



Voice Evacuation Control Panel and Speakers



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL

WEBSITE: www.asenware.com EMAIL: info@asenware.com

1 Introduction

AW-VP350 Voice Evacuation Control Panel and speakers is a standalone public audio system for emergency evacuation. When get alarm input from other fire alarm system or security alarm system, it can play the pre-recorded audio track to the speakers automatically. It also can broadcast the microphone real time sound, or other line in sound. It also support RS485 communication with ASENWARE AW-FP300 series addressable fire alarm control panel.

2 Product features

- 2.1 Maximum power output: 350Watt.
- 2.2 Speaker driving mode: constant voltage.
- 2.3 Evacuate message up to 1 minute.
- 2.4 Background audio: USB2.0.
- 2.5 Complies with EN54 part 16.
- 2.6 Network function (work with AW-FP300 series addressable fire alarm control panel)
 - 2.6.1 Maximum 15 pcs AW-VP350 can be connected with 1 pcs AW-FP300 addressable fire alarm control panel.
 - 2.6.2 Each AW-VP350 panel can be programmed to maximum 20 channels and controlled by AW-FP300 addressable fire alarm control panel.

3 Parameters

Item	Value
Panel Name:	Voice Evacuation Control Panel
Model No.:	AW-VP350
Power supply	AC 220V (+10%,-15%, 50Hz)
Remote control trigger mode:	24VDC
Line input sensitivity (rms):	200mV (external line 1), 900mV (external line 2)
Frequency response range:	80Hz ~ 8kHz
Total harmonic distortion:	<5%
SNR:	70dB
Monitoring power:	1 W
Rated output voltage:	120V (constant voltage mode)
Rated output power:	350W
Operating environment:	Temperature 0 ~ + 40 °C relative humidity 95%
Insulation strength:	AC input to the chassis greater than 50M (DC500 V) Constant voltage output to the chassis greater than 50M (DC500 V)
Electrical strength:	AC input to the chassis leakage less than 10mA (AC 1250V)
Product Size:	406(H) X331(W)X123(T)



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com

Product net weight:	13kg
The below functions are for connecting with AW-FP300 series addressable fire alarm control panel	
Network	RS485, twist 2 wire cable for over 1000m
Maximum panels in one RS485 network	15
Programmable channel in one AW-VP350 panel	20
Total network capacity	5250Watt
Connection sockets	
Mains 220V	Connected with 220VAC mains supply
Backup power 220V	connected to 220VAC fire control power supply, used for power supply in case of mains failure.
Constant voltage output (+, -)	Connected with speakers
485 (A, B)	Communicate with AW-FP300 addressable fire alarm control panel
Remote control input (+, -)	Connected external excitation signal and trigger emergency broadcast remotely.
External line 1	Used to input external sound source to the panel for playing. (Volume adjustable).
External line 2	Used to input external sound source to the panel for playing.
Telephone trunk (L1, L2)	Reserved
Telephone terminal (A, B)	Reserved
24V input (+, -)	Reserved

