



CREATOR[®]
CREATOR CORPORATION

**User's Manual of Intelligent Digital
Conference System**

V2.0

CREATOR CHINA

Meaning of the Icons

■ Safety Instruction

Symbols are used in the Manual and devices, referring to the possible risk to users or others, as well as the damage to property, for helping you to safely and properly use the devices. The instruction and the implications are as follows. Please make sure your correct understanding of these instructions before using the Manual.

	To remind user to conduct according to the attached operation and maintenance instructions. If ignore these information, death or injury could possibly happen.
	To remind the user that the risky uninsulated voltage in the device could caused electric shock to human.
	CE authentication indicates the product is in line with the EU safety regulation, and for assurance of safety use.
	SGS Authentication indicates the product has reached the QC standard of the global-biggest Swiss universe surveyor.
	This product has acquired the ISO9001 International Quality Authentication (Authentication authority: Germany Rheinland TUV)
	Caution: To avoid electric shock, please don't open the case, nor put the useless parts in it. Please contact with qualified service staff.

■ General Information Instruction

	List the situation could cause unsuccessful operation or setup, and relevant information needed to notice.
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Important Notices



Caution

To ensure the device in reliable use and personal safety, please abide by the following items when in installation, use and maintenance:

Notice in installation

◆ Please DO NOT use the product in following places: the places with dust, oily smoke, electrical conductive dust, corrosive gas, inflammable gas; the places with high temperature, due, rain and wind exposures; the places endangered by shock and vibration. Electric shock, fire and incorrect operation could also cause damage and deterioration to the product.

◆ When conducting screw drilling and wiring process, DO NOT let metal irons and wire lead drop into the controller and air vent, which could possibly cause fire, failure and accidental operation.

◆ After finishing the installation, it is necessary to ensure there is no foreign matter including the packing material like contact paper on the ventilation surface, otherwise, it could cause poor heat dissipation while running, as well as fire, failure and accidental operation.

◆ Avoid conducting wiring and plugging in/out cable socket with electricity, otherwise, electric shock, circuit damage could easily happen.

◆ Installation and wiring should be firm and reliable. Poor contact could cause malfunction.

◆ With regard to the application situations with strong interference, shielded cable should be used for the input and output of HF signal, to improve the anti-interference performance of the system.

Note in Wiring

◆ Installation and wiring shouldn't be conducted until external electric power is cut off, otherwise, electric shock or device damage could happen.

◆ The product is grounded by the earth lead of the power cable. To avoid electric shock, the earth lead is necessary to be connected with the ground. Before making connection with the output end or input end of the product, please ensure it is correctly grounding.

◆ Upon finish wiring, remove the sundries. Please cover up the terminal plate for avoiding electric shock.

Note for Operation and Maintenance

◆ Please DO NOT touch the terminal when with electricity, otherwise, electric shock could happen.

◆ Don't clean up and screw the terminal tight before power is off. Such operation could cause electric shock when with electricity.

◆ Please turn off the power before connecting or disconnecting the communication signal cable, peripheral modules or control units, otherwise, device could be damaged and accidental operation could happen.

◆ Please DO NOT disassemble the device, so as to avoid internal electric components damage.

◆ It is necessary to read through the Manual and fully ensure the safety, before altering the program, trial running, starting and stopping operation.

Note for declaration of worthless.

When declaring of worthless, please note

◆ Explosion of electrolytic capacitor on the circuit board could happen when burning it.

◆ please classify and dispose it. Don't dispose it into household garbage.

◆ please deal it as industrial waste, or in accordance with local environmental protection regulation.

Preface

User's Manual of Intelligent Digital Conference System primarily introduce the operation of CR-M4101,CR-M4201,CR-ME4000,CR-M4104A1,CR-M4102A2,CR-M4104A2,CR-M4202A2,CR-M4204A2,CR-M4102B,CR-M4104B,CR-M4202B2,CR-M4204B2,CR-M4202G,CR-M4204G,CR-M4102C1,CR-M4104C1,CR-M4102C4,CR-M4104C4,CR-M4102D2,CR-M4104D2,CR-TP4104D,CR-M4102E,CR-M4104E,CR-M4102F,CR-M4104F,CR-MC4032B,CR-MC4034B,CR-M4103E3,CR-TP4102,CR-IR2000-12,CR-IR2001-12,CR-IR2002-12,CR-V101*, MVC-4200, CR-T1000, key parameters and trouble shootings.

The Manual serves as user's operation instruction, rather than for maintenance service purpose. Since the date of release, any function or relevant parameter alteration will be in supplement instruction. Please refer to the manufacturer or dealers for inquiry.

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Chapter 1 Overview

CREATOR intelligent digital conference system is a high-tech professional products series after the launch of multimedia central control products and audio and video matrix products, including discussion and Discussion, simultaneously interpretation, infrared voice distribution, remote telephone conference, voting, camera tracing etc.

Inherited with the idea of complete system integrating resolution as CREATOR has been advocating all along, CREATOR making close compatibility between two different system of DCS (digital conference system) and MCS (multimedia central system), delivering an complete intelligent conference system resolution comprising of CREATOR products.

This Manual is made for the controlling controller of CREATOR intelligent digital conference system, Discussion unit, camera tracking system, telephone conference system and infrared voice distribution system.

1.1 System Features

◆ Security

For any conference, the priority is to ensure the security of every delegate presented.

- 1) Conference unit adopt passive device, with power supply from the controller;
- 2) All parts are adopted with the materials with security certificate ;
- 3) Anti-static.

◆ Anti-interference

In communication and application system, unique technical processing is adopted, for preventing from external radiation interference.

◆ Complete Function

Intelligent digital conference system

integrates with discussion, voting, simultaneously interpretation as a whole. Press the keys on the unit to choose conference discussion, conference voting and voice channel.

◆ Clear Voice Transportation

Adopting quality sound pick-up, built-in speaker, high-fidelity speaker for ensuring to have clear transportation and receiving when each delegate is giving a Discussion.

◆ Reliable Encryption System

Adopting unique secure encryption measure to ensure the privacy of the conference and the content of the whole conference won't be leaked or tapped malignantly.

◆ Good for Maintenance, Easy Operation

1) The whole conference system is easy for operation. The system is connected in the way of hand-in-hand or T-shaped. The installation is very simple. In conference, participant may just press on the Discussion key to give a Discussion, with adjustable volume.

2) After taking short-term training, user can maintain the system, without very professional technique needed.

◆ Extensibility

As the number of participants of the conference vary, the extensibility of the conference system becomes increasingly important. CREATOR intelligent conference system is with simple and reasonable structure, and strong extensibility.

◆ Various Options

CREATOR intelligent digital conference system may opt to different conference system according to different occasions and needs,

including discussion conference, digital voting conference system, simultaneous interpretation system, camera tracing conference system, telephone conference system etc.

1.2 System Devices

CREATOR intelligent digital conference system comprises of the following devices:

◆ DCS Control System

Conference Control Controller

CR-M4101、CR-M4201

Conference Extended Controller

CR-ME4000

◆ DCS Discussion Unit

Conference Chairman Unit

CR-M4102A2、CR-M4202A2、CR-M4102B、
CR-M4202B2、CR-M4202G、CR-M4102C1、
CR-M4102C4、CR-M4102D2、CR-TP4102D、
CR-M4102E、CR-M4102F

Conference Delegate Unit

CR-M4104A1、CR-M4104A2、CR-M4204A2、
CR-M4104B、CR-M4204B2、CR-M4204G、
CR-M4104C1、CR-M4104C4、CR-M4104D2、
CR-M4104E、CR-M4104F

Audio Cabinet

CR-MC4032B、CR-MC4034B

◆ DCS Simultaneous Interpretation

CR-M4103E3

◆ Infrared Voice Distribution System

Infrared Transmission Controller

CR-IR2000-12

Infrared Radiation Panel

CR-IR2001-12

Infrared Receiving Unit

CR-IR2002-12

◆ DCS Camera Tracing

Camera tracing mixed controller

MVC- 4200

High-speed Camera

CR-V1011、V1012

◆ DCS Telephone Conference

Telephone Coupler

CR-T1000

◆ DCS Relevant Accessories

Headset

CR-P2、CR-P4

Cable

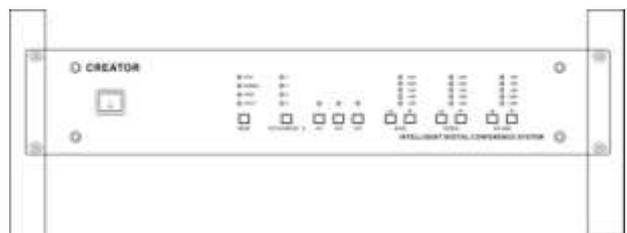
CR-HL005、CR-HL010、CR-HL020、CR-HL050、
CR-HL100、CR-HT002、CR-HT005

Other Accessories

CR-M5KL415 Turning MIC stand, CR-CT10
T-shaped connector, CR-CT20 conference
desktop socket, CR-CT30 jumping conference
socket, CR-CT50 8-pin aviation plug, CR-HMP24
extending power supply、CR-link20 signal
amplifier

1.3 Controller Installation

The controlling controller of CREATOR intelligent digital conference system can be installed into a standard 19-inch cabinet. The controller is with accessory of a pair of cabinet installation supports. Please see the following picture for installation:



Chapter 2 DCS Control System

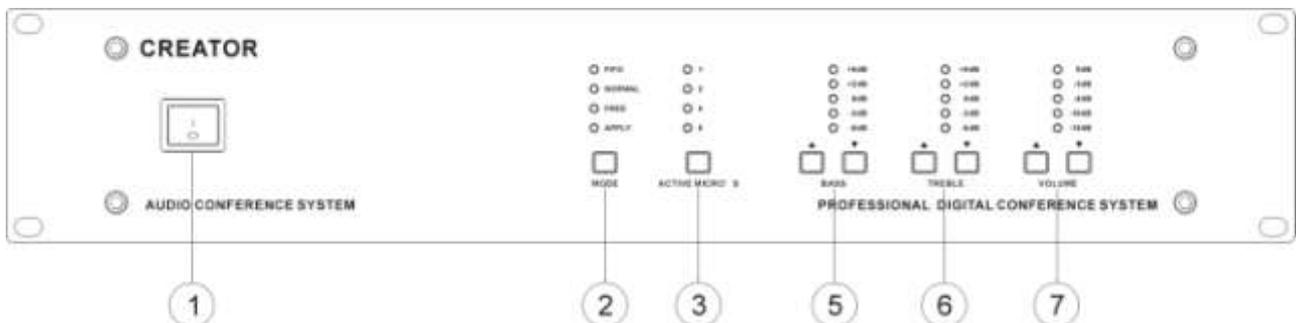
2.1 Conference Controlling

Controller

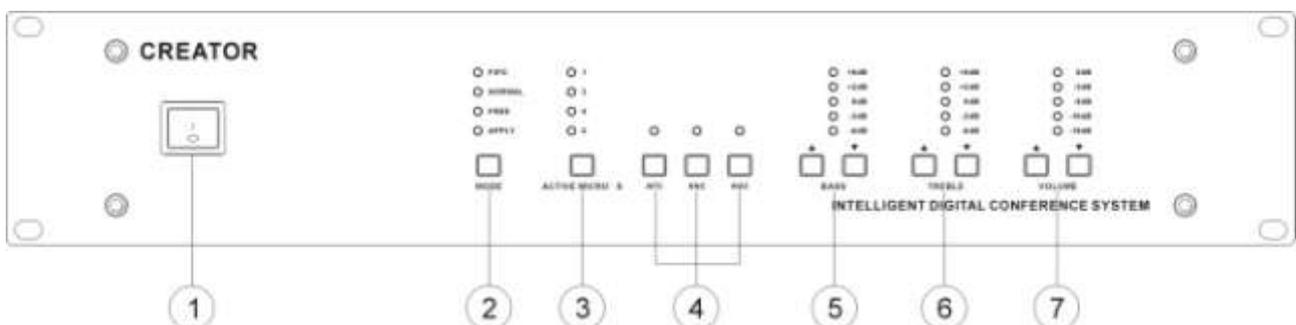
The controlling controller of intelligent digital conference is an important bridge over conference units and PC management. Using the navigation keyboard on the panel, along with the conference management function of the software, you may have centralized control on all conference functions, with a variety of conference mode options (delegate number option, Discussion mode option), super extending function, DSP audio processing, equalizer module, environmental noise suppressing technology.

2.1.1 Panel Functions Instruction

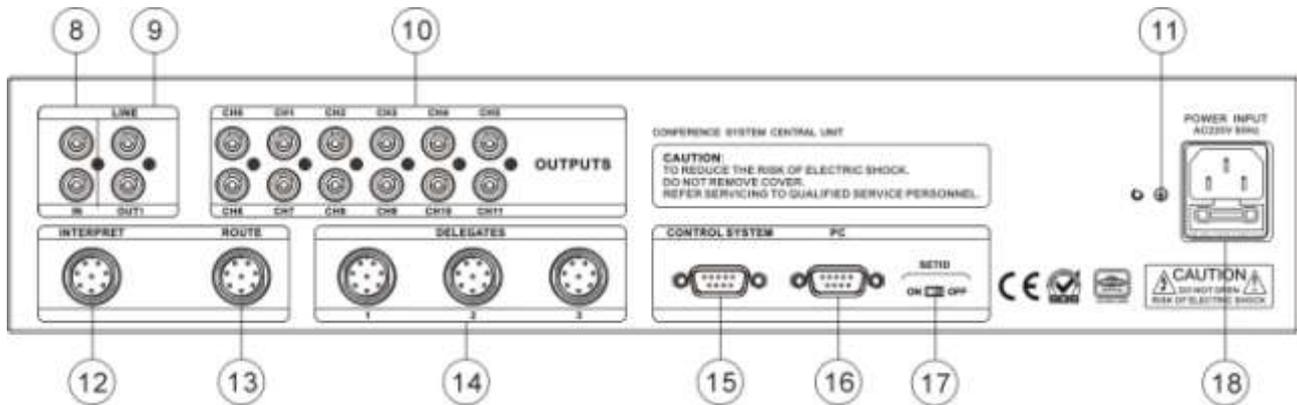
CR-M4101 Front Panel:



CR-M4201 Front Panel:



CR-M4101/CR-M4201 Rear Panel:



1) Power Switch

2) MODE

FIFO mode, after reaching the number to turn on the unit, the earlier-turned-on unit will be shut down by the unit turned on later.

NORMAL mode, after reaching the number to turn on the unit, the delegate with request to give a Discussion will be automatically queue up.

FREE mode, allowing 20 delegate units online at the same time, without limitation from the controller. If a delegate request to give a Discussion, he will automatically queue up

APPLY mode, delegate unit cannot give a Discussion before getting the approval from chairman unit or operator.

3) ACTIVE MICRO'S — Number of speaker limitation, the delegate units online at the same time can be set as 1/2/4/6.

4) Audio Effect Setup

A: AFC anti-feedback function setup, press the AFC key on controller panel to activate anti-feedback function, at the meantime, the indicator of the key will be on. Press AFC key again to turn off the indicator, and shut down anti-feedback function.

B: ANC noise suppression function setup, AGC MIC auto-gain control function setup is operated in the same way as AGC

5) BASS — Output bass volume adjustment

6) TREBLE — Output treble volume adjustment.

7) VOLUME — Output volume adjustment.

8) IN — Cable audio input, such as background music or remote telephone conference terminal output

9) OUT — Connect to audio amplifying system or recording device, including conference audio and cable input audio.

10) OUTPUTS — 11+1 channels audio output, connecting to infrared transmission controller.

11) Connect to grounding pole.

12) INTERPRET — Connect to 36 interpreter units at maximum, realizing 11+1 languages simultaneous interpretation. Interpreter units are connected hand-in-hand.

13) ROUTE — Connect to extended controller, with hand-in-hand serial connections within

multiple extended controllers.

14) DELEGATES — Connect to Discussion unit.

15) CONTROL SYSTEM —connect to controller of central controlling system or camera tracing controller, realize auto-camera and tracing function.

16) PC —Connect to PC serial port, realize conference management function via software.

17) SET ID —ID setup of Conference unit

18) POWER INPUT —Power input, support AC110V/220V

2.1.2 Functions and Features

◆ Conference controlling controller can connect up to 128 conference units, via conference extended controller, a set of conference system can connect to 4096 conference units at maximum.

◆ Connect to 36 interpreter units at maximum, realizing the function of 11+1 languages simultaneous interpretation;

◆ Adopt special 8-pin aviation plug;

◆ Hand-in-hand or T-shaped connection mode;

◆ With audio input port;

◆ With multiple original audio channels output;

◆ Number of speakers limitation; Adjustable number of 1/2/4/6 for speaking units. Chairman unit is not limited.

◆ Support a variety of conference modes of FIFO, NORMAL, FREE and APPLY.

◆ Support auto-camera tracing function;

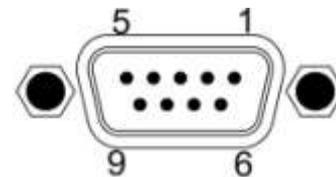
◆ Hold remote telephone conference along with telephone coupler;

◆ Support sign-up, voting and data management function;

◆ The controller can be installed into a standard 19-inch cabinet.

