

# SAMCEN

Professional Audio Conference System

Fully Digital Congress System

## User Manual

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Please read the instruction carefully before using.

The **Professional Audio Conference System User Manual** provides reference for the models of SCS-6100MA, SCS-6100E, SCS-6001C/D, SCS-6040C/D, SCS-6050C/D, SCS-6070C/D, SCS-6090C/D, SCS-6010VC/D, SCS-6150C/D, SCS-6170C/D, SCS-6190C/D, SCS-350MA, SCS-350TA, SCS-360RA etc. It is only an instruction for operators, not for any maintenance usage.

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Please check SAMCEN website or contact local supplier for updates.

**<http://www.samcen.com>**

## Safety Operation Guide



In order to ensure the credibility use of the product and the user's safety, please comply with the following items during installation and maintenance:

- ①  
The system must be earthed properly. Please do not use two blades plugs and ensure the alternating power supply ranged from 100v to 240v and from 50Hz to 60Hz.
  
- ②  
Do not put the machine in a place of too hot or too cold.
  
- ③  
To avoid any damage by over heat, please keep the working environment good in ventilation to radiate the heat when running the machine.
  
- ④  
The machine should be turned off when in rainy and humid days or nonuse for a long time.
  
- ⑤  
The AC power supply line should be disconnected with the power socket during the following operation.  
A. Take out or reinstall any component of the machine.  
B. Disconnect or re-connect any connector of the machine.
  
- ⑥  
Please do not attempt to maintain and uncover the machine for there is a high-voltage component inside and the risk of the electric shock.
  
- ⑦  
Do not splash any chemical product or liquid on or near the equipment.

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# 1. Samcen Conference System Introduction

## 1.1. About Samcen system

SCS (Samcen Conference System), central control system and matrix switcher system are 3 most important product lines of SAMCEN Corporation. It consists of the function modules as contribution, simultaneous interpretation, IR language distribution, telephone conference, voting and video tracking.

SAMCEN is always dedicated to integrated system solutions. Therefore, the SCS is not only a Hi-tech electronically system, but also a powerful conference control solution while cooperating with the central control system seamlessly.

## 1.2. Features of SCS

**Safety:** The safety of every delegate is the most important thing to each conference.

- The power of delegate unit and chairman unit are supplied by the central control unit with 24V safety current.
- To improve the antistatic performance, the parts are selected carefully to avoid point discharge current and the earth line is ensured to be enough thick. As a result, the antistatic performance is up to 8000V.

**Security and anti-jamming:** Everything discussed in a conference must be important and sensitive. To keep the signals and information securely and distortion-free is highly required.

- The discussion system is shielded-cable linked, which can prevent the radio disturbance and wiretapping effectively.

**Perfect audio quality:** The more clearly we “say”, the more clearly we get.

- The contribution equipment adopts condenser microphone with unidirectional response.
- The contribution equipment adopts built-in hi-fi loudspeaker.
- The lightweight earphone with a hanging design can reproduce the audio vividly and it is comfortable to wear. It is very suitable for a long time use without any feeling of oppressive or unhappy.

**Maneuverability:** Simple operation and control represent efficiency.

- Easy installation: the communication method of daisy-chaining the unit simplifies the work of installation and saves the cost.
- Easy operation: everyone can easily control the unit by press a button to address and turn the knob to adjust the volume of speaker or earphone.

**Maintainability:** An excellent system design leads to low maintenance cost, lesser upgrade expense, long life-span and high efficiency.

- The communication method of daisy-chain is easy to maintain and locate the problem unit.
- Even the end user technician can maintain the system well with a short-term training.
- All the equipments are produced and tested under ISO9001 strictly. They are international qualified.

**Expansibility:** The capability of expansible protects users’ benefit and makes the system more flexible and powerful.

- To cope with the increasing number of delegates, the only thing to do is just adding in the delegate units.

The modular system can be easily expanded by putting in the proper functional module. When adding in a voting unit, it becomes a voting conference system; when adding in the camera tracking module, it becomes a simultaneous A/V conference system.

### 1.3. Product list

Audio Conference System Product Models	
SCS Control Units	
SCS-6100MA	Control host
SCS-6100E	Expanded host
SCS Fully Discussion System Units	
SCS-6090C	Chairman unit with LCD display
SCS-6090D	Delegate unit with LCD display
SCS-6070C	Chairman unit flush-mount design
SCS-6070D	Delegate unit flush-mount design
SCS-6050C	Chairman unit with LCD display
SCS-6050D	Delegate unit with LCD display
SCS-6040C	Chairman unit desktop design
SCS-6040D	Delegate unit desktop design
SCS-6010VC	Chairman unit desktop design
SCS-6010VD	Delegate unit desktop design
SCS-6001C	Chairman unit flush-mount design
SCS-6001D	Delegate unit flush-mount design
SCS Fully Digital Voting System Unit	
SCS-6190C	Chairman voting unit with LCD display
SCS-6190D	Delegate voting unit with LCD display
SCS-6170C	Chairman voting unit flush-mount design
SCS-6170D	Delegate voting unit flush-mount design
SCS-6150C	Chairman voting unit with LCD display
SCS-6150D	Delegate voting unit with LCD display
SCS Simultaneous Interpreter Unit	
SCS-320PA	Interpreter Unit
Video Automatic tracking System	
SCS-6100MA	Control host
SCS-680HD	High-speed preposition auto dome camera
SCS-690	preposition auto dome camera
SCS-690HD	High-speed preposition auto dome camera
IR Language Distribution System	
SCS-350MA	Transmitter host
SCS-350TA	Radiator unit
SCS-360RA/8/12/32	Receiver unit
Accessories	
SCS-E1A	Single earphone
SCS-E2	Headphone
SCS-E3A	Earphone
CBL CABLE	8-pin cable with connectors

## 2. SCS Control Units

### 2.1. Introduction

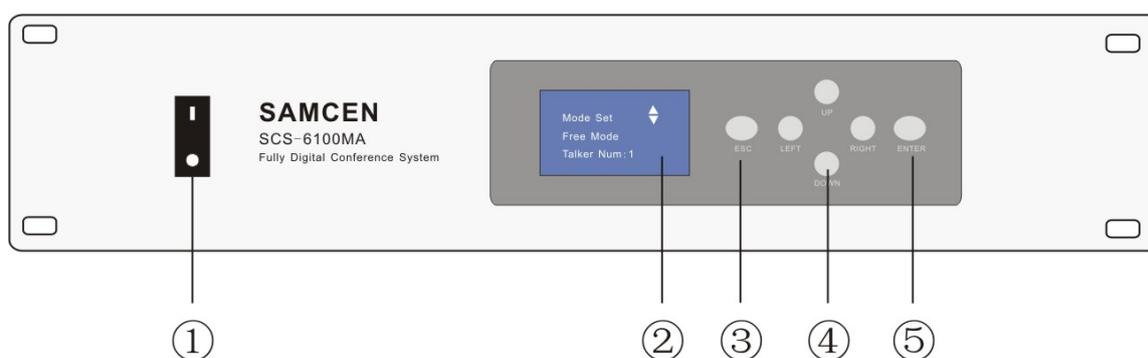
- SCS-6100MA SCS control host
- SCS-6100E SCS expanded host

#### 2.1.1. Features

1. The host itself can provide system accessing for up to 128 contribution units and can be expanded to 4096 at the most.
2. Communicating in the hand in hand daisy-chain, it is easy to install and maintain.
3. Equipped with audio-in connector, it is able to have background music.
4. Equipped with enough audio-out connectors, it is able to output the audio signal to different audio devices.
5. The activity microphones can be limited in different numbers according to requirements.
6. FIFO mode can automatically control the active microphones.
7. Built-in equalizer can adjust and balance the audio signals as well as restrain the howling for excellent audio quality.
8. Cooperating with the central control system, it becomes a powerful conference controller and achieves the super function of camera auto-tracking.
9. Working with the Telephone Interface, it can open a telephone conference with remote user.
10. Support voting and its data managing.
11. Cover with metal material and earth well to ensure the 8000V antistatic performance.
12. Rack-mountable enclosure. It can be installed in the standard 19” rack conveniently.

### 2.2. SCS-6100MA SCS control host

#### 2.2.1. Front Panel

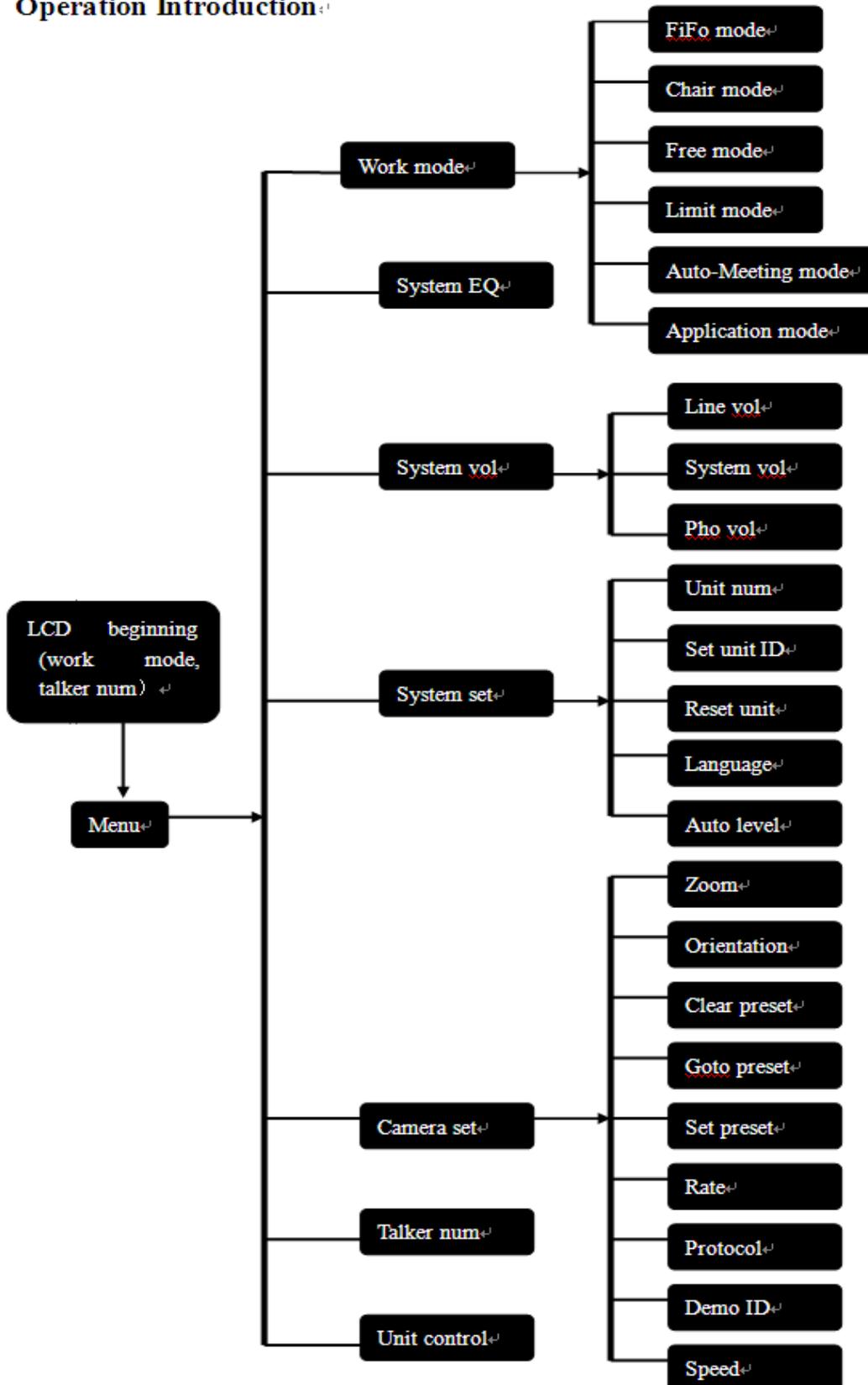


- ① Power switch: Please to make sure that the supply power is 100V—240V AC /50Hz before connected the power.
- ② LCD screen: to indicate the working state. After energized, the first indication welcome message, such as "Welcome SAMCEN Digital System" Then the LCD display system that is the mode of work, such as : **Mode Set: Fifo Mode, Talker Num: 3**. It means that the system in the first-in first-out meeting mode, allowing three individuals to speak at the same time. After the main machine electrifying seconds, if not carried out any operation, the screen will display the current system of audio level. Such as : ■■■■■■ black box said Level size.
- ③ "Esc", exit / return button, press it will return to the previous menu when setting the working mode and setting other terms. After about 4-7 seconds, if not carried out any operation, it will automatically switch

back to the screen mode interface.

- ④ “UP”, “DOWN”, “LEFT” and “RIGHT”, to switch from term to term uses the “up/down” button, and uses these four buttons to move the camera in setting preset.
- ⑤ "ENTER", enter / confirm button. setting and switching the modes with the selection button together, Confirmed that each of the functions and work mode

**Operation Introduction:**



**A. Work Mode/Conference Mode**

- \* Limit mode: you can set the number of talkers for 1-6 in this mode, but 12 talkers can be allowed to speak at the same time through the PC operation. When the talker numbers reach the number what is set before, it can not increase the unit open. But it allows three talkers to line up, when the talking microphone is closed, the first lining up will be opened automatically. The green light of waiting microphone will twinkle. In order to reach the purpose of restrict on the number of speakers.
- \* Fifo Mode: you can set the number of talkers for 1-6 in this mode, but 12 talkers can be allowed to speaking at the same time through the PC operation. When the talker numbers reach the number what is set before, if the following talker wants to speak, then the first talker will automatically exit the speaking statement, but not all talkers.
- \* Free Mode: the talker numbers are unrestricted in this mode.
- \* Chair Mode: only allows the chairman to speak in this mode
- \* Application mode: when the talker wants to speak, it must be opened for applying to chairman unit, he can speak after the chairman unit agreed with him. In this mode, you can set 1-6 units to apply, (12 units through the PC operation), but chairman unit can only agree with one talker at a time. When the first speaker finishes, the chairman unit can agree with next applicant. When delegate in the application, chairman's lamp and the delegate lamp will twinkle at the same time. In this mode, it allows three talkers to line up, when the talking microphone is closed, the first lining up will be opened automatically. The green light of waiting microphone will twinkle. In order to reach the purpose of restrict on the number of speakers.
- \* Auto-Meeting Mode: you can set the number of talkers for 1-6 in this mode, but 12 talkers can be allowed to speak at the same time through the PC operation. When it reaches the set number, the talker can not increase. In this mode, you can set a timer for talker, and the unit of time is minute. When time is up, the speaker must stop speaking. Auto-meeting time can only set by software. It also allows three talkers to line up.

**B. System EQ:** high, medium and low three kinds balanced can be adjusted. All set at 95% is perfect.

**C. System Vol:**

- \* LineVol: volume of background music. Set at 95% is perfect.
- \* Sys Vol: volume of power amplifier. Set at 95% is perfect.
- \* Pho Vol: volume of monitor headphone. Set at 95% is perfect.

