OPERATING MANUAL

QMPS

OPERATION MANUAL

Panel-Mounted Multi Functional Speaker

Thank you for purchasing Qlight products.

Please read carefully and follow the instruction in order to prevent product damage.

① Product Features

• Can prevent cross talk of different voice environments by selecting an audio signal t for the special environment and condition
• 30 pre-recorded sounds, binary input mode has built-in 30 messages that can be played with switch for sound
• Bit input mode is organized into 6 groups of 5 sound tones for a total of 30 sound tone options. Playback can be selected from one of the
5 tones in each group (MP3 file with bit input mode)
• Volume adjustment and sound selection switches located inside the unit
• SD card type can play MP3 voice messages, user can select and change the sound message after record it
• Sound volume : Max 98dB at 1m (Warning Sounds)
                          Max 95dB at 1m (MP3 Sounds)
• Materials : Housing-ABS, Cover-ABS
• Protection rating : IP54
• Ambient operating temperature : -25°C to +50°C
• Weight: 0.45kg(DC Type), 0.53kg(AC Type)

② Specifications & Technical Diagram

| Model Number	Voltage	Current	Sound Volume	Input Method /# of Chanel
QMPS	DC12V~ 24V	Max.0.750A	Warning Sounds:98±3dB at 1m	Bit Input: 5Ch
	AC110V~ 220V	Max.0.100A	MP3 Sounds:95±3dB at 1m	Binary Input: 30Ch

QMPS 2-Panel fixing bracket

120
126
60
120
18 50
68
111
111

③ Part Names

Front   Rear
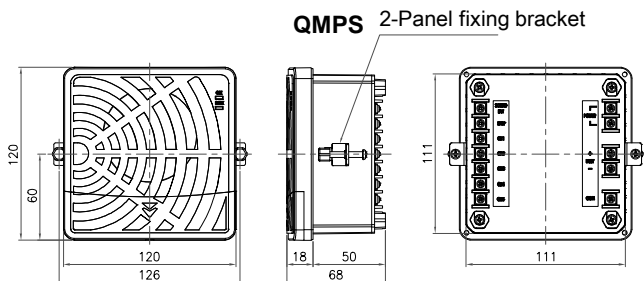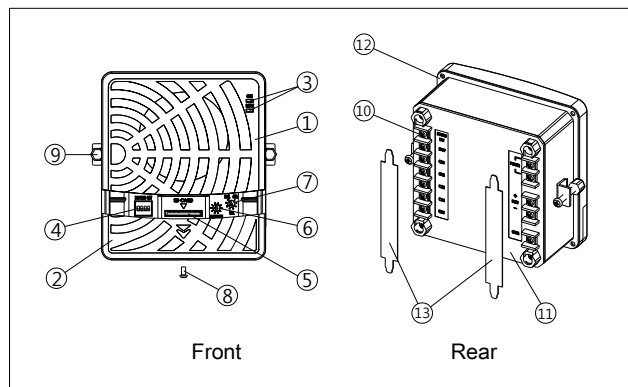
① Body
② Front Cover
③ LED Light(Up-Power, Down-Operation)
④ Switch for Sound selection
⑤ SD card slot for MP3 recording
⑥ Switch for play Mode selection
⑦ Switch for Volume adjustment
⑧ Front cover fixing bolt(M3x6)
⑨ Mount Bracket
⑩ Terminal Block(M3 Type Only)
⑪ Rear cover
⑫ Waterproof sealing
⑬ Terminal Box Cover

④ Installation
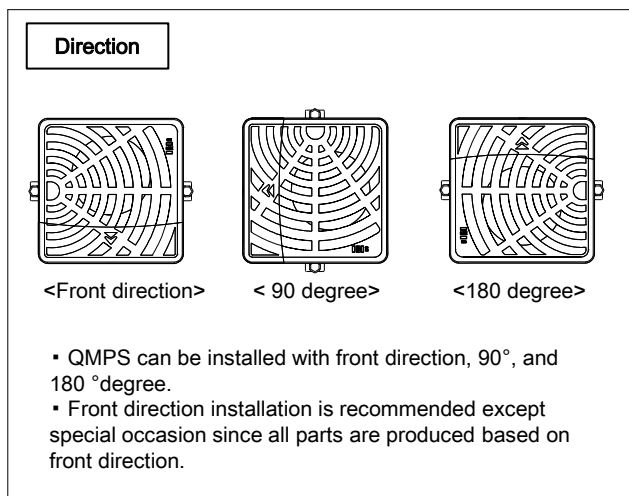

111^{+1}_{0}

111^{+1}_{0}

(136)

