OPERATION MANUAL

DIGITAL NETWORK PUBLIC ADDRESS & VOICE ALARM SYSTEM

VA-6000RM

Thanks for using ITC Digital Network Public Address & Voice Alarm System.
For better operation, please read this manual carefully before operating the system.

1. Dear Readers

Thank you for using ITC fire voice broadcasting system, in order to facilitate your understanding and the manual's description, suggestion are as follows:

◆ **The mentioned "Voice information" in the manual includes**

➢ Built-in EVAC, ALERT voice.

➢ Built-in paging and PSTN voice menu prompt tone.

➢ Built-in BGM, line input audio and remote paging audio.

Note: The qty of voice information of EVAC / ALERT / BGM / PROMPT memory cards cannot exceed 100.

◆ **The system control priority**

➢ When configuring audio operation priority, please follow the principle that manual first, then automatic, local first, then remote.

➢ Recommend to make Mic PTT and EVAC voice configuration with a higher priority.

It has total 39 kinds of audio signal system, in consideration of the network bandwidth, only 24 different audio signal can be sent to the system partitions, audio priority can be configured through software (when configured with backup host, the priority of the audio signals come from one host can be the same, the priority of the audio signals come from diferent hosts must be different).

◆ **Some icons are described as belows**

—Loop playback.

—Single cycle.

—Order play.

—Single player.

—Random Play.

—Click to adjust the output level of the current partition (It is invalid for EVAC voice and zone

paging broadcasting).

—Represent the current partition output muted (volume output is 0).

—Click for monitoring audio signal of current partition.

—It means audio signal of current partition is monitored.

—Equipment or module fault appears in the system.

—It indicates that the system is currently operating in an emergency mode.

—It represents that the host is offline.

—It indicates that the network is connected.

—It represents the host starts the PSTN calling function.

—It indicates that MIC is calling.

—Green indicates that the module is working.

—Yellow indicates module failure.

—Grey indicates that the module is normal.

◆ LED Status Description of the Equipment

Yellow —Fault, system detect that some equipment is lost comparing to the current configuration, the normal operation of the system may be affected.

Off - indicates that the system according to the user's current configuration does not detect the equipment, or equipments work abnormally, everything runs smoothly (in the case that module is not configured, it is also off).

Green – 1. On ---- works normally; 2. Flashing ----- current partitions which are called are all switched to playing the audio with the higher priority.

Red – 1. On ---- warning; 2. Flashing ----- waiting.

◆ **The system partition status descriptions**

Partition status means that the real-time job status of local speaker loop bus, which includes the loop bus open, short-circuit, ground, normal and currently working audio. When system diagnostics speakers' partition bus that has short circuit, in order to protect the power amplifier, it will immediately stop outputting audio signal of the current partition; when system diagnostics speakers' partition bus that has grounded and open, it does not stop outputting audio signal of the current partition, but it will beep and fault indication to alert the user and record the time point of failure and failure of the partition, for the specific view, please refer to the following sections.

◆ **Attention**

1) Do not let the system equipment install in the sunlight or near a heater, because the device may become deformed or fade into the protected status due to high temperature and stop working.

2) Do not install the system device or store in a dusty, humid place, otherwise it will affect stability or cause intermittent fault when the system is working.

3) System equipment should be as far away from the strong magnetic field generated by the device, in case of high electromagnetic interferences system equipment normal operation.

4) System equipment VA-6000MA / MS / BC, VA-P8500S are designed specifically for cabinet installation, if you install two or more units on a cabinet, between the device and the device you should set aside the corresponding space for ventilation to maintain good heat dissipation.

5) In order to make the system work stably, please ensure the reliability of ground connection of the equipment.

6) The system does not allow parallel amplifier, which may cause permanent failure.

7) Remote Microphone (VA-6000FM / RM) provides phantom power, real-time testing, please do not turn off the switch at work to avoid system to report failures misjudgment.