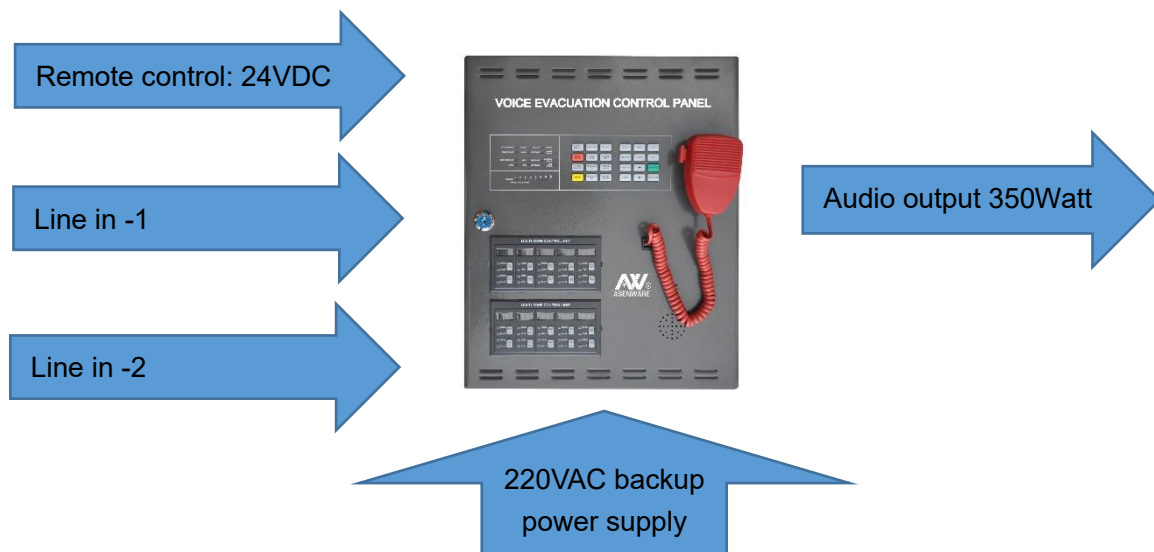
4 System wire diagram

4.1 Standalone mode



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com



4.2 Network mode

- 4.2.1 Maximum 15 pcs AW-VP350 Voice Evacuation Control Panels can connect with one Addressable fire alarm control panel AW-FP300 via RS485 bus .
- 4.2.2 When the AW-VP350 panel is registered on AW-FP300 panel, then the AW-FP300 panel can control the audio output to maximum 20 channels, each channel can be programmed to work for one fire alarm zone.
- 4.2.3 When the AW-FP300 panel is triggered as a fire alarm, then it can send signal to the AW-VP350 panel to turn to Emergency Mode via RS485 . And the AW-FP300 panel also can use one addressable I/O module and one relay to switch on one audio output channel.
- 4.2.4 For I/O module connection wire diagram, please see its user manual for more details.



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com

4			ON	
5	ON		ON	
6		ON	ON	
7	ON	ON	ON	
8				ON
9	ON			ON
10		ON		ON
11	ON	ON		ON
12			ON	ON
13	ON		ON	ON
14		ON	ON	ON
15	ON	ON	ON	ON

5.5 Wiring instruction

5.5.1 Power connection:

5.5.1.1 Connect 220V AC power to the "mains 220V" terminal, and pay attention to the N/L/ PE sockets.

5.5.1.2 Connect backup power output to the "standby 220V" terminal, and pay attention to the N/ L/ PE sockets

5.5.2 Audio input connection:

5.5.2.1 When external sound source input is required, connect external sound source and "external line 1" and "external line 2" with high-quality shield wire.

5.5.2.2 24VDC remote control trigger signal connection: connect the 24VDC signal given by the control device to the "remote control input" terminal, and note the positive and negative polarity should not be revised.

5.5.3 Speaker output connection: Constant voltage output: the constant voltage is output to an external sound generating circuit, and can be directly connected with a constant pressure horn or connected with an addressable I/O module with a relay.

5.5.4 RS485 communication: When connected to external control equipment, connect to "Broadcast terminal 485", ensure that the polarity A and B of this signal corresponds to the control device.

