

# bells

## WATCH PAGER

### SD-T1B



# Manual

## MAIN FEATURES:

1. 1.54" TN color screen, touch key.
2. wearable watch style, strap replaceable.
3. capacity of 999 pcs of transmitters, with each one assigned a different task.
4. Effective working range around 200 meters at open area.
5. Built-in high precision RTC time, without losing info. when power is off.
6. Built- in 3 groups of timely alarm working even when the power is off.
7. Compatible with most of transmitters in the market either in 2262 or 1527 code.
8. Intuitive and instructional menu to pair watch with transmitters.
9. Incoming message reminding by buzzer, LED, or vibration optional.
10. Buzzer volume can be regulated from grade 1 to grade 10.

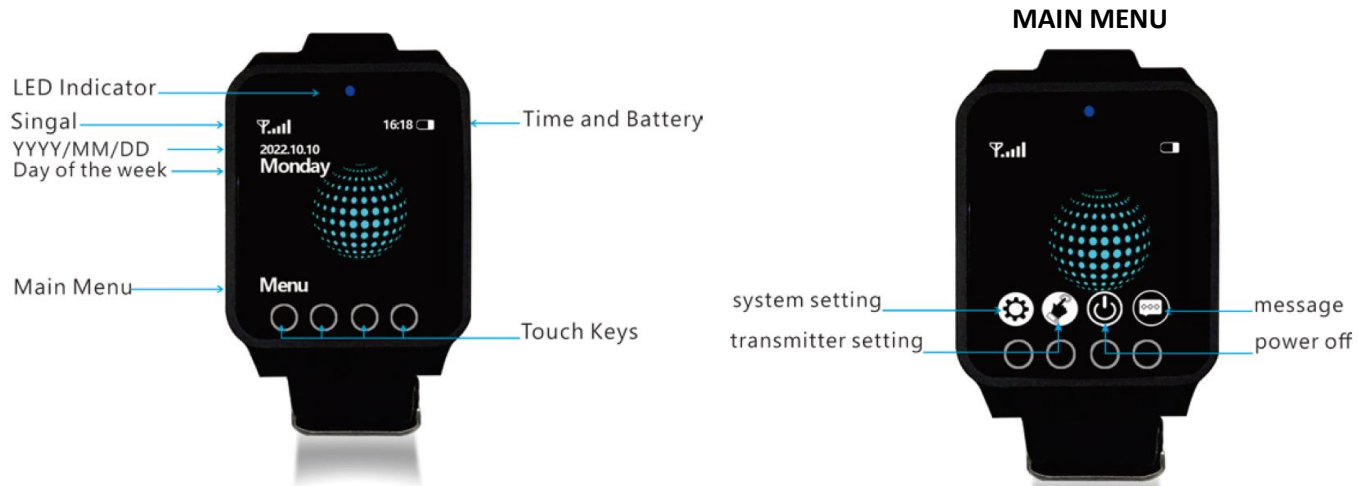
## SPECIFICATIONS:

- Input DC: 5V/1A
- Work Frequency: 433.92Mhz
- Standby: 84 hours
- Distance: 200M without obstacle
- Default mode: Hospital/Restaurant



# 1 PRODUCT APPEARANCE

## 1.0 DIAGRAMMATIC SKETCH



## KEY IN PASSWORD

Default password is 0000.



## 2. SYSTEM SETTINGS

### 2.1 DATE & TIME

#### a. DATE DISPLAY FORMAT

System Settings	Date/Time	Date	Display Format
Date/Time	Date	Display Format	YYYY/MM/DD ✓
Backlight Time (240)	Time	Set Date	DD/MM/YYYY
Auto Clear Time (300)	Time Calibration		MM/DD/YYYY
Alarm Clock			
RETURN UP DOWN OK	RETURN UP DOWN OK	RETURN UP DOWN OK	RETURN UP DOWN OK

Pic 1

Pic 2

Pic 3

Pic 4

#### b. SET DATE:

Click "set Date" at picture 3, and input the number and select "v" to save the setting.

#### c. Set Time:

In picture 2, select "Time". Enter the number and click "v" to save the results.

