TOA

EMERGENCY PUBLIC ADDRESS SYSTEM

(EMERGENCY MESSAGE PANEL)

FV-208EV-AS

TABLE OF CONTENTS

Thank you for purchasing TOA's Emergency Public Address System.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of your equipment.

TOA Corporation

1. GENERAL DESCRIPTION

The FV-208EV-AS Emergency Message Panel operates within the section of the FV-200 Series Emergency Public Address System. This panel is not required if the system is to be used solely for general-purpose public address application. It is possible to start and reset emergency broadcast through automatic or manual operation. The FV-208EV-AS consists with 8 pre-recorded emergency messages that is alert, evacuation, false, safe to stay, emergency standby, PA test, FA test, and siren.

2. FEATURES

• The FV-208EV-AS is pre-loaded with emergency message when shipped from factory.
• 8 Control input to trigger emergency broadcast.
• 8 Programmable Control Output.
• SD Card Slot for alternative emergency message.
• USB port for access built-in message as mass storage FAT drive (no need install drive).
• Support MP3 file (up to bit rate 320 kbps).
• Has internal memory 128MB.

3. NOMENCLATURES AND FUNCTIONS

[Front Panel]
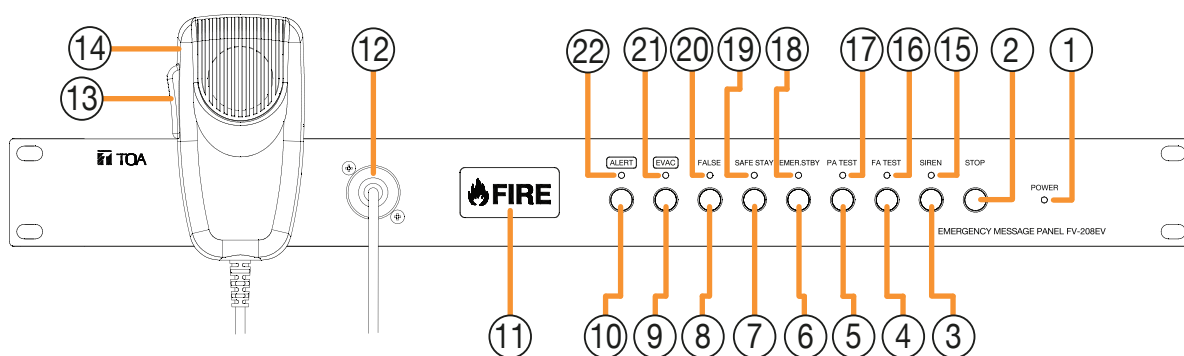
1. Power Indicator
Lights when power is supplied and the FV-208EV-AS is ready for operation.

2. Stop Announcement Button
When it is confirmed that a fire has been extinguished or other emergency situations have returned to normal, press this button to terminate emergency broadcasts after resetting the connected automatic fire alarm system.

3. Siren Announcement Button
Press this button to play back siren announcements.

4. FA Test Announcement Button
Press this button to play back FA test announcements.

5. PA Test Announcement Button
Press this button to play back PA test announcements.

6. Emergency Standby Announcement Button
Press this button to play back emergency standby announcements.

7. Safe Stay Announcement Button
Press this button to play back safe stay announcements.

8. False Announcement Button
Press this button to play back false announcements.

9. Evacuation Announcement Button
Press this button to play back evacuation announcements.

10. Alert Announcement Button
Press this button to play back alert announcements.

11. Fire Indicator
Indicates that an emergency broadcast is in progress. This indicator lights when a fire detection signal is transmitted from the automatic fire alarm system or when the emergency message is broadcast.