**D. System Set:**

- \* Language selection: Chinese and English languages can be converted;
- \* Unit Num: setting the unit numbers.
- \* Set Unit ID: distribute unit number, the microphone unit ID can be arranged and changed.
- \* Unit reset: reset the ID, exit the status of setting ID
- \* Voice Level --On/off the voice control function. In this mode, the voice can open microphone automatically. You don't need to press the microphone button by hand. Level --microphone sensitive to the volume.

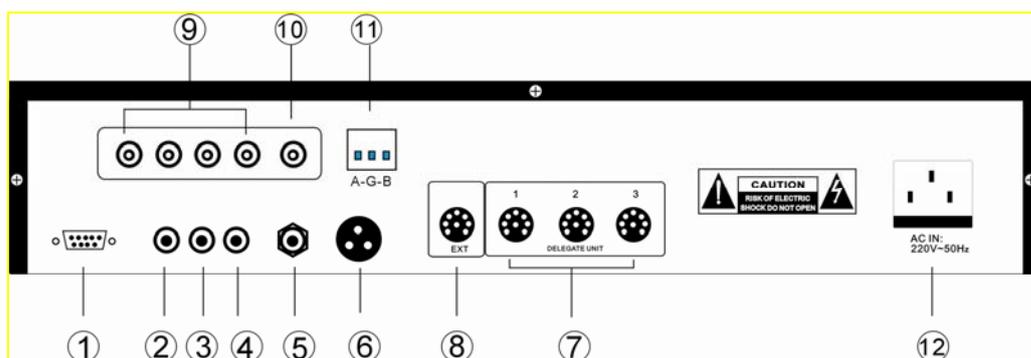
**E. Camera Set:**

- \* Demo ID: choose the camera ID which you want to set. Than set the camera's "Protocol", "Rate".
- \* Clear Preset: clear the preset which is set before.
- \* GoTo Preset: choose the talker's number which you want to set.
- \* Set Preset: to save the preset which you have set. You can set the picture effect by "Speed", "Zoom", and "Orientation".
- \* Orientation: adjust the camera' point
- \* Zoom: resize the images

**F. Talker Num:** a maximum of open microphone at the same time the number of optional 1/2/3/4/5/6, the Chairman unit unrestricted

G. Unit control: designated to speak directly through the open or closed the corresponding unit

## 2.2.2. Rear Panel



- ① Serial communication port: With 9-pin connectors to connected the computer.
- ② LINE IN: can be connected the CD player etc. as the background music for the venue.
- ③ LINE OUT, can be connected the Power amplifier or mixer.
- ④ REC OUT, high impedance output, can be connected recording equipment.
- ⑤ PHONE OUT, headphone socket, can be linked to the 16 -68ohm headphone or other equipments.
- ⑥ Balance output for connecting the equipment which need to balance input.
- ⑦ Microphone unit jack in branch, each road can be connected 25 -55 units depending on the venue situation.
- ⑧ Expansion jack: for expanding the mainframe to connecting more SCS-6100E extension main unit.
- ⑨ Video signal input
- ⑩ Video signal output
- ⑪ Camera communication port
- ⑫ Main power. This machine be used: AC110V 60Hz ~ AC24V 50Hz..

## Controller direction of use:

- The controller shell is made of metal, line and shell have strengthened the connection with the ground to ensure that available with anti-static 8000V ability to meet the national standard GB/T17618-1998.
- Conference unit is power by the controller, operating voltage of DC 24V, meet safety standards.
- Equipping with AC and DC dual-channel safety devices.
- Built-in auto-alarm function, when the electricity instability, error or system connected in error, the system automatically Bell alarm.
- Hand in hand with line-type model of connectivity conference unit, it's easily to install and maintain.
- Controller has three output ports, each port can support max 40units, and all ports can support max 120units. Expanded through the expansion of port access to the other controller, the max connected to 4096units, and no interference with each other.
- Working with phone coupler, it can be configured for remote telephone conference.
- Four built-in video switch matrixes can be configured up to four High Speed Dome through the default sitting to the visual tracking.
- Built-in equalizer, the output signals of the system high, bass fine-tuned to meet the demands of different hearing.
- Built-in frequency shifter, you can effectively inhibit the whistle.
- With the standard PAL or NTSC video output port can be connected TV, projector display devices, DVR, Video Capture Card, and so on to recording conference video. External audio and video decoding, it can conduct remote video conference.
- Controller connected to computer used RS232 protocol, so that security and stability of signal transmission.

- Controller connected to High Speed Dome used RS485 protocol, resulting in long-distance signal transmission, without interference.
- Controller use standard 1U design, steady and solidity. It can be installed in the 19-inch standard rack.
- Without computer, through the controller to achieve the following functions:
  - \* Limit mode: you can set the number of talkers for 1-6 in this mode, but 12 talkers can be allowed to speak at the same time through the PC operation. When the talker numbers reach the number what is set before, it can not increase the unit open. But it allows three talkers to line up, when the talking microphone is closed, the first lining up will be opened automatically. The green light of waiting microphone will twinkle. In order to reach the purpose of restrict on the number of speakers.
  - \* Fifo Mode: you can set the number of talkers for 1-6 in this mode, but 12 talkers can be allowed to speaking at the same time through the PC operation. When the talker numbers reach the number what is set before, if the following talker wants to speak, then the first talker will automatically exit the speaking statement, but not all talkers.
  - \* Free Mode: the talker numbers are unrestricted in this mode.
  - \* Chair Mode: only allows the chairman to speak in this mode
  - \* Application mode: when the talker wants to speak, it must be opened for applying to chairman unit, he can speak after the chairman unit agreed with him. In this mode, you can set 1-6 units to apply, (12 units through the PC operation), but chairman unit can only agree with one talker at a time. When the first speaker finishes, the chairman unit can agree with next applicant. When delegate in the application, chairman's lamp and the delegate lamp will twinkle at the same time. In this mode, it allows three talkers to line up, when the talking microphone is closed, the first lining up will be opened automatically. The green light of waiting microphone will twinkle. In order to reach the purpose of restrict on the number of speakers.
  - \* Auto-Meeting Mode: you can set the number of talkers for 1-6 in this mode, but 12 talkers can be allowed to speak at the same time through the PC operation. When it reaches the set number, the talker can not increase. In this mode, you can set a timer for talker, and the unit of time is minute. When time is up, the speaker must stop speaking. Auto-meeting time can only set by software. It also allows three talkers to line up.
- Video Track mode: when the unit was opened, you can control the camera zoom, speed, preset position, to fine-tune and save.
- Designated to speak mode: To assigning any unit to be opened or closed.
- Connect your computer to used, you need to copy the software (CD-ROM) to your computer, plug in the USB Software Encryption Lock, and use R232 protocol.
- Through the software, it have following function:
  - A Presentations Model Management:
    - Limited function: To setting the speaking time from 1 minute to 600 minutes
    - System Detection: Online testing of each unit working conditions, and accurately locates faults unit.
    - System Repair function: When the system error, through the system reset function to restore the original factory settings
    - Look-up function: To checking the speaking unit or which applying to speak.
    - Camera tracking function: To tracking and saving the case.
    - Marking name speech function: Real-time display of the number and the name of the floor units and other information
  - B. Voting function and data management
    - Voting results are in accordance with the "actual number of participants," or "should be the number of participants," to calculation. Vote can not be modified, but can be re-vote, voting results can be printed out or stored in a computer. It can be choose by software:

- ✧ Voting model: agree, against, abstain.
- ✧ 2. Election mode: elect 1/3 or elect 1/5
- ✧ 3. Score mode: 0', 25', 50', 75', 100'.

To establish a process prior to the meeting, including agenda, and to the meeting who signed, seating, and so on. It can choose name or no name voting to ensure the confidentiality of the voting system.

Results will be obtained within 10 seconds the results display option: column, pie-shaped, digital text.

**More about controller and software, detailed “ chapter 7 Conference Management Software”**

### Conference Unit ID setting

1. Delegate ID set up the meeting is to give the system a meeting of each unit assigned a unique address in this system for controller recognition. When a conferencing system to connect the same ID exists, the same conference ID function operation unit synchronization will occur, so the product of a conference system before use the need for all meetings of the unit is set to ID, to ensure that each unit ID in the system is a unique ID.
2. The way to setting unit: After conferencing system connected, to choose “System Set” on the controller, next to choose “Set Unit ID” and choose the ID number, confirm, and then the MIC Indicator light will flashes(Red---Off---Green), press the right of “MIC. On/off”, Indicator light will off. Then press “ESC”—“Down”—“Reset unit”—“Enter”, it will run “di di di” sound, set unit ID is finished.

### Chairman & Delegate direction of use

**Delegate unit:** press “Mic. On/Off” button:

- 1) Mic. On/off button
  - Press the “mic. On/Off” button to turn the microphone on. The speaking indicating lamp ring turns and keeps red. The built-in speaker mutes automatically, and the delegate can speak.
  - Press the “Mic. On/Off” button again to turn the microphone off. The speaking indicating lamp ring turns off. The built-in speaker is turned back to the mode before speaking automatically.
  - The camera of a video tracking system will aim at the speaker automatically
- 2) Application mode
  - Press the “Mic. On/Off”, the indicating lamp alternately flashes green and red light, you can speak after the chairman agrees with your application
  - Press the “Mic. On/Off”, the unit indicating lamp turns green and flashing, it means the unit is at line up state, you can speak after the previous unit closes;
- 3) Auto-Meeting mode/limit mode
  - Press the “Mic. On/Off”, the unit indicating lamp turns green and flashing, it means the unit is at line up state, you can speak after the previous unit closes

**Chairman unit:**

- 1) Press the right key, the speaking indicating lamp ring turns on and keeps red. The built-in speaker mutes automatically, and the chairman unit can speak.  
Press left without letting go, it will suspend all the delegates to speak, and he/they can go on speaking after the left key is putdown
- 2) Application mode
  - When the red light is twinkling, pressing right will agree with the application unit to speak; pressing two keys will stop the delegate unit speaking or refuse the application; (In Limit/Auto-meeting mode, pressing the two keys while the first speaking will stop, the first unit on waiting will open)
- 3) Voting conference system: Key5 can sponsor a simple voting system. Sign in, vote, elect 1/3, elect 1/5 and score. Press key5, it will come out “Create a new vote”, choose “yes”, system will into sign in status (You must do that before vote). After end sign, the result will display on LCD. Then enter into the vote mode follow the instruction on LCD.

### 5 Multifunctional keys:

- 1) Key1(Candidate 1/Yes/Response/check voice control and sensitivity)
  - In the idle state, press key1 will check the voice control status (disable/enable) and sensitivity;
  - In voting (elect 1/3 or 1/5) mode, voting indicating light will blink (red and green), press this key to vote for candidate 1;
  - In response state of voting mode, voting indicating light will blink, press this key to give a response “0”;
  - In vote state of voting mode, voting indicating light will blink, press this key to approve.
- 2) Key2(Candidate 2/No/Response/check soft version)
  - In the idle state, press this key can check the soft version of this system;
  - In voting (elect 1/3 or 1/5) mode, voting indicating light will blink (red and green), press this key to vote for candidate 2;
  - In response state of voting mode, voting indicating light will blink, press this key to give a response “25”;
  - In vote state of voting mode, voting indicating light will blink, press this key to oppose.
- 3) Key3(Candidate 3/Abstain/Response/check ID)
  - In the idle state, press this key can check the ID of this microphone;
  - In voting (elect 1/3 or 1/5) mode, voting indicating light will blink (red and green), press this key to vote for candidate 3;
  - In response state of voting mode, voting indicating light will blink, press this key to give a response “50”;
  - In vote state of voting mode, voting indicating light will blink, press this key to abstain.
- 4) Key4(Candidate 4 /Response)
  - In voting (elect 1/5) mode, voting indicating light will blink (red and green), press this key to vote for candidate 4;
  - In response state of voting mode, voting indicating light will blink, press this key to give a response “75”;
- 5) Key5(Candidate 5/Response)
  - In voting (elect 1/5) mode, voting indicating light will blink (red and green), press this key to vote for candidate 5;
  - In response state of voting mode, voting indicating light will blink, press this key to give a response “100”;
- 6) Key combination
  - In the idle state, combine key1 and key4 can reduce the sensitivity level, the minimum of sensitivity is 3%, when the level reduced to 3%, voice control will be turned off automatically;
  - In the idle state, combine key1 and key5 can increase the sensitivity level, the maximum of sensitivity is 98%, when the level added to 98%, voice control will be turned on automatically;

Speaking device can be adjusted through the volume (or digital adjustment button) to adjust the volume of the machine.

### Chairman/delegate unit use in Voting

#### Sign in

At beginning of the meeting, sign in is required. When start to sign in, the light ring flashes, the representative of admission come out “please press key5”, after it has be done, light ring off. Sign in ended, the result of signing in will display on LCD and PC.

#### Vote

There are five buttons on the voting machine, for the voting in the first three buttons representing “yes”, “no”, “abstain”.

When the motion is the commencement of voting, indicating lamp ring flashes, and then you can press “yes”,

“no”, ”abstain”, light ring off, you have voted, effective. Before the end of the vote, you can modify the vote. Result of the voting will displays on LCD.

### Voting (electing)

If used in the election, the five keys representing five candidates. “Candidate 1” “Candidate 2” “Candidate 3” “Candidate 4” “Candidate 5”

There are many options can be used for the mode of electing (3to1 5to1), When the electing beginning, light ring light, and you can choose candidate, light ring off, you have voted, effective. Before the end of the vote, you can modify the vote. Result of the voting will displays on LED

### Democracy Discussions

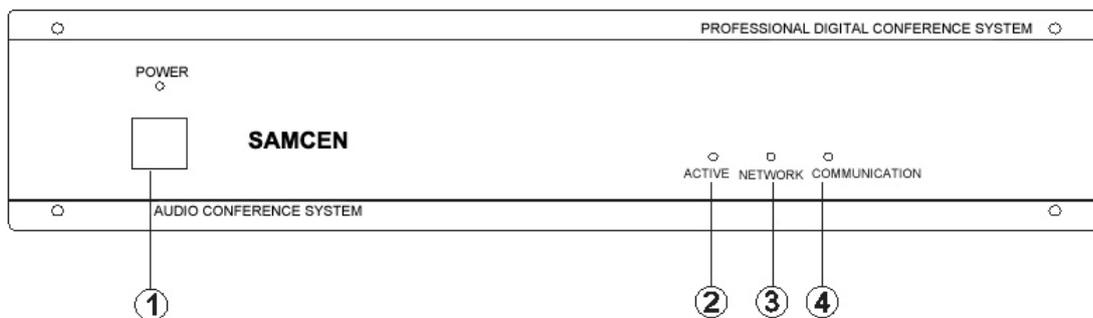
Use for democracy discussions, five keys representing: “key1” (0 score) “key2” (25 scores) “key3” (50 scores) “key4” (75 scores) “key5” (100 scores)

- 1) Key1-check the voice control and sensitivity, Key2-check the edition of the microphone. Key3-check unit’s ID number
- 2) Press key1 and key4 in the same time-decrease the Voice Sensitivity Level. When the Sensitivity Level reduced to 3%, voice control will turn off automatically.
- 3) Press key1 and key5 in the same time-increase the Voice Sensitivity Level. When the Sensitivity Level added to 98%, voice control will turn on automatically.
- 4) Key5 can sponsor a simple voting system

Sign in, vote, elect 1/3, elect 1/5 and score. Press key5, it will come out “Create a new vote”, choose “yes”, system will into sign in status (You must do that before vote). After end sign, the result will display on LCD. Then enter into the vote mode follow the instruction on LCD.