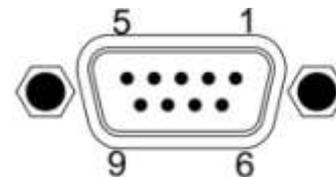
2.1.3 Port Pin Instruction

2.1.3.1 Pin instruction to CONTROL SYSTEM COM



Pin	Signal	Instruction
1	—	—
2	—	—
3	TXD	Data transmission
4	—	—
5	GND	Signal ground
6	—	—
7	—	—
8	—	—
9	—	—

2.1.3.2 PC COM pin instruction



Pin	Signal	Instruction
1	—	—
2	TXD	Data transmission
3	RXD	Data receiving
4	—	—
5	GND	Signal ground
6	—	—

7	—	—
8	—	—
9	—	—

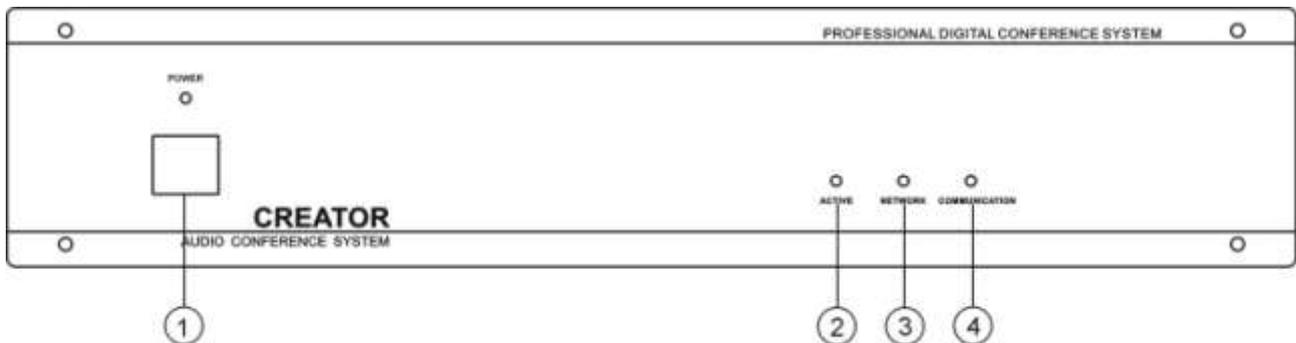
2.2 Conference Extended

Controller

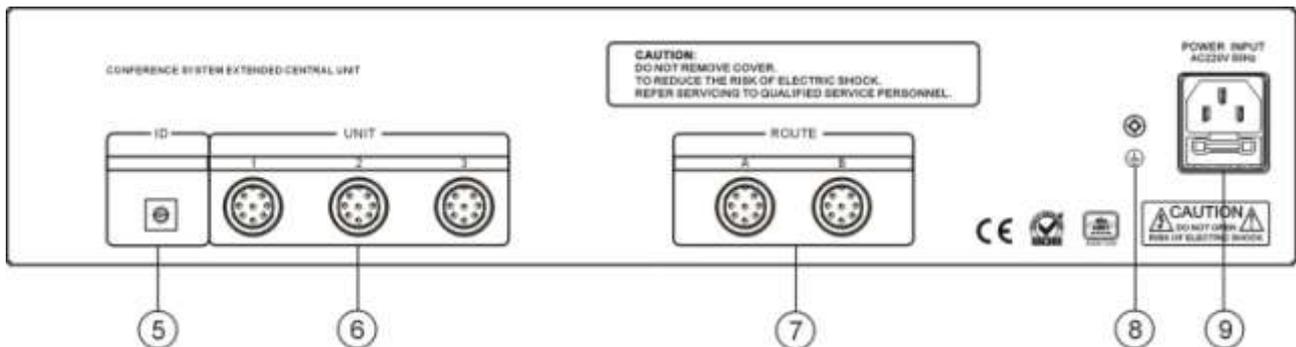
CR-ME4000 Conference system extended controller supports hand-in-hand serial connection within multiple extended controllers.

2.2.1 Panel Functions Instruction

CR-ME4000 Front Panel:



CR-ME4000 Rear Panel:



- | | |
|--|---|
| 1) POWER — Power switch | 5) ID — For configuring the network ID of ME4000. |
| 2) ACTIVE — Working indicator | 6) DELEGATES — 3-way Discussion units port. |
| 3) NETWORK — Network indicator | 7) ROUTE — Cascade connection port. A for connecting to preamp device and B for |
| 4) COMMUNICATION — communication indicator | |

connecting to amp device.

8) Connect to grounding pole

9) POWER INPUT—Power input, support AC110V/220V.

2.2.2 Functions and Features

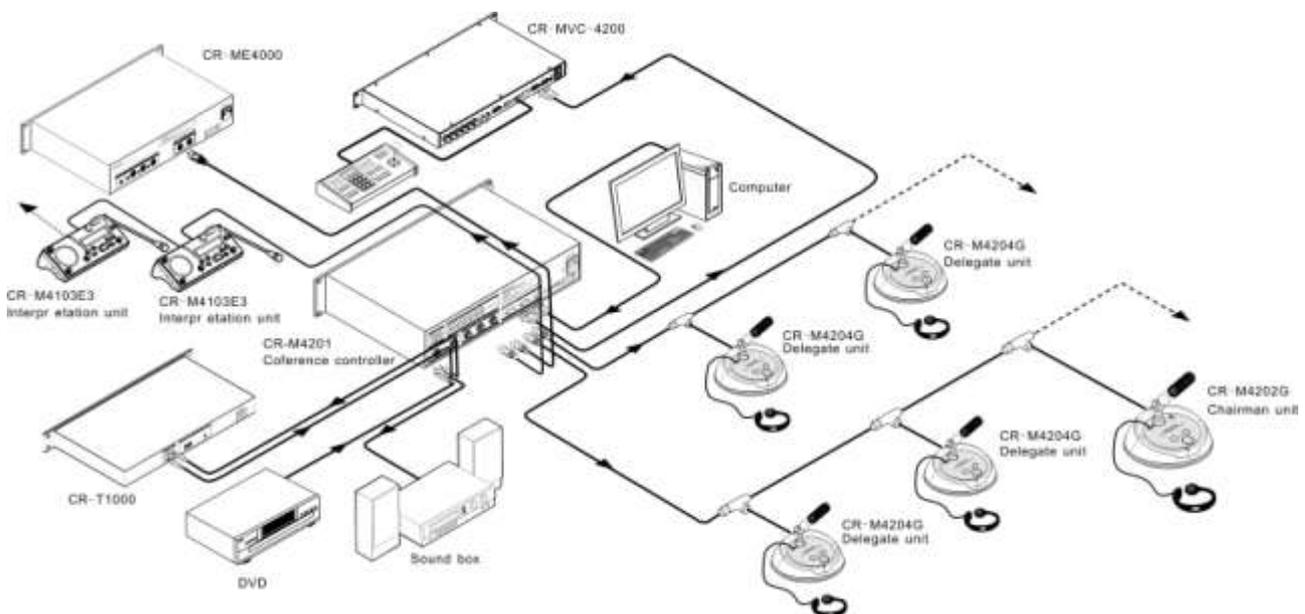
- ◆ Adopt 8-pin aviation plug for connection;
- ◆ Connect to Discussion unit along with the AUX of conference controlling controller;
- ◆ Undertaken high-pressure (3500V) test; in accordance with safety standard;
- ◆ The controller adopts metal shell, with 8000V anti-static power;
- ◆ The controller can be installed into a 19-inch standard cabinet.

2.3 ID Setup in Conference Unit

1、Conference ID setting is to allocate a unique address for each conference unit (including interpreter unit and Discussion unit) to be identified by the controller.

2、Conference unit is configured in the following way: after finishing connecting the conference system, turn on the power of conference controller, and turn "SET ID" switch to "ON", and turn on the Discussion units and interpreter units, indicator on MIC will be on. After all conference units are opened, turn "SET ID" switch to "OFF", all MIC indicators of conference units will be off, and the system accesses to normal status in use.

2.4 System Connection Diagram



2.5 Technical Parameters

Parameters	CR-M4101	CR-M4201	CR-ME4000
Power	Switch power 110V / 220V	Switch power 110V / 220V	Switch power 110V / 220V
Static power consumption	10W	10W	10W
Max power	350W	350W	350W
Output power	≤110W/24V each way	≤110W/24V each way	≤110W/24V each way
Audio output	Impedance : 100Ω way : non-balanced audio effect: N/A	Impedance : 100Ω way : non-balanced audio effect: support audio effect setup	Impedance : 100Ω way : non-balanced
MIC input	Impedance: 100kΩ LEV: -60 dB Way: Non-balanced	Impedance: 100kΩ LEV: -60 dB Way: Non-balanced	Impedance: 100kΩ LEV: -60 dB Way: Non-balanced
Frequency response	60—8kHz	60—8kHz	60—8kHz
S/N	>80dB	> 80dB	> 80dB
THD	< 0.5%	< 0.5%	< 0.5%
Carrier distortion	<1%	<1%	<1%
Cross talk attenuation (1kHz)	>50dB	>50dB	>50dB
Weight	About 6.5KG	About 6KG	About 6KG
Dimension	483L x 275W x88H (mm)	483L x 275W x88H (mm)	483L x 275W x88H (mm)
Color	Grey	Grey	Grey

Chapter 3 DCS Discussion Unit

3.1 Type of DCS Discussion Unit

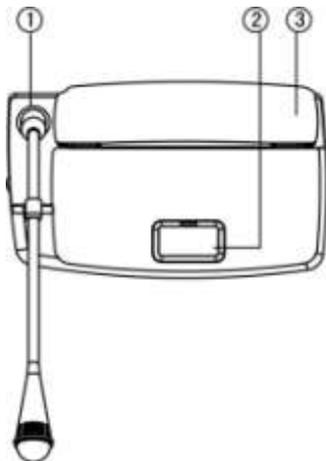
Model	Name	Shape	MIC Key	Voting	Channel Switch	LCD Monitor	VFD Monitor
CR-M4104A1	Delegate Discussion unit	Flipping	Yes	N/A	N/A	N/A	N/A
CR-M4102A2	Chairman unit	Flipping	Yes	Yes	N/A	Yes	N/A
CR-M4104A2	Delegate unit	Flipping	Yes	Yes	N/A	N/A	N/A
CR-M4202A2	Chairman unit	Flipping	Yes	Yes	N/A	Yes	N/A
CR-M4204A2	Delegate unit	Flipping	Yes	Yes	N/A	Yes	N/A
CR-M4102B	Chairman Discussion unit	Desktop	Yes	N/A	N/A	N/A	N/A
CR-M4104B	Delegate Discussion unit	Desktop	Yes	N/A	N/A	N/A	N/A
CR-M4202B2	Chairman Discussion unit	Desktop	Yes	Yes	N/A	Yes	Yes
CR-M4204B2	Delegate Discussion unit	Desktop	Yes	Yes	N/A	Yes	Yes
CR-M4202G	Chairman Discussion unit	Desktop	Yes	N/A	N/A	N/A	N/A
CR-M4204G	Delegate Discussion unit	Desktop	Yes	N/A	N/A	N/A	N/A
CR-M4102C1	Chairman Discussion unit	Embedd ed	Yes	N/A	N/A	N/A	N/A
CR-M4104C1	Delegate Discussion unit	Embedd ed	Yes	N/A	N/A	N/A	N/A
CR-M4102C4	Chairman voting unit	Embedd ed	N/A	Yes	N/A	N/A	N/A
CR-M4104C4	Delegate voting unit	Embedd ed	N/A	Yes	N/A	N/A	N/A

CR-M4102D2	Chairman unit	Pulling	Yes	Yes	N/A	Yes	N/A
CR-M4104D2	Delegate unit	Pulling	Yes	Yes	N/A	Yes	N/A
CR-TP4102D	Chairman unit	Pulling	Yes	Yes	N/A	Yes	N/A
CR-M4102E	Chairman Discussion unit	Desktop	Yes	N/A	N/A	N/A	N/A
CR-M4104E	Delegate Discussion unit	Desktop	Yes	N/A	N/A	N/A	N/A
CR-M4102F	Chairman unit	Embedd ed	Yes	Yes	N/A	Yes	N/A
CR-M4104F	Delegate unit	Embedd ed	Yes	Yes	N/A	Yes	N/A
CR-MC4032B	Chairman dual-audio cabinet		N/A	N/A	N/A	N/A	N/A
CR-MC4034B	Delegate dual-audio cabinet		N/A	N/A	N/A	N/A	N/A

3.2 CR-M4104A1 Discussion Unit

3.2.1 Panel Functions Instruction

CR-M4104A1 Front view



① MIC port

② MIC switch

③ Panel speaker

④ Headset port

Side view



⑤ Volume adjustment knob

3.2.2 Functions and Features

- ◆ Pure discussion flipping delegate unit;
- ◆ Adopts especial 8-pin high-intensity aviation plug;
- ◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;
- ◆ Adopt turning plugging MIC stand;
- ◆ With connection cable with length of 2 meters;
- ◆ With inside magnetic speaker, headset port and volume adjustment knob;
- ◆ The units are passive devices, and with 24V power supply from the system controller;

◆ With anti-feedback function, when the MIC is on, the speaker of the device will be automatically shut down, so as to prevent from audio feedback.

◆ T-shaped connecting mode

——Conference assessment, with numbers 1 to 5 representing grades of —, —, 0, +, ++ respectively.



Press and hold chairman unit digit key “1” for 3 second to initiate voting and access to voting status. The last vote is valid. Discussion unit is with memory for last voting press. Voting result will be shown by indicator. Press and hold chairman unit digit key “5” for 3 second to stop voting, press and hold key “5” to return to conference mode.

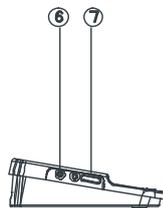
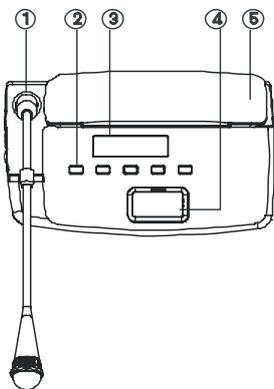
3.3 CR-M4102/4A2

Chairman/Delegate Unit

3.3.1 Panel Functions Instruction

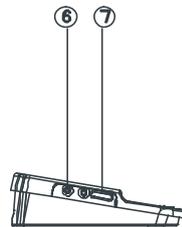
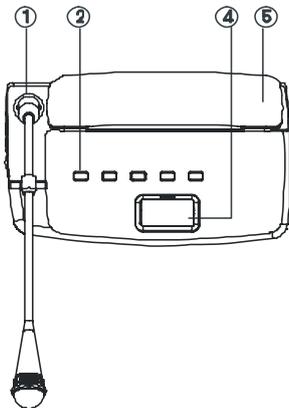
CR-M4102A2 Front view

Side view



CR-M4104A2 Front panel

Side panel



① MIC port.

② Multi-functional voting key:

——Conference voting, number 2,3,4 are respectively for in favor, abstaining and objection

——Conference election, with numbers 1 to 5 representing different candidates.

Privilege function:

Shut down——Press and hold chairman unit MIC switch for 3 seconds to shut down all opened delegate Discussion units.

Pre-conference sign-up:

Press and hold chairman digit key “2” for 3 seconds to initiate sign-up and access to sign-up mode, press “MIC switch” key to sign up.

Press chairman unit key “5” for 3 seconds to exit sign-up mode.

Processing Discussion application:

Press chairman unit digit key “3” to approve Discussion application. Pressing it once to approve one delegate unit for giving a Discussion and in according with the principle of “first come first out”.

③ LCD monitor

④ MIC switch

⑤ Flat panel speaker

⑥ Headset port

⑦ Volume adjustment knob

3.3.2 Functions and Features

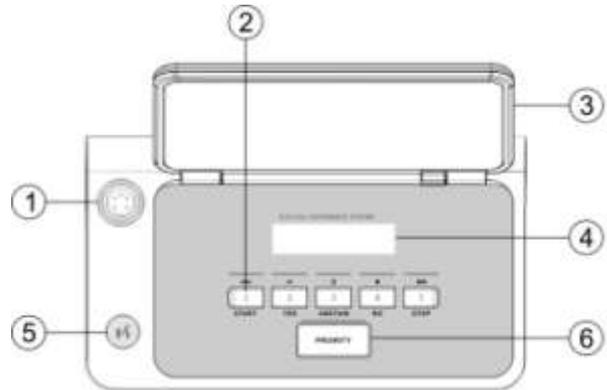
- ◆ Incorporated with the functions of giving Discussion, voting, pressing sign-up as a whole;
- ◆ Adopt special 8-pin high-intensity aviation connector;
- ◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;
- ◆ With connection cable with length of 2 meters;
- ◆ Adopt turning plug MIC stand;
- ◆ With inside magnetic speaker, headset port and volume adjustment knob;
- ◆ Chairman unit is entitled to approve delegate's application for Discussion;
- ◆ Chairman unit is not limited by the number of speakers;
- ◆ Chairman unit has privilege to control the whole conference order.;
- ◆ Connection position of the chairman unit is not restricted;
- ◆ The units are passive devices and with 24V power supply from the system controller;
- ◆ With feedback suppression, when turning on the MIC, the speaker of the device will be automatically turned off, so as to prevent from feedback;
- ◆ Hand-in-hand or T-shaped connection mode.