12. Fireman's Microphone Connector
Connect to Fireman's Microphone (14).

13. Talk Switch
Hold down this switch to make announcements using the microphone.

14. Fireman's Microphone
Make announcements while holding the Talk Switch (13).

15. Siren Indicator
Lights when a siren announcement is played back.

16. FA Test Indicator
Lights when a FA test announcement is played back.

17. PA Test Indicator
Lights when a PA test announcement is played back.

18. Emergency Standby Indicator
Lights when an emergency standby announcement is played back.

19. Safe Stay Indicator
Lights when a safe stay announcement is played back.

20. False Indicator
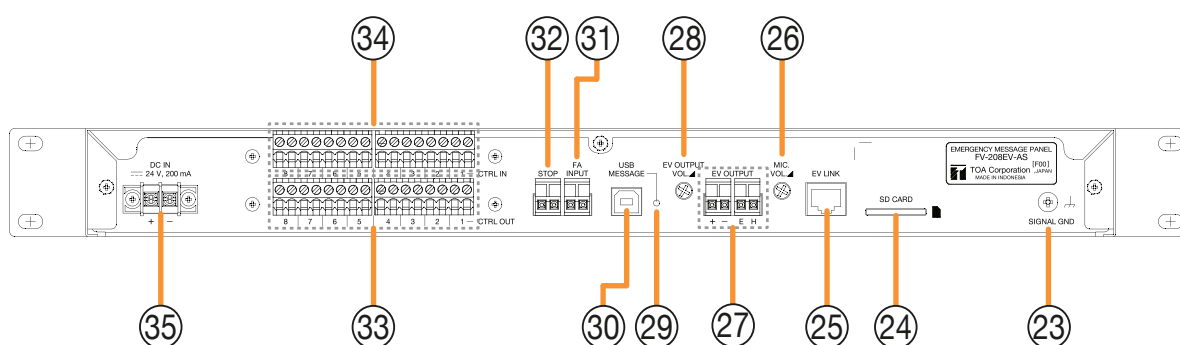Lights when a false announcement is played back.

21. Evacuation Indicator
Lights when an evacuation announcement is played back.

22. Alert Indicator
Lights when an alert announcement is played back.

[Rear Panel]

23. Functional Earth Terminal
Connect this terminal to the functional earth terminal of external equipment if excessive noise is generated when the external equipment is connected to the FV-208EV-AS. This could reduce noise.

Note: This terminal is not for protective earth.

24. SD/MMC Card Slot
Insert SD card to play emergency broadcast from SD card source. SD card must formatted as FAT.

25. Link Terminal
This is later development.

26. Fireman's Microphone Volume
Adjust the sound volume for fireman's microphone input. Turning the control clockwise increase the volume, while turning it counter-clockwise decrease the volume.

27. EV Output
Connect the FV-200PP-AS to this terminal.

28. EV Output Volume
Adjust the sound volume for emergency broadcast message. Turning the control clockwise increase the volume, while turning it counter-clockwise decrease the volume.

29. USB Communication Indicator
LED light up after USB connection.

30. USB Terminal
Connect this terminal to a PC using the USB cable. With this connection the built in sound source can be rewritten. This USB will show as mass storage drive. User can change the audio source without the need to install driver.

31. Fire Alarm Input Terminal
Connect this terminal to the fire alarm signal transmitted from the automatic fire alarm system.
(Open voltage : 24 V DC: short-circuit current : under 5mA; 2P terminal block).

32. Stop Input Terminal
Same function with STOP button at front.
(Open voltage : 24 V DC; short-circuit current: under 5 mA; 2P terminal block).

33. Control Output Terminal
Following message activation, on default this terminal remains at 'make' until playback is complete. This can be programmed by setting **config.ini** file in flash memory.
(Relay output; rated voltage: 24 V DC; current capacity: 8A; 2x8P terminal block).

34. Control Input Terminal
Connect this terminal to the device.
(Open voltage: 24 V DC; short-circuit current: under 5 mA; 2x8P terminal block).

35. DC Power Input Terminal
Connect this terminal to 24 V DC power supply. Power is supplied from the FV-200PS-AS.
(M3 screw terminal; barrier distance: 6.4 mm).

