

SJT-YBA-V13 Voice Announcement Device

User Manual

Ver: V1.1

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PROLOGUE

SJT-YBA-V13 elevator voice announcement is an upgraded version of V12. V13 has the full functions of V12. This voice announcement system bases on the CAN cable elevator control system of our company. It doesn't only have basic functions of general voice announcement, but also have simple wiring and configuration, nice appearance. The main technical characteristics are as follows:

1. Adopting build-in FLASH memory voice module, the voice is in MP3 form, sound is similar to CD. It is of better compatibility and smaller occupied capacity, and is easier to make. As the carrier of the voice file, the build-in FLASH memory has high performance, high security, and the voice update is very convenient, you only need to connect the module to computer with USB port.
2. During the synthesis and record of voice, it adopts "GOLDWAVE" professional voice software to process the audio. Special voice content could be composed by customer or our company. The procedure of realization of such function is only to input the voice files into the FLASH memory by the rules, which shortens the delivery time.
3. SCM adopts STM8S208R8 of STMicroelectronics.

1. Main Features

- Reliable performance, interference-free
- Convenient installation, commissioning-free
- Announcement of elevator running direction and floor

2. Structure Diagram and Principle

The diagram of the SJT-YBA-V13 components is as follows:



Figure 1 System Structure Diagram

2.1 Principle

The shell of SJT-YBA-V13 elevator voice announcement is made of plastic. The main control MCU is STM8S208. WT2003 voice module transfer its inner voice files to analog voice signals through operational amplifier. It is transmitted to speaker, then gives out euphonic sound. All voice files are stored in the internal serial flash, and use USB port for file replacement.

The working principle is as follows: after the voice announcement communicates with the elevator control system, it receives the elevator data through CAN bus in real time, and controls the voice chip to decode the audio file according to the landing information, and drives the speaker through the power amplifier circuit to realize the speech broadcast of the corresponding floor station.

3. Configuration and Installation

3.1 Structure Diagram

3.1.1 Dimensions

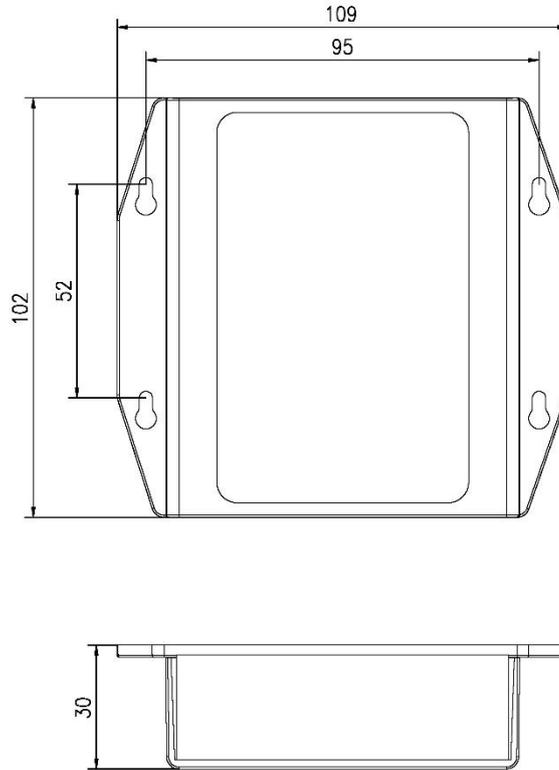


Figure 2 Plane layout

3.1.2 Front and back layout



Figure 3 Front and back layout

3.2 Input terminals Definition

Table 1 definition of terminal

Name	Type	Describe	Explain			
			+24V	GND	C+	C-
JP1	5.08-4P	Power supply and CAN interface	+24V	GND	C+	C-
			24V Input	GND Input	CANH	CANL
SPK	2.54-2P	Speaker interface	The default speaker interface(XHS-2P) with 4 Ohm 3W speaker			
	3.5mm	3.5mm audio interface	Reserve 3.5mm audio interface and cannot be used with 2.54-2 interface at same time.			
USB	Mini-USB	USB Interface	For file replacement			
MENU	Key	Menu button	Press the MENU key (>3s) to enter setting mode, and then press the menu key to switch the menu.			
SET	Key	Set button	Press SET key to configure parameters in setting mode			

