

When you enter the Alarm Time mode, the display shows the alarm time on the upper line while the date is shown in the middle of the display and the normal time is on the lower line.

Alarm Indicator →

← Alarm Time
← day, month - date
← hr : min second

To toggle the alarm ON or OFF, press [STOP • RESET]. When alarm is ON, the indicator "•))" will be ON while it will be turned off when alarm is disabled. When alarm time is reached, the alarm signal will sound for 60 seconds. Press any button to stop the alarm sound.

Setting Alarm Time

Press and hold [RECALL] (S1) for 2 seconds to activate the alarm setting. The alarm "minute" digits will flash as an indication. Adjust the flashing digit by pressing [START • SPLIT] (S3). To set the alarm hour digits, press [STOP • RESET] (S2) to switch to hour digits and then press [START • SPLIT] (S3) to adjust. Press [RECALL] (S4) or [MODE] to exit from Alarm setting mode.
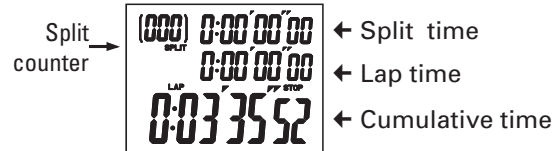
<u>Chronograph and Recall Mode</u>

Press [MODE] until you enter the Chrono mode.

```
(000) 0:00'00"00
      0:00'00"00
0:00'00"00
```

The stopwatch can measure up to 19 hours, 59 minutes, 59.99 seconds. When you enter the Chronograph mode, the display format is as below.

The upper line shows the split time, the middle line shows the lap time and the accumulated elapsed time is displayed on the lower line.

Whenever the stopwatch stops running, the "STOP" indicator will be ON. Press the button [START • SPLIT] to start the stopwatch. As it runs, the current elapsed time is shown on the lower line.

Split counter →
```
(000) 0:00'00"00   ← Split time
      0:00'00"00   ← Lap time
0:03'35"52          ← Cumulative time
```

To take a current split or lap time, press [START • SPLIT]. The display will look like this:

```
(001) 0:10'43"35
      0:10'43"35
0:10'43"35
```

The number of split/lap times taken are shown in the upper left corner. The corresponding split and lap times are displayed on the upper and middle line. Press [START • SPLIT] again, the next split/lap time will be shown and the number of split/lap time is updated.

```
(002) 0:15'10"94
      0:04'27"59
0:15'10"94
```

The stopwatch can store up to 500 split/lap times. The split/lap times are stored into the memory as you press [START • SPLIT] to take each split/lap time. Meanwhile, the lap and split time will be frozen for 5 seconds. After this 5-second period, the lap and split time will return to normal.

In addition, the fastest lap, the slowest lap, and the averages of all laps will also be recorded. As you press [STOP • RESET] to stop the chronograph, the last lap/split time will also be stored (provided that the last lap/split time is not the first lap/split time).

When there are 5 free memories left, the icon "FULL" will blink to remind you of the nearly full situation. **Whenever the storage is full, extra split/lap times will not be stored into memory but will still be shown on the display.** Any fastest and slowest laps will not be stored. The memory counter will flash as the extra split/lap times are being displayed. The icon "FULL" will be steadily ON.

The maximum memory counter value is 500.

To stop the chronograph, press [STOP • RESET]. The indicator "STOP" will come on again to show the status. Press [STOP • RESET] as the stopwatch stops to reset the stopwatch while the split/lap times will be kept in memory. When the stopwatch starts running from reset state, all the lap memories will be cleared.

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Decimal Timing
(AX602M500DEC model only)

1. The DEC Model can operate as a normal 1/100 second chronograph as well as decimal minute, decimal second, and decimal hour chronograph.

As you press [MODE] to enter the chronograph mode, the normal 1/100 second chronograph display will be shown.

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Reset the chronograph to 00, then press [STOP • RESET] to cycle through the time base modes. (1/100s). Note the change by looking at the bottom of the display.