3

4. CONNECTIONS

Fire Alarm Panel

FV-208EV-AS

FV-200PP-AS

FV-200RF-AS

RM-200M

SS-2010

Speaker Line

FV-200CA-AS

FV-200PS-AS

230 V AC

FV-224PA-AS

DUTY AMPLIFIER NO.1

230 V AC

FV-224PA-AS

STANDBY AMPLIFIER

230 V AC
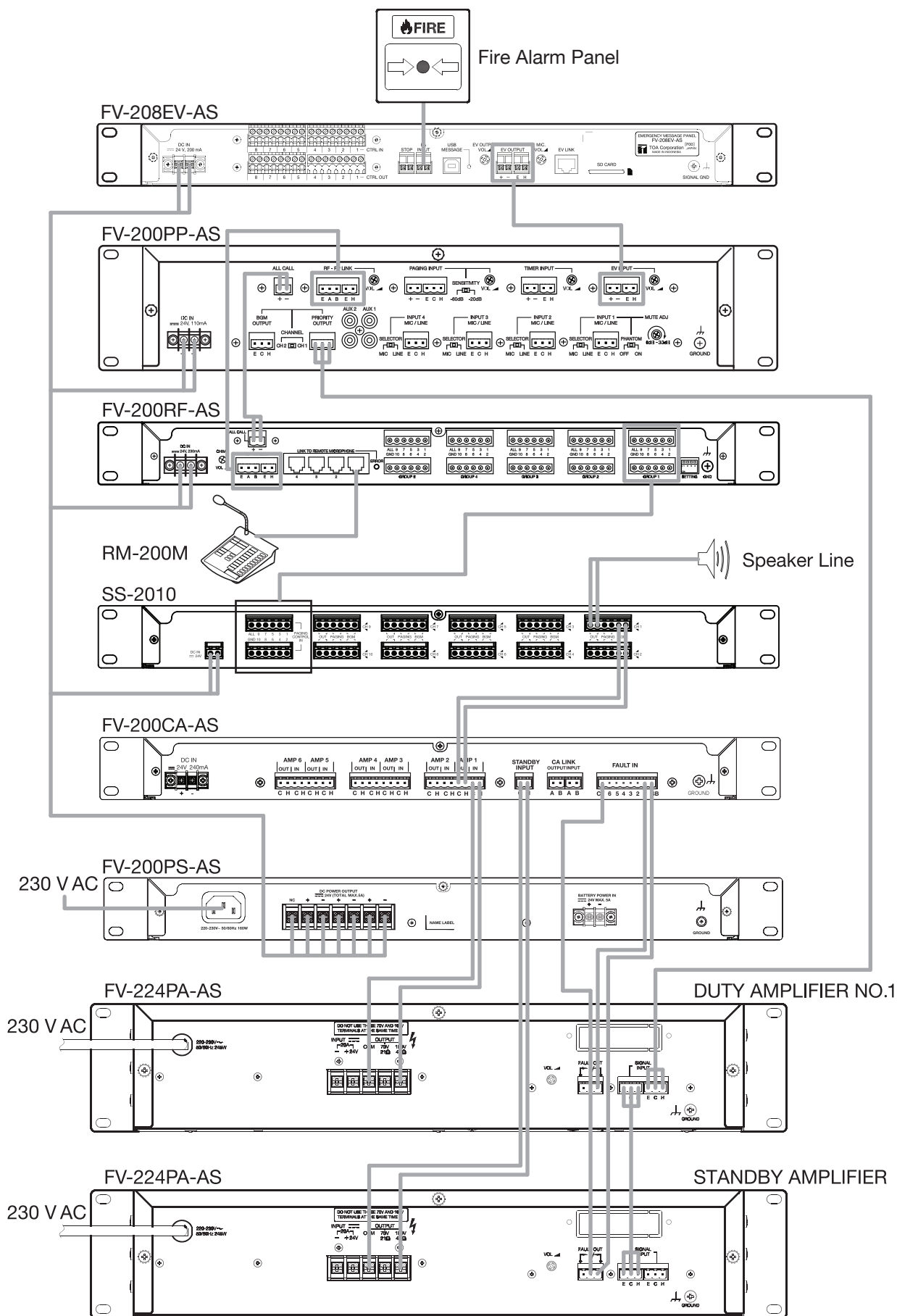
5. SETTINGS

PC   USB cable

Connect FV-208EV-AS (rear panel side) to PC/Notebook using USB cable.
File **config.ini** will be found on EV20R folder, with this file we can set control output, delay time and playback interval.
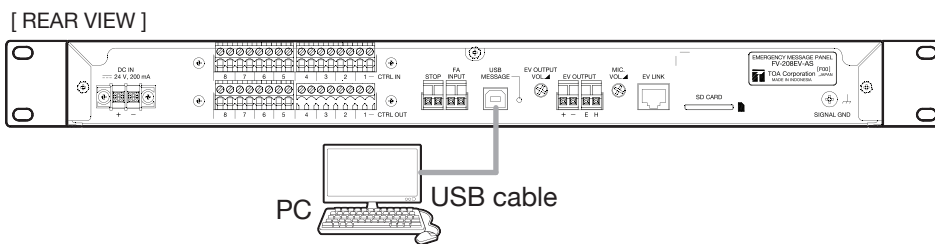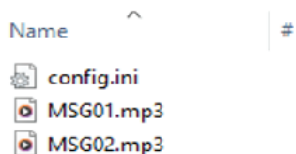

5.1 Control I/O Setting

Channel Control output can be customize with setting or edit Control I/O number by :
* Open file **config.ini** with NOTEPAD, then set the Control I/O Value.

Setting Control I/O	Control I/O Value	Meaning contents		
		CTRL IN	CTRL OUT	
			(in Binary)	means
Channel of CTRL IN = Channel of CTRL OUT (Factory-preset)	1 = 1	Ch.1	0000 0001	Ch.1
	2 = 2	Ch.2	0000 0010	Ch.2
	3 = 4	Ch.3	0000 0100	Ch.3
	4 = 8	Ch.4	0000 1000	Ch.4
	5 = 16	Ch.5	0001 0000	Ch.5
Note.	6 = 32	Ch.6	0010 0000	Ch.6
* Number Left side is means Channel of CTRL IN	7 = 64	Ch.7	0100 0000	Ch.7
* Number Right side is means Channel of CTRL OUT	8 = 128	Ch.8	1000 0000	Ch.8
CTRL IN = CTRL OUT Custom Channel	1 = 'y'..... 8 = 'y' 'y' value can be set for change the channel using binary formula (1 - 255) for example : 1 = 4 it means ⟶ 4 = 255 it means ⟶ etc.	Ch. 1 Ch. 4	0000 0100 1111 1111	Ch. 3 All Ch.

