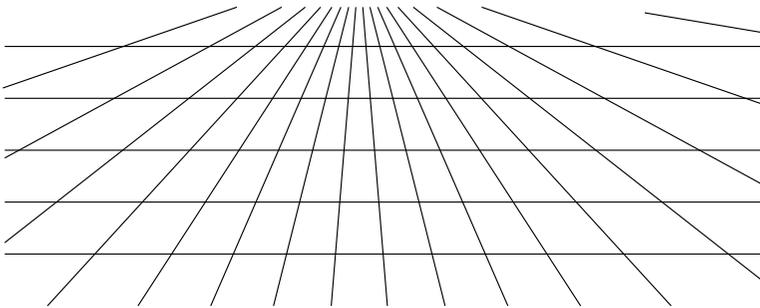


*Conference System*

*Instruction Manual*



## **A. SYS Function Description**

- The system can be easily installed with single-line connection. It can be removed and installed in a short time to make the conference proceed smoothly.
- Microphone is equipped with ring-shaped indicator which illuminates when the microphone is on to show which delegate unit is active.
- The chairman unit and delegate unit are both equipped with built-in speakers to enable delegates to listen to the proceedings without additional speakers. Independent volume control knob is provided for proper volume adjustment.
- To prevent buzzing, the built-in speaker will be automatically muted when the microphone of the chairman unit or delegate unit is on.
- To prevent hum, the microphone of the chairman unit or delegate unit will be turned off automatically if it is not in use for more than one minute.
- The chairman unit and delegate unit both provide earphone output sockets for the convenience of monitoring the proceedings. The socket can also be used as recording output when recording the proceedings.
- The chairman unit has the priority in speech and control over delegate units, which makes it easy for the chairman to manage the proceeding of the conference (multiple chairman units can be used simultaneously).
- The chairman unit incorporates a built-in monitoring speaker, a earphone output socket, and two sets of recording output terminals to record the proceedings conveniently.
- Up to 100 delegates can be connected in the conference (including chairman unit)
- The system can be used with wireless microphone (for briefing).
- The system can be connected with public broadcasting system to broadcast the contents of the conference to guest audience or wider area.

## **B. SYS Technical Specification**

### **(1) R (Central control amplifier)**

- Power supply AC power 110/220V interchangeable.
- Two volume control knobs (coarse, fine)
- Input terminal MIC 50dB/600Ω, AUX 20dB/10KΩ
- REC output terminal 0dB, headphone/speaker with selectable monitoring output, headphone 6mW x 2, speaker 3W.
- The sensitivity of the chairman unit or delegate unit's connecting input/output (LINE) is -20dB.
- The chairman unit has the priority in controlling the output of warning sound.
- The system can be set to speak only by chairman unit or open discussion.
- The system provides the testing function for the connection between units chairman and delegate units to see whether the connection of the units is correct.

### **(2) D (delegate unit)**

- Controls microphone on/off with single touch.
- Provides a microphone with ring-shaped indicator (which illuminates when microphone is on).
- Uses single-directional capacitive microphone head (-64dB 680Ω)
- Provides an earphone output socket (8mW) with mono sound for monitoring.
- Provides a monitoring speaker (3W) and volume control for the speaker.

### **(3) M (chairman unit)**

- Controls microphone on/off with single touch.
- Incorporates a priority key.
- Provides a microphone with ring-shaped indicator (which illuminates when microphone is on).
- Uses single-directional capacitive microphone head (-64dB 680Ω)
- Provides an earphone output socket (8mW) with mono sound for monitoring.
- Provides a monitoring speaker (3W) and volume control for the speaker.

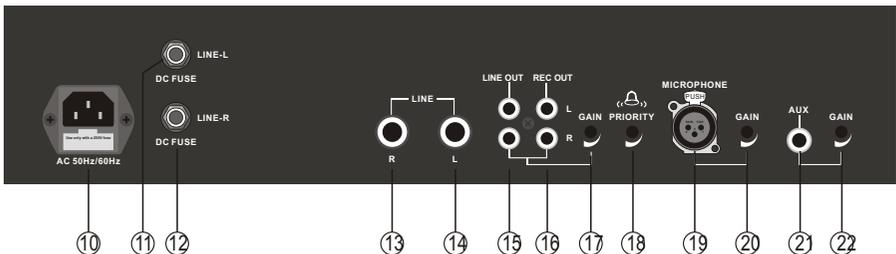
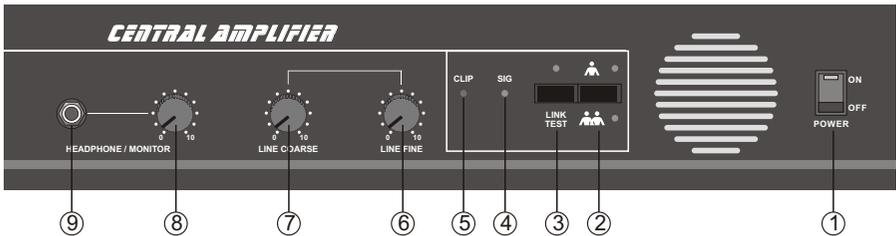
#### (4) B (Expansion Amplifier)