6 Operation Instruction

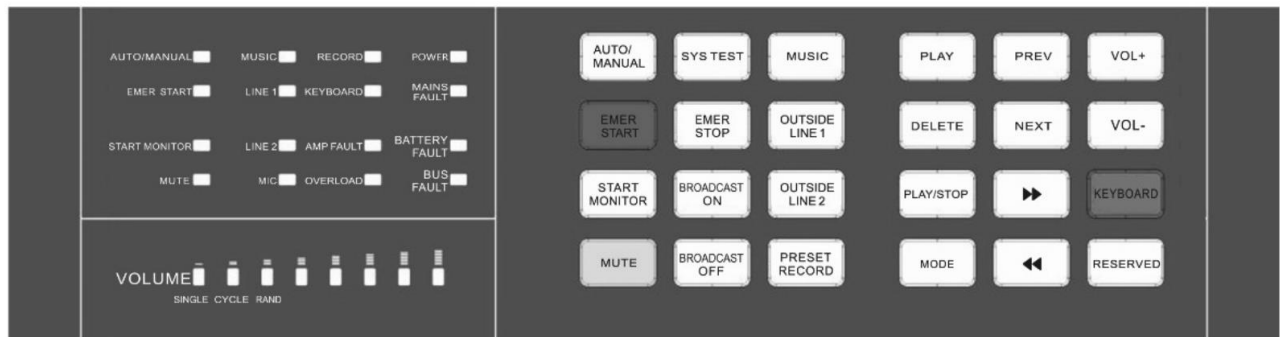
6.1 Functional keys and indicators

6.1.1 Main control board

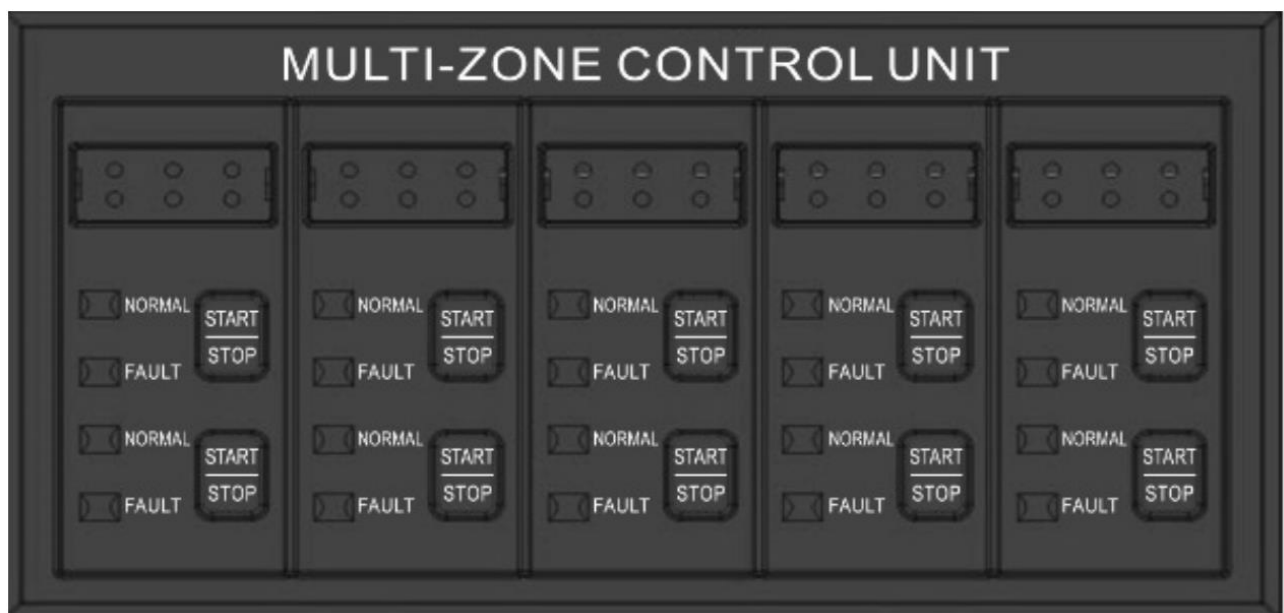


ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com



6.1.2 Multi-zone control unit



6.2 Voice evacuation (emergency broadcast) includes the following statuses:

6.2.1 Emergency broadcast play status: The "EMER START (Emergency Start)" indicator is always on, and the system plays the emergency broadcast.

6.2.2 Emergency broadcast pause state: The "EMER START (Emergency Start)" indicator flashes and the system waits for the play command.

6.2.3 Emergency broadcast stop state: The "EMER START (Emergency Start)" indicator lamp is normally off and the system exits to the standby state.