#### d. Adjust Time:

In picture 2, enter into "Time Calibration"

The number we input should be the total delayed/exceed seconds in past 30 days.

For example, the clock is 2 seconds behind, then we should input -60. On the contrary, if it is 2 seconds beyond, 60 is required.



<b>Please input exceed Seconds in 30 days</b>		
1	2	3
4	5	6
7	8	9
-	0	+
←	✓	✕

Pic 5

## 2.2. BACKLIGHT TIME

<b>System Settings</b>
Date/Time
<b>Backlight Time (240)</b>
<b>Auto Clear Time (300)</b>
Alarm Clock
RETURN    UP    DOWN    OK

Pic 6

<b>Input(1-240):</b>		
1	2	3
4	5	6
7	8	9
-	0	+
←	✓	✕

Pic 7

## 2.3. AUTO CLEAR TIME

It refers to the seconds that transmitter information keeps staying on the watch. One page can display 3 transmitter information, and that info. will keep displaying on the screen until they are wiped out by users or the clear time is up.

<b>System Settings</b>				<b>Input(0-999):</b>		
Date/Time				1	2	3
Backlight Time (240)				4	5	6
Auto Clear Time (300)				7	8	9
Alarm Clock				-	0	+
RETURN	UP	DOWN	OK	←	✓	×

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#### 2.4. ALARM CLOCK

Null refers to no alarm is set.

number 1 to 7 stands for Monday to Sunday.

<b>System Settings</b>			
Date/Time			
Backlight Time (240)			
Auto Clear Time (300)			
Alarm Clock			
RETURN	UP	DOWN	OK

Pic 10

<b>Alarm Clock</b>			
(Null)			
(Null)			
(Null)			
RETURN	UP	DOWN	OK


Pic 11

:		
1☑ 2☑ 3☑ 4☑ 5☑ 6☑ 7☑		
1	2	3
4	5	6
7	8	9
*	0	#
↓	✓	×

Pic 12



## 2.5. BUZZER VOLUME

System Settings	Buzzer Volume
Backlight Time (240)	
Auto Clear Time (300)	
Alarm Clock	
<b>Buzzer Volume (06)</b>	06 
RETURN UP DOWN OK	RETURN - +

PIC 13

PIC 14

## 2.6. PROMPT MODE

We can choose to be alerted by Vibration, Buzzer beeping, or LED Light flashing to remind us that messages are incoming. We suggest to keep at least two ways.

System Settings	Prompt Mode
Auto Clear Time (300)	Buzzer ✓
Alarm Clock	Light ✓
Buzzer Volume (06)	Vibrate ✓
<b>Prompt Mode</b>	
RETURN UP DOWN OK	RETURN

## 2.7 LOW POWER MODE

Grade 3 is ultra-energy saving status. System will shut down most of the functions to keep pager running at minimum power. The effective wireless range is shortened by half. Default level is grade 2.



<b>System Settings</b>	<b>Input(1-3):</b>		
<b>Alarm Clock</b>	1	2	3
<b>Buzzer Volume (06)</b>	4	5	6
<b>Prompt Mode</b>	7	8	9
<b>Low Power Level (2)</b>	-	0	+
RETURN   UP   DOWN   OK	←	✓	✕

Pic 17

Pic 18

## 2.8. FACTORY RESET

Factory reset will erase all the personal settings and return to default. Think twice before you hit the option.

<b>System Settings</b>	<b>Restore Factory Setting</b>
<b>Buzzer Volume (06)</b>	Yes
<b>Prompt Mode</b>	<b>No ✓</b>
<b>Low Power Level (02)</b>	
<b>Factory Reset</b>	
RETURN   UP   DOWN   OK	RETURN   UP   DOWN   OK

Pic 19

Pic 20





## 1.9. ABOUT ME

System Settings	System Settings
Prompt Mode	
Low Power Level (02)	ID: 35FFDC0542D3530268616431
Factory Reset	Date: 01/07/2017 09:00
About Me	Version: ALGO.ST.01
RETURN UP DOWN OK	RETURN

Pic 21

Pic 22

## 3. TRANSMITTER SETTINGS

### 3.1 PAIR AND NAME A TRANSMITTER FOR PAGER

To work with different transmitters makes a pager meaningful. Before they work together, we should add those transmitters into paging system. It's a process of registration, through which Pager can identify and locate the transmitter.