- Power supply AC power 110/220V interchangeable.
- Output and input terminal can be used to expand conference units. Up to 30 chairman/delegate units can be connected per expansion amplifier.
- Provides power indicator lamp, when the connection is OK, the power ON indicator will illuminate.

SPECIFICATION	R	D	M	B
Power Source	AC 220V~50Hz	DC 24V	DC 24V	AC 220V~50Hz
	AC 120V~60Hz			AC 120V~60Hz
Power consumption	30mA	30mA	30mA	
Input	MIC: -50dB	DIN 8P	DIN 8P	DIN 8P
	AUX: -20dB			
Output	REC: 0dB	DIN 8P	DIN 8P	DIN 8P
	LINE OUT: 0dB	Speaker 4Ω/3W	Speaker 4Ω/3W	
	Headphone: 0dB	REC: 0dB	REC: 0dB	
	Speaker 4Ω/3W	Headset: 300mV	Headset: 300mV	
	LINE: 150mV			
Control	LINK TEST	TALK/LISTEN	TALK/LISTEN	
	Discussion Type		Chairman Priority	

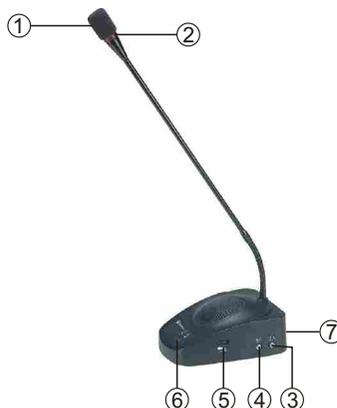
#### C. Controls

##### (1)R



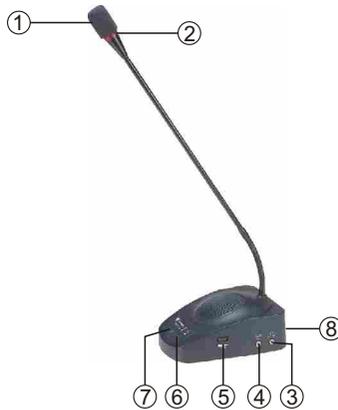
1. POWER- main power switch of the central control amplifier
2.  / --control key for selecting conference discussion method. When  is selected, only chairman unit can speak; when  is selected, the conference is open for discussion, and both chairman and delegate units can speak.
3. LINK TEST- the test key for delegation unit connection. When the connection works properly, the ring-shaped indicator of the microphone will illuminate.
4. SIG- signal receiving indicator. When the amplifier receives the signal, the indicator will illuminate.
5. CLIP- signal overload indicator. When clipping distortion or acoustic feedback occurs due to overload of output signals, the indicator will illuminate.
6. LINE FINE- volume control knob for chairman and delegate unit, which is used to fine-tune the speech volume of conference units.
7. LINE-COARSE- volume control knob for chairman and delegate unit.
8. HEADPHONE/MONITOR-monitoring earphone socket and monitoring speaker volume control knob.
9. HEADPHONE/MONITOR-monitoring earphone socket.
10. AC 50 Hz/60Hz- AC power supply plug. AC power 120V/240V is switchable by changing the direction of fuse socket. Please be sure to replace the fuse with the scoreponding specification of 120V/240V.
11. DC FUSE (LINE-L)- provides DC power fuse to the speaking unit.
12. DC FUSE (LINE-R)- provides DC power fuse to the speaking unit.
13. LINE (R) right side output terminal of the chairman and delegate unit.
14. LINE (L) left side output terminal of the chairman and delegate unit.
15. LINE OUT- signal output terminal, which can connect to external amplifier or other equipment for conference auditing or broadcasting.
16. REC OUT- recording output terminal, which can connect to the recording equipment to record the proceedings.
17. GAIN- volume control knob for signal output terminal and recording output terminal.
18. PRIORITY-volume control knob for priority warning sound.
19. MICROPHONE-balanced socket for microphone input, which can be used to connect with an external microphone .
20. Gain- external microphone volume control knob.
21. AUX- external auxiliary input socket 6.3Φ , which may be used as external input signal source socket, such as cassettes or CDs, etc.
22. Gain- volume control knob for adjusting external auxiliary input.