Dimension
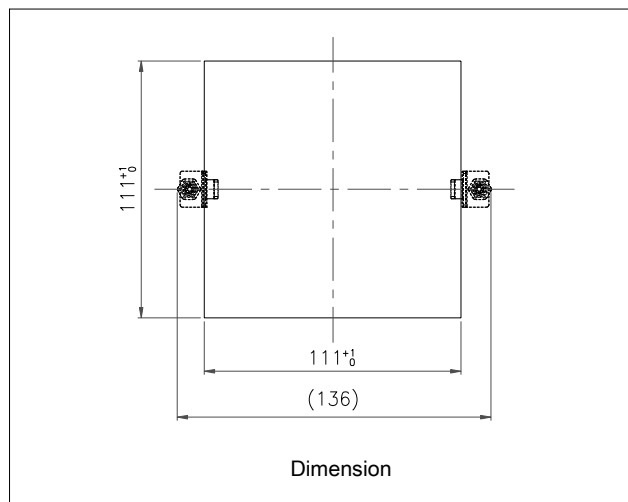
• This panel mounted model is designed for indoor use.
• Please drill a hole in panel before installation. (Please refer to measurements above for installation)
• For outdoor application, please make sure the product is not damaged from rain.
• Please avoid applying the product in environment with moist, dirt, vibration and shock.
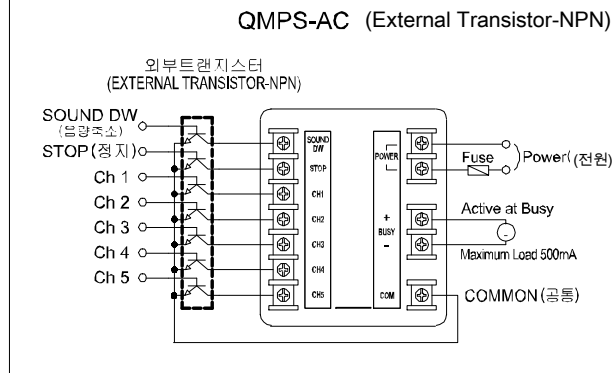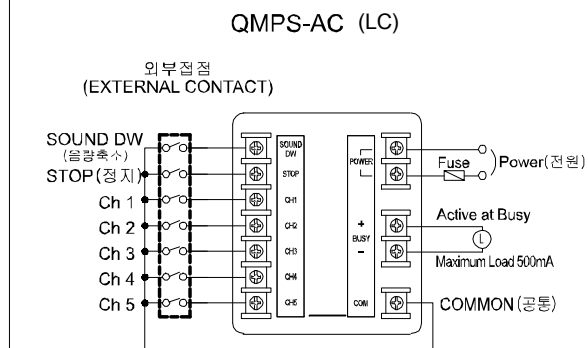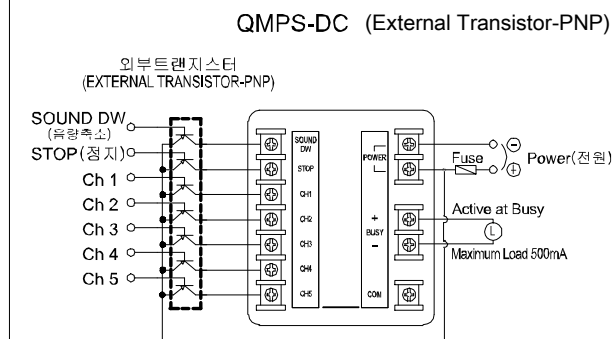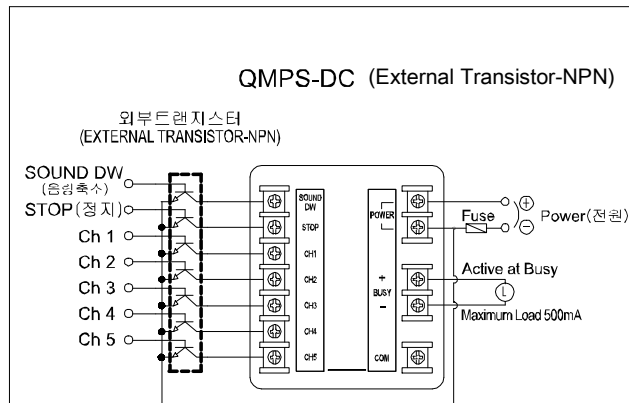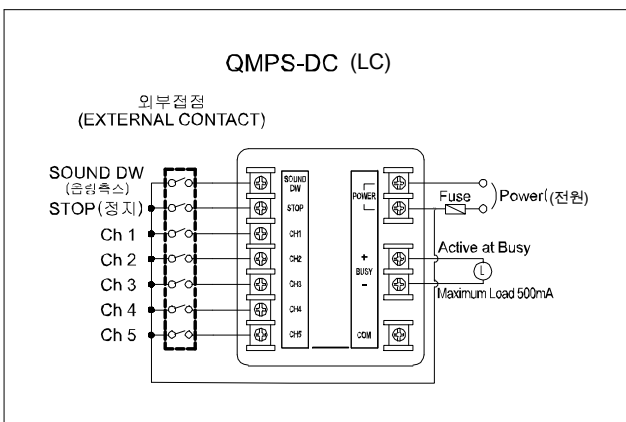
OPERATING MANUAL