In main menu, click "Transmitter Setting", then "Add". Now trigger the transmitter by pressing any key on it to remit a signal and we will see Pic 24. We want select a number as address for this transmitter, for instance 102, press "+1" and "+100" and we will get "102" (default first transmitter is 001).

The Address "102" is an identification number that Pager depends on to recognize a transmitter.

Sometime we want not only numbers but text to better identify a transmitter. Texting on the pager needs a combined work of UP Arrow and Right Arrow.

For example we want ER1 to stands for the Emergency Room 1 .

Following the operation in Pic 23, Pic 24, we continue to press "UP Arrow", keep tap it until E is appeared. Then tap "Right Arrow" one time to move the cursor to the right (See Pic 25), and continue to keep tap "UP Arrow" until R is showing on the screen. And then tap "Right Arrow" and "Up Arrow" to get number 1. Obviously "Right Arrow" is responsible to move the cursor to next letter, and UP ARROW let us to select a wanted letter.

Transmitters	Add 001			Add BA		
<b>Add</b>	Please Trigger Trans...			Please Trigger Trans...		
<b>Key Function</b>	Please Select Number			Please Select Number		
<b>Delete</b>	+1	+10	+100	+1	+10	+100
<b>Delete All</b>	-1	-10	-100	-1	-10	-100
RETURN    UP    DOWN    OK	←	↑	→	←	↑	→

Pic 23

Pic 24

Pic 25

If a transmitter has already added into pager and we try to add it again, pager will notify us "code repeat" as pic 26

Add 001		
P	Code Repeat	
P	Repeat With : 001	
-1	-10	-100
←	↑	→

Pic 26

### 3.2 KEY FUNCTION

Key refers to button on transmitters. Only synchronize the signal of transmitters with this of pager can they work together.

#### 3.2.1 SYNCHRONIZATION AND DELETE



To pair the button with pager is not enough, we need synchronize the key function of button with pager.

**a. DEFAULT KEY FUNCTION SYNCHRONIZATION**

For example, we have a one-button transmitter with key function “call” (Pic 30). And we would like to realize a signal synchronization between button and pager, which means we can receive a message on pager when we press “CALL”

We enter the “transmitter setting”- “key function” menu, then we will see a picture as Pic 27 . Click “Down Arrow” we can select a default key function “Call”. Then press the button to send a signal, coming along with flashes from the LED indicator in button, and we will get a reminding message on Pager as Pic 29. Default key function is fulfilled.

Follow the same steps as above to find other default task, press the button on second transmitter (same kind as T1) and synchronize the 2nd one with pager.

Transmitters	Key Function			Key Function		
<b>Add</b>	Default Call			Default Call		
<b>Key Function</b>				Set Successful		
<b>Delete</b>	+1	+10	+100	+1	+10	+100
<b>Delete All</b>	-1	-10	-100	-1	-10	-100
RETURN    UP    DOWN    OK	←	↓	×	←	↓	×

Pic 27

Pic 28

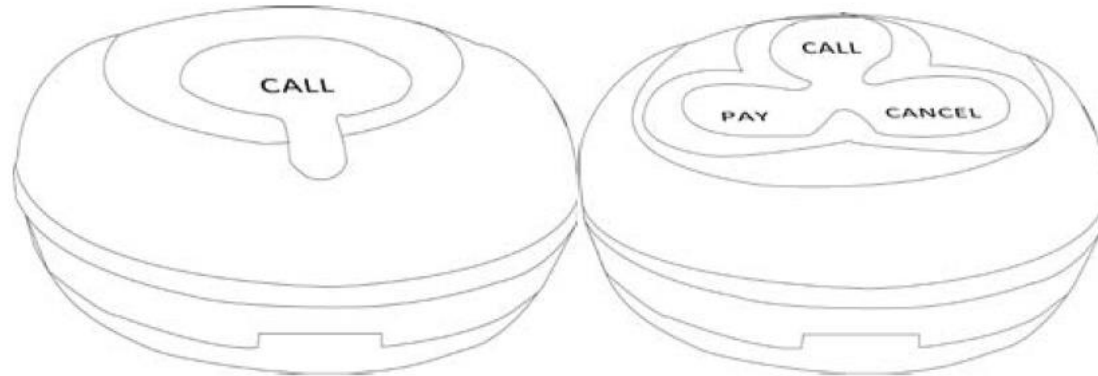
Pic 29

**b. MULTIPLE KEY FUNCTION SYNCHRONIZATION**

It refers to the synchronization between pager with different kinds of buttons, or buttons with more than 1 key functions.