**(2) D**



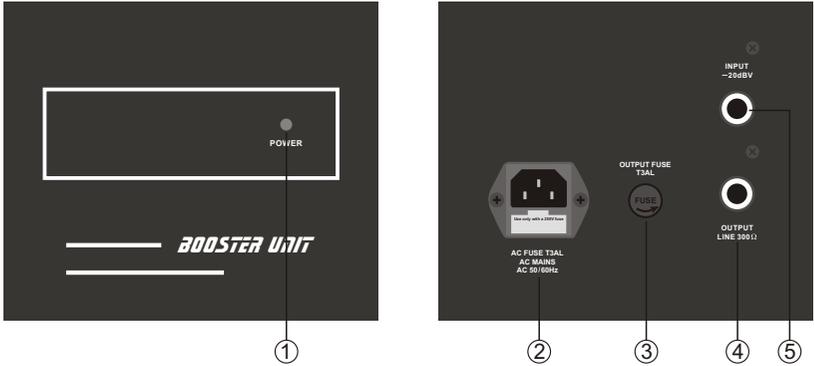
1. MICROPHONE- condenser microphone, a receiving unit for the conference unit.
2. LED- When a conference unit is used, the LED indicator will illuminate to show the speaking status.
3. HEADSET- mono-sound earphone plug, which can be used to monitor the proceedings when the speaker is not in use.
4. REC- recording output socket, which can be used as signal output socket while recording the proceedings.
5. VOLUE- volume control knob, which can be used to adjust the output level of the speaker, recording output and earphone socket.
6. T-R-speaking control key. When the key is first pressed, the green LED will turn to red LED, and you may now speak via the microphone. When the key is pressed the second time, the red LED will turn to green LED, and the unit is now in listening status and generating sound via the speaker.
7. LINE- output/input connection cable terminal. DIN-8P cable socket does not differentiate between output and input; therefore, these two sockets can both be used.

(3) M



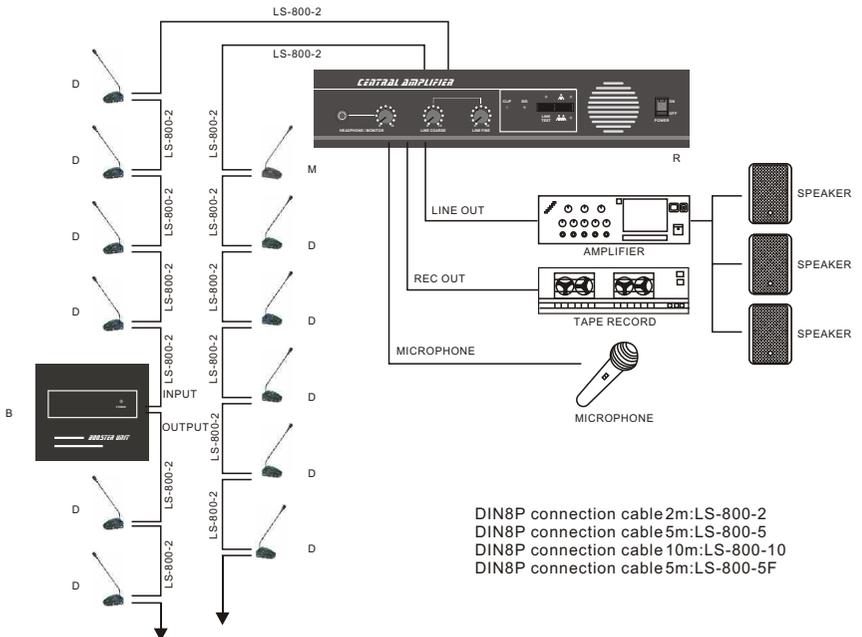
1. MICROPHONE- condenser microphone, a receiving unit for the conference unit is speaking.
2. LED- When a conference unit is speaking, the LED indicator will illuminate to show the speaking status.
3. HEADSET- mono-sound earphone plug, which can be used to monitor the proceedings when the speaker is not in use.
4. REC- recording output socket, which can be used as signal output socket while recording the proceedings.
5. VOLUE- volume control knob, which can be used to adjust the output level of the speaker, recording output and earphone socket.
6. T-R-speaking control key. When the key is first pressed, the green LED will turn to red LED, and the signal will be passed by the microphone. When the key is pressed the second time, the red LED will turn to green LED, and the unit is now in listening status and generating sound via the speaker.
7. PRIORITY- priority key, which can be used to mute the microphones of all connected delegate units. Pressing and holding the key will disable delegate microphones, and releasing the key will reactive delegate microphones.
8. LINE- output/input connection cable terminal. DIN-8P cable socket does not differentiate between output and input; therefore, these two sockets can both be used.