3.4 CR-M4202/4A2

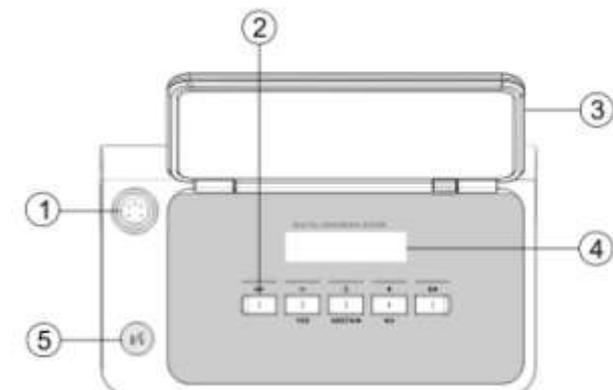
Chairman/Delegate Unit

3.4.1 Panel Functions Instruction

CR-M4202A2 Front view:



CR-M4204A2 Front view:



Unit side view:



- ① MIC port.
- ② Multi-functional voting key:
——Conference voting, number 2,3,4 are

respectively for in favor, abstaining and objection

—Conference election, with numbers 1 to 5 representing different candidates.

—Conference assessment, with numbers 1 to 5 representing grades of —, —, —, 0, +, +, + respectively.



Press and hold chairman unit digit key “1”

for 3 second to initiate voting and access to voting status. The last vote is valid. Discussion unit is with memory for last voting press. Voting result will be shown by indicator. Press and hold chairman unit digit key “5” for 3 second to stop voting, press and hold key “5” to return to conference mode.

Privilege function:

Shut down—Press and hold chairman unit MIC switch for 3 seconds to shut down all opened delegate Discussion units.

Pre-conference sign-up:

Press and hold chairman digit key “2” for 3 seconds to initiate sign-up and access to sign-up mode, press “MIC switch” key to sign up. Press chairman unit key “5” for 3 seconds to exit sign-up mode.

Processing Discussion application:

Press chairman unit digit key “3” to approve Discussion application. Pressing it once to approve one delegate unit for giving a Discussion and it is in according with the principle of “first come first out”.

③ Speaker

④ LCD monitor

⑤ MIC switch

⑥ Privilege switch of chairman unit

⑦ Headset port

⑧ Volume adjustment knob

3.4.2 Functions and Features

◆ Incorporated with the functions of giving Discussion, voting, pressing sign-up as a whole;

◆ Adopt special 8-pin high-intensity aviation connector;

◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;

◆ With connection cable with length of 2 meters;

◆ Adopt turning plug MIC stand;

◆ With inside magnetic speaker, headset port and volume adjustment knob;

◆ Chairman unit is entitled to approve delegate's application for Discussion;

◆ Chairman unit is not limited by the number of speakers;

◆ Chairman unit has privilege to control the whole conference order;

◆ Connection position of the chairman unit is not restricted;

◆ The units are passive devices and with 24V power supply from the system controller;

◆ With feedback suppression, when turning on the MIC, the speaker of the device will be automatically turned off, so as to prevent from

feedback;

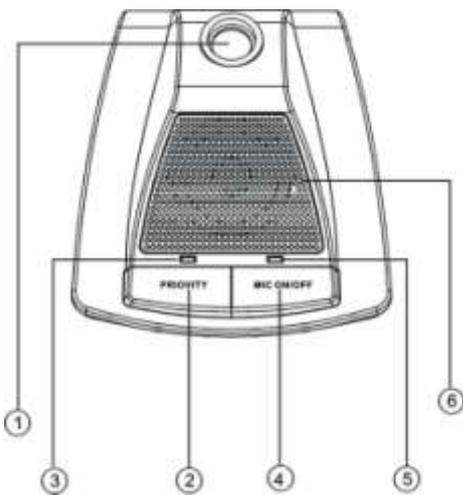
- ◆ Hand-in-hand or T-shaped connection mode.

3.5 CR-M4102/4B

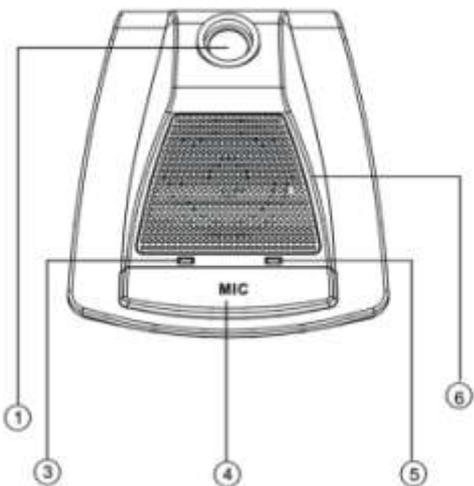
Chairman/Delegate Unit

3.5.1 Panel Functions Instruction

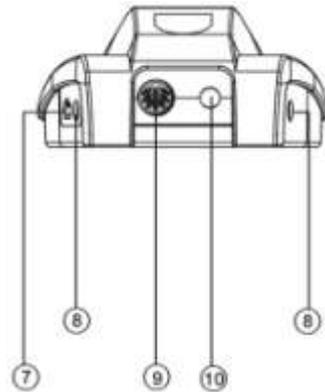
CR-M4102B Front view:



CR-M4104B Front view:



Unit rear view:



- ① MIC port
- ② PRIORITY operation key
- ③ POWER indicator
- ④ MIC ON/OFF
- ⑤ MIC indicator
- ⑥ Built-in speaker
- ⑦ Volume adjustment knob
- ⑧ Headset port
- ⑨ Cascade connection port
- ⑩ Connection cable



NOTICE: Voice encouraging function: Only activated when connecting to court trial digital controlling controller.

3.5.2 Functions and Features

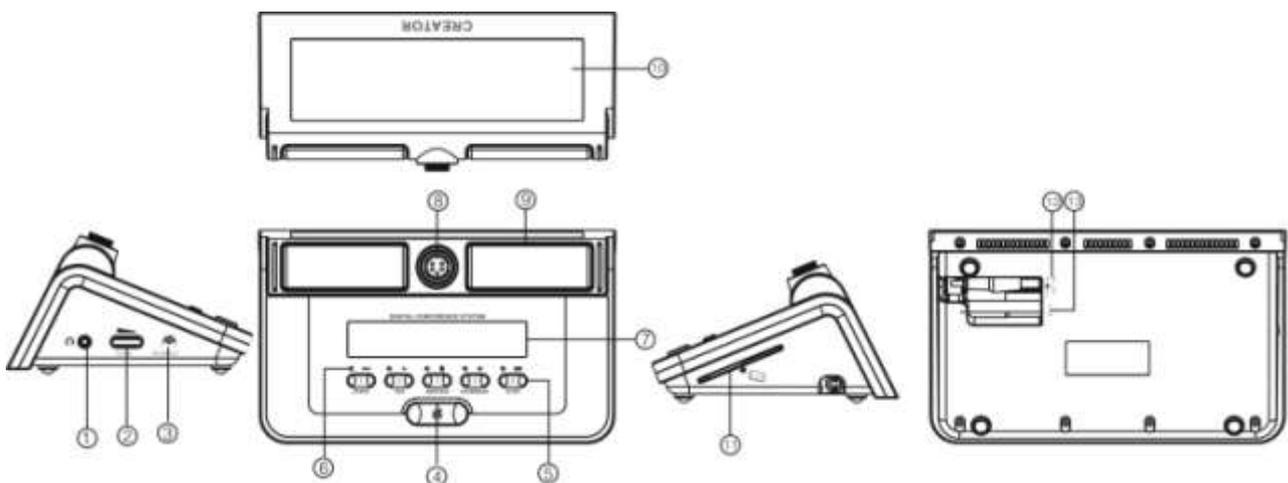
◆ Adopt special 8-pin high-intensity aviation connector;

◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;

- ◆ Adopt turning plug MIC stand;
- ◆ With inside magnetic speaker, headset port and volume adjustment knob;
- ◆ With feedback suppression, when turning on the MIC, the speaker of the device will be automatically turned off, so as to prevent from feedback;
- ◆ Chairman unit has privilege to control the whole conference order and its position is not restricted;
- ◆ The units are passive devices and with 24V power supply from the system controller;
- ◆ With connection cable with length of 2 meters;
- ◆ Hand-in-hand or T-shaped mode

3.6 CR-M4202/4B2 Chairman/Delegate Unit

3.6.1 Panel Functions Instruction



1) Headset port

2) Volume adjustment knob LCD monitor

3) VFD monitor brightness adjustment, turning

in the way of MIN for darker, and in the way of MAX for brighter.

4) MIC key

5) Multiple functional voting key
 ——Conference voting, number 2, 3, 4 are respectively for in favor, abstain and objection

——Conference election, with numbers 1 to 5 representing different candidates.

——Conference assessment, with numbers 1 to 5 representing grades of — — , — ,0, + , + + respectively.



Press and hold chairman unit digit key “1” for 3 second to initiate voting and access to voting status. The last vote is valid. Discussion unit is with memory for last voting press. Voting result will be shown by indicator. Press and hold chairman unit digit key “5” for 3 second to stop voting, press and hold key “5” to return to conference mode.

Privilege function:

Shut down——Press and hold chairman unit MIC switch for 3 seconds to shut down all opened delegate Discussion units.

Pre-conference sign-up:

Press and hold chairman digit key “2” for 3 seconds to initiate sign-up and access to sign-up mode, press “MIC switch” key to sign up. Press chairman unit key “5” for 3 seconds to exit sign-up mode.

Processing Discussion application:

Press chairman unit digit key “3” to approve Discussion application. Pressing it once to approve one delegate unit for giving a Discussion and it is in according with the principle of “first come first out”.

6) Indicator for multiple functional key, when this key is corresponding to multiple people, it will be in red.

7) 320x64 LCD monitor, displaying operation information.

8) MIC port

9) Arc built-in speaker

10) 256x64 VFD monitor, displaying name and title and so on.

11) To read IC card information and display it on VFD monitor, and serve as IC card sign up function.

12) DC12V power port——When power supply is not sufficient for the controller, or the controller is offline, it may deliver power supply for the Discussion unit.

13) Output cable of the device, for connecting to T-shaped connector.

3.6.2 Functions and Features

◆ Full-digital audio technology, with built-in high-performance CPU;

◆ Adopt concise and fashionable silver wiredrawing effect and arc-shaped desktop design for speaker;

◆ Incorporated with the functions of voting, electing, polling and ID display as a whole;

◆ Support 256x64 matrix VFC monitor, for ID information display and manual adjustment of the brightness of the monitor.

◆ Adopt special 8-pin high-intensity aviation port, with knob turning connector, stabilizing the system;

◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion

and green for applying for Discussion;

◆ With connection cable with length of 2 meters;

◆ The unit is with headset port, supporting auto-detection for headset. When external headset is inserted, internal speaker will be automatically shut down.

◆ High-brightness 320x64LCD monitor, for displaying a variety of operation information;

◆ Support 3 ways of voting:
Voting: in favor/objection/abstain
Election/Investigation: 1/2/3/4/5
Response/Assessment: --/-/0/+/>++

◆ Support IC card instant recording or renewing identity, at the meantime, support IC card sign-up.

◆ Chairman unit has privilege to control the whole conference order and its position is not restricted;

◆ Chairman units are not limited by the number of speakers. It can be freely opened. Chairman unit has privilege shut down the speaking delegate units;

◆ Chairman unit is entitled to approve or reject the speaking request from all delegates;

◆ 3-key (in favor/objection/abstain)voting can be initiated when disconnecting with PC.

◆ The beginning and end of the voting process can be controlled (START/STOP);

◆ Adopt screwing cap MIC stand;

◆ The units are passive devices and with 24V

power supply from the system controller;

◆ The units support DC12V power supply. When power supply is insufficient or in offline status, external DC12V power can be connected for the units.

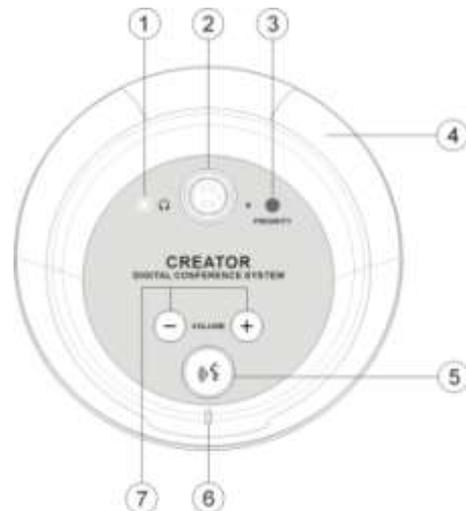
◆ T-shaped connection mode

3.7 CR-M4202/4G

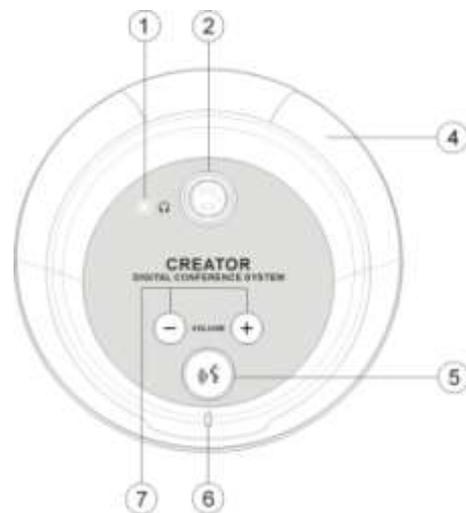
Chairman/Delegate Unit

3.7.1 Panel Functions Instruction

CR-M4202G Front view:



CR-M4204G Front view:



- ② Headset port
- ② MIC port
- ③ PRIORITY operation key
- ④ Built-in speaker
- ⑤ MIC ON/OFF
- ⑥ MIC indicator
- ⑦ Volume increase/decrease

- ◆ With connection cable with length of 2 meters;
- ◆ Hand-in-hand or T-shaped mode

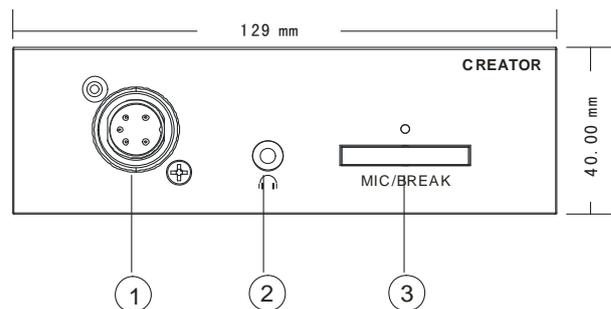
3.7.2 Functions and Features

- ◆ Adopt 8-pin high-intensity aviation connector;
- ◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;
- ◆ Adopt turning plug MIC stand;
- ◆ With inside magnetic speaker, headset port and volume adjustment knob;
- ◆ With feedback suppression, when turning on the MIC, the speaker of the device will be automatically turned off, so as to prevent from feedback;
- ◆ Chairman unit has privilege to control the whole conference order and its position is not restricted;
- ◆ The connection position of chairman unit is not restricted;
- ◆ The units are passive devices and with 24V power supply from the system controller;

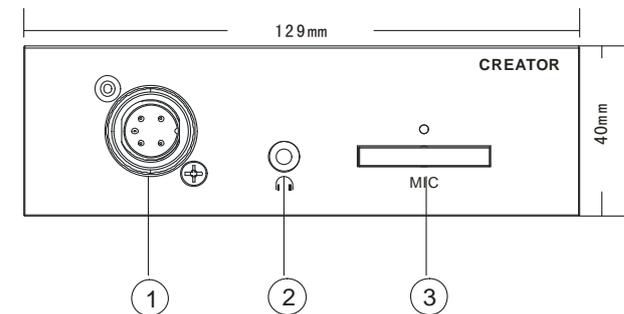
3.8 Embedded Unit

3.8.1 Panel Functions Instruction

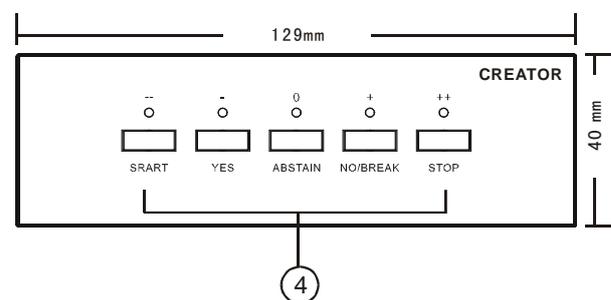
CR-M4102C1 Front view



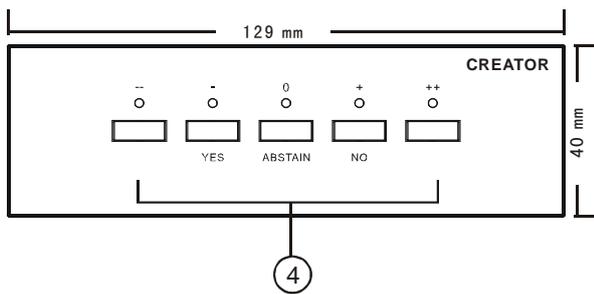
CR-M4104C1 Front view



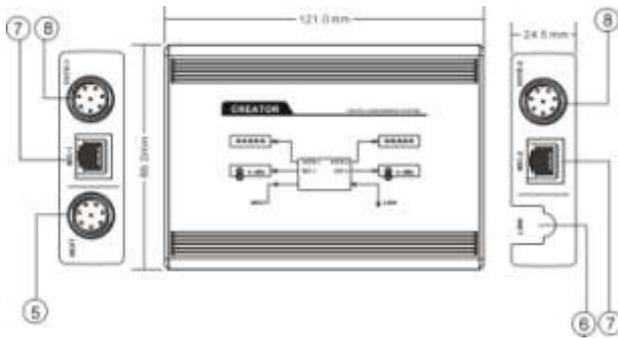
CR-M4102C4 Front view



CR-M4104C4 Front view



CR-MC4032B/CR-MC4034B



① MIC port

② Headset port

③ MIC—MIC switch. Chairman unit has privilege. Press and hold this key for 3 seconds to cancel all Discussions that delegate units are giving.