5.2 Broadcast Delay Time Setting

Open file **config.ini** with NOTEPAD, then set the DELAY value.

Set Delay Time	DELAY Value
0 seconds (Factory-preset)	Delay = 0
1 seconds	Delay = 1
2 seconds	Delay = 2
3 seconds	Delay = 3
4 seconds	Delay = 4

5.3 Playback Interval Setting

The repeat interval represents the time between the end of the previous message and the start of the next message. The time interval between repeated message announcements can be set by :
* Open file **config.ini** with NOTEPAD, then set the Control I/O Value.

Set Interval Time	INTERVAL Value	Setting contents
0 seconds (Factory-preset)	Interval = 0	Continuous broadcast with no pause
x seconds	Interval = 'x' 'x' value can be 1 - 3600 for example : Interval = 5 it means ⟶	Broadcast repeated after each x-seconds pause Broadcast repeated after each 5-seconds pause.

6. OPERATION

A system that integrates the FV-208EV-AS allows emergency broadcast to be made automatically through connection to an automatic fire alarm system or manually via ALERT button of Fireman's microphone in FV-208EV-AS unit.

Emergency broadcast have the highest priority. When an emergency broadcast is activated, general-purpose broadcast are stopped to allow the emergency broadcast to be heard. Emergency broadcast is performed to all zone.