## (4) B



1. POWER-power indicator lamp. When the expansion amplifier is properly connected, the power indicator lamp will illuminate.
2. ACMINS AC50Hz/60Hz-AC power supply plug. AC power 120V/240V is switchable by changing the direction of fuse socket. Please be sure to replace the fuse with the corresponding specification of 120V/240V.
3. OUTPUT FUSE- output DC voltage fuse; OUTPUT terminal output voltage protection fuse.
4. OUTPUT LINE 300Ω- output cable connection terminal socket, which is used to connect the units to be expanded.
5. INPUT 20dBV-input cable connection terminal socket, which is used to connect the output terminal of original units.

## (5) Installation and Connection Schematic Diagram



## D. Installation Precautions

- (1) Please turn off power and do not turn on before the completion of system installation and disassembly. Performing the installation or disassembly procedures while the power is on may damage the whole system.
- (2) Space the conference units at least 1 M apart to prevent the microphone fizzing effect.
- (3) If it is necessary to install the units within short distance due to environmental restriction, we suggest you to set up the system so that when the microphone of one of the units less than 1 M apart is on, the speakers of the adjacent units will be turned off. (Please refer to the set up of speaker's sound-generating distance for detailed information.)
- (4) Keep your mouth 5~10 cm away from the microphone when speaking, as doing so may achieve the best result.
- (5) As the automatic control for microphone sensitivity is included in the system design, if you are too close to the microphone when speaking, the sound generated will be even smaller, which should be a normal condition.
- (6) Safety Precautions



Warning: High voltage inside.  
Be careful to electric shock.



Caution: Important operation and  
maintenance information of the machine

Caution: Do not open the top cover to prevent electric shock. Please contact service technicians.

Warning: Do not wet the machine to prevent fire or electric shock.

ON: the machine is powered on.

OFF: the machine is powered off.

~ : AC voltage/current (if this sign is used on the machine)

== : DC voltage/current (if this sign is used on the machine)

### Details of the Safety Manual:

Please carefully read this safety and operation manual before operating the machine.

- Keep the manual  
Please keep this manual for future.
- Read the warning precautions  
Please observe the warning precautions when operating the machine.
- Refer to the manual while operating  
Please refer to the manual when operating the machine and follow the requirements in warning precautions.
- Do not wet the machine  
To prevent fire or electric shock, do not expose the machine to rain or humid environment.
- To maintain good ventilation, do not place the machine in the place where the airflow is restricted, such as placing in the bed, on the blanket or other locations that may block the ventilation slots of the machine. The machine should be placed on a flat surface, and in the meanwhile, the distance from the back or the top of the machine to the wall should be at least 1 meter. Please do not block the ventilation slots of the machine.

- **Heat**  
Do not place the machine in an overheated environment, such as near the heater, furnace, or other machines that generate heat (including amplifier). Also, do not expose to direct sunlight, such as burning candles.
- **Power**  
Select the power voltage according to the requirement. Unless the machine is equipped with a transformer or installed with a corresponding transformer plus, please do not change the voltage at will.
- **Grounding.**  
Grounding is an important prevention measure to protect the machine.
- **Protect the power cord**  
To prevent the power cord from being pressed or stepped on, and also for the convenience of operating and using the machine, please pay attention to the location of the power cord when wiring.
- **Clean**  
Please use a dry cloth to clean.
- **Suspension period**  
If the machine will not be used for a long period of time, or during thunder and lightning, please do not connect the machine to the power cord.
- **Repair the machine**  
If any of the following conditions occur, please contact service technicians:
  - Power cord or plug was damaged.
  - Foreign objects (including solid and liquid types) were dropped into the machine.
  - Machine was soaked by rain.
  - Machine cannot operate normally or a significant change has occurred during operation.
  - Machine was damaged from dropping, or the case was broken.
- **Service Instructions**  
Please disconnect the power cord before servicing the machine. If it is necessary to replace important parts, please use parts produced by the same manufacturer or parts that are compatible with the machine. After the repair is complete, please check the insulation and resistance function before returning the machine to operation and connecting to the power cord.

(7) **Change the setup of the speaker's sound-generating distance**  
When the installation environment is not good enough (the distance between units is less than 1M), you may change the jumper setting on the PCB, so that when the microphone of that unit is on, the speakers of the adjacent units will be muted, which decreases the microphone feedback and fizzing occurred by the sound wave reflection in the environment.

1. Remove the 6 screws on the bottom plate of the unit.
2. Pull off the jumper on the PCB and insert into Pin 1-2.
3. Replace the 6 screws on the bottom plate to finish the setup.