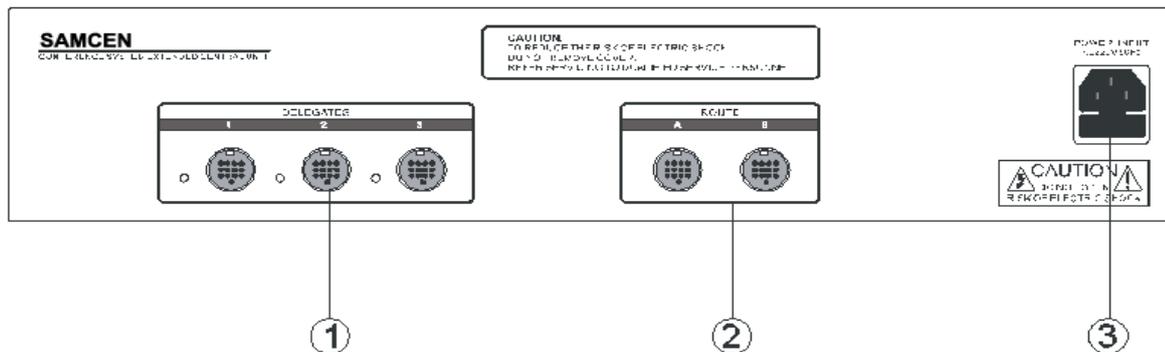
## 2.3. SCS-6100E expand main host

### 2.3.1. Front Panel



- 1) POWER and power indicator
- 2) ACTIVE indicator
- 3) NETWORK indicator
- 4) COMMUNICATION indicator

### 2.3.2. Rear Panel:



1. **DELEGATE**  
It is the interface to the contribution units. There are 3 channels to access the system, and each can link to not more than 40 contribution units in hand in hand daisy-chain. There is no limitation for the chairman unit. It can be located anywhere in the chain.
2. **ROUTE**  
A is the interface to the SCS-6100MA control host. B is the expanded interface to another SCS-6100E expanded control host. When in a multilevel expansion, A is the interface to the front level, and B is the interface to the next level.
3. **POWER INPUT**  
Power supply of 100V—240V AC.

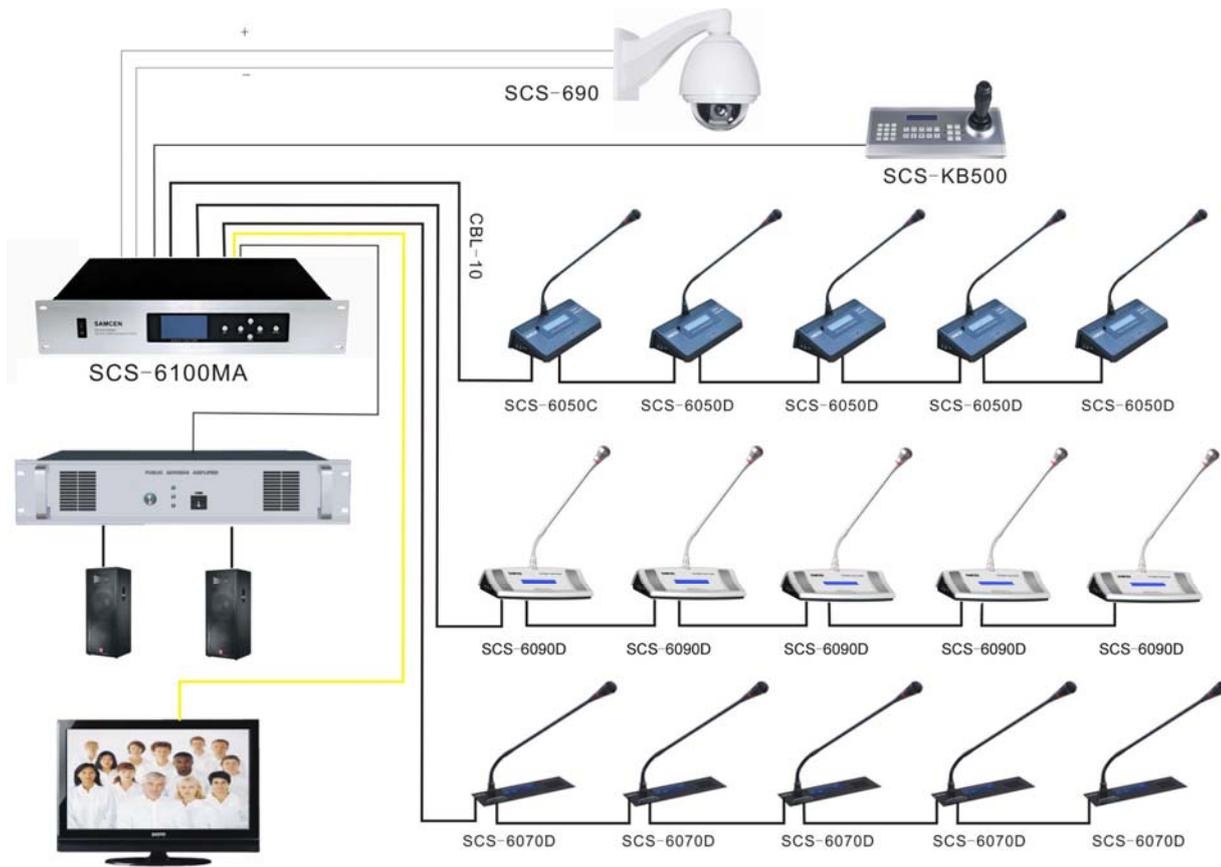
### 2.3.3. Features

1. Working with SCS-6100MA control host to expand the contribution units in system
2. Input voltage between 100—240V, it can endure 3500V high voltage.
3. Cover with metal material and earth well to ensure the 8000V antistatic performance.
4. Rack-mountable enclosure. It can be installed in the standard 19” rack conveniently.

### 2.3.4. Technical parameter

Model	SCS-6100MA	SCS-6100E
Power supply	100-240V	100-240V
Static consumption	10W	10W
Nominal power consumption	350W	350W
Output power	≤110W/24V	≤110W/24V
Audio output	Impedance: 600Ω unbalanced	Impedance: 600Ω unbalanced
Audio input	Impedance: 100kΩ Level: -60 dB Unbalanced	Impedance: 100kΩ Level: -60 dB Unbalanced
Frequency response	60—12kHz	60—12kHz
SNR	> 80dB	> 80dB
Harmonic distortion	< 0.5%	< 0.5%
Harmonic distortion at overload	<1%	<1%
Crosstalk attenuation at 1kHz	>50dB	>50dB
Weight	7.2KG	7.2KG
Dimension	430L x 275W x90H (mm)	430L x 275W x90H (mm)

### 2.3.5. System Diagram

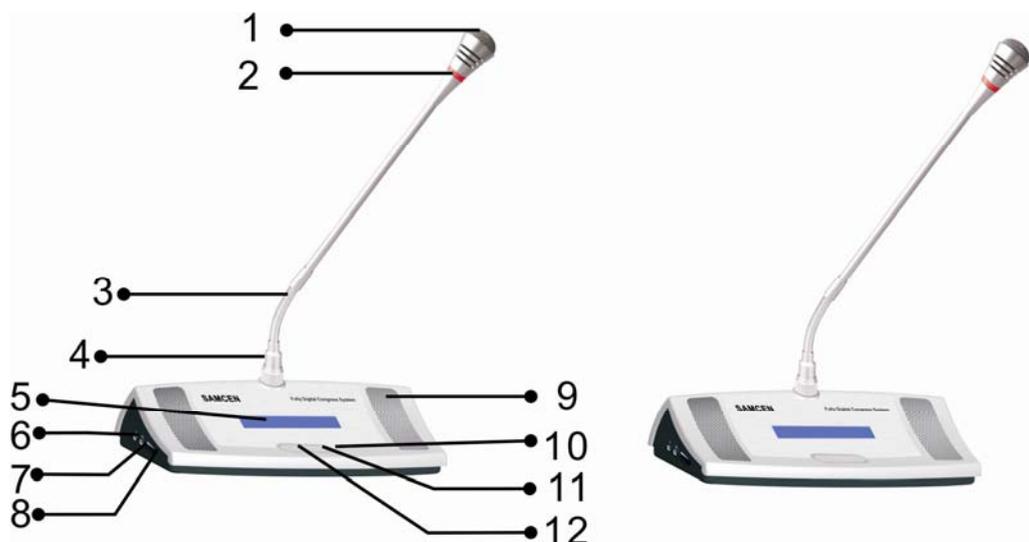


### 2.4. Products introduction

Model	Description	Outline	MIC button	Voting buttons	Channel selection	LCD
SCS-6090C	Chairman unit	Desktop	√	×	×	√
SCS-6090D	Delegate unit	Desktop	√	×	×	√
SCS-6070C	Chairman unit	Embedded	√	×	×	√
SCS-6070D	Delegate unit	Embedded	√	×	×	√
SCS-6050C	Chairman unit	Desktop	√	×	×	√
SCS-6050D	Delegate unit	Desktop	√	×	×	√
SCS-6040C	Chairman unit	Desktop	√	×	×	×
SCS-6040D	Delegate unit	Desktop	√	×	×	×
SCS-6010VC	Chairman unit	Desktop	√	×	×	×
SCS-6010VD	Delegate unit	Desktop	√	×	×	×
SCS-6001C	Chairman unit	Embedded	√	×	×	×
SCS-6001D	Delegate unit	Embedded	√	×	×	×
SCS-6190C	Chairman unit	Desktop	√	√	×	√
SCS-6190D	Delegate unit	Desktop	√	√	×	√
SCS-6170C	Chairman unit	Embedded	√	√	×	√
SCS-6170D	Delegate unit	Embedded	√	√	×	√
SCS-6150C	Chairman unit	Desktop	√	√	×	√
SCS-6150D	Delegate unit	Desktop	√	√	×	√
SCS-6002C	Chairman unit	embedded	×	√	×	×
SCS-6002D	Delegate unit	embedded	×	√	×	×

## 2.5. SCS-6090C/D discussion system unit

### 2.5.1. Function direction:



1. Microphone words head.
2. Unit-bright ring. It turns red when the unit is ON.
3. Activity part: Used to adjust the direction and height of the microphone, so to speak speaker to facilitate.
4. Detachable plug: Professional 4-pin air plugs and fixed with metal nut to ensure that the microphone is not loose.
5. LCD display: With a backlit LCD display can clearly show if the current usage.
6. Lapel microphone jack: After connect lapel microphone, the microphone would be broken rod.
7. Headphone input.
8. Amplifier's VOL control: to control the headphone or amplifier's VOL, to achieve the best result
9. Built-in amplifier: the amplifier will be cut off when turn on the microphone or connect the headphone.
10. Microphone unit indicator: double LED, in red, the microphone can be used; if in green, the microphone is limited.
11. ON/OFF button, chairman has the priority.
12. The first in switch of chairman unit: Controlled or limit the unit.

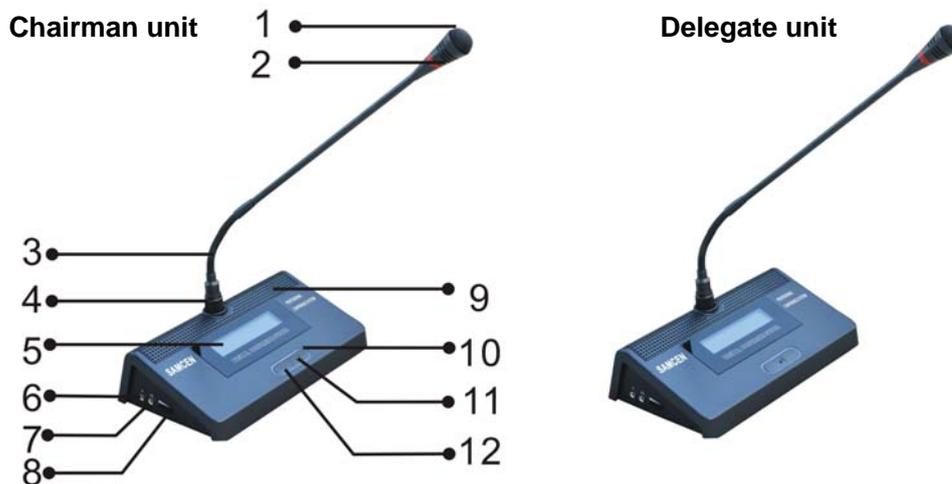
### 2.5.2. Feature

1. Novel appearance design and exquisite technical process enable the cabinet rank in the first line of international superior conference system
2. First choice for large-scale & important conferences, such as International Conferences, Summits, Standing Committee
3. Each microphone unit connects "hand in hand", avoid the miscellaneous of circuit, easy to install and maintain. It is also benefit to add/cut down the microphone units
4. With voice control ability, The voice can turn on/off microphone
5. Perfect sound quality, feedback eliminator function. When microphone is turned on, the built-in loudspeaker closes automatically to avoid feedback.
6. Double microphones input(with clip-on microphone interface)
7. Gooseneck condenser microphone supports "PnP"(Plug-and-Play), speaking with red ring indicator
8. LCD display shows congressional information and status of equipment
9. Working with the control system to realize the function of camera auto-tracking
10. Chairman unit has priority to speak, it can close/ temporarily muting the delegate unit
11. Super powers of anti-electromagnetic and mobile phone interference

12. Microphone rods can be taken down during the recess, easy to maintain
13. Humanization design. There is different length MIC rods to choose, it is suitable for different height attendances

## 2.6. SCS-6050C/D discussion system unit

### 2.6.1. Function direction:



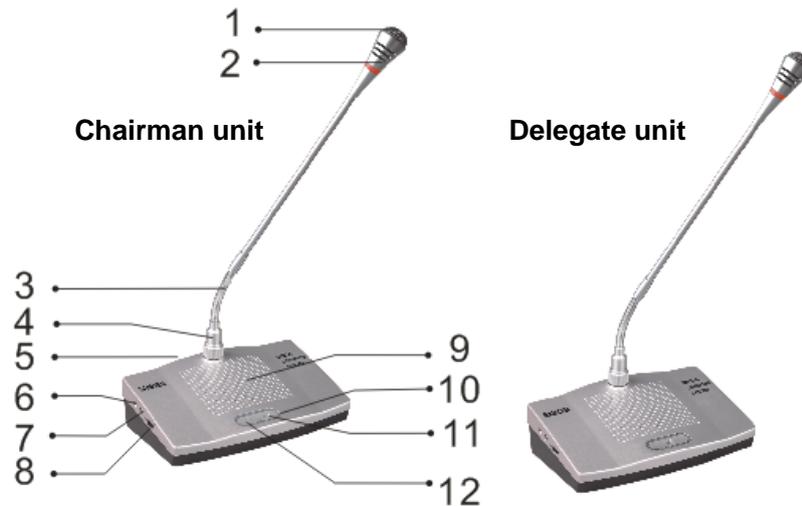
1. Microphone words head.
2. Unit-bright ring. It illuminates when the unit is ON.
3. Activity part: Used to adjust the direction and height of the microphone, so to speak speaker to facilitate.
4. Detachable plug: Professional 4-pin air plugs and fixed with metal nut to ensure that the microphone is not loose.
5. LCD DISPLAY: With a backlit LCD display can clearly show if the current usage.
6. Lapel microphone jack: After connect lapel microphone, the microphone would be broken rod.
7. Headphone input.
8. Amplifier's VOL control: to control the headphone or amplifier's VOL, to achieve the best result
9. Built-in amplifier: the amplifier will be cut off when turn on the microphone or connect the headphone.
10. Microphone unit indicator: double LED, in red, the microphone can be used, if in green, the microphone is limited
11. ON/OFF button, chairman has the priority.
12. The first in switch of chairman unit: Controlled or limit the unit.