④ Multiple functional voting key
—Conference voting, number 2,3,4 are respectively for in favor, abstaining and objection

—Conference election, with numbers 1 to 5 representing different candidates.

—Conference assessment, with numbers 1 to 5 representing grades of --, -, 0, +, ++ respectively.



Press and hold chairman unit digit key “1” for 3 second to initiate voting and access to voting

status. The last vote is valid. Discussion unit is with memory for last voting press. Voting result will be shown by indicator. Press and hold chairman unit digit key “5” for 3 second to stop voting, press and hold key “5” to return to conference mode.

Privilege function:

Shut down—Press and hold chairman unit MIC switch for 3 seconds to shut down all opened delegate Discussion units.

Pre-conference sign-up:

Press and hold chairman digit key “2” for 3 seconds to initiate sign-up and access to sign-up mode;

Press digit key “3” or “MIC switch” key to sign up, press one of these two keys, the indicator will be constantly on, and another key will be invalid. Press and hold the digit key “5” in chairman unit for 3 seconds to exit sign-up mode.

⑤ NEXT—Connect to next audio box

⑥ LINK—Connect to CR-M4101 conference controlling controller or NEXT port in audio box.

⑦ MIC—Connect to CR-M4102/4C1 Discussion unit.

⑧ VOTE—Connect to CR-M4102/4C4 voting module.

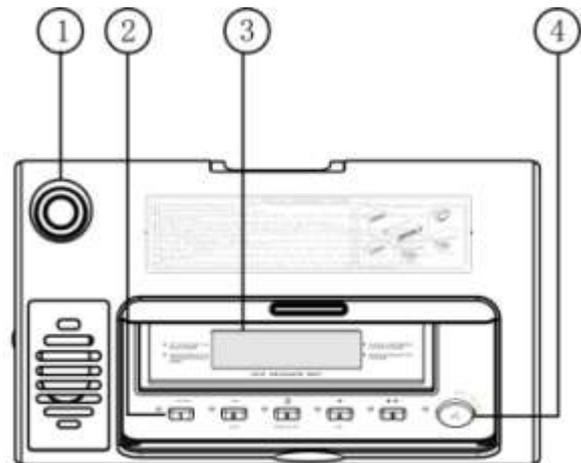
3.8.2 Functions and Features

◆ Adopt special 8-pin high-intensity aviation connector;

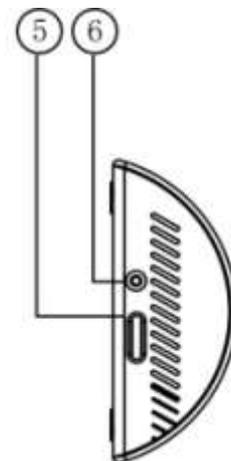
◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;

◆ Adopt turning plug MIC stand;

- ◆ With headset port;
- ◆ Chairman unit has privilege to control the whole conference order and its position is not restricted;
- ◆ With connection cable with length of 2 meters;
- ◆ The units are passive devices and with 24V power supply from the system controller;
- ◆ The connection position of the chairman unit is not restricted;
- ◆ Hand-in-hand or T-shaped mode



Unit side view

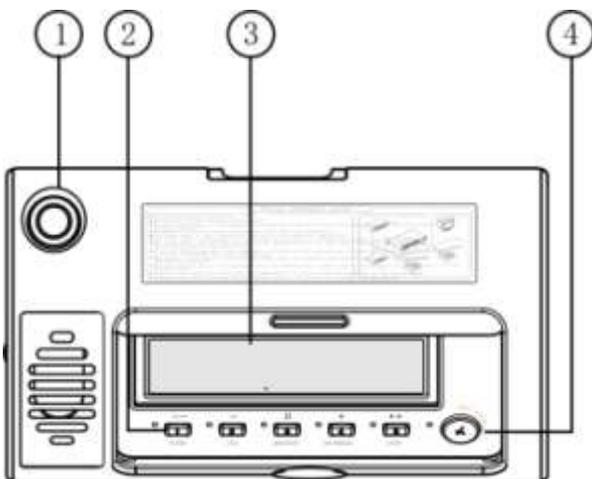


3.9 CR-M4102/4D2

Chairman/Delegate Unit

3.9.1 Panel Functions Instruction

CR-M4102D2 Front view



CR-M4104D2 Front view

① MIC port

② Multiple functional voting key:

Conference voting, number 2,3,4 are respectively for in favor, abstaining and objection

——Conference election, with numbers 1 to 5 representing different candidates.

——Conference assessment, with numbers 1 to 5 representing grades of --, -, 0, +, ++ respectively.



Press and hold chairman unit digit key “1” for 3 second to initiate voting and access to voting status. The last vote is valid. Discussion unit is

with memory for last voting press. Voting result will be shown by indicator. Press and hold chairman unit digit key "5" for 3 second to stop voting, press and hold key "5" to return to conference mode.

Privilege function:

Shut down——Press and hold chairman unit MIC switch for 3 seconds to shut down all opened delegate Discussion units.

Language setup in chairman unit LCD prompt:

In conference mode, press and hold the digit key "3" in chairman unit for 3 seconds to access to language setup. According the prompt to have it configured, press "1" to set it in Chinese, press "5" to set it in English, press "3" to return to conference mode.

Pre-conference sign-up:

Press and hold chairman digit key "2" for 3 seconds to initiate sign-up and access to sign-up mode, press "MIC switch" key to sign up.

Press chairman unit key "5" for 3 seconds to exit sign-up mode.

Under sign-up mode, the LCD monitor in chairman unit displays the number of people have signed up, with maximum number ranging from 1 to 900 subject to PC software configuration.

Processing Discussion application:

Press chairman unit digit key "3" to approve Discussion application. Pressing it once to approve one delegate unit for giving a Discussion and it is in according with the principle of "first come first out".

③ LCD Monitor

④ MIC switch, chairman unit has privilege to press and hold it for 3 seconds to cancel the Discussion from delegate unit at any moment.

⑤ Volume adjustment knob

⑥ Headset port

LCD displaying content

model mode	M4102D	M4104D
Conf mode	Display No. people giving Discussion Display max no. of speakers	Display DCS Delegate
Voting mode	Display prompt when voting Display result after voting	Prompt to vote & display voting result of the device

3.9.2 Functions and Features

◆ Five multi-functional keys for conference voting;

◆ The monitor in chairman unit can display voting result and the information of number of people initiating Discussion;

◆ Chairman unit can initiate and stop voting, as well as suspend or cancel the Discussion from delegate unit;

◆ Adopt special 8-pin high-intensity aviation connector;

◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;

◆ With connection cable with length of 2 meters;

◆ Adopt turning MIC stand;

◆ With inside magnetic speaker, headset port and volume adjustment knob;

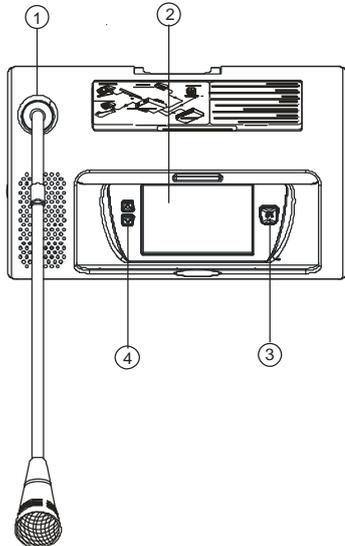
◆ Chairman unit is entitled to approve or reject the speaking request from delegate;

- ◆ Chairman units are not limited by the number of speakers;
- ◆ With feedback suppression, when turning on the MIC, the speaker of the device will be automatically turned off, so as to prevent from feedback;
- ◆ Chairman unit has privilege to control the whole conference order;
- ◆ Key indicator is with real-time voting prompting;
- ◆ Discussion unit can apply or cancel applying for Discussion.

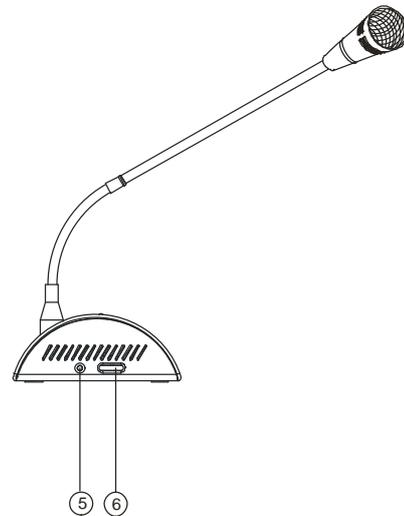
3.10 CR-TP4102D Chairman Unit

3.10.1 Panel Functions Instruction

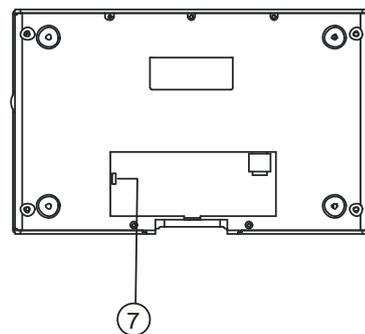
Front view



Side view



Bottom view



- ① MIC port
- ② 3.5-inch LCD monitor
- ③ MIC switch
- ④  —Close the speaking right of all delegate units giving Discussion.



Privilege function:

Shut down— press  key in chairman unit for 3 seconds to close the speaking right of all delegates giving Discussion.

Processing Discussion application:

Press chairman unit digit key "3" to approve Discussion application. Pressing it once to approve one delegate unit for giving a Discussion and it is in according with the principle of "first come first out".

- ⑤ Headset port
- ⑥ Volume adjustment knob
- ⑦ USB port—Mini USB port, for download and renew bottom program.

3.10.2 Touch Screen Functions Instruction

Conference mode



Picture 3-1

Conference mode : Including picture adjustment and message prompt

Click on the image in this operation window to maximum it to full screen, click on it again to restore to normal size.

PIP function:

Along with camera automatic tracing system, it can realize image and conference unit automatic tracing. LCD monitor can display the image in synchronizing with on-site camera.



Picture 3-2

Image size adjustment: Click on "Image size adjustment" to access to the operation window as seen in picture 3-2. User may click on "up, down, left, right, zoom in or zoom out" to adjust the size.



In this operation window, the image won't be maximized to full screen when clicking on it. This function is only valid in the window as seen in picture 3-1.



When the chairman unit of CR-TP4102D touch screen controls the camera, conference discussion controller CR-M4101 transmit the controlling codes to central controlling controller or camera tracing mixed controller:

Communication protocol: 9600、N、8、1

Control codes: the following are Hex-form codes

Up: A0 00 10 00 07 01 FF FF FF AF EA

down: A0 00 10 00 07 02 FF FF FF AF E9

left: A0 00 10 00 07 03 FF FF FF AF E8

right: A0 00 10 00 07 04 FF FF FF AF E7

zoom in: A0 00 10 00 07 06 FF FF FF AF E5

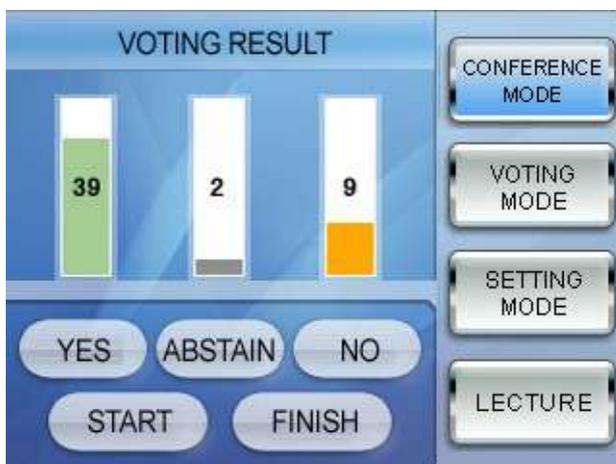
zoom out: A0 00 10 00 07 05 FF FF FF AF E6

stop: A0 00 10 00 07 09 FF FF FF AF E2

Message prompt

Picture 3-3

Message prompt: Click on “Message prompt” to access to another operation window as seen in picture 3-3. The maximum number of speakers configured by the system controller and number of giving Discussion will be displayed.

Voting mode

Picture 3-4

Under voting mode, user may choose “in favor, abstain or objection” to vote, and also may click on “start” to initiate voting, click on “stop” to stop voting. Under voting mode, click on “start” to initiate election with “di” prompting sound; Click on “stop” in Chairmen unit voting mode to stop election, at the meantime the ultimate election

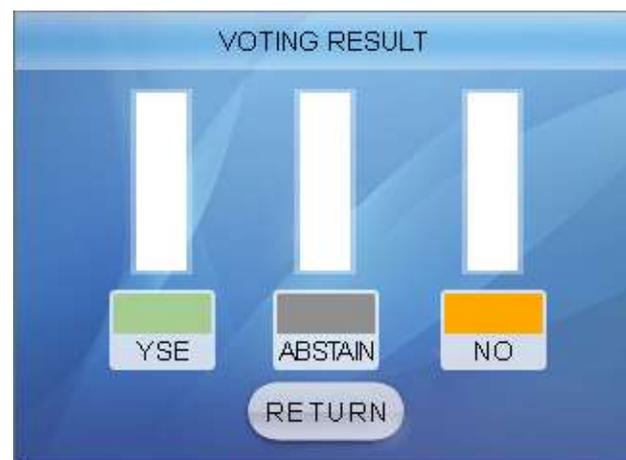
result will be displayed. Click on “conference mode” again to return to conference mode.

Besides the voting initiated from TP4102D, there are also another voting approaches, but all of them have to be initiated and stopped by conference system software in PC, and distributed to all delegate Discussion units via conference system controller. Following voting approaches are available:

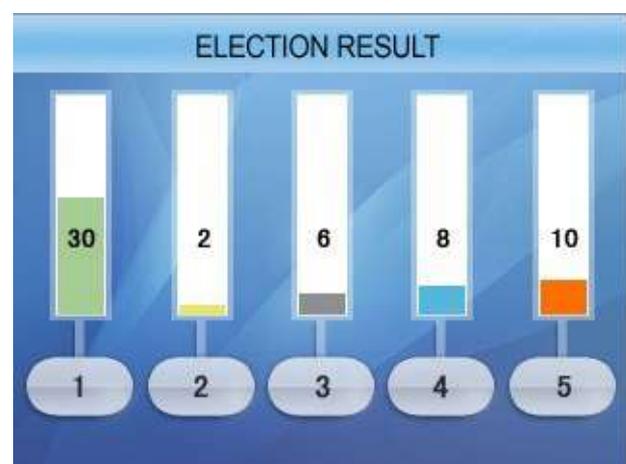
—Conference voting, number 2,3,4 are respectively for in favor, abstaining and objection

—Conference election, with numbers 1 to 5 representing different candidates.

—Conference assessment, with numbers 1 to 5 representing grades of $- -$, $-$, 0 , $+$, $++$ respectively.



Conference voting



Conference election



Conference assessment



Only the last voting is valid. Discussion unit is with memory of last press. Voting result is displayed on the LCD monitor of chairman unit.

Device mode



Picture 3-5

Multiple languages in operation for selection: In setup mode, user may select simplified Chinese, traditional Chinese or English language operation interface.

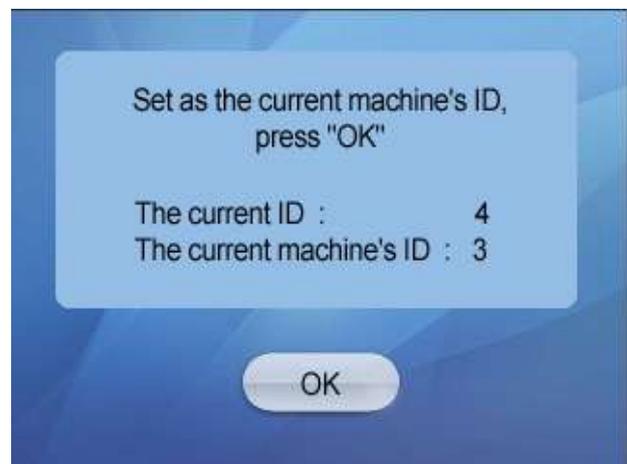
Click on "simplified Chinese" to instantly turn the operation interface into simplified Chinese. Click on "traditional Chinese" or "English", the interface will be switched accordingly subject to user's need.