3.3 Wring diagram of serial communication system

The upper part in Figure 4 is terminals on voice announcement device, the lower part is terminals of traveling cable, please connect them as shown in follows:

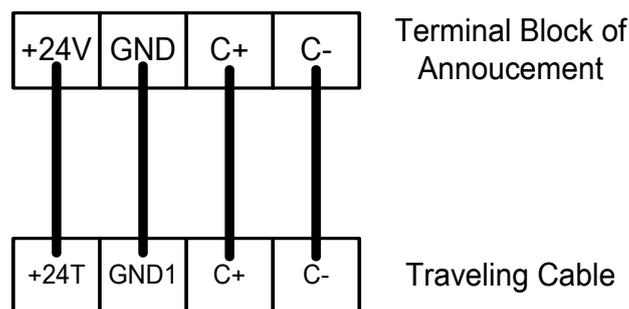


Figure 4 Wiring Diagram

4. Operation Instruction

4.1 The scope of floors broadcasting

4.1.1 The standard broadcasting scope of this serial system announcement is:

-3 ~ 50, B, G, B1, and B2. The explanation of those characters is:

“G”: The Ground Floor;

“B”: B floor;

“B1”: Basement One;

“B2”: Basement Two;

4.1.2 When elevator reduces the speed and before stop at leveling, the device will announce. For example: “arriving floor one”

4.2 The Language of Broadcasting

Voice A or Voice B can be changed by setting menu selection . Factory will build-in programming in the chip; the programming can be Chinese, or English, or Chinese with English.

4.3 Broadcasting Welcoming Speech or Advertisement Words

4.3.1 Trough the setting menu to select broadcasting or not welcoming speech or advertisement.

4.3.2 The serial system announcement will announce “welcome you to come in” after the door closed at base floor. We also can meet your special requirement for broadcasting content.

4.4 Serial Mode Communication Setting

4.4.1 Serial mode: Getting information from CAN bus

4.5 Select Arriving Gong Voice “Dingdong”

Select broadcasting voice “dingdong” or not by setting menu.

4.6 Door open/ close announcement function

4.6.1 Select the door open/close announcement function or not by setting menu.

4.6.2 When system outputs door open signal, it announces voice "Open door". After that, if the door open signal re-output, the voice will be announced again.

4.6.3 when system outputs door close signal, it announces voice "Close door", if there is car call been registered before door closing, it will announce running direction first, then announce "Close door".

4.7 Broadcasting Running Direction

4.7.1 While door keeps open and there is a call registered, it will announce prepare running direction as "Going up" or "Going down".

4.7.2 When door is at closing process, there is door open signal comes from door open button or door sensor, it will announce the running direction prepared gain.

4.7.3 If the door keeps open, after announcing the running prepared direction, 20 seconds later, it will be announced again.

4.8 The Announcement for Overload Function

4.8.1 If there is an overload signal; it will give a voice "car is overload now".

4.8.2 If the car always gets in overload status, it will announce "car is overload" in every 20 seconds.

4.9 The Announcement for Elevator in Fire Service Status

4.9.1 When elevator is in fire status, it will announce "fire alarm! Get out elevator immediately"

4.9.2 If elevator is in fire status all long, it will announce the alarm voice in every 20 seconds.

4.10 The Announcement for Elevator in Sliding Status

4.10.1 When elevator is in Sliding status, it will announce "Elevator fault! Get out elevator immediately"

4.10.2 If elevator is in sliding status all long, it will announce the alarm voice in every 20 seconds.

5. Commissioning Instruction

5.1 Setting Menu

Setting Mode: The voice station is installed successfully, after the power supply, you will hear "Operation mode", in this state, long press the Menu key 3S and then release, you will hear the "setting mode", enter the set mode.