↑Time base indicator

Change to the 1/1000 of a minute chronograph mode by pressing [STOP • RESET] again. (1/1000M)

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↑Time base indicator

Go to the 1/10,000 hour chronograph by pressing [STOP • RESET] again. (1/10,000H)

↑Time base indicator

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Please note that if the stopwatch is running, no selection for chronograph operating modes can be made until the stopwatch has been stopped and reset.

Segmented run memory for lap/split time storage.

A header consisting of the date/time stamp is attached to each segment to indicate the moment when you began recording the particular timing segment. To get to this feature, press [MODE] in chronograph mode to enter DATA mode when the stopwatch has been stopped. Records for different segments can be recalled, read or deleted. Detailed operation in "DATA" mode is described in Data Mode section later in this manual.
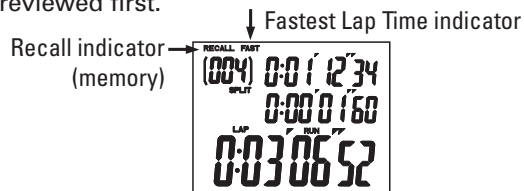
Chronograph Data Recall Mode

Press [RECALL] in Chronograph mode to recall stored split/lap time memories. The mode message will be shown up for one to two seconds as mode message display is enabled.
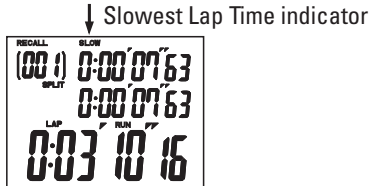
RECALL

The split and lap time will be displayed on the upper and the middle line respectively. The lower line shows the elapsed time between "start" and this split.
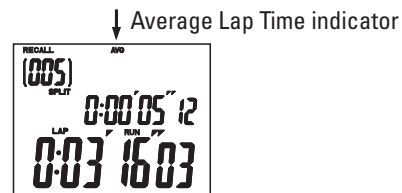
24

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During data recall, the fastest lap time will be reviewed first.

↓ Fastest Lap Time indicator

Recall indicator → (memory)

RECALL   FAST
(004) 0:01 12̈34
SPLIT
0:00 01̈60
LAP   RUN
0:03 06̈52

View the slowest lap time by pressing [RECALL] again.

↓ Slowest Lap Time indicator

RECALL   SLOW
(001) 0:00 07̈63
SPLIT
0:00 07̈63
LAP   RUN
0:03 10̈16

Press [RECALL] again to view the average lap time.

↓ Average Lap Time indicator

RECALL   AVG
(005)
SPLIT
0:00 05̈12
LAP   RUN
0:03 16̈03

Note: Press [RECALL] continually to review all the stored split/lap times. The sequence starts from the last record to the first record when the stopwatch is running and vice versa when the stopwatch has been stopped.

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[RECALL]

(005) 0:00'14"91
0:00'02"05
0:03 28 94

[RECALL]

(004) 0:00'12"86
0:00'01"60
0:03 33 64

[RECALL]

(003) 0:00'11"26
0:00'01"78
0:03 40 15

Note: watch is still running so run time continues to advance.

[RECALL]

(002) 0:00'09"48
0:00'01"85
0:03 45 34

[RECALL]

(001) 0:00'07"63
0:00'07"63
0:03 50 11

After recalling the first record, press [RECALL] once more to exit from Recall mode and go back to chronograph mode. The "RECALL" icon will turn OFF.

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Recall indicator turns off when watch returns to regular Chronograph mode.

[RECALL]

(005) 0:03'50"11
0:00'42"60
0:03 50 11

During memory recall, you can press either [START • SPLIT] or [STOP • RESET] to exit from chrono recall mode and jump to the chrono start/stop or lap state respectively.

DATA Mode

Press [MODE] until you enter DATA mode. The mode message "DATA" will be shown for one to two seconds before the number of free memories is to be shown.