On/Off/Audio effect: Click on this key to turn off key sound, click on it again to turn on key sound.



All the setting we set on the operation interface after starting up, the device will save the last setting, when start next time, the device will display the operation interface last time we save. For example, now we set the language of the operation interface to English, shutdown, and then start up, the displaying operation interface will be English.

ID Setup



Picture 3-6

Switch the ID set "ON" behind M4101 controller, picture 3-7 will be displayed. After setting, switch it off then the system turns to "Conference mode", please refer to "ID setup of conference unit in chapter 2.3.

3.10.3 Functions and Features

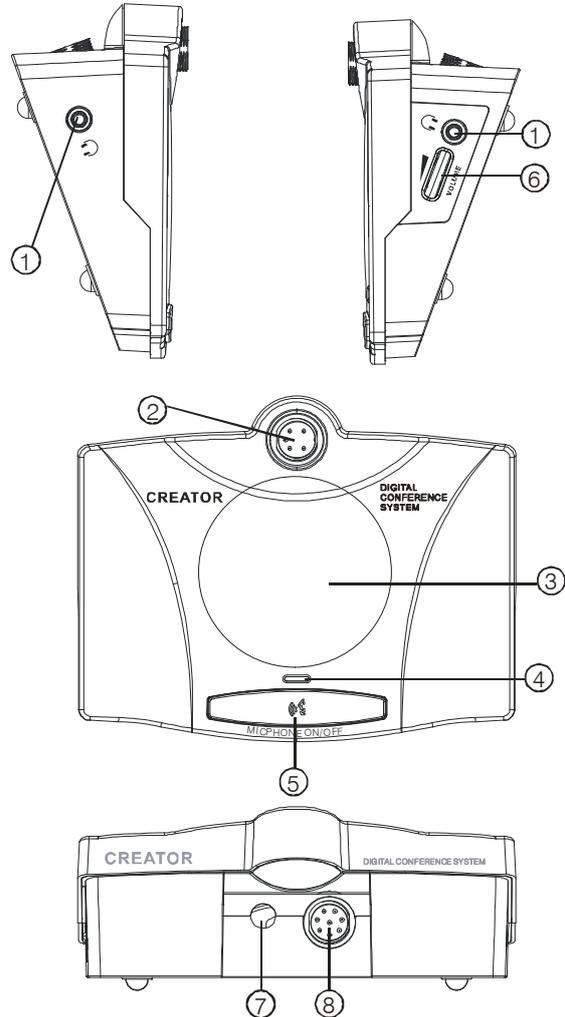
- ◆ 3.5-inch 320x240 pixel TFT LCD touch screen;
- ◆ Support PIP;
- ◆ Adopt 32-bit ARM9 processor;
- ◆ Adopt special 8-pin high-intensity aviation

connector;

- ◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;
- ◆ With connection cable with length of 2 meters;
- ◆ Adopt turning plug MIC stand;
- ◆ With inside magnetic speaker, headset port and volume adjustment knob;
- ◆ T-shaped connection mode;
- ◆ Without limitation on number of speakers, with privilege to fully control the order of conference.
- ◆ Along with camera, it can realized auto-tracing on video and conference unit
- ◆ Discussion mode: Number limitation, first come first out;
- ◆ Initiate or stop voting;
- ◆ Optional languages of simplified Chinese, traditional Chinese and English in operation;
- ◆ With additional 3 short-cut keys to stop or cancel all ongoing Discussions from delegate unit.

3.11 CR-TP4102D Chairman Unit

3.11.1 Panel Functions Instruction



- ① Headset port
- ② MIC port
- ③ Built-in speaker
- ④ MIC indicator
- ⑤ MIC switch
- ⑥ Volume adjustment knob

⑦ Connection cable

⑧ Cascade connection port

3.11.2 Functions and Features

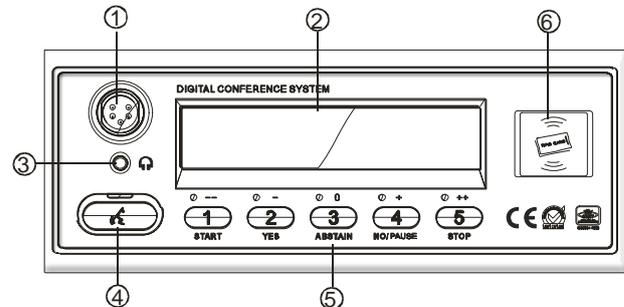
- ◆ Adopt special 8-pin high-intensity aviation connector;
- ◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;
- ◆ Adopt turning plug MIC stand;
- ◆ With inside magnetic speaker, headset port and volume adjustment knob;
- ◆ Easy operation, slightly press the on/off key to give a Discussion.
- ◆ With feedback suppression, when turning on the MIC, the speaker of the device will be automatically turned off, so as to prevent from feedback;
- ◆ Chairman unit has privilege to control the whole conference order;
- ◆ Key indicator is with real-time voting prompting;
- ◆ The units are passive devices, with 24V power supply from system controller.
- ◆ With connection cable with length of 2 meters;
- ◆ Hand-in-hand or T-shaped connection mode.

3.12 CR-M4102/4F

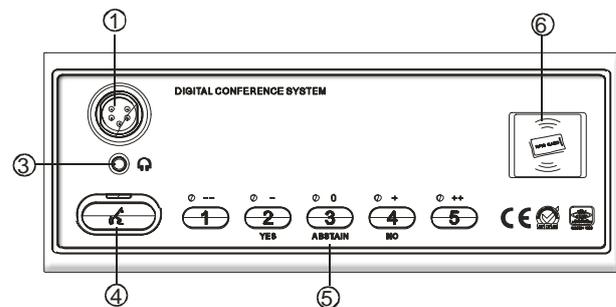
Chairman/Delegate Unit

3.12.1 Panel Functions Instruction

CR-M4102F Front view



CR-M4104F Front view



① MIC port

② LCD monitor

③ Headset port

④ MIC switch

⑤ Multiple functional voting key

- Conference voting, number 2, 3, 4 are respectively for in favor, abstain and objection
- Conference election, with numbers 1 to 5 representing different candidates.
- Conference assessment, with numbers 1 to 5 representing grades of --, -, 0, +, ++ respectively.



Press and hold chairman unit digit key “1” for 3 second to initiate voting and access to voting status. The last vote is valid. Discussion unit is with memory for last voting press. Voting result will be shown by indicator. Press and hold chairman unit digit key “5” for 3 second to stop voting, press and hold key “5” to return to conference mode.

Privilege function:

Shut down—Press and hold chairman unit MIC switch for 3 seconds to shut down all opened delegate Discussion units.

Pre-conference sign-up:

Press and hold chairman digit key “2” for 3 seconds to initiate sign-up and access to sign-up mode, press “MIC switch” key to sign up.

Press chairman unit key “5” for 3 seconds to exit sign-up mode.

Processing Discussion application:

Press chairman unit digit key “3” to approve Discussion application. Pressing it once to approve one delegate unit for giving a Discussion and it is in according with the principle of “first come first out”.

⑥ IC card sensor area—— for sign-up with IC card

3.12.2 Functions and Features

- ◆ Adopt special 8-pin high-intensity aviation port, with knob turning connector, stabilizing the system;

- ◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;

- ◆ With connection cable with length of 2

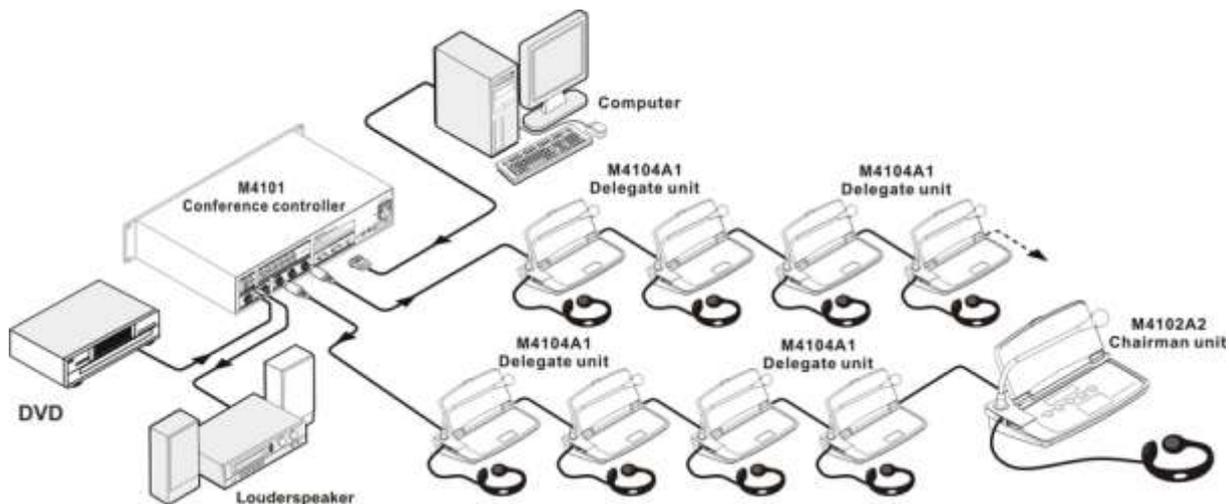
meters;

- ◆ Adopt turning plug MIC stand;
- ◆ The unit is with headset port
- ◆ With IC card sign-up function
- ◆ Support voting, election and polling functions.
- ◆ Chairman unit has privilege to control the whole conference order;
- ◆ Chairman unit is entitled to approve or reject the speaking request from delegate;
- ◆ The units are passive devices, with 24V power supply from system controller.;
- ◆ The connection position of the chairman unit is not restricted.
- ◆ Hand-in-hand or T-shaped connection mode.

3.13 Connection Diagram

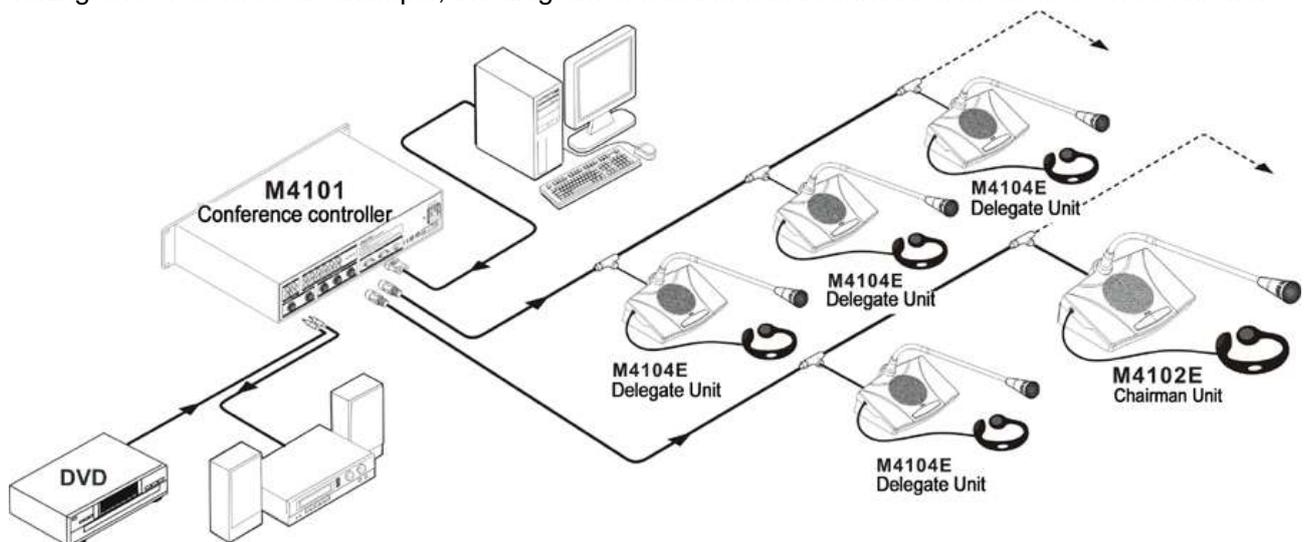
3.13.1 Diagram of T-shaped Connection Mode

In DCS Discussion unit system, the following Discussion units are suitable for T-shaped connection mode: CR-M4104A1, CR-M4202/4A2, CR-M4202/4B2, CR-M4202/4G, CR-M4102/4D2 and CR-TP4102DChairman/Delegate Unit. Taking one of them as an example, the connection diagram is as follows:



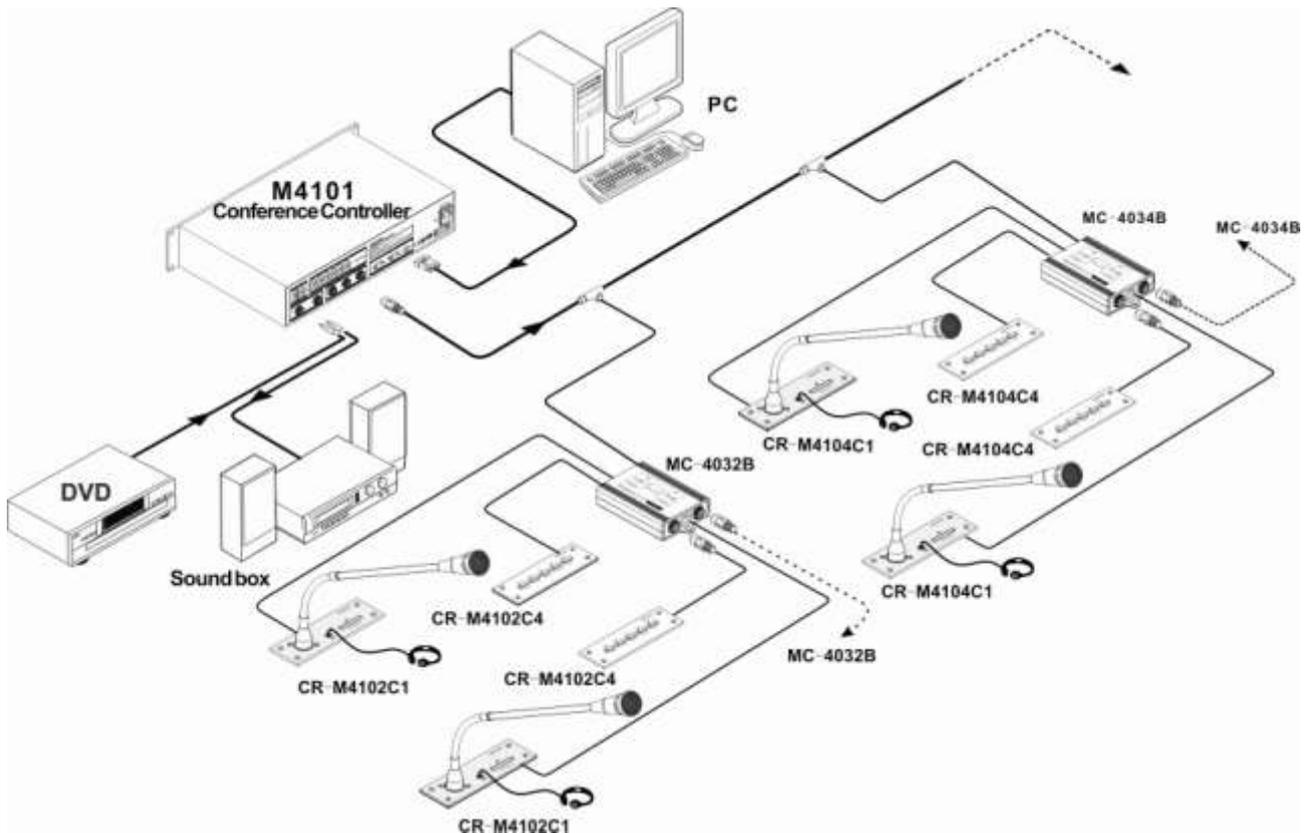
3.13.2 Diagram of Hand-in-hand Connection Mode

In DCS Discussion units system, the following Discussion units are suitable for hand-in-hand connection mode: CR-M4102/4A2, CR-M4102/4B, CR-M4102/4E and CR-M4102/4FChairman/Delegate Unit. Also, they support T-shaped connection mode with detailed connection as seen in above picture. Taking one of them as an example, the diagram of hand-in-hand connection mode is seen as follows:



3.13.3 Diagram of Embedded Unit Connection

Embedded Units include CR-M4102/4C1, CR-M4102/4C4Chairman/Delegate Unit and CR-MC4032/4B Chairman/delegate dual-audio cabinet, with T-shaped connection mode. The diagram is as follows:



3.14 Technical Parameters

Parameters	CR-M4102/4A	CR-M4102/4B1	CR-M4102/4C1
Power	DC24V(power supply from controller)		
Unit port	Special 8-pin aviation port		RJ45 port
Power consumption	3W		
Headset output	9dBu, 8—32Ω, 3.5mm mini jack		
Power of speaker	2W		N/A
Transducer type	Electrets condenser		N/A
Directional pattern	Cardioids		
(S/N)	> 80dB		
Crosstalk	> 80dB		
Distortion	< 0.10%		
Frequency response	60—8kHz		
Equivalent noise	≈20dB SPL		
Max SPL	105dB (3% threshold)		
Sensitivity	—22dBv/Pa		
Dimension (mm)	247Lx155Wx60H	127Lx146Wx62H	129Lx40Wx42.5H