Thickness of panel 1 to 10mm

Fixing bracket (2EA)
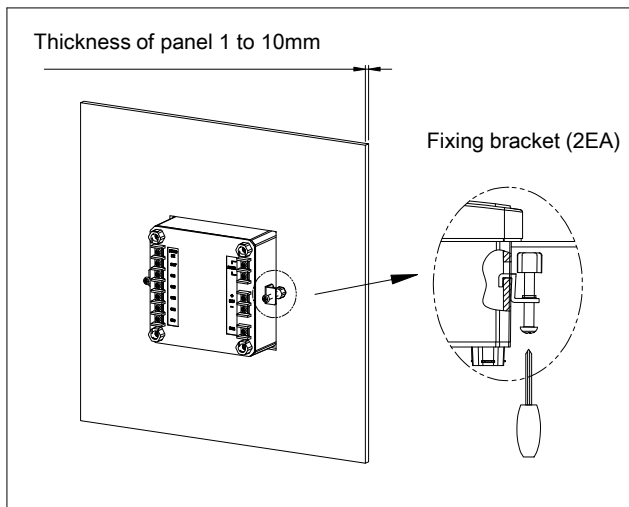
· Fix the product by using two brackets provided with the product. Please confirm if QMPS is fixed well after installation of the product.
· In order to install QMPS, thickness of panel should be 1 to 10mm.
· Warning : Product may be damaged if customer uses inappropriate tools or method during product installation.

Direction

<Front direction>   < 90 degree>   <180 degree>

· QMPS can be installed with front direction, 90°, and 180 °degree.
· Front direction installation is recommended except special occasion since all parts are produced based on front direction.

⑤ Wiring Instructions

QMPS-DC (LC)

외부접점
(EXTERNAL CONTACT)

SOUND DW (음량축소)
STOP (정지)
Ch 1
Ch 2
Ch 3
Ch 4
Ch 5

SOUND DW
STOP
CH1
CH2
CH3
CH4
CH5

POWER
Fuse)Power(전원)
BUSY +
−
Active at Busy
Maximum Load 500mA
COM

QMPS-DC (External Transistor-NPN)

외부트랜지스터
(EXTERNAL TRANSISTOR-NPN)

SOUND DW (음량축소)
STOP(정지)
Ch 1
Ch 2
Ch 3
Ch 4
Ch 5

SOUND DW
STOP
CH1
CH2
CH3
CH4
CH5

POWER
Fuse ⊕ ⊖ Power(전원)
BUSY
Active at Busy
Maximum Load 500mA
COM

QMPS-DC (External Transistor-PNP)

외부트랜지스터
(EXTERNAL TRANSISTOR-PNP)

SOUND DW (음량축소)
STOP(정지)
Ch 1
Ch 2
Ch 3
Ch 4
Ch 5

SOUND DW
STOP
CH1
CH2
CH3
CH4
CH5

POWER
Fuse ⊖ Power(전원)
⊕
BUSY +
−
Active at Busy
Maximum Load 500mA
COM

QMPS-AC (LC)

외부접점
(EXTERNAL CONTACT)