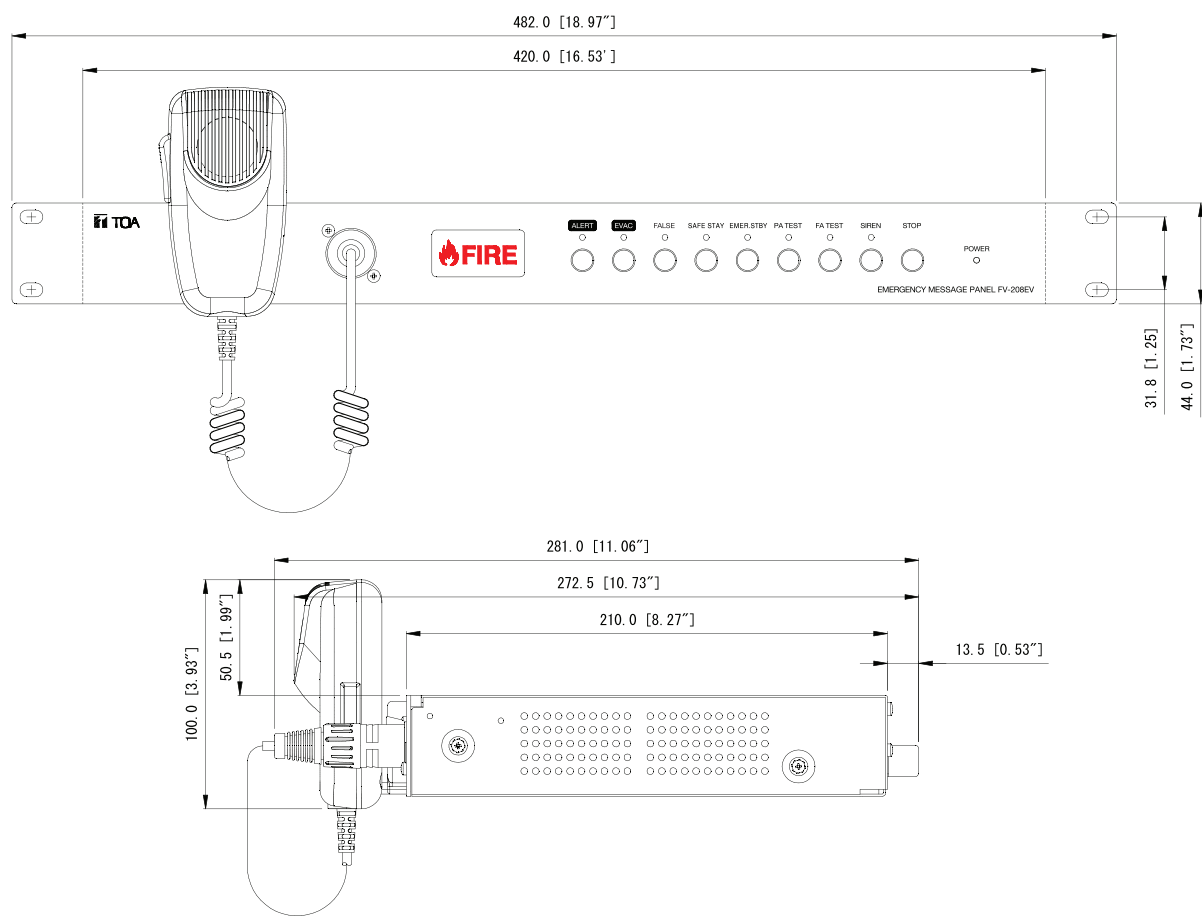When an emergency broadcast ends,
• If the broadcast was from the RM-200M, then it will return to standby state (not broadcasting).
• If the broadcast was a paging or timer-activated automatic broadcast, the broadcast will resume if the paging operation or timer input activation still continues.

