S4   S3

S1   S2

S1 = MODE
S2 = STOP/RESET
S3 = START
S4 = LIGHT

1.   Function Description

The watch shall possess the following features and functions

- Time & Date

  • Time Display (Hour, Minute, Second), Optional 12H or 24H hour format
  • Date Display (Month, Date, Day of Week)
  • Optional Hourly Chime

- Alarm
  • A Daily Alarm

- Chronograph
  • 1/100 - second resolution, count up to 24 hours

- Timer
  • Count down Timer, settable time up to 24 hours

- EL Backlight
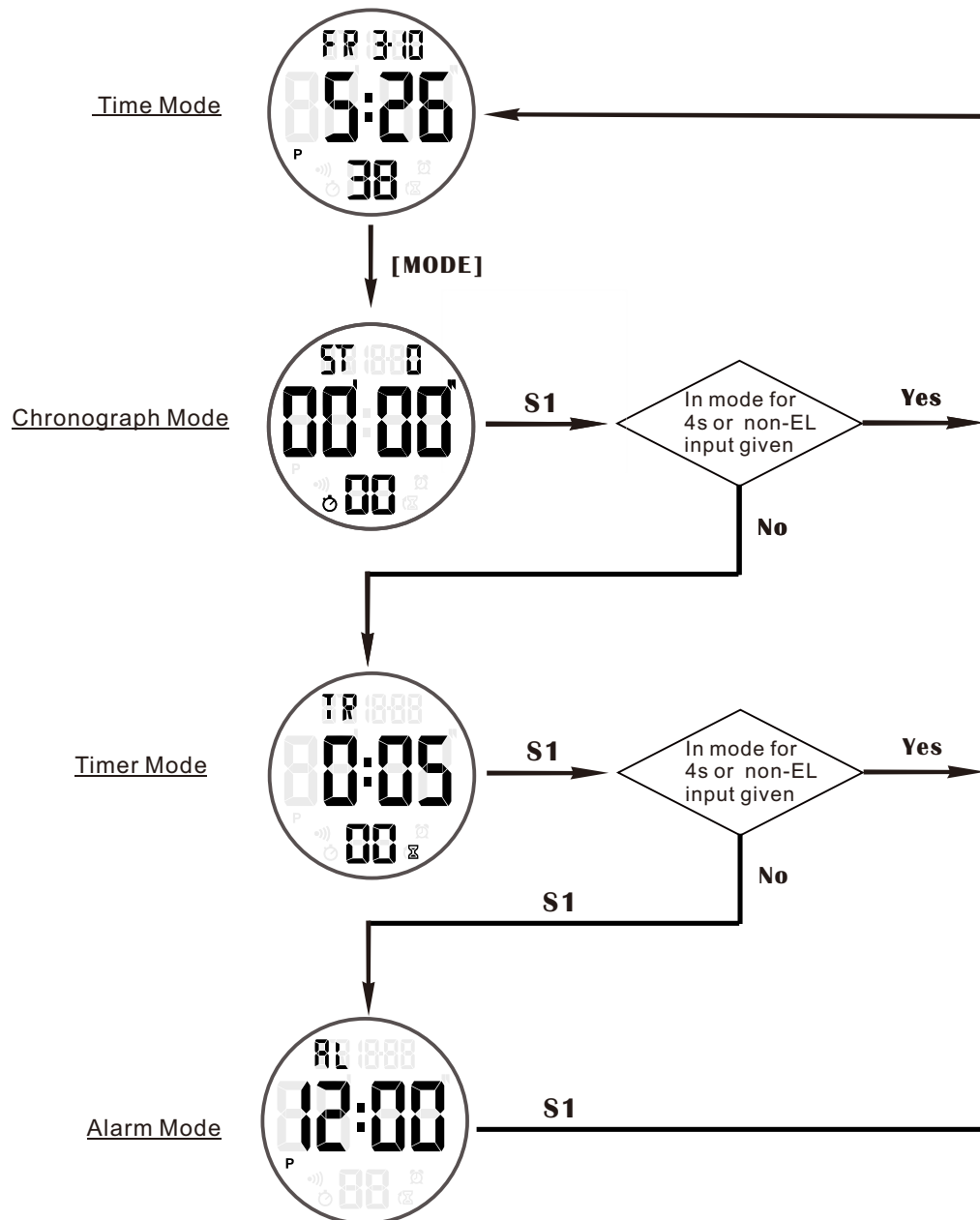 • Build in EL backlight

2. Mode Architecture

The watch employs classic mode architecture for navigation between modes, Time of Day is the default mode and the user can press button **S1** repeatedly to access other modes.