FREE
95 LAP

You can press [START • SPLIT] to scroll through all segments. The current segment will come first.
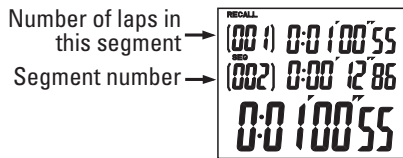
Segment indicator shows watch is in DATA mode →

(004) 20 08
(002) 2- 19
R 10:03 30

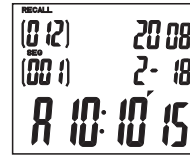Date/Time Stamp for this split

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The header consisting of the date/time stamp will be shown. The number of laps in the segment will appear in the upper left while the segment number is displayed in the middle left. If the segment shown is not your desired segment, press [START • SPLIT] to reach the desired segment. The current segment will be accessed first, then it will cycle back to the 1st, then 2nd and so on.

When you have found the segment you want, you can press [RECALL] button consecutively to read the lap records from the first to the last lap.

Number of laps in this segment →
Segment number →

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As you continue to press [RECALL] during the display of the last lap, you can advance to the next segment by pressing [START • SPLIT]. The front page of the segment will be shown. Say the next segment is SEG 1.

How to delete individual memory segments:

Search the desired segment first as described above. During the display of the segment front page, press and hold [STOP • RESET] for 2 sec-

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onds to activate Delete One function. "DELETE ONE" will be shown in blinking and beep sound will be generated.

> **dELETE**
> **OnE**

A "ready" period of 2 seconds will be counted. At the end of the ready period, all the lap records of the corresponding segment will be erased, and a long beep sound will be heard. Then the display will show the next segment. If you don't want to delete the records, you can press any key to exit from delete ready state before the end of the ready period. The watch will go back to displaying the segment front page.

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How to delete all memory segments:

Instead of deleting one segment, you can also delete all memory segments. When you enter the Data mode, you see the screen "FREE XXX LAP". Press and hold the [STOP • RESET] for 3 seconds. You will hear "Beep, beep, beep" for 3 seconds, then a long "Beep". At this point all data in the memory will be deleted and "DELETE ALL" will show on the display.

If you don't want to delete the records, you can press any key to exit "DELETE ALL" state before the end of the ready period to return to the segment front page display.

> **dELETE**
> **ALL**

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Note: You cannot delete all segments while the stopwatch is running. If nothing happens when you push and hold [STOP • RESET] check to make sure the stopwatch is stopped.
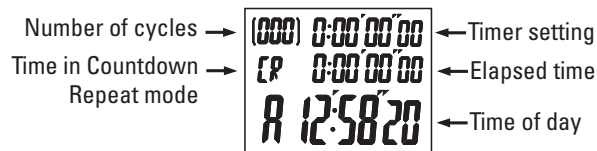
Timer Mode

Press [MODE] until you enter the Timer mode. 3 count-down operation modes are available on this stopwatch:

- Count down repeat (CR)
- Count down stop (CS)
- Count down, then count up (CU)

The timer is set at the factory to the count-down repeat (CR) mode. At entering timer mode, the mode message "TIMER" will be shown for a second before timer count mode is displayed.

Number of cycles → `(000) 0:00'00"00` ←Timer setting
Time in Countdown → `CR 0:00'00"00` ←Elapsed time
Repeat mode
`A 12:58'20` ←Time of day

The upper line shows the programmable timer value (initially set at 0:00:00:0) while the middle line displays the current timer counting. Time of Day clock display is at the lower line of the display. "CR" indicates the current timer operating mode while the timer cycle counter is located at the upper left of the display.

Before starting the timer, enter a countdown time first. Then press [START • SPLIT] to start timer running. When the timer counts down to zero, a

3 second "beep…beep" sound will be generated for a timer setting within one minute; 15 second "beep…beep" sound for 1 minute to 10 minutes setting and 30 second "beep…beep" sound for over 10 minutes. Pressing any key will stop the beep sound.

Under CR operating mode, the timer value will be reloaded and count down will start again. The timer cycle counter will be increased by one and updated on the display.

Under CS operating mode, the timer, after counting down to 0:00'00", will stay at 0:00'00"0 until you press [STOP • RESET] to reload the timer value.