[Pre-recorded voice alarm messages set at the factory are as follows]

[Message 1] Alert announcement : (Male Voice)
    (Siren tone * 3 times)
    Attention !
    We are investigating the cause of fire alarm
    Please standby for more instructions.
 	
[Message 2] Evacuation announcement : (Male Voice)
    (Siren tone * 3 times)
    Attention !
    There is a fire in the building
    Stay calm and get out using the nearest exits and staircases now.
 	
[Message 3] False announcement : (Male Voice)
    (Siren tone * 3 times)
    Attention !
    The situation is under control
    Thank you.
 	
[Message 4] Safe Stay announcement : (Male Voice)
    (Siren tone * 3 times)
    Attention !
    The situation is under control
    It is safe to stay in the building
    Thank you.
	[Message 5] Emergency Standby announcement :
	(Male Voice)
	    (Siren tone * 3 times)
	    Attention !
	    There is a fire in the building
	    We are handling the situation
	    Stay calm and wait for further instructions.
	
	[Message 6] Public Address Test Message announcement : (Male Voice)
	    PA System test.
	    This is a functional test of system operation in the building
	    Please do not be alarm
	    Thank you.
	
	[Message 7] Fire Alarm Test Message announcement: (Male Voice)
	    Fire Alarm System test
	    This is a functional test of system in the building
	    Please do not be alarm
	    Thank you.
	
	[Message 8] Siren announcement
	    (Siren tone * 3 times)

7. DIMENSIONAL DIAGRAM

Measurement unit : mm (inch)

482. 0 ［18. 97″］
420. 0 ［16. 53′ ］

31. 8 ［1. 25］
44. 0 ［1. 73″］

TOA
FIRE
ALERT EVAC FALSE SAFE STAY EMER.STBY PA TEST FA TEST SIREN STOP
POWER
EMERGENCY MESSAGE PANEL FV-208EV

281. 0 ［11. 06″］
272. 5 ［10. 73″］
210. 0 ［8. 27″］
13. 5 ［0. 53″］

100. 0 ［3. 93″］
50. 5 ［1. 99″］

8. SPECIFICATIONS

Model No.	FV-208EV-AS
Power Source	24 V DC (operating range : 19.5 ~ 27 V) M3 Screw terminal Usable power supply unit : FV-200PS-AS
Current Consumption	200 mA (rated) 100 mA (standby)
Message Announcement	8 Messages : Alert, Evacuation, False, Safe Stay, Emer.Stby, PA Test, FA Test, Siren Repeated continuously
Audio Input	Fireman's microphone (accessory) -55 dB*, 2.2 kΩ, unbalanced, XLR connector SD/MMC card slot (up to 32 GB, Type file : MP3 File)
Audio Output	EV Output : -20 dB*, unbalanced, Removable terminal block
Control Input	FA Input, stop , 8 Message contact input : No-voltage make contact input, open voltage : 24 V DC, Short circuit current : Under 5 mA, Removable terminal block
Control Output	EV Output : Contact switch (normally open), Removable terminal block 8 control outputs : Relay contact output, rated voltage : 24 V DC
Frequency Response	20 - 20,000 Hz, ± 3 dB
Distortion	Under 1 % (1 kHz, Rated output)
Indicator	Power, Fire, Alert, Evacuation, False, Safe Stay, Emer.Stby, PA Test, FA Test, Siren
Format file	MP3 File (Bit rate 320 kbps)
Recording System	USB data transfer
Maximum Recording Time	25 Minutes
Operating Temperature	0 ºC to +40 ºC
Operating Humidity	Under 90% RH (no condensation)
Finish	Front Panel : Aluminium, Black, Anodize Case : Steel Plate, Black, Painting
Dimensions	482 (w) x 100 (h) x 281 (d) mm (18.97" x 3.93" x 11.06")
Weight	2.3 kg (5.07 lbs) (with microphone)
Accessories	Removable terminal plug (2 pins) ...4 Removable terminal plug (8 pins) ...8, Fireman's microphone ...1

* 0 dB = 1 V
Note : Design and specification are subject to change without prior notice for improvement.