### 2.6.2. Features:

1. Gray black elegant and graceful design, with modern fashions
2. Desktop is easy to move and install, even easy to increase or decrease microphone units
3. With voice control ability, the voice can turn on/off microphone,
4. Pluggable unidirectional microphone with red ring indicator.
5. Build-in loudspeaker and earphone jack with excellent audio quality and adjustable volume control.
6. The power of delegate unit and chairman unit are supplied by the central control unit with 24V safety current.
7. The loudspeaker will automatically mute to avoid howling when the microphone turns on.
8. The contribution units are equipped with shielded 8-pin cable, which can prevent the radio disturbance well.
9. Communicating in the hand in hand daisy-chain, it is easy to install and maintain.

## 2.7. SCS-6040C/D discussion system unit

### 2.7.1. Function direction:



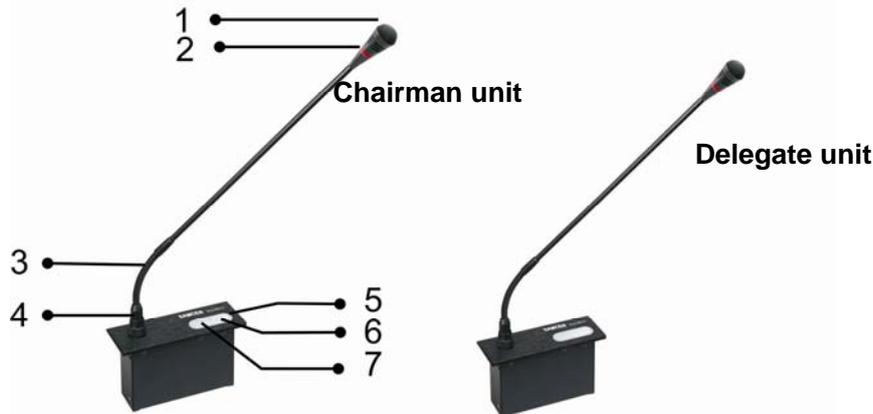
1. Microphone words head.
2. Unit-bright ring: It illuminates when the unit is ON.
3. Activity part: Used to adjust the direction and height of the microphone, so to speak speaker to facilitate.
4. Detachable plug: Professional 4-pin air plugs and fixed with metal nut to ensure that the microphone is not loose.
5. Microphone unit connected interface, (Female Plug) it used to connected the next microphone with 2.1meter cables.
6. Lapel microphone jack: After connect lapel microphone, the microphone would be broken rod
7. Headphone input.
8. Amplifier's VOL control: to control the headphone or amplifier's VOL, to achieve the best result
9. Built-in amplifier: the amplifier will be cut off when turn on the microphone or connect the headphone.
10. Microphone unit indicator: double LED, in red, the microphone can be used, if in green, the microphone is limited
11. ON/OFF button, chairman has the priority.
12. The first in switch of chairman unit: controlled or limit the unit.

### 2.7.2. Features:

1. Fine silvery white concise appearance design meets the ergonomics, has great fashion sense
2. Small in size, convenient to move and rental service
3. With voice control ability, the voice can turn on microphone, it does not need to press the microphone button by hand
4. Increased reliability with "Closed Loop-Daisy chain" (Hand in Hand) connection topology. The system has a higher safety and reliability
5. System can auto-fix – automatically, supports Plug & Play
6. Super powers of anti-electromagnetic and mobile phone interference

## 2.8. SCS-6001C/D discussion unit

### 2.8.1. Function Directions

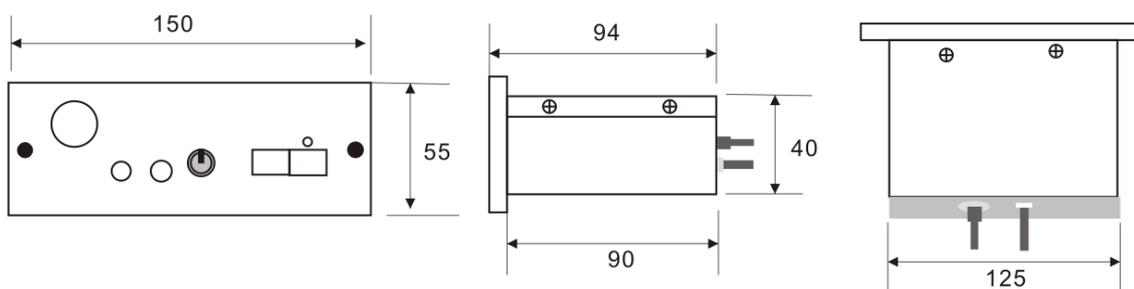


- 1、 Microphone words head.
- 2、 Unit-bright ring: It illuminates when the unit is ON.
- 3、 Activity part: Used to adjust the direction and height of the microphone, so to speak speaker to facilitate.
- 4、 Detachable plug: Professional 4-pin air plugs and fixed with metal nut to ensure that the microphone is not loose.
- 5、 Microphone unit indicator: double LED, in red, the microphone can be used, if in green, the microphone is limited
- 6、 ON/OFF button, chairman has the priority.
- 7、 The first in switch of chairman unit: controlled or limit the unit.

### 2.8.2. Features:

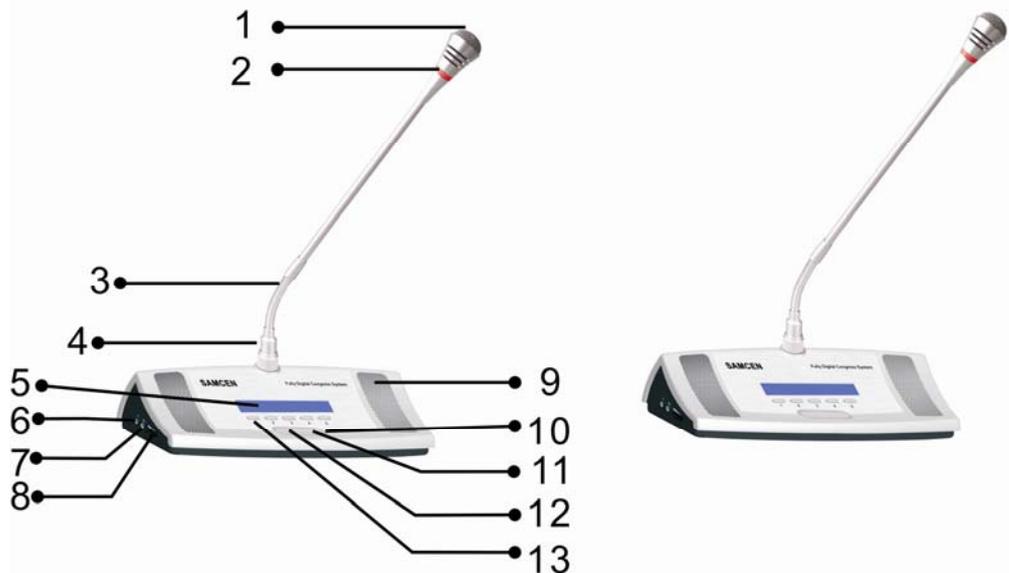
1. Excellent metal wiredrawing craft, classic in black and streamlined faceplate
2. Small in size, low in weight, solid in quality, economical and practical, convenient to transport
3. With voice control ability, the voice can turn on microphone, it does not need to press the microphone button by hand
4. Flush in installation, microphone rods can be taken down during the recess, it is nothing influence to the table top
5. System with function of automatic restoration, support “PnP”(Plug-and Play)
6. Super powers of anti-electromagnetic and mobile phone interference
7. Humanization design. There is different length MIC rods to choose, it is suitable for different height attendances
8. Connect to camera can realize the function of camera auto-tracking

### 2.8.3. Hole size unit(mm)



## 2.9. SCS-6190C/D voting system unit

### 2.9.1. Function direction:



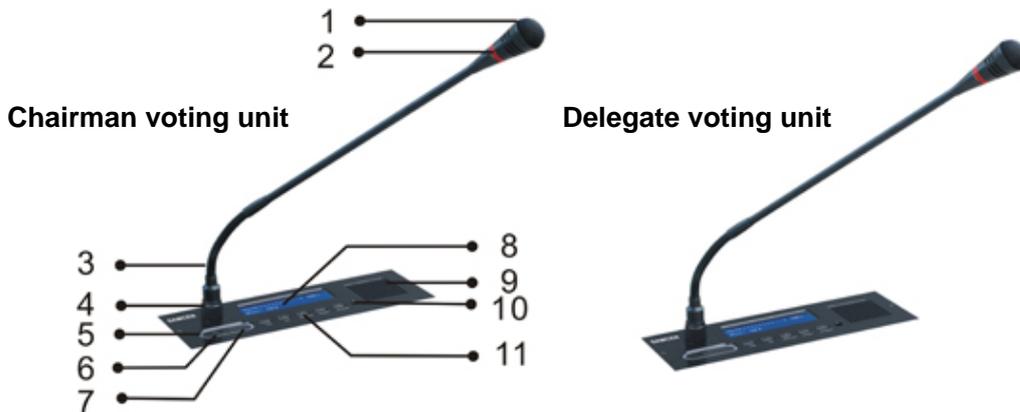
- 1、 Microphone words head.
- 2、 Unit-bright ring. It illuminates when the unit is ON.
- 3、 Activity part: Used to adjust the direction and height of the microphone, so to speak speaker to facilitate.
- 4、 Detachable plug: Professional 4-pin air plugs and fixed with metal nut to ensure that the microphone is not loose.
- 5、 LCD DISPLAY: With a backlit LCD display can clearly show if the current usage.
- 6、 Lapel microphone jack: After connect lapel microphone, the microphone would be broken rod.
- 7、 Headphone input.
- 8、 Amplifier's VOL control: to control the headphone or amplifier's VOL, to achieve the best result
- 9、 Built-in amplifier: the amplifier will be cut off when turn on the microphone or connect the headphone.
- 10、 Microphone unit indicator: double LED, in red, the microphone can be used, if in green, the microphone is limited
- 11、 ON/OFF button, chairman has the priority.
- 12、 The first in switch of chairman unit: controlled or limit the unit
- 13、 Five buttons on the voting machine, 1、 "YES" 2、 "NO" 3、 "ABSTAIN" 4、 "RESET" 5、 "ATTEND"

### 2.9.2. Features:

- 1、 Novel appearance design and exquisite technical process enable the cabinet rank in the first line of international superior conference system
- 2、 5 keys for voting and electing
- 3、 With the function of sign in
- 4、 Working with Samcen software for various kinds of voting
- 5、 First choice for large-scale & important conferences, such as International Conferences, Summits, Standing Committee
- 6、 With voice control ability, the voice can turn on microphone, it does not need to press the microphone button by hand
- 7、 Each microphone unit connects "hand in hand", avoid the miscellaneous of circuit, easy to install and maintain. It is also benefit to add/cut down the microphone units
- 8、 Perfect sound quality, feedback eliminator function. When microphone is turned on, the built-in loudspeaker closes automatically to avoid feedback..

## 2.10. SCS-6170C/D voting system unit

### 2.10.1. Function direction:

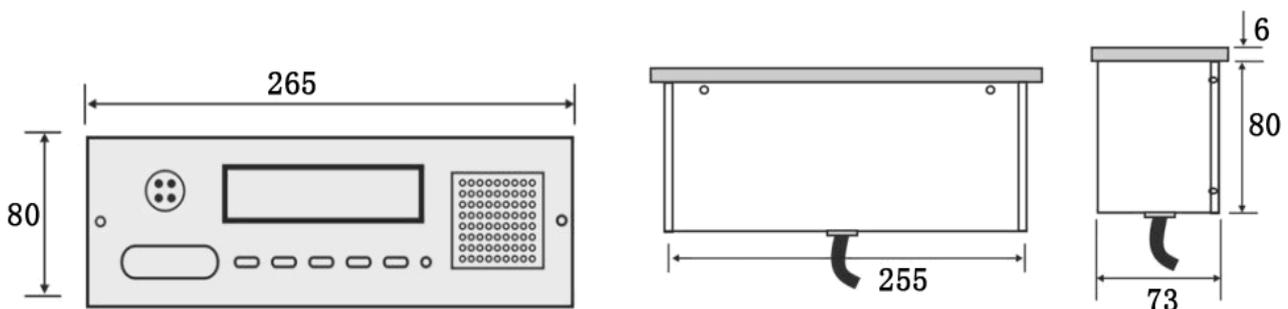


- 1、 Microphone words head.
- 2、 Unit-bright ring. It illuminates when the unit is ON.
- 3、 Activity part: Used to adjust the direction and height of the microphone, so to speak speaker to facilitate.
- 4、 Detachable plug: Professional 4-pin air plugs and fixed with metal nut to ensure that the microphone is not loose.
- 5、 Microphone unit indicator: double LED, in red, the microphone can be used, if in green, the microphone is limited
- 6、 The first in switch of chairman unit: controlled or limit the unit
- 7、 ON/OFF button, chairman has the priority.
- 8、 LCD DISPALY: With a backlit LCD display can clearly show if the current usage.
- 9、 Built-in amplifier: the amplifier will be cut off when turn on the microphone or connect the headphone.
- 10、 Amplifier's VOL control: to control the headphone or amplifier's VOL, to achieve the best result
- 11、 Five buttons on the voting machine,1、 "YES" 2、 "NO" 3、 "ABSTAIN" 4、 "RESET" 5、 "ATTEND"

### 2.10.2. Features:

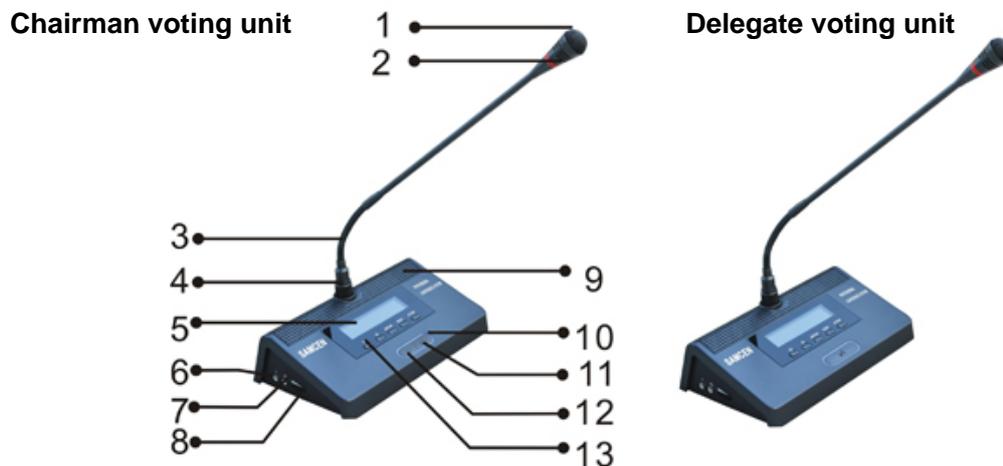
- 1、 With its artistic, taste and streamline design, able to fused together with any conference room
- 2、 Build-in loudspeaker and earphone jack with excellent audio quality and adjustable volume control.
- 3、 Flush installation makes the meeting table more clean and tidy, presents rigorous and visual effect
- 4、 The loudspeaker will automatically mute to avoid howling when the microphone turns on.
- 5、 The contribution units are equipped with shielded 8-pin cable, which can prevent the radio disturbance well.
- 6、 Using the metal wiredrawing craft, makes it strong and durable, it seems on quite the scale