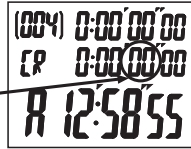**Under CU operating mode,** the timer, after counting down to 0:00'00"0, will count up and stop at 19:59'59"9.
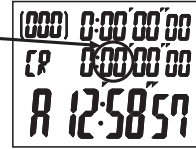
How to set the timer

Press and hold [RECALL] (S1) for 2 seconds to activate timer setting. Timer setting starts with second digits, which are shown blinking. You can press [START • SPLIT] (S3) to advance the flashing digits. Or you can press [STOP • RESET] (S2) to select other digits. The setting follows the sequence: second, minute, hour and timer operating mode (CR, CS and CU).

NOTE: You can only set Hour, Minute and Seconds. The 1/10 second cannot be set.
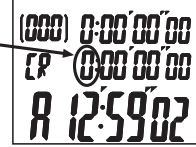
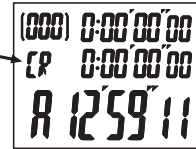Press and hold [RECALL] for 2 seconds. Timer setting starts with second digits.

Press [STOP • RESET] (S2) to move to minute digits.

Press [STOP • RESET] (S2) further to go to hour digits. Hour digits can be adjusted from 0 to 19.

Press [STOP • RESET] (S2) again to adjust the operating mode. Press [START] to switch the operating modes among CR, CS and CU.

At the end of setting, press [RECALL] (S4) or [MODE] to leave setting mode.

Pacer Mode

Press [MODE] until you enter the Pacer mode. In the Pacer mode, you can set the standard pacer speed from 5 to 240 beats per minute in the following values:

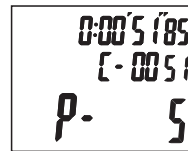5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 240

In Pacer mode, the display will be:

PACER
P - 5   ← 5 beats per minute

The digits are flashing to indicate that the pace count is ready for setting. Press [STOP • RESET] to select the pace count. Once the desired pace count is selected, press [START • SPLIT] to confirm the

setting and start the pace count. The display will show the elapsed time on the upper line, the pace count number on the middle and the pace count value on the lower display.
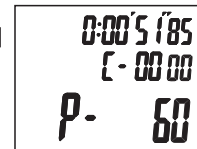
0:00'5 ī85 ← Elapsed time
[- 0051   ← Pace count number
P-   5   ← PACE count

Press [STOP • RESET] to stop the pace count; the display will freeze. To restart the pace count, press [START • SPLIT] again. Or press [STOP • RESET] to reset the time elapsed and the pace count number .

0:00'5 ī85
[- 00 00
P-   60

Stroke/Stride Measurement

Press [MODE] until you enter the Stroke Measurement mode. The display will be as follows.

> **STROkE**
> **0.0**

In the Stroke or Strides Measurement mode, the duration of 3 strokes is taken and the stroke frequency (counts per minute) is calculated. If the stroke frequency falls out of the range of 10 - 180, "Err" will appear to show the error condition.

Press [START • SPLIT] to start the measurement. During the 1st second, 180.0 will be shown and flashing as below.
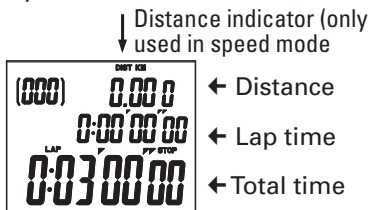
> **STROkE**
> **180.0**

At the end of the first second, the display will become steady.

If measurement is stopped in the first second (stroke frequency > 180), error signal " Err " will be shown. After the first second has elapsed, the instantaneous measurement reading will be shown. When you press [STOP • RESET], the display will show the steady stroke measurement reading. If the measurement lasts for more than 18 seconds (stroke frequency < 10), an error signal "Err" will be displayed. When the measurement is stopped, press [STOP • RESET] to reset the displayed reading to "0.0".

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Speed Mode (AX602M500 Model only)

Press [MODE] until you enter the Speed mode. The display will be as follows.

Distance indicator (only used in speed mode

(000)   0.00 0   ← Distance
0:00'00'00   ← Lap time
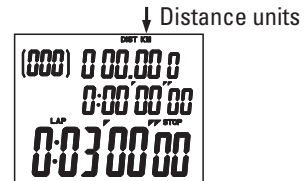0:03 00 00   ← Total time

(Note that the default setting is KM. Hence "KM" icon will be ON.)