SOUND DW (음량축소)
STOP(정지)
Ch 1
Ch 2
Ch 3
Ch 4
Ch 5

SOUND DW
STOP
CH1
CH2
CH3
CH4
CH5

POWER
Fuse)Power(전원)
BUSY +
−
Active at Busy
Maximum Load 500mA
COM COMMON (공통)

QMPS-AC (External Transistor-NPN)

외부트랜지스터
(EXTERNAL TRANSISTOR-NPN)

SOUND DW (음량축소)
STOP(정지)
Ch 1
Ch 2
Ch 3
Ch 4
Ch 5

SOUND DW
STOP
CH1
CH2
CH3
CH4
CH5

POWER
Fuse)Power(전원)
BUSY +
−
Active at Busy
Maximum Load 500mA
COM COMMON (공통)

ООО "РусАвтоматизация"

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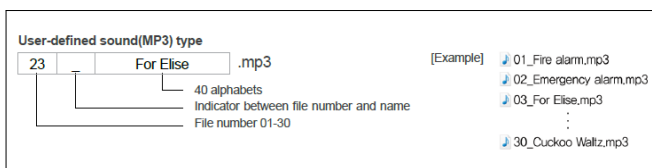
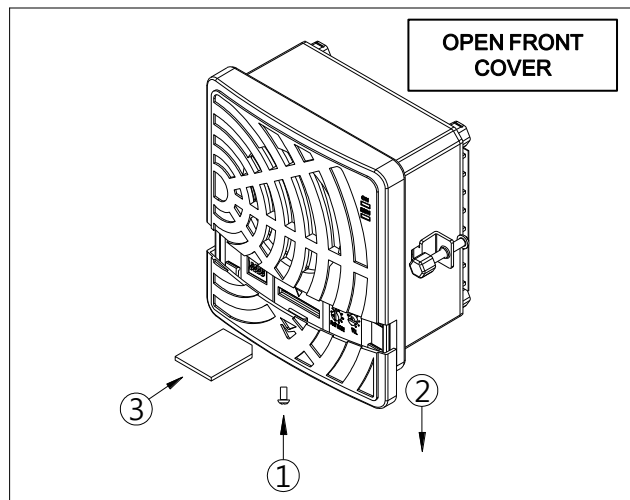# OPERATING MANUAL

⑥ Operational Sequence

▪ Pre-recorded sound
① Set the sound switch no.1 off.
② PLAY MODE control switch-Choose play mode(Bit input/Binary input)
③ SOUND set-up switch- Select sound group using no.2,3 and 4
④ In case of bits input, 5 sound tones can be played(CH1~5)
⑤ For Binary input, 30 sound tones can be played.(CH1~5)

▪ MP3(SD card)
① Capacity is 32Gbyte.(File Format : Fat32)
② Create"MP3_FILE"folder in SD card and save the file by following below instruction.
③ Number of characters shall not exceed 40 alphabets.

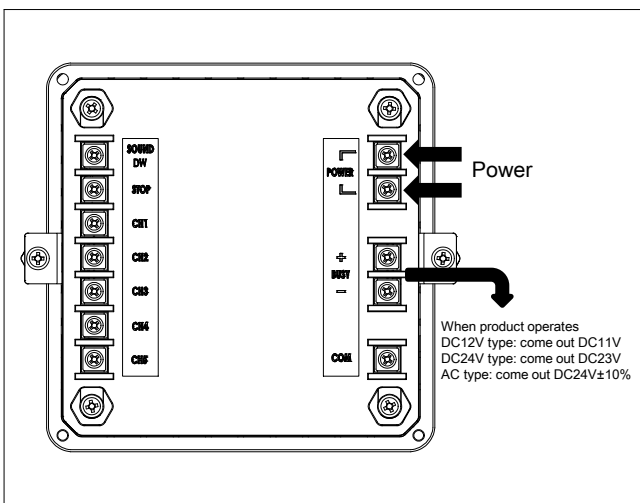User-defined sound(MP3) type

| 23 | _ | For Elise | .mp3 |
40 alphabets
Indicator between file number and name
File number 01-30

[Example]
♪ 01_Fire alarm.mp3
♪ 02_Emergency alarm.mp3
♪ 03_For Elise.mp3
⋮
♪ 30_Cuckoo Waltz.mp3