Watch consist of 4 different modes which are as follows：

- Time of Day（Including two time zones）
- Chronograph
- Timer
- Alarm

The mode sequence shall follow the order below：

3. Operation in Time of Day

The display in Time mode is shown below：

```
FR 3:10
5:26
P    38
```

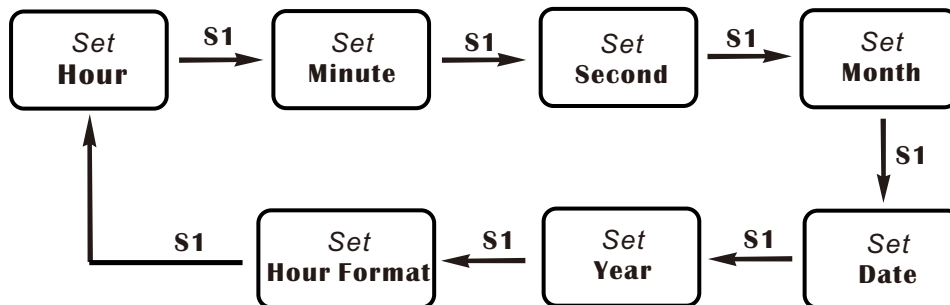### Basic Operations：

> Press button **S1** will change to next function mode Chronograph

> Press button **S4** will turn on EL backlight for 3 seconds

> Long press button **S2** for 3 seconds will enter Time Set state

How to set Time and Date:

Long press button **S2** for 3 seconds under Time display state, Hour is blinking , means it has enter set state and Hour is the first set item, press button **S1** to change the set item, press button **S3** will increase the set value. The operation as below:

```
Set          S1    Set          S1    Set          S1    Set
Hour     ------>   Minute   ------>   Second   ------>   Month
  ^                                                        |
  | S1                                                     | S1
  |                                                        v
Set          S1    Set          S1    Set          S1    Set
Hour Format <----  Year     <----     Year ... Date <--- Date
```

> When setting Hour, Minute, Month, Date and Year, press button **S3** will increase the setting value, long press of this button for 1 second and held will continue with fast adjustment of the setting value. Release of this button will exit of the fast adjustment state.

> When setting Second, press buton **S3** will force second value reset to zero.

> When setting Hour format, press button **S3**, hour format is toggled between **12H** and **24H** format.

> In set state, pressing button **S2** or no any key action for 3 minutes, all setting are saved and then exit to normal time display automatically.

4. Operation in Chronograph

There are four states in Chronograph, the display of these states are sampled as below:

Reset State	Running State	Stopped State	Split State

State description：

Reset State： Chronograph time is clean, all function icons display still
Running State： Chronograph time is updating fast, chronograph icons are blinking.
（In above picture, the icon is red means it is blinking, same for later ）
Stopped State： Display last chronograph time, chronograph icons display still
Split State: Chronograph is running but the display is kept at last caught time.
Chronograph icons are blinking

Basic Operations:

> Press button **S1** will changed function mode, if stay in Chronograph mode is less than 4 seconds, the next mode is Timer, else it will go back to Time of Day mode.

> Press button **S3** under Reset state or Stopped state, chronograph start to run,
When Chronograph is running, press button **S2** will enter Split state, current time is caught and display still, after 5 seconds, it will resume to normal running time display.
Press button **S3** when chronograph is running, chronograph is stopped, and long press button **S2** in Stopped state, chronograph time is clean and go to initial Reset state.

> When chronograph is running to maximum time, it will stop automatically and display the maximum time 23：59'59"99 still.

> In any state, press button **S4** will turn on EL backlight for 3 seconds.

5．Operation in Timer

There are four states in Timer, the display of these states are sampled as below:

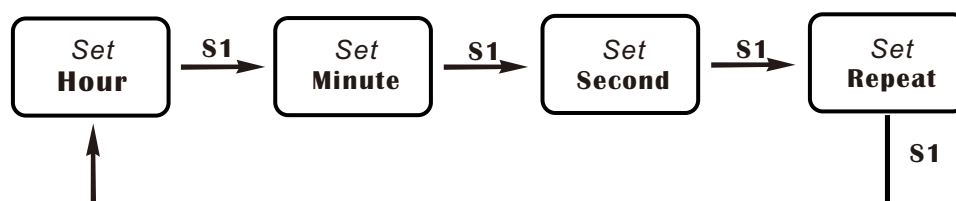|			
Reset State	Running State	Stopped State	Set State

State description：

Reset State：	Preset time is displayed, all function icons display still
Running State：	Timer time is updating, Timer icons are blinking.
Stopped State：	Display Timer last run time after stopped, Timer icons display still
Set State:	Timer set state display, setting item is blinking. (Above picture is sampled with Hour set, other items set are similar)

Basic Operations：

> Press button **S1** will changed function mode, if stay in Timer mode is less than 4 seconds, the next mode is Alarm, else it will go back to Time of Day mode.