### 2.10.3. Hole size: unit(mm)



## 2.11. SCS-6150C/D voting system unit

### 2.11.1. Function direction:



- 1、 Microphone words head.
- 2、 Unit-bright ring. It illuminates when the unit is ON.
- 3、 Activity part: Used to adjust the direction and height of the microphone, so to speak speaker to facilitate.
- 4、 Detachable plug: Professional 4-pin air plugs and fixed with metal nut to ensure that the microphone is not loose.
- 5、 LCD DISPLAY: With a backlit LCD display can clearly show if the current usage.
- 6、 Lapel microphone jack: After connect lapel microphone, the microphone would be broken rod.
- 7、 Headphone input.
- 8、 Amplifier's VOL control: to control the headphone or amplifier's VOL, to achieve the best result
- 9、 Built-in amplifier: the amplifier will be cut off when turn on the microphone or connect the headphone.
- 10、 Microphone unit indicator: double LED, in red, the microphone can be used, if in green, the microphone is limited
- 11、 ON/OFF button, chairman has the priority.
- 12、 The first in switch of chairman unit: controlled or limit the unit
- 13、 Five buttons on the voting machine, 1、 “YES” 2 “NO” 3、 “ABSTAIN” 4、 “RESET” 5、 “ATTEND”

### 2.11.2. Features:

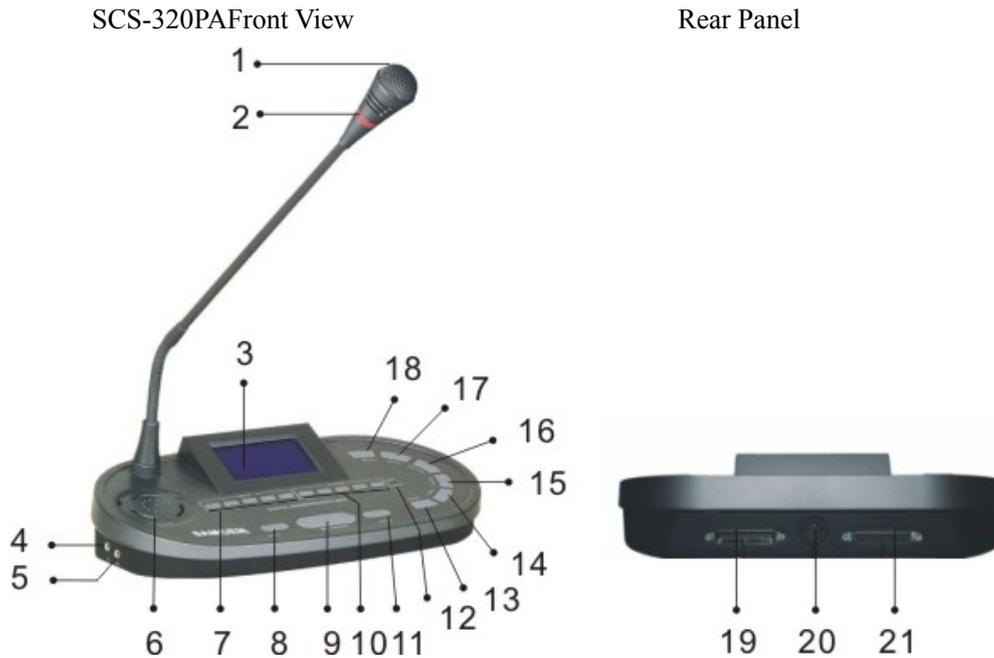
- 1、 Pluggable unidirectional microphone with red ring indicator.
- 2、 Build-in loudspeaker and earphone jack with excellent audio quality and adjustable volume control.
- 3、 The power of delegate unit and chairman unit are supplied by the central control unit with 24V safety current.
- 4、 The loudspeaker will automatically mute to avoid howling when the microphone turns on.
- 5、 The contribution units are equipped with shielded 8-pin cable, which can prevent the radio disturbance well.
- 6、 Communicating in the hand in hand daisy-chain, it is easy to install and maintain.

## 3. SCS Simultaneous Interpreter Unit

### 3.1.1. Introduction

SCS-320PA interpreter unit

### 3.1.2. Physical View



1. Microphone words head
2. Microphone red indicator to show mic state
3. Microphone LCD, can display input and output channel
4. MIC. 3.5mm input jack to connect the microphone.
5. Phone 3.5mm input jack
6. Inner speaker
7. Microphone input channel (fast key channel 0-4)
8. Slow key: when Delegates/Interpreter speaks too fast, press this key will give a request for slow the speed.
9. Microphone on/off key
10. Microphone output channel (fast key channel 1-5)
11. Mute key: Prevention on interpreter's cough
12. Channel busy/mute indicator
13. Volume -: Decrease the input volume
14. Volume +: Increase the input volume
15. Output channel -
16. Output channel +
17. Input put channel -
18. Input channel +
19. Input DB25 connector: first unit connect to the main unit, and the next unit connect the previous unit output port.
20. 13P connector, use for connect 13P interpretation system
21. Output DB25 connector: connect the next interpreter's unit.

### 3.1.3. Connection Diagram



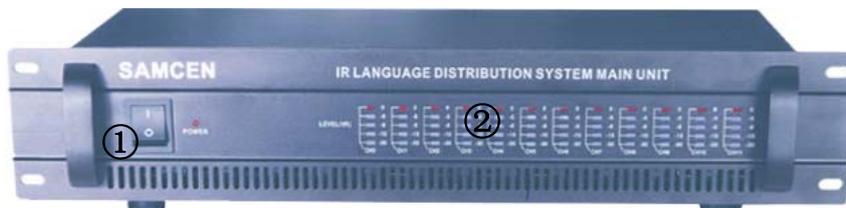
## 4. SCS IR Language Distribution System

### 4.1. Introduction

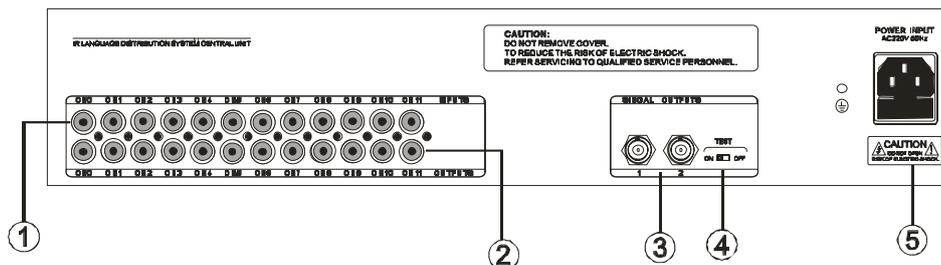
- SCS-350MA IR language distribution system transmitter host
- SCS-350TA IR language distribution system radiator unit
- SCS-360RA IR language distribution system receiver unit

### 4.2. SCS-350MA IR Language Distribution System Transmitter

#### 4.2.1. Front panel



- ① POWER
- ② Input channel indicators: Indicates the working channel from 1 to 6 in red and from 7 to 12 in green.



- ① INPUTS ——11+1 Channel audio inputs, connect with conference host outputs.
- ② OUTPUTS ——11+1channel audio outputs, can send 12 audio outputs to recorder or amplifier and other audio devices.
- ③ SINGAL OUTPUTS——connect with IR radiator board.
- ④ TEST ——Test button.
- ⑤ POWER INPUT ——Power input, support with AC100V~240V input.

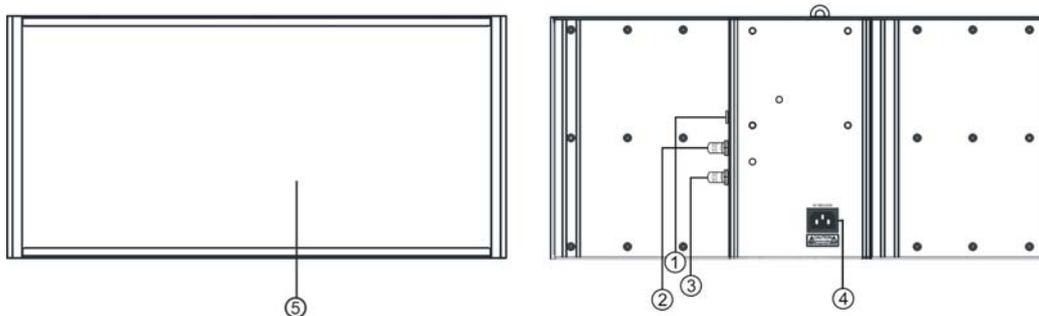
#### 4.2.2. Features

1. Wireless directional transmission avoided the radio disturbance and wiretapping.
2. Automatic Level Control (ALC)
3. Adopt high frequency (2M-20MHz) transmission to ensure anti-jamming from high frequency lamp-house.
4. Adopt phase-locked loop (PLL) technique to achieve stable transmitting frequency.

5. Equipped with 12 input audio connectors, it is able to input external audio signals.
6. Equipped with 12 output audio connectors, it is able to output audio signals to different audio devices like amplifier and audio recorder.
7. The test function can create 12 various frequency audio signals for system test.
8. Level indicators can monitor the intensity of the input audio level directly.
9. Alarm function can automatically send out the warning message to all the audio channels.
10. Cover with metal material and earth well to ensure the 8000V antistatic performance

### 4.3. SCS-350TA-15 IR Radiator

#### 4.3.1. Function direction:



- ① LOW/HIGH ——power magnitude selector for IR radiation
- ② IN ——the interface to connect the SINGAL OUTPUTS of the transmitter host or the 'OUT' of the radiator board.
- ③ OUT ——connect with next 'IN'.
- ④ POWER INPUT——support with AC100V~240V input.
- ⑤ IR region

#### 4.3.2. Features

1. Powerful ability of IR radiation (50 meters at 25W or 30 meters at 15W)
2. Support with 4 IR radiator board class-connection
3. Easy installation with free attachable bracket or triangle bracket
4. Half radiator angle:  $\pm 22^\circ$

### 4.4. SCS-360RA/08/12/32 IR Receiver unit

#### 4.4.1. Function direction:

1. Display monitor, display language channel batter lever, Volume lever
2. Channel——Language receiver channel selector channel”+”
3. Volume knob for adjustment Volume”+”
4. IR Sensor, for receiving the IR signal.
5. Earphone (3.5mm), connect with the monitor earphone.
6. For hang up the receiver in the pocket
7. Channel——Language receiver channel selector channel”-“
8. Volume knob for adjustment Volume “-“
9. Power switch button.
10. Sensor for recharge the product power



## 4.4.2. Features

1. Cooperate with SCS-E3A headphone.
2. Adopt the special anti-noisy technique to reduce the noisy while switching, 8-32 selectable channel.
3. Adjustable volume.
4. The quantity of the receiver unit is not limited in the covered area of IR radiation
5. Adopt PLL technique for improving received stability to up to 10PPM
6. Convenient to keep. Strap and hang it up on the neck or just put it in the pocket

## 4.5. Technical Data

<b>Model</b>	<b>SCS-350MA</b>
Power supply	100-240V
Power consumption	15W/25W (selectable)
Crystal	Crystal control
Modulation	PPL, narrow band
Carrier wave frequency	2M—20MHz (BAND4)
Pre-emphasis	100 $\mu$ s
Deviation	$\pm$ 6kHz (peak value $\pm$ 7kHz)
Total harmonic distortion	<1%
SNR	>80dB
Frequency response	60—12KHz
Input Sensitivity	50mV-1.5V
RF output	2 BNC, 100mV RMS
RF output impedance	50 $\Omega$
Dimension	430L x 275W x 90H (mm)
Weight	6.8KG
Color	Black
<b>Model</b>	<b>SCS-350TA</b>
Power supply	AC100-240V
Transmit power	15W/25W/40W (selectable)
Average transmit angle	$\pm$ 22 $^{\circ}$
RF input	Impedance: 5k $\Omega$ , voltage: 150mV—3V
Maximum covered distance	30M (15W)
Automatically opened threshold	50mV RF signal
Dimension	430L x 320W x 95H (mm)
Weight	7.8KG
Color	Purple
<b>Model</b>	<b>SCS-360RA/08/12/32</b>
Power supply	AAA NIMH rechargeable battery
Receiving frequency	2M-20MHz, 40KHz channel separated
Intermediate frequency	10.7MHz
Modulation	FM
Nominal frequency difference	$\pm$ 6kHz
Peak value deviation	$\pm$ 8kHz
Signal reversion	150ms
Total harmonic distortion	<1%

SNR	> 80dB
Am restraint	> 45dB
Maximum sound pressure level	110dB
Frequency response	608 kHz
Dimension	108L x 62W x 28H (mm)
Weight	0.4KG
Color	Black

## 5. SCS Video Auto-tracking System

### 5.1. SCS690HD High Definition Camera

#### 5.1.1. Features

1. Integrated and handle fast installation
2. Support YPbPr Video Output
3. Built-in zoom with 120 times(10x optical, 12x digital).
4. Screen will display pan/ tilt position, zoom etc.
5. Communications: RS485
6. IP66 all-day defend cover.
7. 128 presets(titles can be set), 4 tours; 8 programmable zones(titles can be set)
8. Pan 360°, Tilt 90°continuously rotation with auto-flip, humanize focus and speed proportion.
9. Built-in heating and radiating system, four alarms input, one alarm output as factory default, IP board is optional.
10. Park action function, can auto-call presets or start-up tour, pattern, scan and display areas after dome is idle for a period of time.
11. Built-in TVS1500W lightning-proof, surge-proof and wave-proof.



#### 5.1.2. Technical Data

Model	SCS-690HD
Imaging element	1/3"HD COMS
Significant pixel (H×V)	752(H)X582(V)
Video output	YPbPr,1.0±0.2Vp-p
S/N ratio (S/N)	≥50dB
Illumination	3Lux(F1.4)
White balance	Auto/manual (R/B gain control)
Back-compensation	Off/auto
Focus	5.1mm ~51mm
Electron Shutter	1/2 ~ 1/10,000 s
Manual speed	Pan (0.5°~160°/s) ;Tilt (0.5°~90°/s)
Preset speed	320°/s
Rotation	Continuously 360°; tilt 0~90° with auto-flip
Speed Proportion	As the length of focus, to auto-adjust the speed
Zoom	Total zoom 120X (Optical 10X; Digital 12X )

Preset	128 preset, title can be edited
Auto-flip	Tilt down 90°, with auto-flip 180°
Display zone	8 programmable zones with titles
Sync model	Internal
Decoder	Built-in
Video output	Female BNC
Remote controlling	RS485
Baud rate (RS485)	2400 / 4800 / 9600/19200 bps
ID range	1~254
Temperature	-30°C ~50°C
Protection grade	IP66, 1500w lightning-proof, surge-proof, all-day defend cover
Power supply	AC 24V
Power consumption	< 12W
weight	2.5Kg
Dome Dimension (L*W*H)	154X154X152.6 mm

## 6. Accessories

### 6.1. SCS-E1A Single Earphone

#### 6.1.1. Features

1. Working with interpreter units or SCS-350TA IR receiver units.
2. Avoid being interfered in conference.
3. Build-in 1.5 meter cable. Hi-fi audio quality.