8) The main equipment lines of the system all have back-up, please allocate according to the actual needs. If any serious fault happens and lead to system disorder, please contact the staff for after-sales service. Do not attempt to disassemble the internal portion for personal maintenance treatment , in order to prevent permanent damage to the device or module and avoid electrical shock.

9) The product is the Class I device that must be connected to a power outlet with a grounding power outlet to ensure adequate grounding device.

10) The equipment used the power plug is disconnected from the grid power supplies, to ensure security, please pull out the power plug after using the equipment, and make sure complete loss of the power.

11) Because the appearance and functions of this system will continue to upgrade, but are backward compatible, any discrepancy in kind, please in kind prevail.

2. Introduction

➤ Nowadays the building is higher and higher and the area need to be controlled at the same time is becoming wider and wider. If EVAC System also is designed based on the traditional analog technology, there are problems about signal attenuation from the long-distance, electromagnetic interference between different space, the cost of construction and maintain, the system centralized control and monitor, the data backup, the more redundancy and so on.

➤ VA-6000 is designed for solving all the above problems. It is a perfect PA system solution that meets the demands of fire alarm, public address and BGM. It is controlled by effective MPU Module without linkage problem between different systems. The system contains our Independent developed ASD technology which system automatically detect fault, SID technology which speakers circuit detect automatically, DLB technology which for data lines Automatic redundancy. It is a more stable system with low maintenance cost in the future. If you are looking for a perfect PA system, VA-6000 is your best choice. It is widely used for five-star hotel, office building, super market and stadium. Compared to VA-2000 System, it is more stable with better audio output which could bring you perfect feeling.
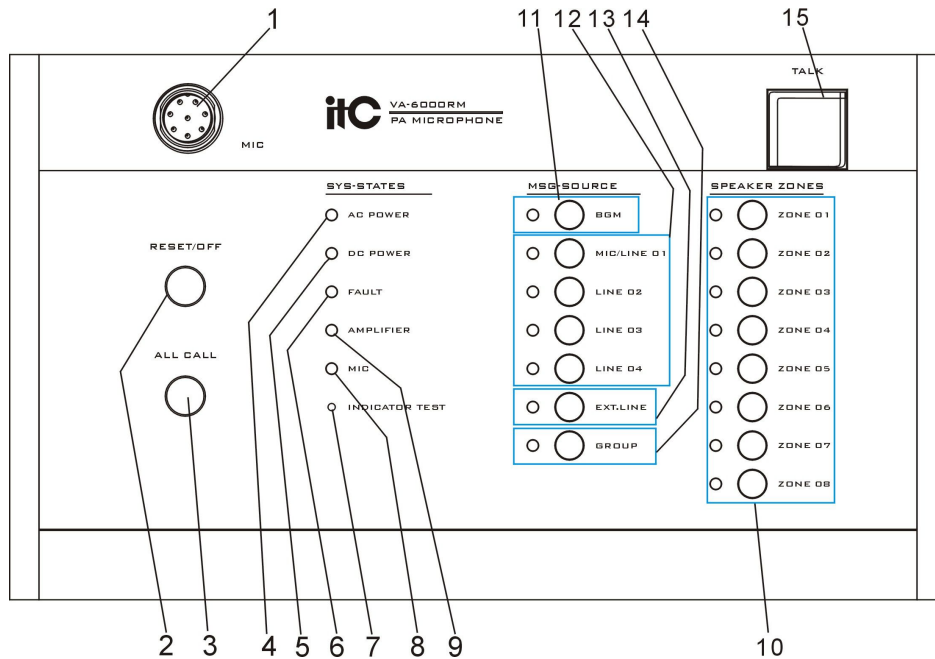
3. PA Microphone —VA-6000RM

VA-6000RM can be used in remote control VA-6000 system, can allow user to control system voice information and zone paging, support 8 zones/group selection, and can extended by MIC(VA-6000EM), can maxium add 7 keyboard, every extended keyboard can add 8 zones.