> Press button **S3** under Reset state or Stopped state, Timer is start to run.
  When Timer is running, press button **S3** will stop the Timer.
  When Timer is stopped, press button **S2** and release it in 3 seconds, Timer is reset and preset time is displayed. (Reset state)
  In Timer Reset or Stopped state, long press button **S2** for 3 seconds will enter Timer set state.

> When Timer is counting reached to zero, it is stopped and a 10 seconds Timer alert is generated. During alerting, press any button will stop the alert immediately.

> In Timer any state, press button **S4** will turn on EL backlight for 3 seconds.

How to set Timer :

Long press button **S2** for 3 seconds under Time Reset or Stopped state, Timer Hour is blinking, means it has enter set state and Hour is the first set item, press button **S1** to change the set item, press button **S3** will increase the set value. The operation as below:

Set **Hour** → (S1) → Set **Minute** → (S1) → Set **Second** → (S1) → Set **Repeat** → (S1) ↺

> When setting Hour, Minute and Second, press button **S3** will increase the setting value, long press of this button for 1 second and held will continue with fast adjustment of the setting value. Release of this button will exit of the fast adjustment state.

> Press button S3 when setting Repeat switch will enable or disable timer repeat function.

> In set state, pressing button **S2** or no any key action for 3 minutes, all setting are saved and then exit to normal timer display automatically.
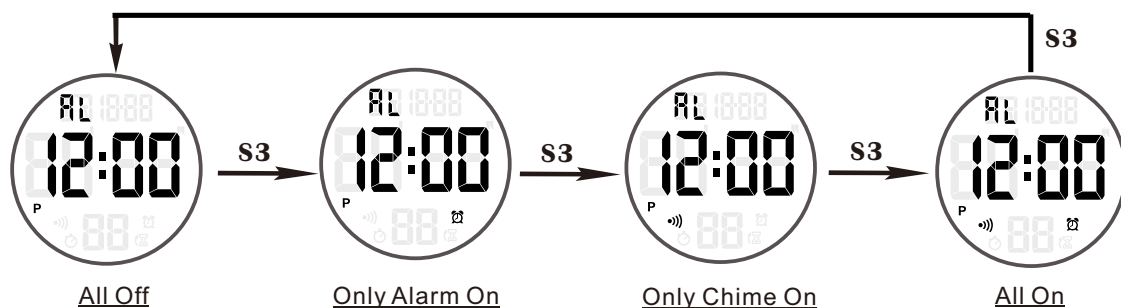
6. Operation in Alarm

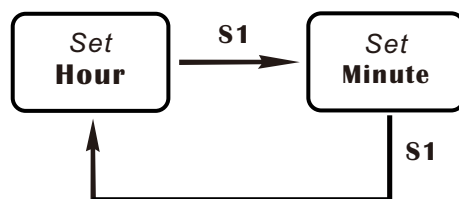There is a daily alarm in Alarm mode, it display as below:

Basic Operations：

> Press button **S1** will go back to Time of Day mode

> Press button **S3** continuesly will change Alarm and Chime switch, the operation as below:

| All Off | Only Alarm On | Only Chime On | All On |

> Press button **S4** will turn on EL backlight for 3 seconds.

> Long press button **S2** for 3 seconds will enter Alarm Set State

> When Alarm switch is ON and current time corresponds to alarm set time, the alarm alert melody shall be generated for 20 seconds. During alerting, any button action will stop the alert.
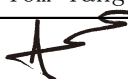
How to set Alarm Time :

Long press button **S2** for 3 seconds under Alarm mode, Alarm Hour is blinking, means it has enter set state and Hour is the first set item, press button **S1** to change the set item, press button **S3** can change the set value. The operation as below:

> When setting Hour and Minute, press button **S3** will increase the setting value, long press of this button for 1 second and held will continue with fast adjustment of the setting value. Release of this button will exit of the fast adjustment state.

> Whether Alarm switch is On or Off, when any alarm value is changed in Setting state, this switch is forced to On.

> In set state, pressing button **S2** or no any key action for 3 minutes, all setting are saved and then exit to normal time display automatically.

7. Module Specification

Module Diameter:	Ø33.20 mm
Module Thickness:	8.70mm
Operating Temperature:	-10℃~60℃
Timekeeping Accuracy:	+/- 30 s/m
Work Voltage:	3.0 V
Average Standby Current:	< 2.14uA
EL Backlight Current:	< 11.11mA
Alarm Current:	< 5.1mA
Chronograph Current:	< 6.9uA
Battery:	Maxell CR2032 (220mAh)
Est. Battery Enduration:	24 months

	Author	Review	Approval
Name	Tom Tang	Billy Hui	Guan
Signature			
Date	Aug. 08, 2024	Aug. 08, 2024	Aug. 08, 2024