④ Insert SD card into the card slot
⑤ Set the sound switch-no.1 ON
⑥ PLAY MODE control switch-Choose play mode(Bit input/Binary input)
⑦ For bits input, 5 sound tones can be played(CH1~5)
⑧ For Binary input, 30 sound tones can be played.(CH1~5)

⑦ How to Operate

Power

When product operates
DC12V type: come out DC11V
DC24V type: come out DC23V
AC type: come out DC24V±10%

1. Wire power supply into POWER connecter.

ON — Red LED on
RUN — Green LED flashing

2. Red indicator light turns on.
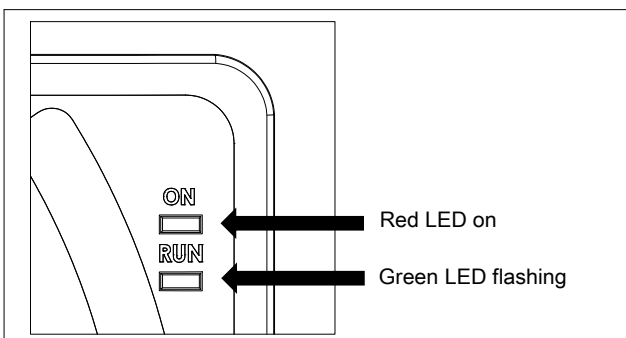

OPEN FRONT COVER

③ ① ②

3. Turn M3 bolt left by using plus screwdriver.
4. Move front cover down.(Warning : Using too much force may be reason of front cover separation while move it down.)
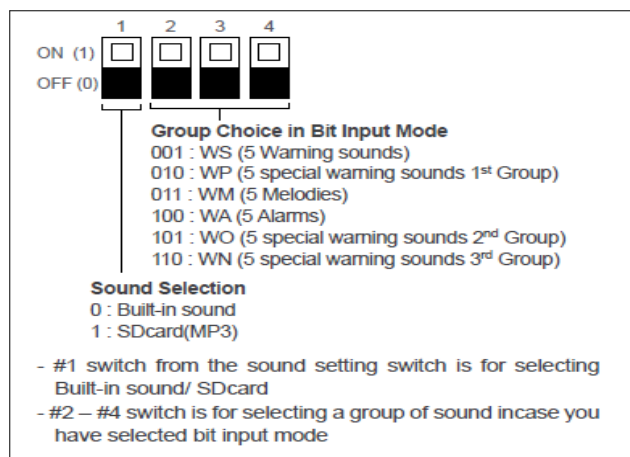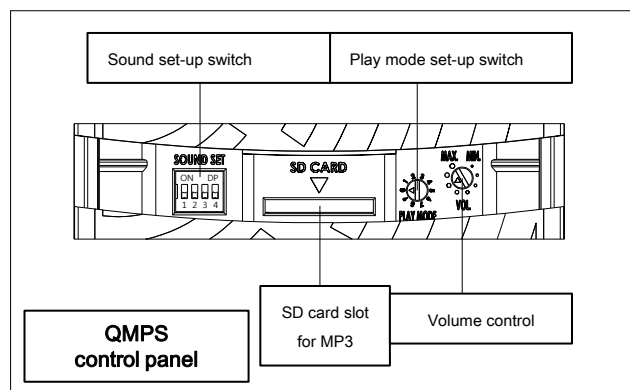5. In case of using pre-recorded sound, set the sound switch-no.1 OFF.

Sound set-up switch   Play mode set-up switch

QMPS control panel

SD card slot for MP3   Volume control

	1	2	3	4
ON (1)				
OFF (0)				

Group Choice in Bit Input Mode
001 : WS (5 Warning sounds)
010 : WP (5 special warning sounds 1st Group)
011 : WM (5 Melodies)
100 : WA (5 Alarms)
101 : WO (5 special warning sounds 2nd Group)
110 : WN (5 special warning sounds 3rd Group)

Sound Selection
0 : Built-in sound
1 : SDcard(MP3)

- #1 switch from the sound setting switch is for selecting Built-in sound/ SDcard
- #2 – #4 switch is for selecting a group of sound incase you have selected bit input mode