In the setting mode, click the Menu button to switch the menu, click the Set button to switch settings options, menu and settings options have voice prompts, the specific content is as follows:

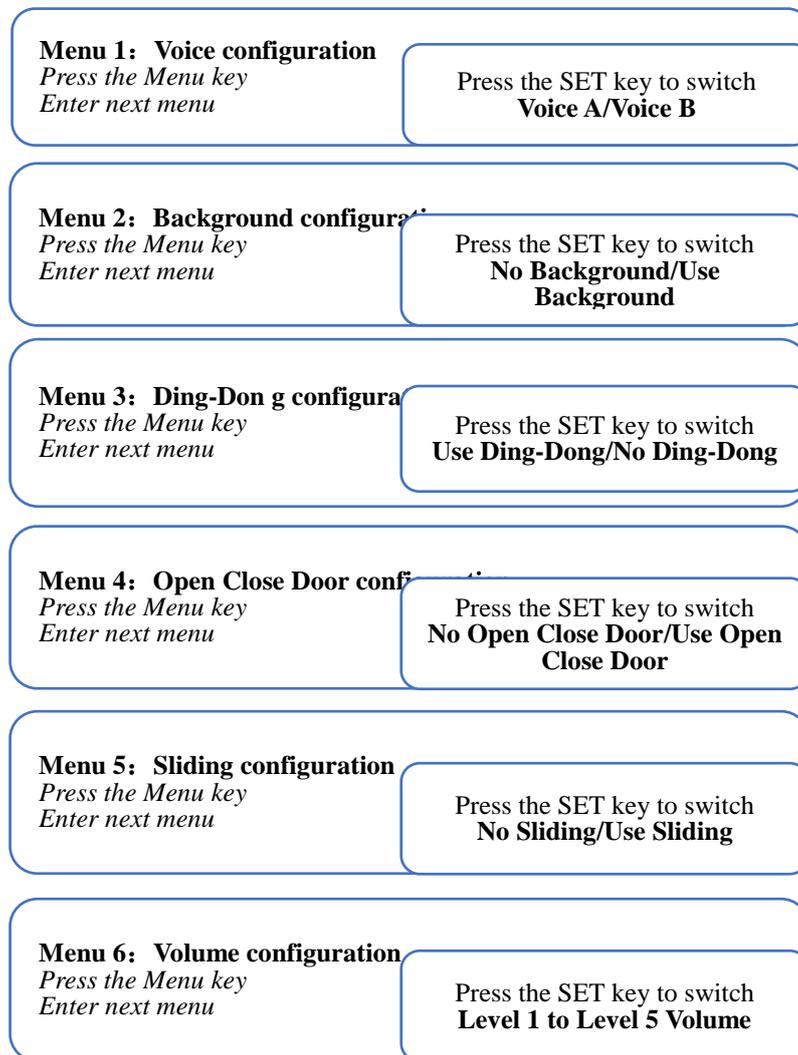


Figure 5 Setting Menu

Operation mode: In the setting mode, long press the Menu key 3S and then release, will hear the "operation mode" voice, enter the operation mode. If in the set mode, more than 60s, no key press, will automatically withdraw from the set mode, enter the operation mode.

5.2 Voice File Self-Studying

When the voice station is installed successfully, Press the Menu key and the Set key before the power is on, and then the power is switched on. When the green work light D6 blinks, release the Menu key and the Set key, voice file self-studying begins. [Note 1].

After entering the voice file self-studying mode, the voice station will learn the file information in the WT2003 voice module. After changing the file information in the WT2003 voice module, it is necessary to do a voice file self-studying again.

When the study is completed and successful, you will hear "voice file update success" [Note 2], and "operation mode". If the learning fails, it will not emit any sound, and the program reset.

[Note: 1] rewriting voice station program, the next power will automatically enter into the voice file self-studying state; the voice station is connected with the computer through the USB data line, the next power will automatically enter into the voice file self-studying state.

[Note: 2] If there is a configuration file in the voice file, the device will issue a voice: "The voice file is updated successfully, the configuration file is loaded successfully" or "The voice file is updated successfully, the configuration file is loaded failed" (the configuration file format is wrong).

5.3 Indicator light status

The Red Indicator light D7 constant ON: Power status is normal.

The Green Indicator light D5 blink: CAN status is normal.

The Green Indicator light D6:

- Operation mode, Slow flashing (periodic 2s)。
- Setting mode, Medium speed scintillation (periodic 1s).
- Single button insertion when power up, Fast flashing。
- Voice File Self-Studying, Fast flashing。
- Connecting the computer, Breathing flashing。
- Always bright, indicating that the program failure, may be voice module damaged, or voice file self-learning failure。
- Not bright, indicating an unknown fault, may be hardware damage (such as LED damage).