#### 6.1.2. Technical Data

Model	SCS-E1A
Interface	3.5mm mono connector
Frequency response	80Hz – 2KHz
Sensitivity	90dB
SNR	> 80dB
Distortion	< 0.1dB
Impedance	32 Ω
Dynamic range	> 85 dB
Output power	80mW

### 6.2. SCS-E2 Headphone

#### 6.2.1. Features

1. Working with interpreter units or SCS-350TA IR receiver units.
2. Avoid being interfered in conference.
3. Build-in 1.5 meter cable.
4. Hi-fi audio quality.

## 6.2.2. Technical Data

Model	SCS-E2
Interface	3.5mm stereo connector
Frequency response	80Hz – 2KHz
Sensitivity	90dB
SNR	> 80dB
Distortion	< 0.1dB
Impedance	32 $\Omega$
Dynamic range	> 85 dB
Output power	100mW



## 6.3. SCS-E3A Earphone with Microphone

### 6.3.1. Introduction

1. Working with interpreter units.
2. Avoid being interfered in conference.
3. Build-in 1.5 meter cable.
4. Hi-fi audio quality

### 6.3.2. Technical Data

Model	SCS-E3A
Interface	3.5mm stereo connector
Frequency response	80Hz – 2KHz
Sensitivity	90dB
SNR	> 80dB
Distortion	< 0.1dB
Impedance	32 $\Omega$
Dynamic range	> 85 dB
Output power	80mW



## 6.4. Cable

### Introduction

1. CBL- 005 5 meters cable with connectors (male & female)
2. CBL- 010 10 meters cable with connectors (male & female)
3. CBL- 020 20 meters cable with connectors (male & female)
4. CBL- 100 100 meters cable with connectors (male & female)

### Features

1. Use to connect the contribution units and the host.
2. 8-pin cable with connectors (male & female)
3. Up to 1000 meters transmission distance



# 7. Conference Management Software

## 7.1. Please read before setup

Operating condition: PentiumIII 1GHz or up, memory more than 256M, hard disk more than 150MB, support Windows 95, windows 98, Windows 2000, WindMe, XP.

This preset is absolute safety and secrecy in green operating

## 7.2. Installation

Please copy the file “Setup.exe” to PC, then double-click that file, according to the prompt to install

### 7.2.1. Login in

After installation, double-click “Fully Digital Congress System” to login, enter the user name and password (default user is samcen, password is samcen), then click “OK”.



## 7.3. Basis setup

### 7.3.1. System setup

#### Main Unit Setup

- Voice Sensitivity Level: it represents microphones sensitivity to the voice. Generally speaking 3% is perfect.
- Output Volum—system’s volume.
- Input Volum—background music’s volume.
- High Volum, Mid Volum, Low Volum—system coordination.
- Auto Level—voice control “On”/“Off”: the voice opens microphone automatically.
- Language—display language-English/Chinese

### 7.3.2. Screen Management: set the second screen

The Screen size, ForeColor, BackColor, Font Size and TextAlign can be set in this.

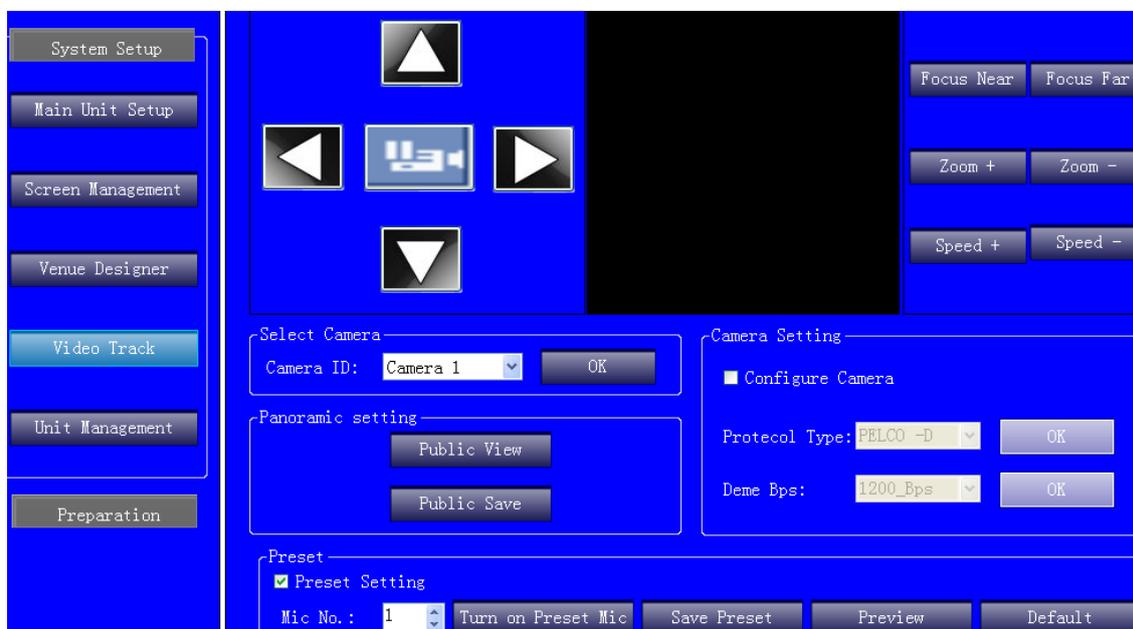
### 7.3.3. Venue Designer

According to the actual layout of the venue, describes the venue seating arrangement situation to form an intuitive and imagination controlled interface. It can meet the requirements of the small and medium-sized conference room.

- Click and hold the left mouse button, you can move the microphone to the position where you want it.
- Create a new venue: ordinary or square venue
- Add and remove microphones
- Background: you can upload a picture for background from PC
- Remove microphone

### 7.3.4. Video Track

- Select Camera: if there are more than 1 pcs cameras, choose camera ID which you want to set (the ID number is unique). Before setting, you should make sure video input cable connections are correct. If camera 001 cable connects V-IN 2/3/4, it can not be control by the main unit, it must be one-to-one correspondence.
- Camera setting: select “Configure Camera”, choose the Protocol Type and Deme Bps ( view on “user manual of camera”).
- Preset setting: “Mic No.” the microphone ID which you want to set, click on “Turn on Preset Mic”, then click the triangular arrowheads move the camera to proper position, click “Focus”, “Zoom” & “Speed” to resize. And then “Save Preset”.
- “Preview”: check all presets. “Default”: clear all presets.



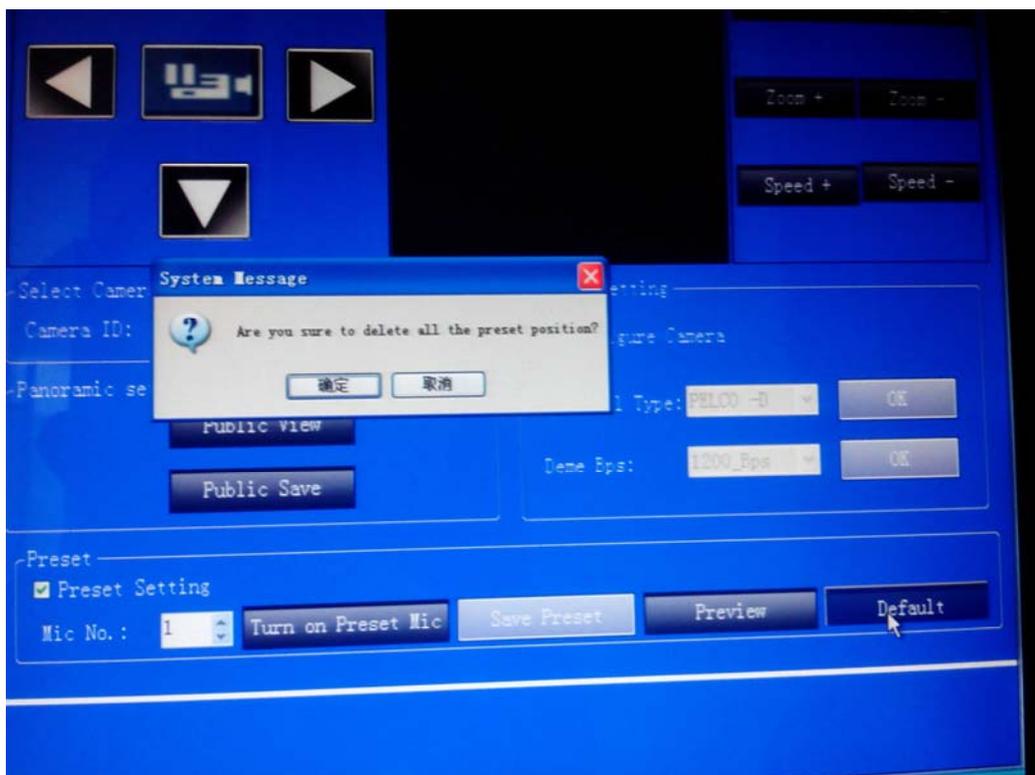
### Set the preset for the camera

After enter in software, set the “Work mode” to “Fifo mode”, talking number is 1. Then enter to “Video Track”.

#### 1) Restore the default settings

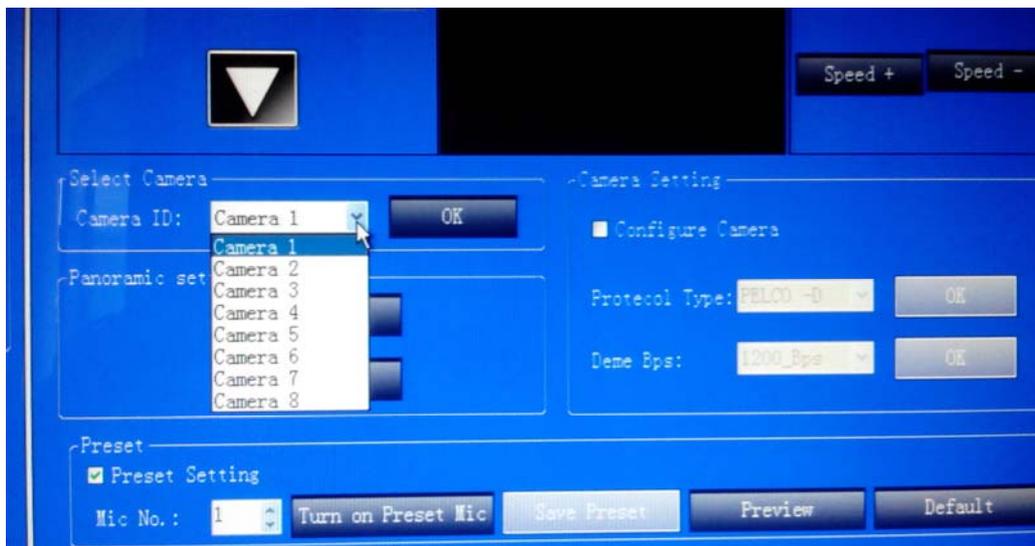
Move the mouse to “Preset”, tick the empty box in front of “Preset Setting”.

Then move the mouse to “Default” to restore the default settings, a message will pop “Are you sure to delete all the preset position”, click the left button “确定”, you will hear a “Di” sound after a few seconds.



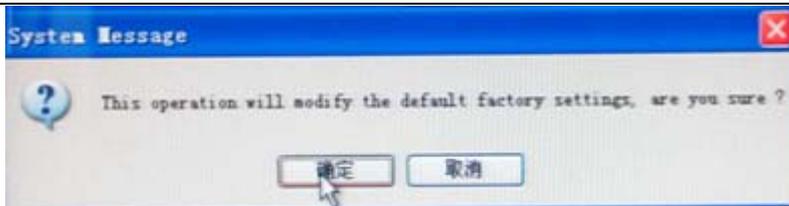
## 2) Select Camera

Move the mouse to “Select Camera”, select “Camera ID” in the selection, then clicks “OK” behind of “Camera ID” box, and you will hear a “Di” sound after a few seconds.

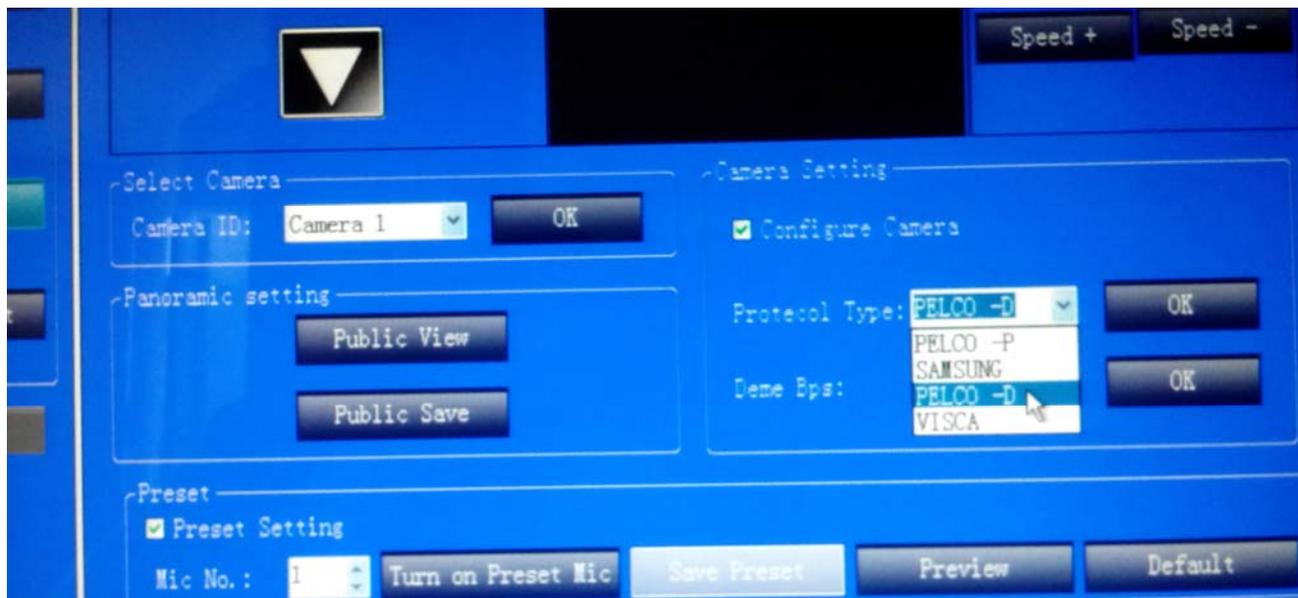


## 3) Camera Setting

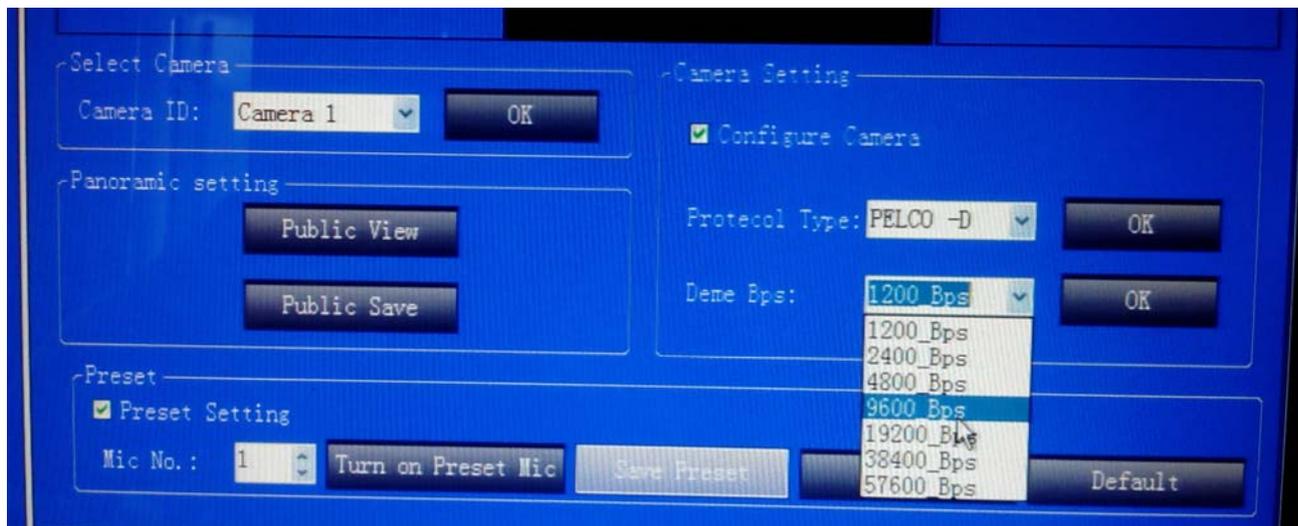
- ① After select camera, move the mouse to “Camera Setting”, tick the empty box in front of “Configure Camera”, then it will run the following dialog box, please click the left button “确定”.