Parameters	CR-M4102/4C4	CR-M4102/4D2	CR-TP4102D	CR-M4202/4B2
Power	DC24V(supply by controller)			DC24V(supply by controller) or DC12V
Unit port	Aviation 8-pin special port			
Power Consumption	3W		4W	5W
Headset Output	N/A	9dBu, 8—32Ω, 3.5mm mini jack		
Power of speaker	N/A	2W		3W
Transducer type	N/A	Electrets condenser		
Directional pattern	N/A	Cardioids		
(S/N)	> 80dB			
Crosstalk	> 80dB			
Distortion	< 0.10%			
Frequency response	60—8kHz			
Equivalent noise	≈20dB SPL			
Max SPL	105dB (3% threshold)			
Sensitivity	-22dBv/Pa			
Dimension(mm)	129Lx40Wx42.5H	218Lx138Wx56H	218Lx138Wx56H	219Lx150Wx96H
Color	Grey	Black	Black	Silver

Parameters	CR-M4202/4A2	CR-M4202/4G
Power	DC24V(Supply from controller)	
Unit port	Aviation 8-pin special port	
Power consumption	3W	
Headset output	9dBu, 8—32Ω, 3.5mm mini jack	
Power of speaker	2W	
Transducer type	Electrets condenser	
Directional pattern	Cardioids	
S/N	> 80dB	
Crosstalk	> 80dB	
Distortion	< 0.10%	
Frequency response	60—8kHz	
Equivalent noise	≈20dB SPL	
Max SPL	105dB (3% threshold)	
Sensitivity	-22dBv/Pa	
Color	Grey-black	Silver-grey

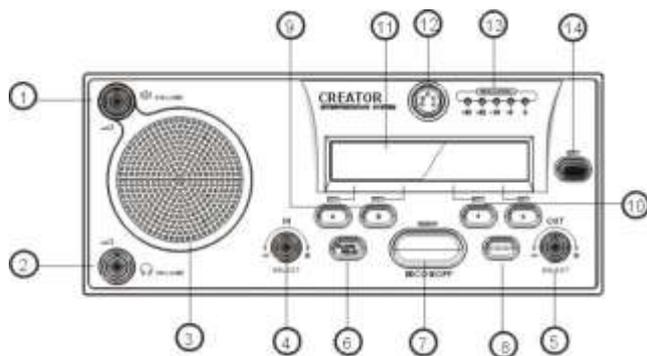
Chapter 4 DCS Simultaneous Interpretation

4.1 CR-M4103E3 Interpretation

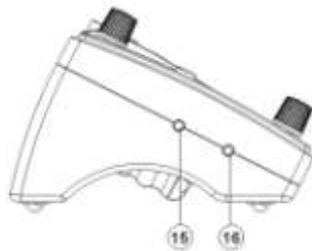
Unit

4.1.1 Panel Functions Instruction

Front view:



Side view:



- 1) Volume adjustment knob
- 2) Headset volume adjustment knob
- 3) Built-in speaker
- 4) IN—Input channel selection knob
- 5) OUT—Output channel selection knob
- 6) FLOOR-RELAY—Switching between original audio and indirect interpretation
- 7) MIC ON/OFF

8) COUGH—Cough prevention. In Discussion mode, press this key to cut the Discussion and prevent from spreading coughing noise, release it to restore normal translation.

9) A、B—Channels shortcut keys, Long press 3 seconds to be confirmed.

a、b—Channels shortcut keys, Long press 3 seconds to be confirmed.

11) LCD monitor—resolution of 320X64, input channel number and language information displays on the left, while output channel number and language information on the right.

12) MIC socket

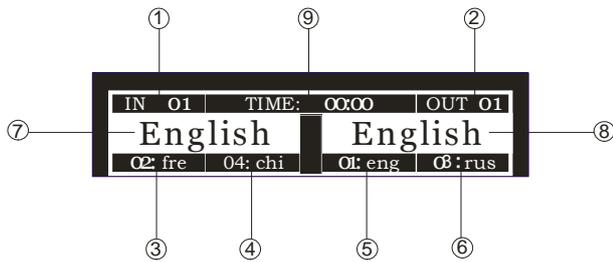
13) MIC/volume indicator—Indicate the volume of current Discussion

14) ENTER—Multi-functional key, press and hold this key to access to the window of setup mode, for configuring the corresponding relationship between language types and channels.

15) MIC port

16) Headset port

4.1.2 Monitor Description



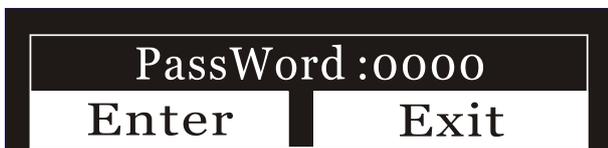
- ① Input channel
- ② Output channel
- ③ Output channel A and its language
- ④ Output channel B and its language
- ⑤ Output channel a and its language
- ⑥ Output channel b and its language
- ⑦ Input language
- ⑧ Output language
- ⑨ Maximum Discussion time 99m59s

4.1.3 Menu Setup

The setup menu in interpretation unit can configure language numbers, channels and relationship with languages, as well as output channel lockup

1、 Access to Setup Menu

Press and hold “ENTER” key for 5 seconds to access to setup menu of interpretation unit. Input menu setup password as seen in picture 4-1
Password comprises of a 4-digit number

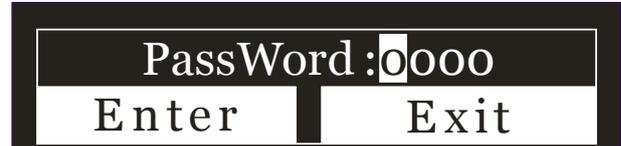


Picture 4-1

Turn “OUT SELECT” knob to move the cursor to relevant password digit, press “ENTER” key to select current password digit, and turn “OUT SELECT” knob to select password number, go on to press “ENTER” key to select the next password digit, until all passwords have been input. Lastly, turn “OUT SELECT” knob to move

the cursor to “ENTER” position, and press “ENTER” key to access to setup window, as seen in picture 4-2.

The Super Password of setup menu is 2468.



Picture 4-2

2、 Setup menu in interpretation unit comprises of following setup functional items:

CH MAP: number of interpretation channels setup, channel and its corresponding language setup;

OUT SET: Output channel setup, output channel lock/unlock;

Password: menu password setup;

EXIT: exit setup menu, as seen in picture 4-3.



Picture 4-3

◆ CH MAP Setup

As seen in picture 4-4, turn “OUT SELECT” knob to move the cursor to the position of “CH MAP”, press “ENTER” key to access, as picture 4-5.



Picture 4-4

Turn “OUT SELECT” knob to set the number of CH total, with maximum of 12 channels.



Picture 4-5

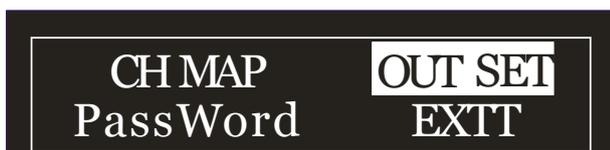
Press "ENTER" key to access to the setup window of output channel and corresponding language, as seen in 4-6. Turn "OUT SELECT" knob to select language, press "ENTER" key to setup the next output channel and corresponding language, until all channels are configured. Press "ENTER" key to return to the interface in picture 4-3. M4103E3 interpretation unit is available with 178 optional languages.



Picture 4-6

◆ OUT SETUP

Turn "OUT SELECT" knob to move the cursor to "OUT SET", as picture 4-7, press "ENTER" key to the window of picture 4-8



Picture 4-7



Picture 4-8

Turn "OUT SELECT" knob to move the cursor to the channel near "OUT", as picture 4-9, press "ENTER" key to select it, and turn "OUT SELECT" knob to set up the input channel of current interpretation unit.



Picture 4-9

After setting up the current output channel of interpretation unit, press "ENTER" key to access to the window in picture 4-10 to set up if locking the output channel in interpretation unit.



Picture 4-10

As picture 4-11, move the cursor to select "Protect" or "Freeness", press "ENTER" key to select it. When "Protect" is selected, the output channel in interpretation unit will be locked, interpreter cannot switch output channel. When "Freeness" is selected, the output channel in interpreter unit can be freely switched subject to specific use.



Picture 4-11

After setting up if lock up output channel of the interpretation unit, select "ENTER" key to return to the window in picture 4-3

◆ Manu Password Setup

Turn "OUT SELECT" knob to move the cursor to "Password", as picture 4-12.



Picture 4-12

Select "ENTER" key to access to the window in picture 4-13.



Picture 4-13

Turn "OUT SELECT" knob to move the cursor to the position as seen in picture 4-14, set up new operator password following the same way as menu password setup. Press "ENTER" to return to the operation window of interpretation unit, press "Exit" to return to the setup menu in picture 4-3.



Picture 4-14

4.1.4 Monitoring Unit

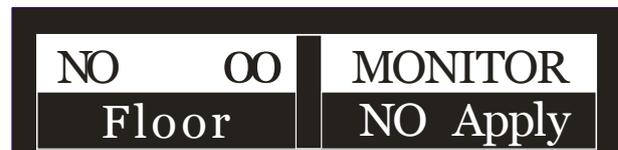
Interpretation unit can be set as monitoring unit. This is a feature of CREATOR interpretation unit for the convenience of interpretation management and services.

Here is the approach of setting interpretation unit as monitoring unit:

Correctly connect the interpretation unit with the control controller of conference, before turning on the conference control controller, press "ENTER" key of interpretation unit, and release it after turning on power for controller. At that time, interpretation unit is set as monitoring unit. Likewise, monitoring unit can be set as interpretation unit in the same way.

Usually, monitoring unit is installed in management computer room, making it convenient for administrator to monitor the interpretation channel, receive interpreter's request, and provide timely services and technical support.

LCD display of monitoring unit is seen as picture 4-15.



Picture 4-15

When interpretation unit is set as monitoring unit, part of its translation functions will be ineffective, such as selecting output channel and CALL function.

When interpreter submits CALL request, the LCD in monitoring unit prompts information as seen in picture 4-16, at the meantime, the CALL indicator for that interpretation unit will be constantly on. The MIC switch in monitoring unit is the response key for CALL request. The CALL indicator won't be off until monitor unit has responded with the CALL request from interpreter. When multiple CALL requests come, the monitoring unit will follow the principle of "first come first out" to cope with the request.



Picture 4-16

4.1.5 Functions and Features

- ◆ Adopt headset to monitor and deliver Discussions;
- ◆ Adopt special 8-pin high-intensity aviation connector;
- ◆ Heart-shaped directional condenser pickup, with dual-color indicator, as red for Discussion and green for applying for Discussion;
- ◆ With connection cable with length of 2 meters;

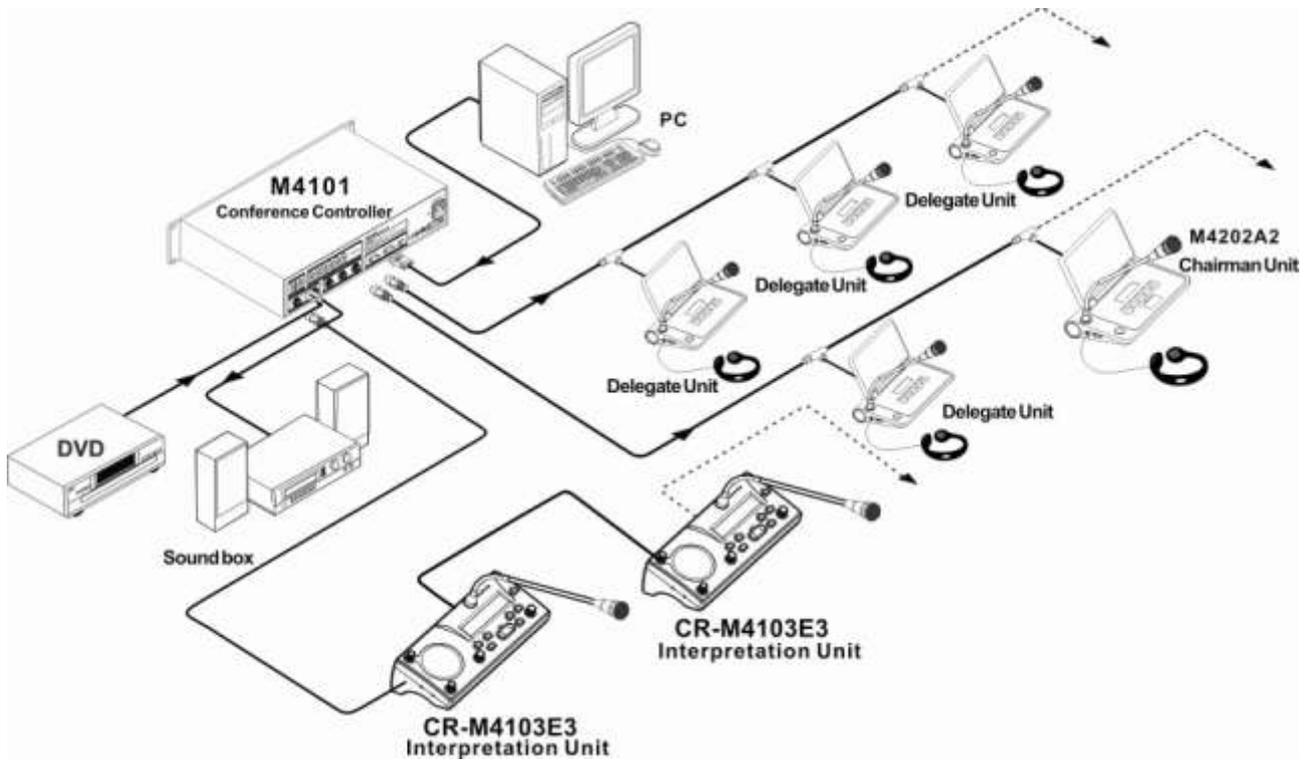
- ◆ Adopt turning plug MIC stand;
- ◆ With inside magnetic speaker, headset port and volume adjustment knob;
- ◆ System controller can connect up to 36 interpretation units at maximum to have simultaneous interpretation in 11+1 languages (including original channel)
- ◆ With functions of indirect translation and direct translation;
- ◆ Interpretation unit can for dual or multiple interpreters system; When dual or multiple interpretation units take the same output channel, these units form dual or multiple interpreters system and in interlock status, i.e. at any moment there is only one unit can be turned on. You have to turn off one unit before turning on the next unit, so as to ensure only one interpretation signal is transmitted through the channel;
- ◆ In setup mode, corresponding language and channel can be set;
- ◆ With application help function;
- ◆ With cough removing function;
- ◆ Interpretation unit can be set as monitoring unit;
- ◆ With two sets of MIC and headset ports;
- ◆ The unit is passive, with 24V power supply from system controller.

Power consumption	2W
Headset output	9dBu, 8—32Ω, 3.5mm mini jack
Speaker power	2W
Speaker type	Electrets condenser
Directional pattern	Cardioids
S/N	> 80dB
Crosstalk attenuation	> 80dB
Distortion	<1%
Frequency response	10—24kHz
Equivalent noise	≈20dB SPL
Max.大 SPL	105dB (3% threshold)
Sensitivity	—22dBv/Pa
Dimension	290L x 130W x 100H (mm)
Color	Grey

4.2 Technical Parameters

Parameters	CR-M4103E3
Power	DC24V(Supplied by controller)
Unit port	Aviation especial 8P port

4.3 Diagram of System Connection



Chapter 5 DCS Infrared Voice Distribution System

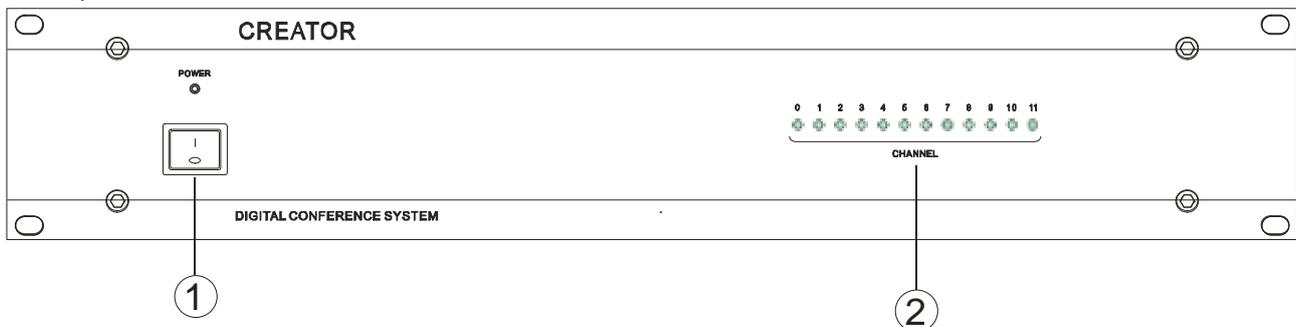
5.1 Products and Devices

- ◆ CR-IR2000-12 Infrared transmission controller
- ◆ CR-IR2001-12 Infrared radiation panel
- ◆ CR-IR2002-12 Infrared receiving unit

5.2 CR-IR2000-12 Infrared Transmission Controller

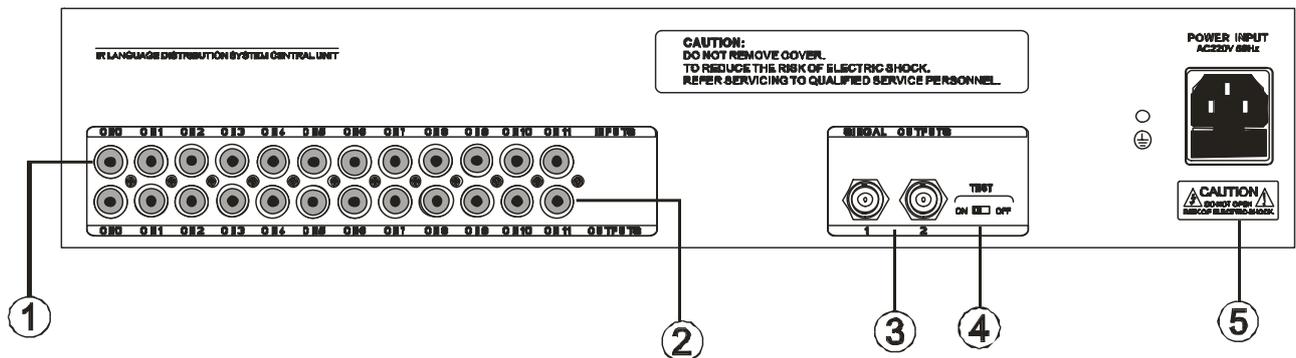
5.2.1 Panel Functions Instruction

Front panel:



- ① Power switch
- ② Channel signal indicator

Rear panel:



- ① INPUTS — audio input of 11+1 channels, connect to the OUTPUTS of conference control controller.
- ② OUTPUTS — audio output of 11+1 channels, connect 12 groups of audio to recording and amplifying device etc.