For example, we would like to make T1 of one button (Pic 30), and T2 of 3 button (Pic 31) transmitters work with pager. T1 is a simple button with only “Call” key function, while T2 (pic 31) has 3 key functions “Call”, “Pay”, “Cancel”.





Pic 30

Pic 31

First of all, we need pair T1 and T2 with pager.

“Menu” ---“Transmitter Menu” ---“Add”, press any button on transmitter T1 to trigger a signal, and pager will display “Save Success, Save to 001”.

Then press any button on T2 transmitter, and pager will say “Save success, save to 002”.

Here “001” “002” are virtual address that pager assigned to call buttons.

One call button has only one virtual address.

Second, synchronize key function between pager and T1

Enter into “Transmitter menu” ---“Key function”--- Click “+1”, (001 has become T1’s address). ---Touch “Down Arrow” until 001 Call appears as Pic

33. Press “Call” Button on T1 transmitter to remit a signal to pager and pager will display “001 Call, set successful” as Pic 34. If we wrongly assign the task, we can touch “X” to remove.

Key Function			Key Function			Key Function		
Default Call			001 CALL			001 CALL		
+1	+10	+100	+1	+10	+100	+1	+10	+100
-1	-10	-100	-1	-10	-100	-1	-10	-100
←	↓	✕	←	↓	✕	←	↓	✕

Pic 32

Pic 33

Pic 34

Third, synchronize key function between pager and T2

- Click "Left Arrow" to return to "Key function" menu. Click "+1" twice, and the pager will distribute "002" as T2's address. Touch "Down Arrow" until 002 call display on the screen as pic 35. Now we press the "Call" button on the T2 transmitter, synchronization is completed and we will receive a message on pager "002 Call, set successful"
- Keep tap "Down Arrow" to find "002 Pay" (pic 36) and "002 Cancel" (Pic 37) task, and follow the above steps to synchronize them with pager. Pay attention, do not tap "Left Arrow" when you finish "Call" task and about to do "Pay" and "Cancel", because it will exit from 002 Task Interface.

Key Function			Key Function			Key Function		
002 CALL			002 PAY			002 Cancel		
+1	+10	+100	+1	+10	+100	+1	+10	+100
-1	-10	-100	-1	-10	-100	-1	-10	-100
←	↓	✕	←	↓	✕	←	↓	✕

Pic 35

Pic 36

Pic 37

**c. DELETE KEY FUNCTION SYNCHRONIZATION**



Press “X” will delete the synchronization.

As Pic 38, it deleted the default Synchronization. Pic 39 deleted the specified transmitter’s synchronization.

The system will remind “code Repeat” as Pic 40 if we are trying to assign a second key function.

Key Function			Key Function			Key Function		
D Default Key Function			D 002 Key Function			D Key Function		
Deleted			Deleted			Code Repeat		
TI T10 T100			TI T10 T100			TI T10 T100		
-1	-10	-100	-1	-10	-100	-1	-10	-100
←	↓	X	←	↓	X	←	↓	X
Pic 38			Pic 39			Pic 40		

### 3.2.2 MODE SETTING

“Menu” ---“Transmitter Setting” ---“Mode Setting”

There are two default working mode or working environment in our Pager, hospital and restaurant.

For Restaurant environment mode, we programmed 7 tasks which are Default Cancel, Default Service, Default Bill, Default Water, Default Order, Default Call, and Default Pay.

For Hospital environment mode, there are also 7 tasks, namely Default Cancel, Default SOS, Default Call, Default Needle, Default Medicine, Default Emergency, and Default Pay.