- ② Select the “Protocol Type”: click the down arrow in the selected box, select the right protocol of the camera which you select on Step 2, then click “OK” behind that selected box, you will hear a “Di” sound after a few seconds. You can do the next step only after the “Di” sound appeared.



- ③ Select the “Deme Bpe”: click the down arrow in the selected box, select the right baud rate of the camera which you select on Step 2, then click “OK” behind that selected box, you will hear a “Di” sound after a few seconds. You can do the next step only after the “Di” sound appeared.



**※Step2 and Step3 correspond to each other**

**Step2 and Step3 For example, there are three cameras:**

- Camera 1: Protocol Type is Protocol-D, Baud rate is 9600
- Camera 2: Protocol Type is Protocol-D, Baud rate is 2400
- Camera 3: Protocol Type is Protocol-P, Baud rate is 2400

Setting step: First, select camera 1 (according to Step2). Second, to set “Camera setting”, tick the empty box in

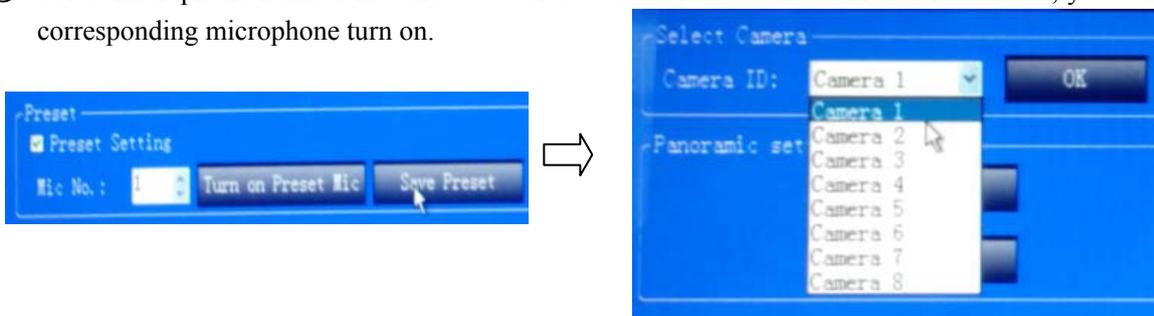
front of “Configure Camera”, select “Protocol-D” in the “Protocol Type” selected box, then click “OK” behind that selected box, you will hear a “Di” sound after a few seconds. Finally, select “9600” in the “Deme Bpe” selected box, then click “OK” behind that selected box, you will hear a “Di” sound after a few seconds.

Then set the camera 2, first select camera 2(according to Step2). Second, to set “Camera setting”, select “Protocol-D” in the “Protocol Type” selected box, then click “OK” behind that selected box, you will hear a “Di” sound after a few seconds. Finally, select “2400” in the “Deme Bpe” selected box, then click “OK” behind that selected box, you will hear a “Di” sound after a few seconds.

Finally, set the camera 3, first select camera 2(according to Step2). Second, to set “Camera setting”, select “Protocol-P” in the “Protocol Type” selected box, then click “OK” behind that selected box, you will hear a “Di” sound after a few seconds. Finally, select “2400” in the “Deme Bpe” selected box, then click “OK” behind that selected box, you will hear a “Di” sound after a few seconds.

#### 4) Preset

- ① Select microphone number in “Mic No.” selected box. Then click “Turn on Preset Mic”, you will find the corresponding microphone turn on.



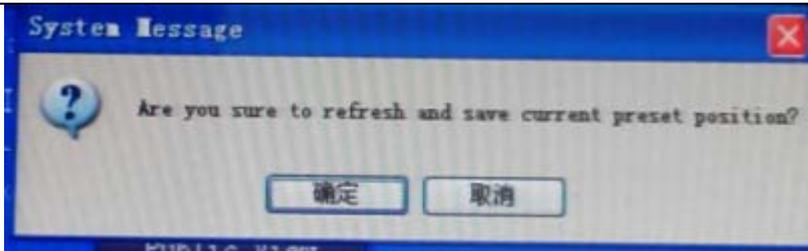
- ② Select Camera which you want to used to track that microphone you select before, click “OK”, after you hear a “Di” sound, you can control that camera.

※ **This step is very important; it must be done when you set each preset.**

- ③ Click those big 4 arrow keys big upper-left corner to positioning lenses; click “Focus Near” or “Focus Far” to adjust distance upper-right corner; click “Zoom +” or “Zoom -” to resized, click “Speed +” or “Speed -” to adjusting speeds to move.



- ④ Move the mouse to “Save Preset” and click, then it will run the following dialog box, please click the left button “确定”. After a “Di” sound appears, this preset is applied successfully.



※ Public preset: Screen displaying state when video track start and all microphones are turn off

- ⑤ For example, Camera 1 tracks: microphone 1, microphone 3, Pubic  
 Camera 2 tracks: microphone 2, microphone 4

Setting step:

Microphone 1: Click the down arrow in the selected box of “Mic No.” to “1”, click “Turn on Preset Mic”, you will find the “microphone 1” turn on, “Select Camera” to select “camera 1”, click “OK”, after you hear a “Di” sound, you can control that camera. Click those big 4 arrow keys big upper-left corner to positioning lenses; click “Focus Near” or “Focus Far” to adjust distance upper-right corner; click “Zoom +” or “Zoom -” to resized, click “Speed +” or “Speed -” to adjusting speeds to move. Move the mouse to “Save Preset” and click, after a “Di” sound appears, this preset is applied successfully.

Microphone 2: Click the down arrow in the selected box of “Mic No.” to “2”, click “Turn on Preset Mic”, you will find the “microphone 2” turn on, “Select Camera” to select “camera 2”, click “OK”, after you hear a “Di” sound, you can control that camera. Click those big 4 arrow keys big upper-left corner to positioning lenses; click “Focus Near” or “Focus Far” to adjust distance upper-right corner; click “Zoom +” or “Zoom -” to resized, click “Speed +” or “Speed -” to adjusting speeds to move. Move the mouse to “Save Preset” and click, after a “Di” sound appears, this preset is applied successfully.

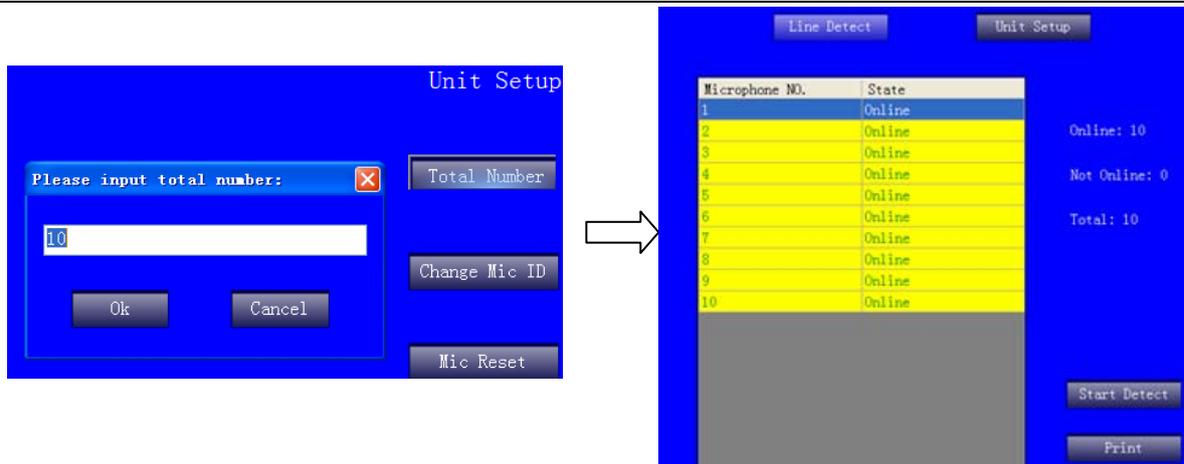
Microphone 3: Click the down arrow in the selected box of “Mic No.” to “3”, click “Turn on Preset Mic”, you will find the “microphone 3” turn on, “Select Camera” to select “camera 1”, click “OK”, after you hear a “Di” sound, you can control that camera. Click those big 4 arrow keys big upper-left corner to positioning lenses; click “Focus Near” or “Focus Far” to adjust distance upper-right corner; click “Zoom +” or “Zoom -” to resized, click “Speed +” or “Speed -” to adjusting speeds to move. Move the mouse to “Save Preset” and click, after a “Di” sound appears, this preset is applied successfully.

Microphone 4: according these steps above.

Pubic preset: “Select Camera” to select “camera 1”, click “OK”, after you hear a “Di” sound, you can control that camera. Click those big 4 arrow keys big upper-left corner to positioning lenses; click “Focus Near” or “Focus Far” to adjust distance upper-right corner; click “Zoom +” or “Zoom -” to resized, click “Speed +” or “Speed -” to adjusting speeds to move. Move the mouse to “Pubic Save” and click, after a “Di” sound appears, this preset is applied successfully. Any Microphone turn on or turn off is never mind.

### 7.3.5. Unit Management

- a) Unit Setup: “Total Number” in this system, then “Change Mic ID” is for setting microphones’ ID. Mic Reset" is for clear preset ID.
- b) Line Detect: check microphones’ line. Whether there are all microphones in working condition. For finding trouble of a circuit.



## 7.4. Preparation (Just for voting system)

**7.4.1. Proposal List:** fill out the meeting title and content, choose vote mode, calculation method and registered way.

- Vote mode: vote on the nomination of candidate, we can choose “Yes” “No” “Abstain” by microphones. In the mode, the candidate is only one at a time.
- Elect 3-1: there are three candidates, you can choose one of them, choose by microphones.
- Elect 5-1: there are five candidates, you can choose one of them, choose by microphones.
- Grade: score for result/candidates.

**Candidate List:** name of candidates. Fill out the name of candidate, then click “Add”. Click on the candidate name, then fill out modify name, you can change the candidate name.

**Pass Ratio:** when the vote percent of the total pass this, the vote is available.

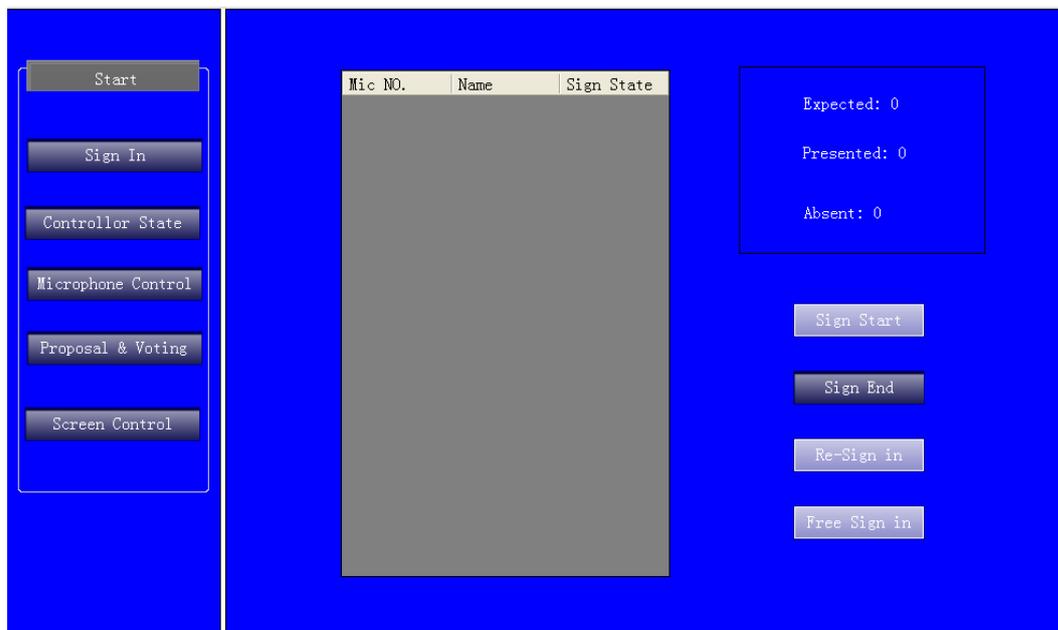
**7.4.2. Delegate List:** name of delegates. Set similar to Candidate list.

**7.4.3. Distribute Seate:** distribute delegate name for microphone. You can see who use the microphone.

You can also give the name to delegate—double click the microphone which you want to name; it will come out a dialog box, and then fill out the right name.

## 7.5. Start meeting (just for voting system)

**7.5.1. Sign In:** Key5 in the microphone is the sign key. Click on “Sign Start”, microphones light will twinkle, and microphone LCD will display “Log-in Begin....., please press key5!”, the second screen will display “Start sign in, please press sign in key”. Then click on “Sign End”, it will display the result of signing (like the picture below). If there is some one not sign before, you can click on “Re-Sign in” for catching up on.