6.3 The emergency broadcast is applicable for fire alarm. When the emergency broadcast is triggered, if an user-preset emergency broadcast record is present in the panel, the record will be broadcast; otherwise, the ex-factory default emergency broadcast record is



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL

WEBSITE: www.asenware.com EMAIL: info@asenware.com

automatically broadcast, and the volume of power amplifier is automatically set to the maximum state and cannot be changed.

6.4 There are two ways to enter the emergency broadcast state:

6.4.1 When receive the Fire alarm signal sent by the external control panel (AW-FP300 series addressable fire alarm control panel), the panel will automatically enter emergency broadcast state.

6.4.2 When the panel is in the non-emergency state, press "EMER START" button, the Voice Evacuation Control Panel will receive the signal from the external fire control panel, then will enter the emergency broadcast playing mode, at this time, the panel is in the manual mode.

6.5 Microphone broadcasting function

6.5.1 Non-emergency broadcast status: In this state, when the microphone is pressed, the "MIC" indicator is always on, the current playing sound source and alarm sound will be temporarily interrupted, and then using the microphone will not trigger recording; 3s after the microphone is released, the microphone is restored to the state before microphone broadcasting, and the "MIC" indicator is normally off.

6.5.2 Emergency broadcast status: In this state, when the microphone is being used, the "MIC" indicator is normally on, the emergency broadcast and other alarm sounds are automatically interrupted, and the product will be in the emergency recording status. The corresponding "RECORD" indicator flashes, the recording is automatically stopped when the microphone is released, and both the "RECORD" and "MIC" indicator are normally off, and the product returns to the emergency broadcast pause state.

6.6 (User-preset recording) Record and playback operation

6.6.1 Recording operation: In standby mode, press the "PRESET RECORD" key to enter the recording standby state, and the "RECORD" indicator will cyclically flash, that is, being on 0.5s and off 2 seconds; if the error occurs, the product will give alarm prompt and exit to the standby mode.

6.6.2 After the microphone is pressed, the recording starts and the "RECORD" indicator cyclically flashes a on 0.5s and off 0.5 second. If the microphone is released or recording lasts for more than 1 minute, the product will automatically exit to the recording standby state.

6.6.3 **The monitoring function in this mode is turned off and cannot be started manually; the preset recording recorded by the user will take effect only when manually exit from the preset recording operation.**

6.6.4 Playback operation:

6.6.4.1 In the recording standby state, press "PLAY" key and if the User-preset Recording exists, the product will enter the audition state, "Recording" indicator is always on. If the microphone is pressed in the state, the product will start a new round of recording and automatically override original recording; current preset recording will be deleted if the "DELETE" key is pressed in the audition state, and the current preset recording will be played back if the "PLAY" key is pressed again. If no user-



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com

preset recording, the product will give a warning sound prompt and exit to the record waiting state.

6.6.4.2 In standby mode, when the "PLAY" key is pressed, the emergency broadcast microphone recording is played in a list circulating mode from the first recording file. In this state, the "PREV" and "NEXT" operation are valid. Press the "PLAY" key again to exit the emergency broadcast recording state.

6.6.5 Delete recording: valid in playback state; press the Delete key in the recording standby state to eliminate the recordings currently preset by users. If no recording exists, the product will give a warning sound prompt and exit to the recording standby state.