5.4 Common Fault Handling

5.4.1 Power LED indicator doesn't work, please check the input voltage by multimeter, it should be DC24V at terminal "+24V" and "GND2".

5.4.2 CAN LED indicator doesn't work, please check wires on terminal "C+"

and "C-".

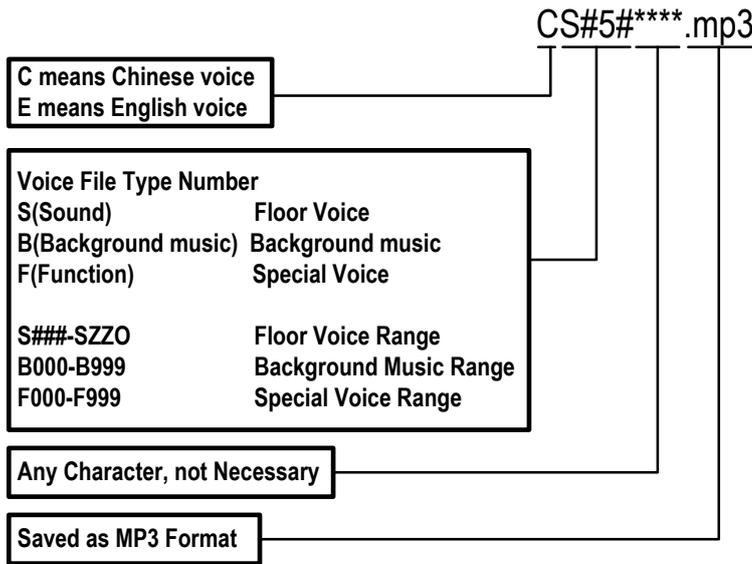
5.4.3 if all indicators are working properly, but cannot listen the voice, please check voice box, adjust the volume properly, or process the voice file self-studying.

6. Ordering Information

We can provide the announcement as your special requirement. For your convenience, please fill out the order information card carefully before you order the voice announcer. Our company will record the corresponding voice and audio file for you according to your request.

Appendix I Update Instruction of Voice Files

1. Connect WT2003 Module to PC with USB cable, then a removable disk appears on MyComputer.
2. Copy the corresponding voice files to the root directory of the removable disk. The name rule of the voice files as follows,



The last 3 bits in 'S#5#' (#5#) are corresponding to 3 bits setting display. The setting range as follows:

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	
Bit 1	#	-	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Bit 2	#	-	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Bit 3	#	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O																							

Note: '#' means space, displayed ' ', '*' means any character with any length.

Floor Voice Files Address: All displayed character combinations have separate addresses (File Name Prefix).(CS###-CSZZO for Chinese, ES###-ESZZO for English).

Background Music Address: 1000 for Chinese (CB000-CB999), 1000 for English (EB000-EB999).

Note: The background music addresses had been built in program, a total of

3(CB000_***.mp3, CB001_***.mp3, CB002_***.mp3). If you have any special requirements, please contact us.

Special Voice Address: 1000 for Chinese (CF000-CF999), 1000 for English (EF000-EF999).

Note: For specific special voice name already in use, refer to Appendix II. If you have any special requirements, please contact us.

Note: No more than 200 files, and folders are not available.

3. If the voice you want is not in the voice file address list in Appendix II, or conflicts with existing filenames, please contact us.