We can choose a working mode according to the real working environment before key function synchronization.

For example, we have a pager and a transmitter (by name of T2) of 3 buttons namely Cancel, PAY, CALL working in Restaurant Mode.

First of all, set Restaurant working mode.

Enter into “Menu” ---“Transmitter Setting” ---“Mode Setting” ---“Restaurant”.

Second, Synchronize transmitter T2 with pager.

“Menu” ---“Transmitter Setting” ---“Add” ---Press UP Arrow until T appears---Press Right Arrow and UP arrow until 2 showing on the screen---Press any button on the transmitter to remit a signal. Synchronizing finished if system says “set successful”.

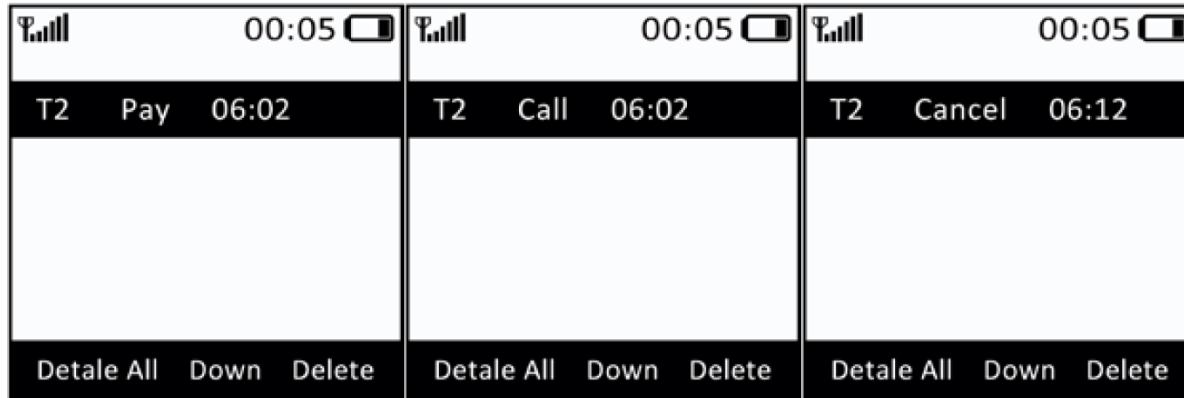
Third, assign key function for each button.

“Transmitter Setting” ---“Key function” ---Press Down Arrow until “Default Cancel” shows---Press “Call” button on T2 transmitter.

Click “Down Arrow” to find “Default PAY” on pager and press “PAY” button on T2 transmitter.



Click "Down Arrow" to find "Default Cancel" on pager and press "Cancel" button on T2 transmitter.  
 Synchronizing "Call" "Pay" and "Cancel" signal with pager accomplish.  
 When we hit the button "Pay", "Call", "Cancel" on the transmitter, pager will get the message bellow.



Pic 30

Pic 31

Pic 32

### 3.2.3 TAILOR YOUR OWN KEY FUNCTIONS

It allows users to create their own key functions according to real working environment.  
 For example, I would like to use it in Bank with personalized task "Deposit", "Withdraw", "Insurance", "VIP", "SOS".

### 3.3. DELETE TRANSMITTER

It will lose the bond between transmitter and pager.

Transmitters	Delete 001			Delete 001			Delete 001		
Add	Please Trigger Trans...			P 001			P Transmitter Valid		
Key Function	Or Select Number			C Deleted			C Jumped To 002		
Delete	+1	+10	+100	+1	+10	+100	+1	+10	+100
Delete All	-1	-10	-100	-1	-10	-100	-1	-10	-100
RETURN UP DOWN OK	←		✕	←		✕	←		✕



### 3.4. DELETE ALL

“Delete All” will erase all the transmitters registered in paging system.

After click “YES”, we need wait a moment to let system processes the demand before we hit “Return”

Transmitters			
Add			
Key Function			
Delete			
<b>Delete All</b>			
RETURN	UP	DOWN	OK

Transmitters			
A	<b>Delete All</b>		
K	<b>Are You Sure?</b>		
D	YES	NO	
<b>Delete All</b>			
RETURN	UP	DOWN	OK