7 Fault indication

- 7.1 AMP FAULT (Power amplifier fault) : When the fault feedback signal from power amplifier is detected, the "AMP FAULT" indicator (yellow) is normally on and the buzzer sounds.
- 7.2 OVERLOAD (Power amplifier overload): When the overload feedback signal from power amplifier is detected, the "OVERLOAD" indicator (yellow) is normally on and the buzzer sounds.
- 7.3 BUS FAULT : When the trunk open circuit and short-circuit signal is received from control panel, the "BUS FAULT" indicator (yellow) is normally on and the buzzer sounds.
- 7.4 FAULT (Zone distribution fault): When the fault zone distribution information is received from the control panel, the corresponding "FAULT " indicator (yellow) is normally on, and the buzzer sounds.
- 7.5 MAINS FAULT (Mains supply fault): When the mains supply fault signal is detected, the "MAINS FAULT" indicator (yellow) is normally on, and the buzzer sounds; in the normal state, the indicator is normally off.
- 7.6 BATTERY FAULT (Backup power failure): When the Backup power failure signal is detected, the "BATTERY FAULT" indicator (yellow) is normally ON, and the buzzer sounds; in the normal state, the indicator is normally off.
- 7.7 MUTE: When the fault alarm sounds, press "MUTE" key or receive an external mute signal from 485, the "Mute" indicator is normally on, and the buzzer is muted; if there is a new fault in mute period, the buzzer works again and, upon receipt of mute signal, is silenced again. (Note: The mute operation can only eliminate the buzzer sound, the corresponding fault indicators are not affected, and will not return to the normal state before the fault is eliminated.)

8 Monitoring and self-checking functions

- 8.1 Monitoring: The monitoring function can be turned on or off by the key "START MONITOR", and the status is indicated by the corresponding indicator.
- 8.2 Self-check: Enable self-check function through the "SYS TEST" button, check the indicating device and alarm device, and then the product will automatically exit to the state before self-



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com

check after the check. Self-check is automatically aborted when additional responses are received during the check.

9 Manual/automatic switching function

- 9.1 Manual mode switching to automatic mode: This operation can take effect in emergency and non-emergency state respectively. After "Auto/Manual" button is pressed, the corresponding "Automatic/Manual" indicator will change from normally ON to normally OFF.
- 9.2 Automatic mode switching to manual mode: This operation can only take effect in the emergency state, and after the "Auto/Manual" button is pressed, the corresponding "Automatic/Manual" indicator will change from normally OFF to normally ON. **(Note: In case of emergency, the "Emergency stop" function and the start & stop of single zone distribution can only be operated and controlled in manual mode.)**

10 Background music function

- 10.1 The background music play function is used for general broadcast playing in the non-emergency state, and when the "Music" button is pressed, the "Music" indicator will be normally on, and the panel would be automatically in the "Background music play" mode, if the key is pressed again, exit the background music mode, and the "Music" indicator is normally off.
- 10.2 Other relevant keys in the background music play mode are described as follows:
 - 10.2.1 Mode: After the "Mode" key is pressed, you can correspondingly switch among "Single cycle, Playlist cycle and Random play" mode, and the corresponding volume indicators 1 to 3 will flash with 0.5 second on and 0.5 second off.
 - 10.2.2 Previous music: Press the "PREV" key to switch to the previous one.
 - 10.2.3 Next music: Press the "NEXT" key to switch to the next one.
 - 10.2.4 Fast forward: Press the " " key to perform the fast forward operation, and the "music" indicators would be alternately on and off every 0.5 second.
 - 10.2.5 Rewind: press the " " key to perform the fast-backward operation, and the "music" indicators would be alternately on and off every 0.5 second.
 - 10.2.6 PLAY/STOP: Press the PLAY/STOP key. If the previous state is the play state, the pause operation would be performed, and the "Music" indicator is on for 1 second and off for 2 second alternatively; if the previous state is paused state, the Play operation will be performed, and the "music" indicator is normally on. **(Note: above operations can only be performed in the background music mode. If no USB stick is detected, an alarm sound prompt will be provided.)**