3.1 Features

1. 1 key zone/group selection, easy to operate.

2. MIC output level is adjustable.

3. Balanced transmission can extend the transmission distance by CAT-5.

4. Showy system fault and main module indication.

5. Support zone/group selection keyboard extention.

6. Support line audio input and the input volume adjustment.

7. Paging key mode and PTT mode can be configured.

8. Support line redundant wiring.

9. Support monitor output.

10. Support 24V phantom power.

11. Paging priority is configurable.

3.2 Front panel

1. Gooseneck microphone socket.

2. Fault reset/close partition.

3. All zones selection button.

4. Main power status indication of all devices.

➤ OFF- All devices or modules main power supply is normal.

➤ Yellow - All devices or modules mains failure (all, some or one of them).

5. All devices' DC backup power status indicator (all, some or one of them, no configuration, the system ignores status of their work, the default is normal).

➤ OFF - The backup DC system power supply is normal of all devices.

➤ Yellow -System for all devices or part of the devices'standby power supply failure   (all, some or one of them, no configuration will be ignored).

6. All devices and module abnormal status indicator (note: not the current microphone status indicators).

➤ OFF - All system devices or modules or backup power is normal.

➤ Yellow - All devices or modules or standby power failure (all, some or one of them).

7. Panel indicator testing button: When you press this button, all the indicator of the panel show in turn: green - red - yellow - normal.

8. Gooseneck microphone status indicator.

➤ OFF - Gooseneck microphone is normal.

➤ Yellow - Gooseneck microphone fault.

9. System amplifier working status indication.

➤ OFF - All system configuration amplifier (main amplifier and spare amplifier) are all running normally

➤ Yellow - All configured amplifier of the system (main amplifier or spare amplifier) is faulty or one of them

is faulty.

10. Partition working status indicator and selection button.

➢ OFF - Indicates that the current zoning status in the absence of broadcast or is not configured properly.

➢ Green - Indicates the current partition is broadcasting, the audio output is ordinary.

➢ Red - Indicates the current partition is broadcasting, output is EVAC voice or remote paging MIC broadcasting as RM / FM / PSTN and so on.

➢ Yellow - Indicates the current partition is faulty.

11. Host background music working status indicator and control buttons.

➢ Off - Background music player and memory card's voice files are normal.

➢ Green - Background music is playing.

➢ Yellow - Background Music Player files are missing or faulty.

12. Host's line input 01 ~ 04 working status indicators and audio selection control buttons.

➢ Off - Line input 01 to 04 did not work.

➢ Green - Line input 01 to 04 are playing.

13. Gooseneck microphone and line input audio selection indicators light and their input audio select button.
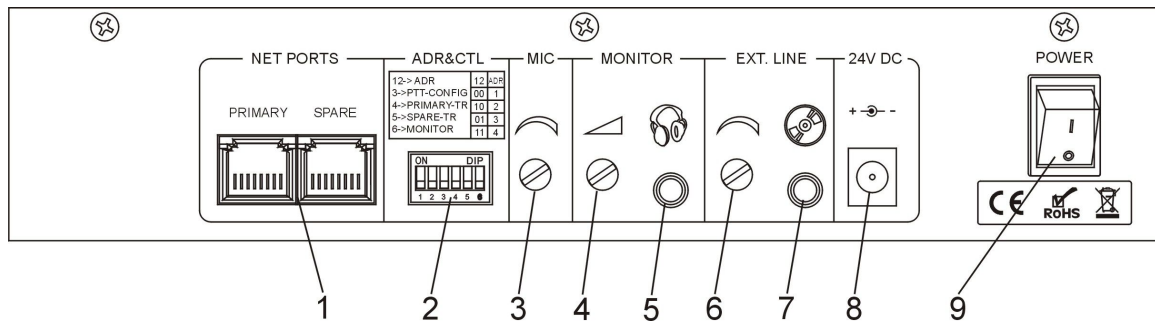
➢ Off - The device is a microphone input state.