6. In case of using SD card(MP3), set the sound switch-no.1 ON.

PLAY MODE SETUP SWITCH

1mm

PLAY MODE SELECTION (Regardless of direction)
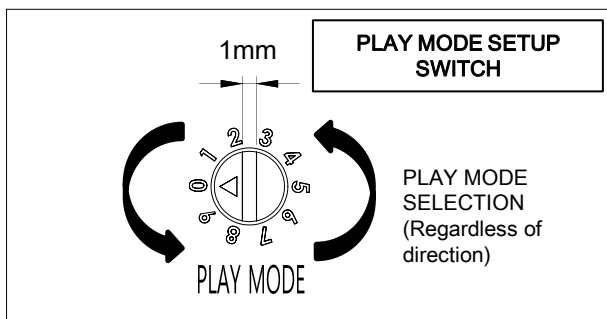
PLAY MODE

7. PLAY MODE setting switch is used to choose the channel input method or select various play modes.

• Rotate each space when choose PLAY MODE by using a flat-head screwdriver regardless of direction.

8. Refer to the table below for switch features.
*Switch #0 and #9 are not used.

	PLAY MODE	
1	Bit Input Mode	5 sounds can be played from the selected group (choose one group from six groups)
2	Binary Input Mode	Up to 30 sounds available for each model. Plays sound only once (sequential signal input only)
3	Bit Input Hold Playback Mode	5 sounds can be played from the selected group (choose one group from six groups) The sound is repeated if the input signal is maintained. (sequential signal input only) If the STOP signal is inputted, the sound is turned off, and if the STOP signal is disabled the sound is played repeatedly
4	Binary Input Hold Playback Mode	Up to 30 sounds available for each model The sound is repeated if the input signal is maintained. (sequential signal input only) If the STOP signal is inputted, the sound is turned off, and if the STOP signal is disabled the sound is played repeatedly
5	Bit Input Sound Reduction Mode)	5 sounds can be played from the selected group (choose one group from six groups) You can reduce the volume(15dB) by using a separate volume reduction signal line (same as volume reduction signal input)
6	Binary Input Sound Reduction Mode	Up to 30 sounds available for each model. You can reduce the volume(15dB) by using a separate volume reduction signal line (same as volume reduction signal input).
7	Bit Input Sequence Memory Play back Mode	5 sounds can be played from the selected group (choose one group from six groups) If the sound is inputted in a order, it will remember the order and play each sound about 3 seconds . The last input channel is fully played (bit input mode only)

8	Test Mode	In test mode, Ch1 of group is automatically played back repeatedly. To end the test mode, switch back to the other modes.

9. VOLUME CONTROL
- You can adjust the speakers sound output by using the volume dial.

VOLUME CONTROL

MAX.   MIN.

Volume up

Volume down

VOL.
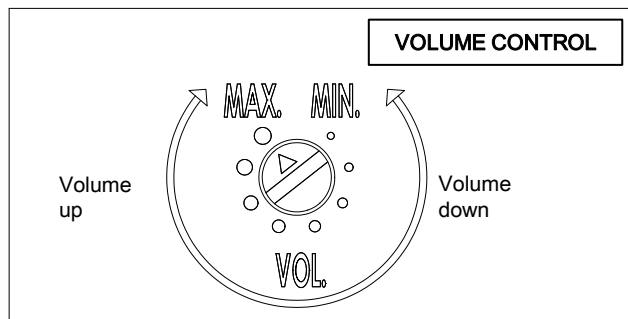
10. Insert flat-head driver into the hole. In case of turn right, volumes up and turn left, volumes down. (Sound is disabled once the dial turns right to MIN.)

⑧ Sound pattern & combination

1. Multi functional product has 30 pre-recorded sound tones.
2. 30 sound tones in binary input mode supported. Bit input mode has 5 sound tones within 1 group among 6 groups.

B t input type sound pattern group composition			
Sound		CH	Sound Tone
WS	5 Warning Sounds	CH1	Fire.A-ANG(560Hz-1.5kHz)
		CH2	Emergency WA-U(Yelp) (600Hz~1.5kHz)
		CH3	Ambulance PI-PO(Hi-low) (450Hz~900Hz)
		CH4	Pi ik Pi ik(820Hz)
		CH5	Machinery Fault(1kHz)
WP	5 Special Warning Sounds (1st Group)	CH1	Fire.A-ANG(560Hz~1.5kHz)
		CH2	Abandon Alarm(820Hz)
		CH3	Pi ik Pi ik(820Hz)
		CH4	High Expansion(1kHz)
		CH5	7 Short PI. / 1 Long(1kHz)
WM	5 Melodies	CH1	Sweet Home
		CH2	For Elise
		CH3	Cuckoo's Waltz
		CH4	Piano Sonata
		CH5	Turkish March
WA	5 Alarms	CH1	Beep Interm ttent
		CH2	Door Chime
		CH3	Phone Ring
		CH4	PI.PI.PI Short
		CH5	Tripping Beat