11 Broadcast zone distribution

- 11.1 There are several states in the broadcast zone distribution



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com

- 11.1.1 Startup state: In this state, the zone distribution operation indicator is normally on, indicating the zone distribution is in working state.
- 11.1.2 Startup application state: In this state, the zone distribution operation indicator cyclically flashes as being on 1 second, and off 2 seconds, indicating that the external control panel applies to the Voice Evacuation Control Panel for zone distribution startup.
- 11.1.3 Startup waiting state: In this state, the zone distribution operation indicator is cyclically on for 0.5 seconds and off for 0.5 seconds, indicating that the external control panel is starting the corresponding zone distribution linkage module, but does not return the startup success command.
- 11.1.4 Registration status: In this state, the zone distribution operation indicators will be cyclically on for 1 second and off for 4 seconds, indicating that the zone distribution has been registered with the external control panel, but not activated.
- 11.2 Single point operation: Press the Start/ Stop key corresponding to each zone distribution, the registered zone distribution, if currently being started, will be turned off, and vice versa.
(Note: in emergency state, this operation is only valid in the manual mode.)
- 11.3 Collective broadcast operation: Press the "BROADCAST ON" key, all registered zone distributions that are not started will be in the "Start-up waiting state" and after the external control panel returns the startup completion instruction, all waiting zone distributions will be in the "Start-up state".
- 11.4 On-off operation: Press the "BROADCAST OFF" key, all registered zone distributions that have been started will exit to the "Registration state".

12 Lock key function

Lock key function is used to enable and disable the function of keyboard keys. In the state of the lock key (**by default, the power-on reset is to lock the keyboard**), the "Keyboard" indicator is normally off and **except for the "MUTE" key**, all the keys fail; when the "Lock key" button is pressed, the "Keyboard" indicator is normally on, the product will exit the lock key state, and all keys related operations can be performed. **If there is no operation in five minutes, the product will automatically re-enter the lock state.**

13 Other notes

- 13.1 When connecting the wire, pay attention to the positive and negative polarity of the power supply.
- 13.2 When in use, it should be noted that the chassis shall be grounded well.
- 13.3 In order to ensure stable operation of the system, the time interval of continuous switching shall be greater than 10 seconds.
- 13.4 **If the linkage control with external control panel is required, ensure that the operating frequency is not too fast.**



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com

14 Accessories

Name	QTY	Unit	Remark
User manual	1	Copy	
1A fuse	2	pcs	5*20mm
5A fuse	2	pcs	5*20mm
Wire protection tube	6	pcs	
Door lock and keys	1	/	
Power cable	1	/	
Handheld microphone	1	pcs	

15 Speakers

Photo	Product name	Model No.	Parameters
	Small ceiling speaker	AW-SP01	Diameter:180mm Thickness: 60mm Ceiling hole::147 mm Power:3-6W Voltage: 70/110V Frequency response: 100-16kHz Sensitivity: 90dB Loudest pressure level (1m): 92dB Speaker:5inch Shell material: ABS Weight: 0.8kg Color: white
	Big ceiling speaker big	AW-SP02	Diameter:213mm Thickness: 65mm Ceiling hole::170 mm Power:6-10W Voltage: 70/110V Frequency response: 100-16kHz Sensitivity: 90dB Loudest pressure level (1m): 95dB Speaker:6.5inch Shell material: ABS Weight: 1.3kg



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com

			Color: white
	Wall mounted speaker	AW-SP03	Size: 260×185×120mm Power:10-15W Voltage: 70/110V Frequency response: 100-16kHz Sensitivity: 90dB Loudest pressure level (1m): 95dB Speaker:6.5inch Shell material: ABS Weight: 0.8kg Color:white
	15W water proof speaker	AW-SP04	Size: 202*120*234mm Power:15-30W Voltage: 70/110V Frequency response: 420-6000Hz Loudest pressure level (1m): 118dB Shell material: ABS Weight: 1.45kg Color: white
	30W water proof speaker	AW-SP05	Size: 2220*165*240mm Power:20-30W Voltage: 70/110V Frequency response: 420-7000Hz Loudest pressure level (1m): 118dB Shell material: ABS Weight: 1.21kg Color: white

Statement: This manual may change with the product upgrade without further notice, subject to the product in kind, please request the latest version free of charge from our company.
ASENWARE LTD. has the right of final interpretation and change.



ASENWARE LTD

ADDRESS: 6 PROSPECT WAY, ROYAL OAK INDUSTRIAL ESTATE DAVENTRY,
NORTHAMPTONSHIRE, ENGLAND, NN118PL
WEBSITE: www.asenware.com EMAIL: info@asenware.com