➢ Green - Device in an expanded line input state.

14. Equipment zone/group mode indicator and function selection buttons.

➢ Off - The device is partitioned mode control.

➢ Green - Device is in the packet mode control.

15. Paging switch.

3.3 Rear panel

1. Networking equipment main and backup interfaces (online interface to the host and the remote MIC on VA-6000MA is connected)

2. Equipment networking address and feature configuration (DIP switch "1, 2" to be device address control bit; The "3" bit is the configuration panel "15 Paging buttons control mode - touch mode or PTT mode. The "4,5" bit is "the primary and backup" to conect to terminal resistance control bits; the "6" bit control for the local speech monitor control bit).

3. PTT microphone output volume adjustment potentiometer.

4. Monitor volume adjustment potentiometer.

5. Monitor audio output,can connect to external headphone or other listening devices.

6. Extended line input volume control potentiometer.

7. Extended line audio inputs.

8. DC 24V input (when the transfer distance over 50 meters, it needs an external power supply DC 24V).
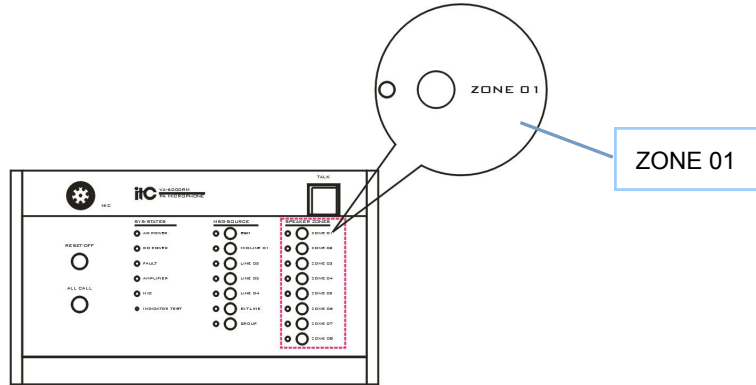
9. Device power switch.

3.4 Technical Specifications

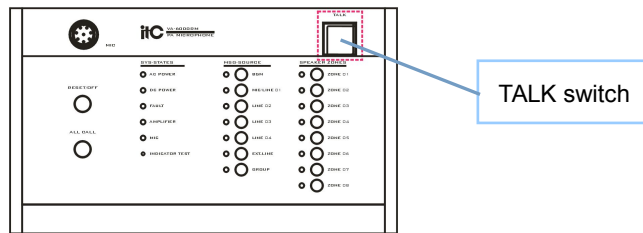| Electric index	
DC power supply	
Voltage	24V DC, ±20%
Maximum current	0.1A (Not including extension panel)
consumption	2.4W (Not including extension panel)
Performance index	
Balanced signal output	
Distortion	<1% (rated output power), 1kHz
Frequency response	80Hz~16kHz
Sensitivity	500mV
Impedance	10kΩ
SNR	>70dB
Line Input	
Distortion	<1% (rated output power), 1kHz
Frequency response	80Hz~16kHz
Sensitivity	350mV
Impedance	10kΩ
SNR	>70dB
Microphone	
Sensitivity	5mV
Impedance	600Ω
Mechanical index	
Dimensions(L x W x D)	256* 52*149mm
Net Weight	About 1.5kg
Installation	Desktop or 19-inch rack
Color	Black
Environmental requirements	
Operating temperature	+5℃~+40℃
storage temperature	-20℃~+70℃
Relative humidity	<95% (Non-condensing)