③ SINGAL OUTPUTS——connect to infrared radiation panel

④ TEST ——test key

⑤ POWER INPUT ——power input, support AC100V~240V

5.2.2 Functions and Features

- ◆ Infrared transmission frequency (2M-8MHz);
- ◆ General audio testing signals with 12 different frequencies for the convenience of system testing;
- ◆ Undertaken high pressure resistant test (3500V), ensure in accordance with safety regulation;
- ◆ Adopt metal material shell in the controller, with 8000V anti-static power.

5.2.3 Technical Parameters

Model	CR-IR2000-12
Power	Switch power 100-240V
power	
Consumption	15W/25W (optional)
Crystal oscillator	Crystal control
Modulation	(PPL) freq modulation, narrow band
Carrier wave	
frequency	2M—20MHz (BAND4)
Pre-emphasis	100μs
Deviation	±6kHz (peak value ±7kHz)
Total harmonic distortion	<1%
SNR	>80dB
Frequency response	20~10KHz
Input sensitivity	50mV-1.5V(lineLEV)
RF output	2 ways of BNC short-circuit resistant jack, 100mV RMS

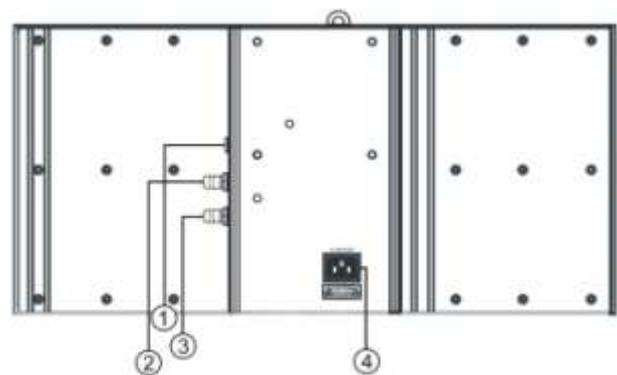
RF output	75Ω
Impedance	
Dimension	483L x 344W x 88H (mm)
Weight	About 6KG
Color	Grey

5.3 CR-IR2001-12 Infrared

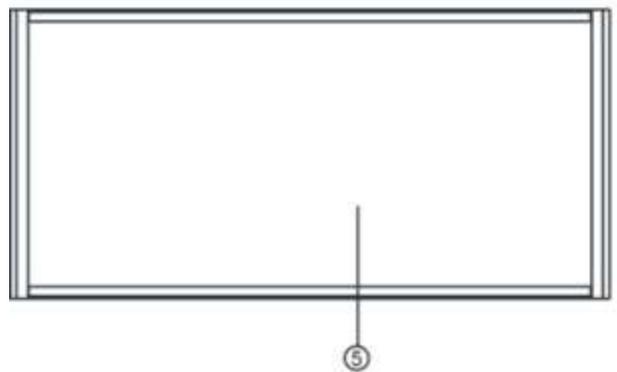
Radiation Panel

5.3.1 Panel Functions Instruction

Rear panel:



Front panel:



① LOW/HIGH——Low and high radiation power switch

② IN——Connect to the SIGNAL OUTPUTS port in infrared transmission controller, or OUT port in front infrared radiation panel.

③ OUT——Connect to the IN port in next infrared panel.

- ④ Power input, support AC100V~240V
- ⑤ Glare shield, for filtering interference light source.

5.3.2 Functions and Features

- ◆ Transmission distance up to 30m (15W) and 50m (25W);
- ◆ Support cascade connection up to 4 infrared radiation panels;
- ◆ For fixing installation (with universal fixed support) or installation with tripod;
- ◆ Half radiator angle: $\pm 22^\circ$.

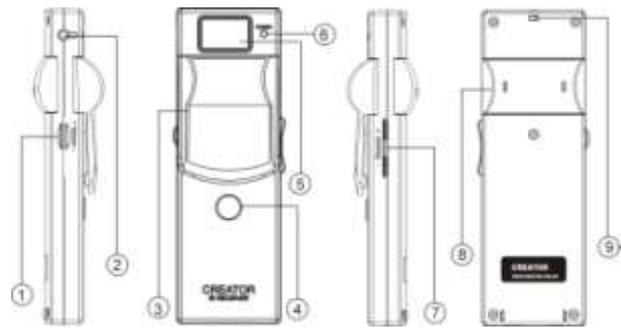
5.3.3 Technical Parameters

Model	CR-IR2001-12
Power	AC100-240V
Transmission	
Power	15W/25W (Optional)
Average project angle	$\pm 22^\circ$
RF input	Impedance: 5k Ω , voltage: 150mV -3V
Max covering distance	30M (15W hour)
Auto switch Vth	50mV RF signal
Dimension	471L x 230W x 140H (mm)
Weight	About 10KG
Color	Purple-black

5.4 CR-IR2002-8/12 Infrared

Receiving Unit

5.4.1 Panel Functions Instruction



- ① Volume control knob
- ② Headset port (3.5mm), connect to monitoring headset
- ③ Infrared receiving window
- ④ Power on/off key
- ⑤ Monitor, displaying language channel
- ⑥ POWER—Power indicator, when turning on the device, the indicator will be constantly in green. When power is not sufficient, it is flashing in red.
- ⑦ Channel—Language receiving channel selection
- ⑧ Infrared receiving window
- ⑨ Ring hole

5.4.2 Functions and Features

- ◆ Use together with headset (CR-P2) ;
- ◆ All channels are independent without interference. Manual select to listen to 8/12 channels;
- ◆ Free volume adjustment;
- ◆ In effective infrared transmission range, the increase of receiving unit number is not limited.

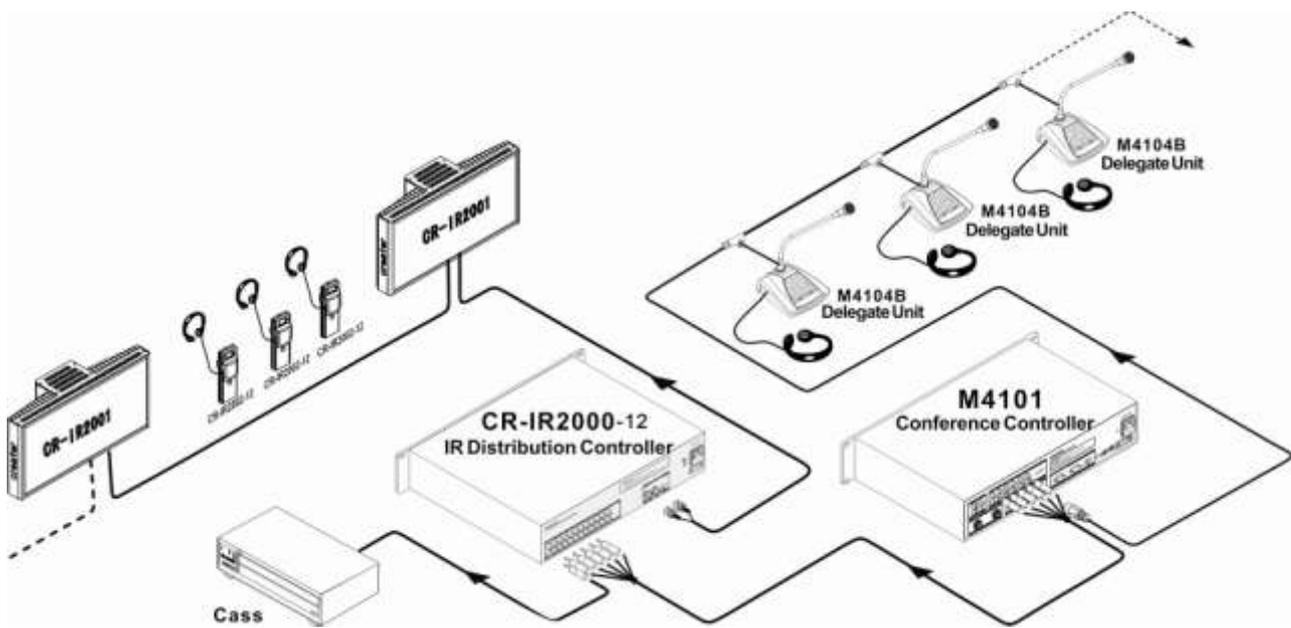
- ◆ Adopt PLL technology, with stable receiving frequency, stability is 10PPM;
- ◆ For hanging on chest or putting in the jacket pocket

5.4.3 Technical Parameters

Model	CR-IR2002-8/12
Power	Built-in Li-ion, 3.7V/750mA
Receiving Frequency	2M-10MHz , 40KHz Track isolation
IF	10.7MHz
Modulation	FM
Rated frequency	±6kHz

Peak deviation	value ±8kHz
De-emphasis	150ms
THD	<1%
S/N	> 80dB
Am suppression	> 45dB
SPL	110dB
Frequency response	20~10KHz
Distortion	<1.5%
Dimension	163L x 50W x 33.5H (mm)
Weight	About 0.2KG
Color	Grey

5.5 Diagram of System Connection



Chapter 6 DCS Camera Tracing

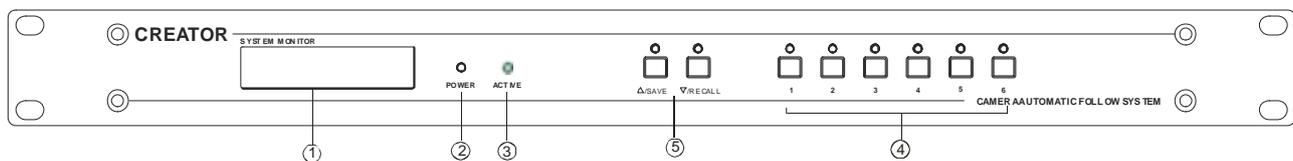
6.1 Products and Devices

- ◆ MVC- 4200 Camera tracing mixing controller
- ◆ CR-V1011/V1012 High-speed camera

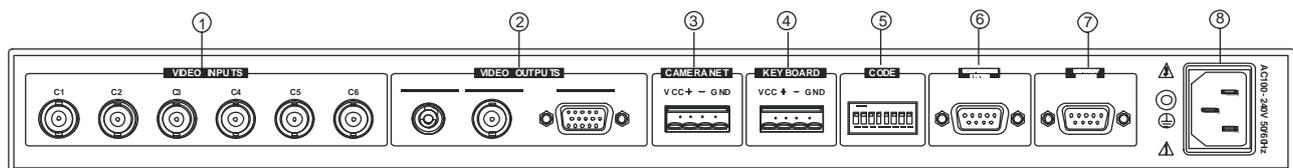
6.2 MVC-4200 Camera Tracing Mixing Controller

6.2.1 Panel Functions Instruction

Front panel:



Rear panel:



Front panel instruction:

- ① LCD monitor—display the operation information of the controller.
- ② POWER—Power indicator
- ③ ACTIVE—Signal light. When the controller sends or receives the code, this signal light will flash.
- ④ 1~6—Corresponding to 1~6 camera signal channel, cooperate with Δ /SAVE, ∇ /RECALL for appointing the address code for current channel corresponding to high-speed camera under control.
- ⑤ Δ /SAVE ∇ /RECALL—Along with 1-6 key, it is for using, saving and recalling the preset bit of high-speed camera.

Rear panel instruction:

- ① VIDEO INPUTS —Connect to 6 ways of camera video input
- ② VIDEO OUTPUTS —RCA, BNC and VGA camera video signal output
- ⑥ CAMERA NET—Controlling high-speed camera RS485
- ⑦ KEY BOARD—Connect to the control keyboard for high-speed camera
- ⑧ CODE —Protocol and baud rate setup switch (temporarily not support the protocols of other manufacturers)
- ⑨ CONFERENCE SYSTEM —Connect to conference controlling controller

⑩ CONTROL SYSTEM——Connect to central control system controller

⑪ Power input, support AC100~240V input

6.2.2 Functions and Features

◆ Support 6 ways of video signal input, and 3 ways of RCA, BNC and VGA video signal output.

◆ With built-in upscaler, converting video signal into VGA output, supporting resolutions of 800x600, 1024x768, 1280x1024

◆ LCD monitor can display all current status and parameter and so on.

◆ Use front penal keys to configure camera ID under the control of every channel.

6.2.3 Technical Parameters

Model	MVC-4200
Video	
Gain	0 dB
Bandwidth	150MHz (-3dB), full loaded 0 -10MHz:≤+/- 0.1dB 0 -30MHz:≤+/- 0.5dB
Sum disturb	-50dB @ 5 MHz, -45dB @ 10 MHz
DP I/O S	<1.28 degree, 3.58MHz
DP error	0.1%, 3.58-4.43MHz
DG error	0.1 degree, 3.58-4.43MHz
Max transmission delay	5nS(±1nS)
Switching speed	200 ns(Max time)
Signal type	CVBS
Video input	
Port	6-way BNC female port
Min/Max LEV	Analogue signal: 0.5V ~ 2.0V p-p
Impedance	75 Ω
Return loss	-30dB@5MHz
Genlock	0.3V-0.4Vp-p

Max DC bias	15mV
Video output	
Port	1 way BNC female port; 1 way RCA female port;
Min/Max LEV	Analogue signal: 0.5V ~ 2.0V p-p
Impedance	75 Ω
Return loss	-30dB@5MHz
DC bias	Max ±5mV
Switch type	Vertical interval
Port	15-pin HD female port
Min/MaxLEV	2.0V p-p
Impedance	75 Ω
Return loss	<-40dB@5MHz
DC bias	Max ±5mV
Synchronizing Signal	
Input/output type	NTSC 3.58 , NTSC4.43 , PAL , SECAM
Control Type	
Serial control port	RS-232, 9-pin female D port
Baud rate and protocol	Baud rate: 9600, digit bit: 8-bit, stop bit: 1, No parity check bit
Specification	
Power	100VAC ~ 240VAC, 50/60 Hz, International self-adaptive power
Temperature	Storage and use temperature: -20° ~ +70°C
Humidity	Storage and use humidity:10% ~ 90%
Cabinet dimension	485(L)X245(W)X45mm(H)
Weight	About 1.5kg

6.3 CR-V1011/V1012 High-speed

Camera

6.3.1 Functions and Features

In DCS conference system, there are two types of high-speed cameras: on-wall and ceiling configured subject to actual need. On-wall high-speed camera can be directly fastened onto

the wall, while ceiling camera can be directly attached onto the ceiling. These two cameras only make differences in appearance, but with same functions. They are suitable for multiple installation needs.

◆ Adopt well-developed high-quality digital DSP design, with stable performance.

◆ Data won't be lost when power off;

◆ All-in-one integrated design, with compact structure, highly reliable;

◆ 64 preset position for storage, accurate positioning.

◆ Auto-pilot monitoring;

◆ Adopt RS-485 bus control;

◆ Adopt DC motor; Low speed and smooth running;

◆ Precise electric motor driving, running smoothly and with sensitive response.

◆ Continuous rotating in horizontal 360°, without monitoring dead zone;

◆ Rotating speed self-adjusted according to lens zooming action.