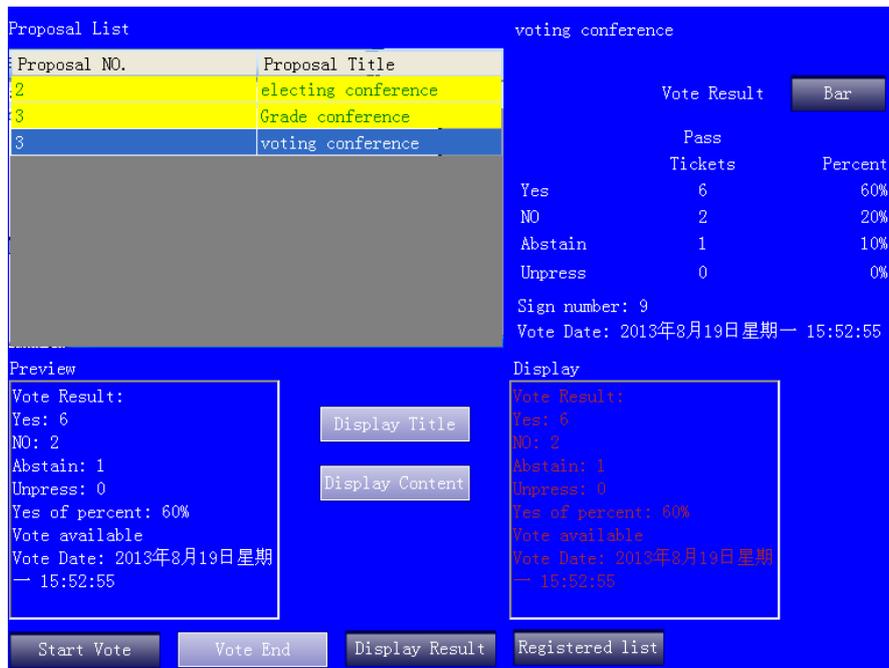
**7.5.2. Controllor State:** choose the talk mode, talking number & chairman number. Mute time mean speaking time for microphone at a time. It will close by itself at the predetermined time.

- a) Limit Mode: 1-12 speakers can be allowed to speak at the same time. When it reaches the set number of speakers, the speaker can not increase. So as to achieve the purpose of quantitative restrictions.
- b) FIFO Mode: 1-12 speakers can be allowed to set. When it reaches the set number of speakers, the follow-up microphone open, then the first speaker will automatically exit the speaking statement, but not all speakers exit.
- c) Free Mode: speakers' number is unrestricted in this mode.
- d) Chair Mode: only the chairman unit is allowed to speak in this mode.
- e) Application Mode: when the delegate unit wants to speak, the microphone must be opened for applying to chairman unit, he can speak after the chairman unit agreed with him. In the mode, you can set 1-12 units for applying to in the same time, but chairman unit can only agree with one speaker at a time. When the first speaker finishes, the chairman unit can agree with other applicant. When delegate in the application, chairman's lamp and the delegate lamp will twinkle at the same time.
- f) Auto-meeting Mode: you can set 1-12 units to speak. When it reaches the set number, the speaker can not increase. In this mode, you can set a timer for speaker, such as 250 seconds. When time is up, the speaker must to stop speaking. In this mode, the unit of Auto-meeting time is minute.

**7.5.3. Microphone Control: you can open or close the microphone.**

**7.5.4. Proposal & Voting:** choose the meeting title; it will turn on the vote mode which you have set before. Click on "Display Title" and "Display Content", you will see information in the Preview box and Display box & the second screen.

- a) Vote mode: click on "Start Vote", microphone LCD will display "Voting Begin..... 1, 2, 3" and the second screen will display "Vote Start, please press vote key!", Key1 means "Yes", key2 means "No", key3 means "Abstain". Then click on "Vote End", the result of voting will display on the screen. You can see text form, Bar form and Pie form (click on the top right corner).



Click on Registered list, you can check delegate's vote.

- b) Elect 3-1/5-1 mode: click on “Start Elect 3-1”, the microphone LCD will display “Voting Begin..... 1, 2, 3”, in the mode, key1 means candidate1, key2 means candidate2, key3 means candidate3, then you can choose the number of whose you want to. Elect 3-1 End, you will see the result of electing.
- c) Grade mode: in the mode, key1 means 0 score, key2 means 25 scores, key3 means 50 scores, key4 means 75 scores, key5 means 100 scores. Operate is similar to other modes.

**7.5.5. Screen Control:** you can close or open the second screen. You can share text and picture to the second screen. Fill out text in the box, then click on “Display Text”, you can see it on the second screen. Click on “Display Picture”, choose the picture which you want to share, it will display on the second screen.

## 7.6. Report

You can check and print information of this meeting. Proposal List, Delegate Info. , Sign-In Report, Vote Result and Summary Vote Result.

## 7.7. Assistant

You can change the password of this software.

## 7.8. End meeting

Press the “End meeting” in the lower left corner and exit the software.

## 7.9. Software update notification

Our company will update software / operating methods by client's demand. Users who got the software later will not be notified.

# 8. SCS Engineering Examples

The following engineering examples are with different conference scales and share the same design principle.

Due to the modularized structure of SAMCEN SCS, engineers just need to expand the SCS modules to strengthen the functions according to the user's request and the scale of the conference. It is easy and cost-saving for both users and engineering designers.

## 8.1. Basic Discussion Conference & Video Auto Tracking

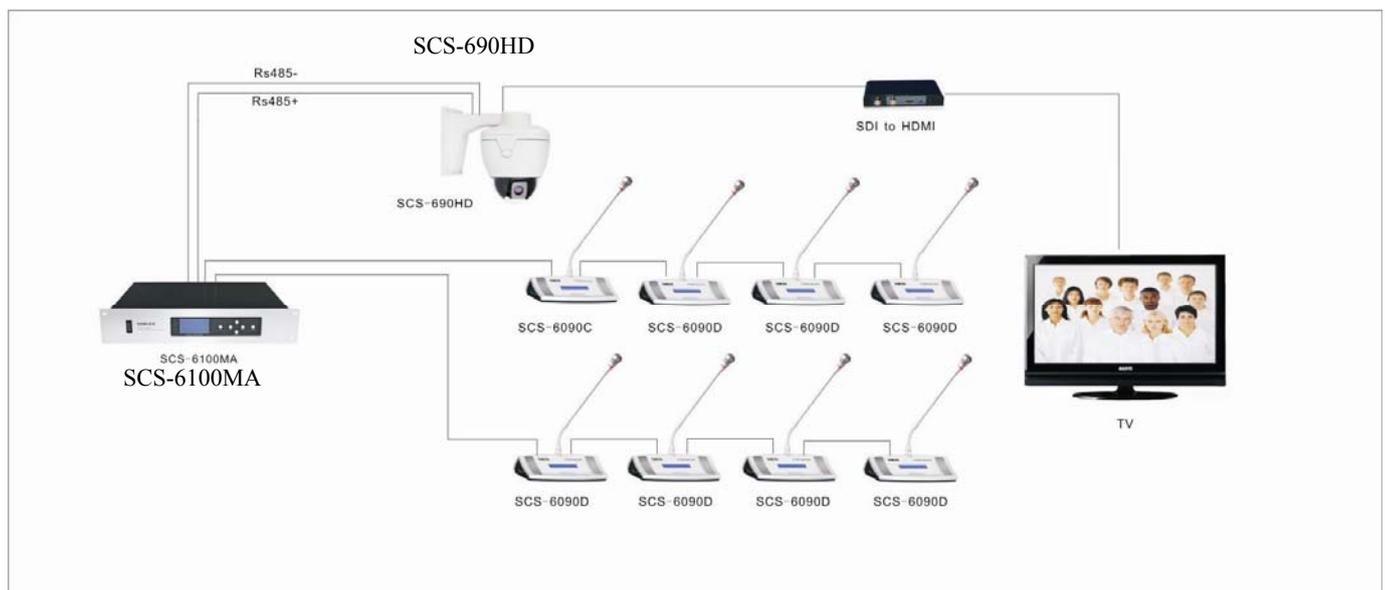
### 8.1.1. Function Description

- Implement basic discussion function.
- The video auto tracking function, when the delegate is ON, the camera focus to speaker automatically.
- Control the conference by setting the limitation of active microphones and active mode from the control host or software in console PC.
- Addresser's voice will be transferred to the build-in loudspeaker of each contribution unit. Need to input some background music and output the audio to amplifier and recorder.

### 8.1.2. Configuration

- SCS-6100MA SCS control host
- SCS-6090C SCS chairman unit
- SCS-6090D SCS delegate units
- SCS-690HD SCS high speed dome camera
- CBL CABLE SCS cable
- SCS-E3A Earphone
- PC Console PC
- PA Amplifier
- DVD DVD player

### 8.1.3. System Diagram



## 8.2. Discussion & Voting Conference & Video Auto Tracking

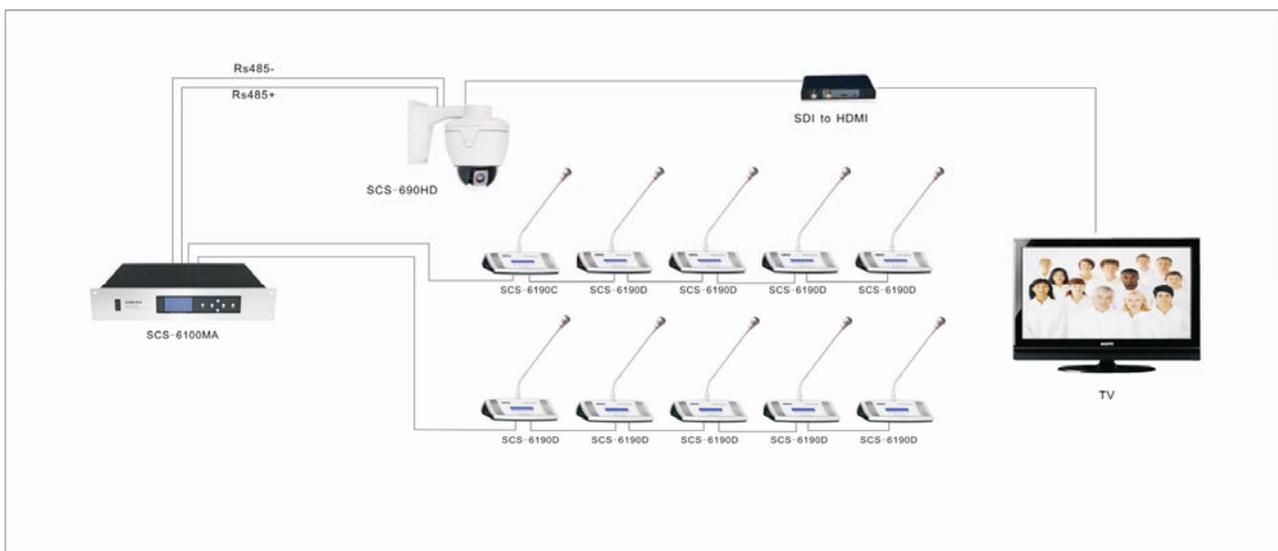
### 8.2.1. Function Description

- Implement discussion and **voting** function.
  - Control the conference by setting the limitation of active microphones and active mode from the control host or software in console PC.
  - Addresser's voice will be transferred to the build-in loudspeaker of each contribution unit.
- 1 Need to input some background music and output the audio to amplifier and recorder.

### 8.2.2. System Configuration

- SCS-6100MA SCS control host
- SCS-6190C SCS chairman unit
- SCS-6190D SCS delegate units
- Software package (optional)
- SCS-690HD SCS high speed dome camera
- CBL CABLE SCS cable
- SCS-E1 Single earphone
- PC Console PC
- PA Amplifier
- DVD DVD player
- CASSETTE Recorder

### 8.2.3. System connection



### 8.3. Discussion + Voting + Interpretation Conference

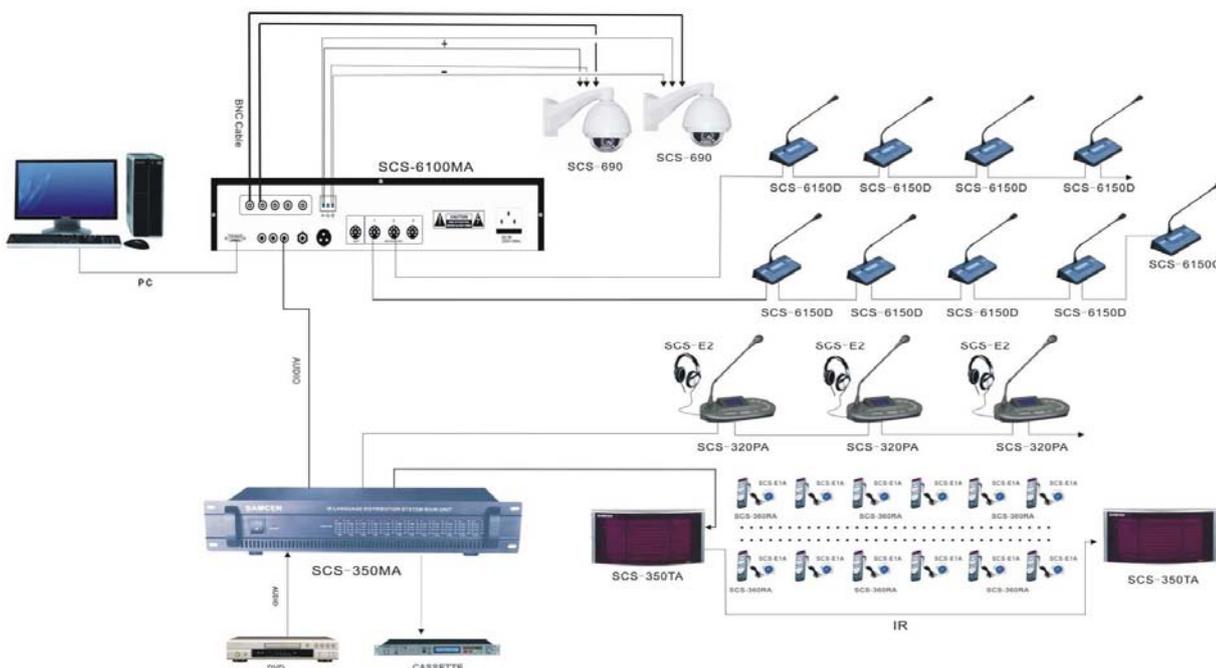
#### 8.3.1. Function Description

- Implement discussion, voting, **interpretation and video auto tracking** function.
  - Control the conference by setting the limitation of active microphones and active mode from the control host or software in console PC.
  - Addresser’s voice will be transferred to the build-in loudspeaker of each contribution unit.
  - Need to input some background music and output the audio to amplifier and recorder.
  - Except the original language, this international conference needs to interpret up to 31 foreign languages.
  - Many auditors will attend this conference and select their own languages to hear.
- SCS should cooperate with central control system to control and manage the whole conference.

#### 8.3.2. System Configuration

- SCS-6100MA SCS control host
- SCS-6150C SCS chairman unit
- SCS-6150D SCS delegate units
- SCS-320PA SCS interpreter units
- SCS-350MA IR language distribution system transmitter host
- SCS-350TA IR language distribution system radiator unit
- SCS-360RA IR language distribution system receiver unit
- SCS-690 SCS speed dome camera
- Software package
- SCS-E1A Single earphone
- SCS-E2 Earphone with microphone
- PC Console PC
- PA Amplifier
- DVD DVD player

#### 8.3.3. System connection



# SAMCEN Fully Digital Congress System

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