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GROUP		CH	Sound tone
WO	5 Special Warning Sounds (2nd Group)	CH1	Rel rel rel(730Hz~920Hz)
		CH2	Slow Ambulance PI-PO (820Hz~1.05kHz)
		CH3	Wye yong Wye yong (770Hz~1.2kHz)
		CH4	Phone ring 2(740Hz~910Hz)
		CH5	Fire.A-ANG(770Hz~1.11kHz)
WN	5 Special Warning Sounds (3rd Group)	CH1	Oit Oit(500Hz~1.11kHz)
		CH2	Pi o Pi o(940Hz~2.19kHz)
		CH3	Slow Di o Di o(680Hz~840Hz)
		CH4	Li long Li ling (420Hz~470Hz)
		CH5	911 Siren(150Hz~1kHz)

3. Left channel switch allows the user to select from 30 available sound tones.
4. Channel switch will be substituted for external wiring in case of LC type products.

Binary input type sound pattern group composition

ON = 1 / OFF = 0

NO.	CH1 (1)	CH2 (2)	CH3 (3)	CH4 (4)	CH5 (5)	Sound pattern
0	0	0	0	0	0	No sound
1	0	0	0	0	1	Fire.A-ANG(560Hz-1.5kHz)
2	0	0	0	1	0	Emergency WA-U(Yelp)(600Hz~1.5kHz)
3	0	0	0	1	1	Ambulance PI-PO(Hi-low) (450Hz~900Hz)
4	0	0	1	0	0	Di-ik(800Hz)
5	0	0	1	0	1	Pi-ik Pi-ik(820Hz)
6	0	0	1	1	0	Machinery Fault(1kHz)
7	0	0	1	1	1	Alarm(1kHz)
8	0	1	0	0	0	Sweet Home
9	0	1	0	0	1	For Elise
10	0	1	0	1	0	Cuckoo's Waltz
11	0	1	0	1	1	Piano Sonata
12	0	1	1	0	0	Turkish March
13	0	1	1	0	1	Magic Flute
14	0	1	1	1	0	Badinerie
15	0	1	1	1	1	Pineapple Rag
16	1	0	0	0	0	Beep Intermittent
17	1	0	0	0	1	Door Chime
18	1	0	0	1	0	Phone Ring
19	1	0	0	1	1	PI.PI.PI Short
20	1	0	1	0	0	Tripping Beat
21	1	0	1	0	1	Rel rel rel(730Hz~920Hz)
22	1	0	1	1	0	Slow Ambulance PI-PO (820Hz~1.05kHz)
23	1	0	1	1	1	Wye yong Wye yong(770Hz~1.2kHz)
24	1	1	0	0	0	Phone ring 2(740Hz~910Hz)
25	1	1	0	0	1	Fire.A-ANG(770Hz~1.11kHz)
26	1	1	0	1	0	Oit Oit(500Hz~1.11kHz)
27	1	1	0	1	1	Pi o Pi o(940Hz~2.19kHz)
28	1	1	1	0	0	Slow Di o Di o(680Hz~840Hz)
29	1	1	1	0	1	Li long Li ling(420Hz~470Hz)
30	1	1	1	1	0	911 Siren(150Hz~1kHz)

9 Caution

・ If using voltage is seriously higher or lower than rated voltage, it can reduce the self-life of the product or can cause a problem on product operating. Make sure the using voltage does not exceed +/-5% of the rated voltage.
・ If lens or body of the product is contaminated by chemicals such as thinner, benzene, the product can be damaged, discolored or deformed. Please be careful.
・ Do not give strong impact to the product. It can be a reason of wire disconnection or short circuit.

10 Trouble Shooting

Situation	Main reason	Solution
No sound	Wrong Wiring	Making Sure Wiring
	No Power Supply	Making Sure power Supply
Sound Tone Deterioration or Volume Decreasing	Supplying Voltage Lower Than Rated Voltage	Checking Voltage Selection Switch
Output 2 kinds of sounds	Signal sound line short	Making Sure Connection
	Problem Sound tone Selection Switch	Contact Qlight or Agent

11 Inquiry and Customer Service

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