◆ Vertically realize 180° auto-flipping continuous monitoring;

◆ Auto-iris, auto-zooming, auto white balance;

◆ Back light compensation, all objects are visible



wall-mounted



ceiling

with strong light source background;

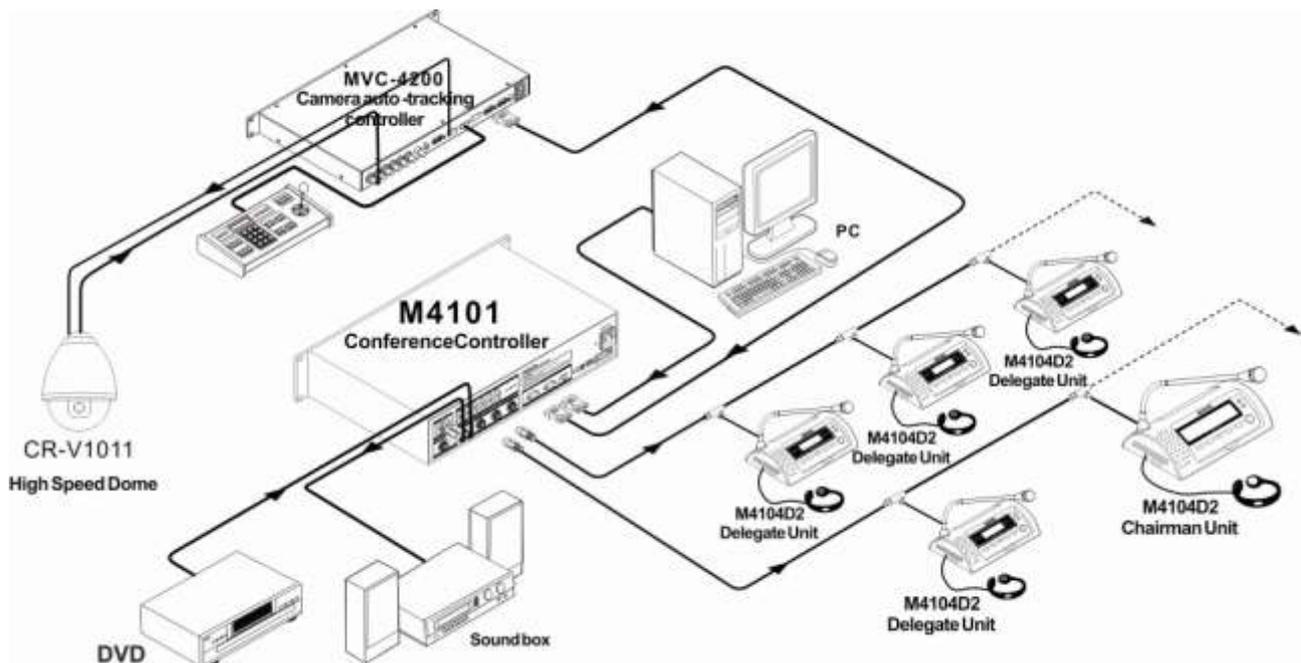
◆ Night view function, with auto-switching CCD brightness subject to the change of environmental light.

6.3.2 Technical Parameters

Specification	
Sensor	1/4" color CCD
Effective pixel	752Hx582V (440000pixels) PAL
Synchronous System	Negative Sync
Video Output	Composite signal 1.0Vp-p/75Ω
White balanced	Auto/Manual
Power supply	AC24V±10% 1.25A
Power consumption	30VA
Weight	4Kg
Installation	In door ceiling attached, on-wall
Relative humidity	10-75% (non-coagulation)
Operation Temp	0°C~40°C (normal range)
Scan system	15.625KHz(H) 50Hz(V)
Camera Function	
Horizontal resolution	480 lines
SNR	>48dB
Auto Electronic Shutter	1/3~1/10000 秒
Minimum Illumination	0.01~1Lux(F1.6)
Lens Parameters	
Zooming range	18 times optical, 12 times electronic

Aperture	Auto/Manual
Zoom	Auto/Manual
Basic function of pan/tilt	
Horizontal movement	0~300°/s
Vertical movement	0~60°/s
Preposition	Max 128
Patrol observation	Up to 6 patrol tracks
Line scan speed	0.5~30°/s
Track self-study	40 seconds

6.4 Diagram of System Connection



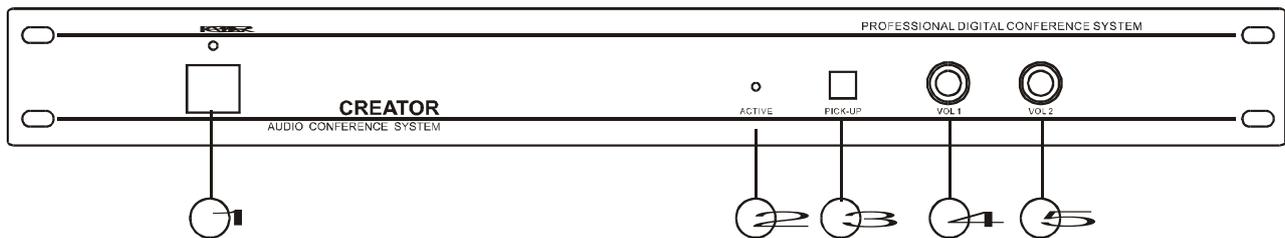
Chapter 7 DCS Telephone Conference

7.1 Products and Devices

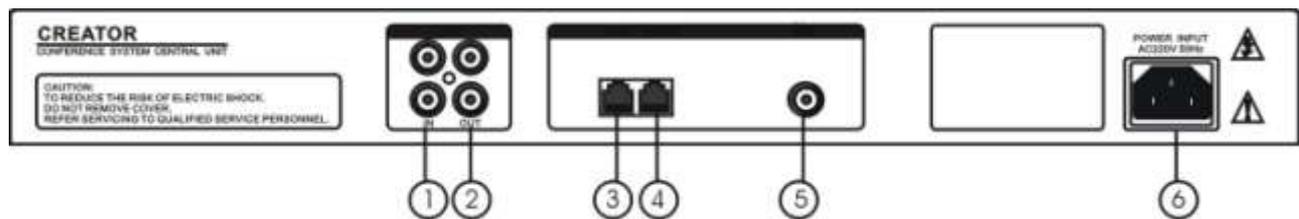
- ◆ CR-T1000 Telephone Coupler

7.2 CR-T1000 Panel Functions Instruction

Front panel:



Rear panel:



Front panel instruction:

- ① POWER——power switch
- ② ACTIVE——indicator
- ③ PICK-UP——pick up key
- ④ VOL1——Internal speaker volume adjustment knob
- ⑤ VOL2——Volume adjustment knob

Rear panel instruction:

- ① IN——audio input, connect to M4101 audio output port or DVD and VCD external audio input port.
- ② OUT——Audio output port, connect to the audio input port of M4101 or recording and

amplifying devices.

- ③ LINE——connect to telephone line
- ④ PHONE——connect to telephone
- ⑤ MIC——connect to MIC
- ⑥ POWER INPUT——power input , support AC100V~240V input

7.3 Functions and Features

- ◆ Connect to conference discussion system/simultaneous interpretation system controller for telephone conference;

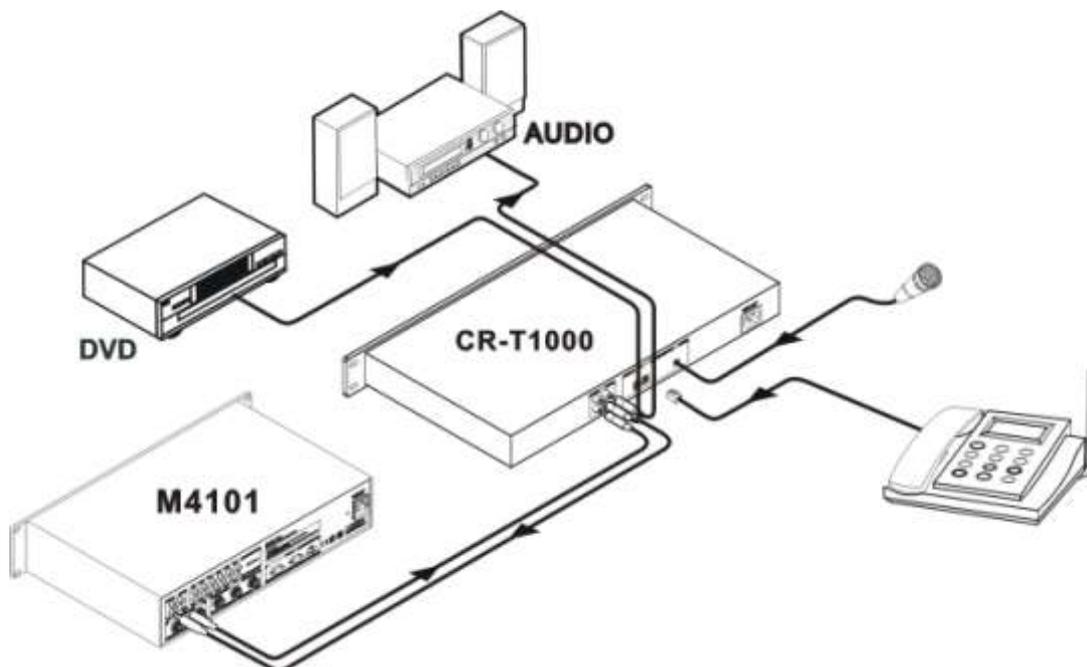
- ◆ Connect to telephone line to hold telephone conference;

- ◆ Transmit live audio to remote telephone ;
- ◆ With audio input port, connecting to conference system, making more people attended telephone conference;
- ◆ With audio output port, connecting to amplifier, it makes more people attending telephone conference, or records the conference by connecting with cassette deck.

7.4 Technical Parameters

Power supply	CR-T1000
Power consumption	Power 100-240V
Impedance of telephone line-in	20W
Input audio	600Ω
Output audio	Impedance: 100KΩ; LEV: +4Db; way: Non-balanced
Frequency response	Impedance: 600Ω; LEV: +4dB; way: Non-balanced
Distortion	60—8KHz
SNR	<0.1%
Color	> 80dB
Power supply	Grey

7.5 Diagram of System Connection



Chapter 8 Accessories

8.1 CR-P2 Headset (Without MIC)

8.1.1 Product Profile

◆ For monitoring in simultaneous interpretation conference unit;

◆ Stay away from influence from others in conference system;

◆ With a 1.5-meter connection cable;

◆ High-fidelity audio quality



8.1.2 Technical Parameters

Parameters	CR-P2
Interface	3.5mm stereo connector
Frequency response	80Hz – 2KHz
Sensitivity	90dB
SNR	> 80dB
Distortion	< 0.1dB
Impedance	32 Ω
Dynamic range	> 85 dB
Output power	100mW

8.2 CR-P4 Headset with MIC

8.2.1 Product profile

◆ Delicate and tiny, more comfortable in use;

◆ For monitoring or giving a Discussion along with the translation unit in simultaneous interpretation system

◆ Stay away from influence from others in



conference system;

◆ Adopt 40mm premium speaker;

◆ With 2.2m connection cable;

◆ High-fidelity audio;

◆ 32 Ω, 3.5mm mono connector

8.2.2 Technical Parameters

Parameters	CR-P4
Wearing	Headset
Frequency response	20Hz – 2KHz
Impedance	32 Ω± 15%Ω
Interface size	3.5mm
Sensitivity	105dB ± 3dB
Cable length	2.2mm

8.3 Cable Installation

Product profile

◆ CR-HL 005 5m

8-pin aviation cable

◆ CR-HL 010 10M

8-pin Aviation cable

◆ CR-HL 020 20M 8-pin Aviation cable

◆ CR-HL 050 50M 8-pin Aviation cable

◆ CR-HL 100 100M 8-pin Aviation cable



Functions and Features

◆ CR-HL* is for extending connection between conference controller and extended controller, or between conference Discussion unit;

◆ Optional with 5m, 10m, 20m, 50m and 100m;

◆ 8-pin cable, with one male and one female connectors;

- ◆ Maximum transmission distance up to 1000m

Product profile

- ◆ CR-HT002
2m 8-pin
T-shaped aviation
cable



- ◆ CR-HT005 5m T-shaped 8-pin aviation cable

Functions and Features

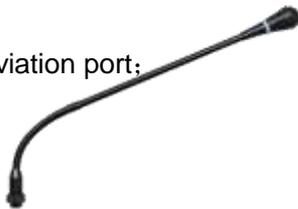
- ◆ CR-HT* is for shunt connection within the conference delegate units.
- ◆ Optional with 2m and 5m;
- ◆ 8-pin cable, with one male and one female connectors.

8.4 CR-M5KL415 Turning 415mm

MIC Stand

Product Profile

- ◆ Heart-shaped directional condenser MIC;
- ◆ High-intensity 5-pin aviation port;
- ◆ Power on indicator;
- ◆ Discussion application indicator.



8.5 CR-CT10 T-shaped Connector

Product Profile

- ◆ For shunt connection within conference units;
- ◆ One female 8-pin high-intensity aviation port input, two male 8-pin high-intensity aviation ports output.



8.6 CR-CT20 Conference Desktop

Socket

Product Profile

- ◆ 1-way of front input unit;
- ◆ 2-way output: UNIT A 和 UNIT B
Connecting to Discussion unit;
- ◆ Suitable for desktop or on-wall installation.



8.7 CR-CT30 Jumping Conference

Socket

Product Profile

- ◆ 1-way of front input unit;
- ◆ 2-way output: UNIT A and UNIT B
Connecting to Discussion unit;
- ◆ 1-way of universal power port;
- ◆ Suitable for desktop or on-wall installation.



8.8 CR-CT50 8-pin Aviation

Connector

Product Profile

- ◆ One male and one female
Screwing, engineers may weld it
On their own.



8.9 CR-HMP24 Extended Power

Supply

Product Profile

- ◆ Power extension for
Discussion unit and
interpreter unit, serving



as power relay when the controller is in insufficient power supply;

- ◆ 1 way of power input, AC100~240, 50/60hz;
- ◆ 1 way of UNIT input;
- ◆ 4-way UNIT output, for connecting with Discussion unit or interpreter unit.

8.10 CR-link20 Signal Amplifier

Features

- ◆ To extend the distance between Discussion unit and interpreter unit, as long as more than 20 meters;
- ◆ Equipped with a switch, when it is switched to “Simultaneous”, the signal distance of Discussion unit will be extended, when it is switched to “Interpretation”, the signal distance of interpreter unit will be extended.



Chapter 9 Annex

9.1 Code Specification

Form: A0 [XX] 10 00 07 [YY] FF FF FF AF [ZZ]

Specification:

- [XX], [YY] and [ZZ] are all hexadecimal, and [YY] stands for ID code. $[ZZ]=FFFF-([XX]+10+00+07+[YY]+FF+FF+FF)$
- Arithmetic: $[ZZ]=FFFF-([XX]+10+00+07+[YY]+FF+FF+FF)$, get the low bit from the result.
- Delegate unit set number form number 2, ID code form number 1, and progressive increase.

◆ Adopting 128 binary system arithmetic, every increase of 128 in Discussion unit number (S/N) means 7F increase of ID code. ID code [YY] high bit increases a bit, at the same time [XX] plus one, if Discussion number (S/N) constantly increases, [YY] should be increased from 0 again. [ZZ] will follow the above arithmetic, as following chart.

No. of Discussion unit (S/N) (decimal)	ID code (hexadecimal)	Return code in serial port (hexadecimal)
0002	1	A0 10 10 00 07 01 FF FF FF AF DA
0003	2	A0 10 10 00 07 02 FF FF FF AF D9
0004	3	A0 10 10 00 07 03 FF FF FF AF D8
0005	4	A0 10 10 00 07 04 FF FF FF AF D7
...
0128	7F	A0 10 10 00 07 7F FF FF FF AF 5C
0129	100	A0 11 10 00 07 00 FF FF FF AF DA
0130	101	A0 11 10 00 07 01 FF FF FF AF D9
0131	102	A0 11 10 00 07 02 FF FF FF AF D8
0132	103	A0 11 10 00 07 03 FF FF FF AF D7
0133	104	A0 11 10 00 07 04 FF FF FF AF D6
...
0256	17F	A0 11 10 00 07 FF FF FF AF 5B
0257	200	A0 12 10 00 07 00 FF FF FF AF D9
0258	201	A0 12 10 00 07 01 FF FF FF AF D8
0259	202	A0 12 10 00 07 02 FF FF FF AF D7
0260	203	A0 12 10 00 07 03 FF FF FF AF D6
0261	204	A0 12 10 00 07 04 FF FF FF AF D5
...
0384	27F	A0 12 10 00 07 7F FF FF FF AF 5A
No. of Discussion unit (S/N) (decimal)	ID code (hexadecimal)	Return code in serial port (hexadecimal)
0385	300	A0 13 10 00 07 00 FF FF FF AF D8
0386	301	A0 13 10 00 07 01 FF FF FF AF D7

0387	302	A0 13 10 00 07 02 FF FF FF AF D6
0388	303	A0 13 10 00 07 03 FF FF FF AF D5
0389	304	A0 13 10 00 07 04 FF FF FF AF D4
...
0512	37F	A0 13 10 00 07 FF FF FF FF AF 59
...

Above is the corresponding relationship chart within Discussion unit code (S/N) and ID code and return code in serial port.

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