4. Business microphone broadcast
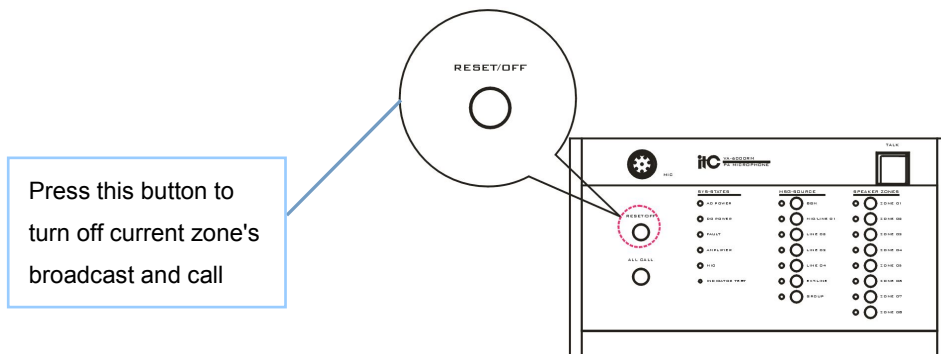
4.1 Partition broadcast operation

1) Press ZONE 01 button on the VA-6000RM, a s shown in figure:

2) Press the TALK switch, after the goose rod indicator light, you can broadcast to ZONE 01 (other partitions or multiple partitions are as the same operation), as shown in figure:
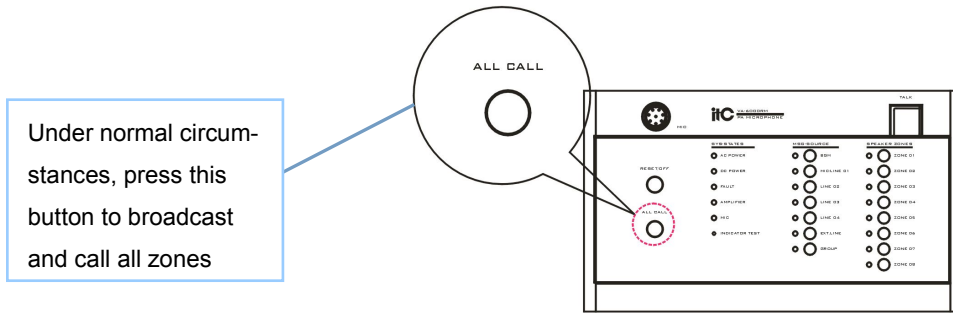

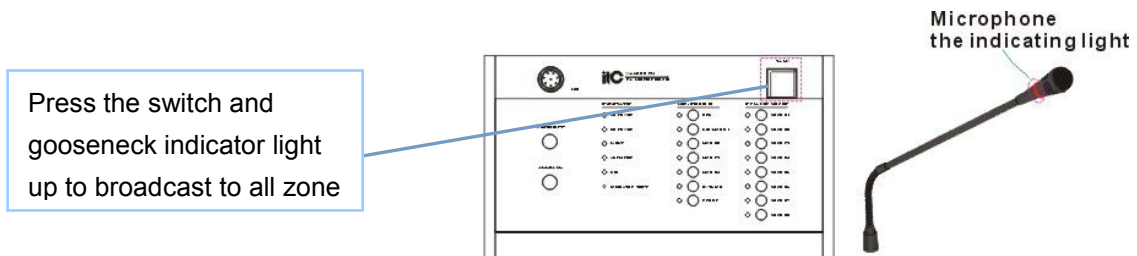3) Press RESET/OFF button, you can turn off the radio calls, as figure:

Press this button to turn off current zone's broadcast and call

4.2 All-zone broadcast operations

1) Press ALL CALL button on VA-6000RM, as shown in figure:

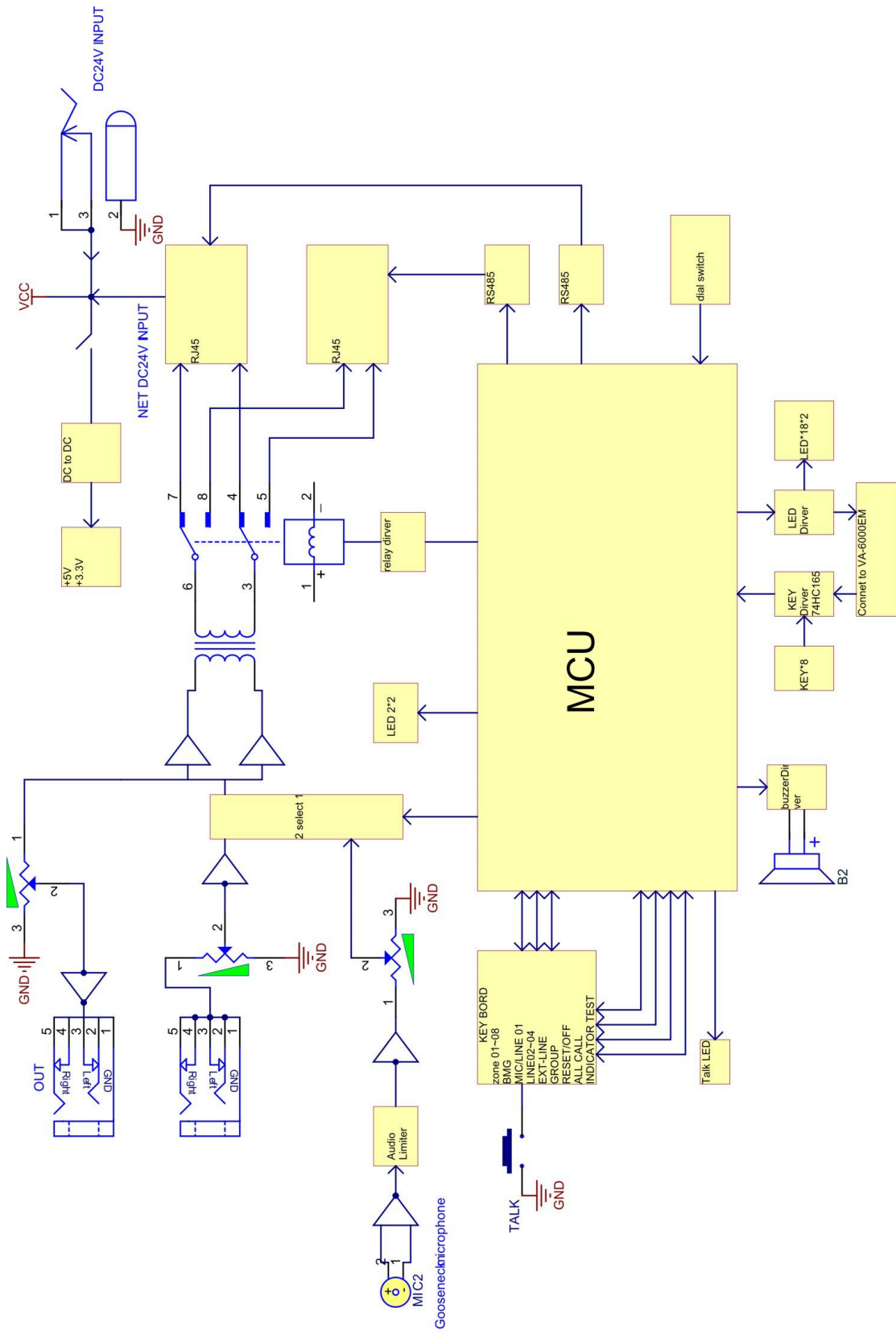Under normal circum-
stances, press this
button to broadcast
and call all zones

2) Press the TALK switch, the goose pole indicator will light on, and you can broadcast the whole zones, as shown in figure:

Press the switch and
gooseneck indicator light
up to broadcast to all zone

3) Press the RESET/OFF button to close the radio.

5. Block Diagram