Appendix II Voice Files Address List

Floor Display	Voice File(.mp3)		Floor Display	Voice File(.mp3)		Special Voice	Voice File(.mp3)		Menu Voice	Voice File(.mp3)	
	Voice A	Voice B		Voice A	Voice B		Voice A	Voice B		Voice A	Voice B
1	CS#1#.mp3	ES#1#.mp3	3 0	CS30#.mp3	ES30#.mp3	Welcome	CF064.mp3	EF064.mp3	Current setting	CF000.mp3	
2	CS#2#.mp3	ES#2#.mp3	3 1	CS31#.mp3	ES31#.mp3	Up	CF065.mp3	EF065.mp3	Save success	CF001.mp3	
3	CS#3#.mp3	ES#3#.mp3	3 2	CS32#.mp3	ES32#.mp3	Down	CF066.mp3	EF066.mp3	Operation mode	CF010.mp3	
4	CS#4#.mp3	ES#4#.mp3	3 3	CS33#.mp3	ES33#.mp3	Dingdong	CF067.mp3	EF067.mp3	Setting mode	CF011.mp3	
5	CS#5#.mp3	ES#5#.mp3	3 4	CS34#.mp3	ES34#.mp3	Open	CF068.mp3	EF068.mp3	Voice configuration	CF012.mp3	
6	CS#6#.mp3	ES#6#.mp3	3 5	CS35#.mp3	ES35#.mp3	Close	CF069.mp3	EF069.mp3	Voice A	CF013.mp3	
7	CS#7#.mp3	ES#7#.mp3	3 6	CS36#.mp3	ES36#.mp3	Fire	CF070.mp3	EF070.mp3	Voice B	CF014.mp3	
8	CS#8#.mp3	ES#8#.mp3	3 7	CS37#.mp3	ES37#.mp3	Fault	CF071.mp3	EF071.mp3	Background configuration	CF015.mp3	
9	CS#9#.mp3	ES#9#.mp3	3 8	CS38#.mp3	ES38#.mp3	Over-load	CF072.mp3	EF072.mp3	No background music	CF016.mp3	
10	CS10#.mp3	ES10#.mp3	3 9	CS39#.mp3	ES39#.mp3	Slide	CF074.mp3	EF074.mp3	Use background music	CF017.mp3	
11	CS11#.mp3	ES11#.mp3	4 0	CS40#.mp3	ES40#.mp3	Voice Test	CF998.mp3		Welcome configuration	CF018.mp3	
12	CS12#.mp3	ES12#.mp3	4 1	CS41#.mp3	ES41#.mp3	Com Test	CF999.mp3		No welcome speech	CF019.mp3	
13	CS13#.mp3	ES13#.mp3	4 2	CS42#.mp3	ES42#.mp3	Background 1	CB000.mp3		Use welcome speech	CF020.mp3	
14	CS14#.mp3	ES14#.mp3	4 3	CS43#.mp3	ES43#.mp3	Background 2	CB001.mp3		Dingdong configuration	CF021.mp3	
15	CS15#.mp3	ES15#.mp3	4 4	CS44#.mp3	ES44#.mp3	Background 3	CB002.mp3		No Dingdong sound	CF022.mp3	
16	CS16#.mp3	ES16#.mp3	4 5	CS45#.mp3	ES45#.mp3	Mute	CB999.mp3		Use dingdong sound	CF023.mp3	
17	CS17#.mp3	ES17#.mp3	4 6	CS46#.mp3	ES46#.mp3				Open-close configuration	CF024.mp3	
18	CS18#.mp3	ES18#.mp3	4 7	CS47#.mp3	ES47#.mp3				No open-close sound	CF025.mp3	
19	CS19#.mp3	ES19#.mp3	4 8	CS48#.mp3	ES48#.mp3				Use open-close sound	CF026.mp3	
20	CS20#.mp3	ES20#.mp3	4 9	CS49#.mp3	ES49#.mp3				Sliding configuration	CF027.mp3	
21	CS21#.mp3	ES21#.mp3	5 0	CS50#.mp3	ES50#.mp3				No sliding sound	CF028.mp3	
2.2	CS2##.mp3	ES2##.mp3	-1	CS-1#.mp3	ES-1#.mp3				Use sliding sound	CF029.mp3	
2.3	CS23#.mp3	ES23#.mp3	-2	CS-2#.mp3	ES-2#.mp3						
2.4	CS24#.mp3	ES24#.mp3	-3	CS-3#.mp3	ES-3#.mp3				Volume configuration	CF033.mp3	
2.5	CS25#.mp3	ES25#.mp3	B	CS#B#.mp3	ES#B#.mp3				Level 1	CF034.mp3	
2.6	CS26#.mp3	ES26#.mp3	G	CS#G#.mp3	ES#G#.mp3				Level 2	CF035.mp3	
2.7	CS27#.mp3	ES27#.mp3	B1	CSB1#.mp3	ESB1#.mp3				Level 3	CF036.mp3	
2.8	CS28#.mp3	ES28#.mp3	B2	CSB2#.mp3	ESB2#.mp3				Level 4	CF037.mp3	
2.9	CS29#.mp3	ES29#.mp3							Level 5	CF038.mp3	

Note: If the setting floor display is not in this list, please contact us to get the corresponding voice file name.