The upper line shows the distance or speed. The lap time is in the middle line, while the total time is displayed on the lower line.

In Speed mode, you can record a number of lap times and speeds for covering the distance you program into the chronograph. Before starting to use the Speed mode, you need to enter the distance as explained below. Otherwise, the speed measurement won't work. Nothing will happen when you press [START • SPLIT].

Distance Setting

Press [RECALL] (S1) for 2 seconds to enter setting mode. The unit icon flashes.

Distance units

(000) 0 00.00 0
0:00'00'00
0:03 00 00

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Press [START • SPLIT] (S3) to toggle between KM and MILE. To select the following digits, press [STOP • RESET] (S2). The far right digit will blink and you can set the distance from the least significant digit to the most significant digit. The distance can be set in the range 0.000 to 1999.999 km (or ML) using [START • SPLIT] (S3). Press [RECALL] (S4) or [MODE] to exit from the setting mode.

As an example, the distance is set at 400m.

```
 (000)    0.40.0    DIST KM
          0:00'00"00
       0:03'00'00
```
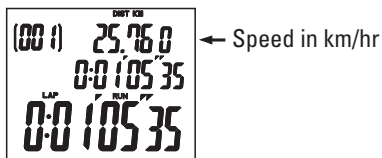
← 0.4 km = 400m

← Stop indicator

Speed Mode Running

Press [START • SPLIT] to start the Speed timer. The "STOP" indicator is OFF. The maximum time can be up to 19 hr. 59 min. 59.99 sec.

```
 (000)    0.00.0    DIST KM
          0:00'00"00
       0:03'05'35
```

While the timer is running, press [START • SPLIT] to record the lap time and the corresponding speed (in km/hr or mph) will be displayed on the upper line. The lap counter (shown on the upper left corner) will advance by one.

```
 (001)   25.76.0    DIST KM
          0:01'05"35
       0:01'05'35
```

← Speed in km/hr

Press [START • SPLIT] to record more lap times and show different speeds. Note that as the speed exceeds the value 1999.999 km/hr or 1999.999 mph, "Err" will be shown and no storage will be made for that record.
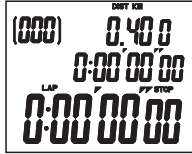
[START • SPLIT]

```
 (002)   22.06.0    DIST KM
          0:01'05"25
       0:02'01'15
```

[START • SPLIT]

```
 (003)   25.73.0    DIST KM
          0:00'55"95
       0:02'57'10
```

To stop the speed measurement, press [STOP • RESET] to stop the timer.

```
 (004)   25.64.0    DIST KM
          0:00'59"13
       0:03'48'23
```

Before starting again, you can reset the timer by pressing [STOP • RESET].

Speed Mode after reset.

Note: When you reset the Speed timer, the speed measurement starts again from a reset state, and all speed records in memory will be cleared (provided that the storage is not under segmented run memory mode).

The Recall function is similar to chronograph recall. If segmented run memory is selected, the DATA mode can be accessed and records storing

both the speed and elapsed time can be retrieved.

Lap Time & Speed Recall

Similar to the Chrono Recall mode, during speed measurement or Stop state, you can press [RECALL] to recall the speed/lap memories. The Mode message will be shown for one to two seconds as the Mode message display is displayed.

RECALL

The Speed and Lap time will be displayed on the upper and the middle lines. The lower line shows the current time counting. During Data recall, the fastest speed will be reviewed first, then the slowest speed and average speed.

Further presses of [RECALL] will retrieve the memories in ascending order or reverse order depending on whether the speed measurement is stopped or under operation respectively. During Recall, the "Recall" indicator is ON.

(Note: Speed mode and Chrono mode will not run simultaneously. When Chrono mode is active, Speed mode should be in reset state and vice versa.)

Please register your new stopwatch at www.ACCUSPLIT.com/support or send this form to address on the back cover of this instruction booklet

Email (preferred) _____

User _____

_____

NO-PROOF-OF-PURCHASE LIMITED WARRANTY
See label on back of unit for details, or check
http://support.ACCUSPLIT.com

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