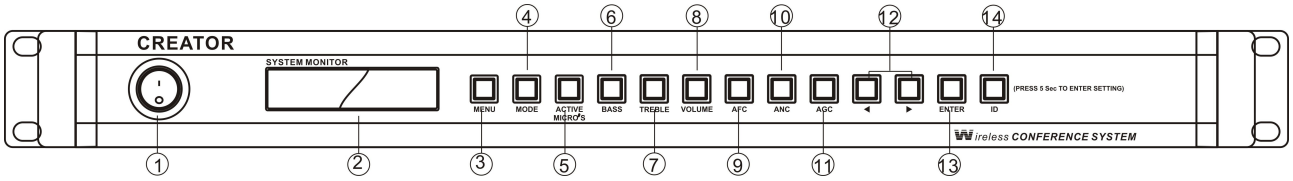
# Chapter 2 WiFi Conference Controller

## 2.1 Product Overview

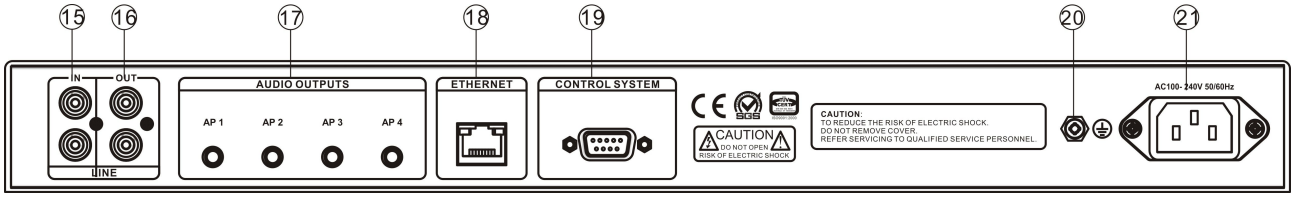
CR-WiFi6201 wireless digital network conference host through the navigation button panel and with LCD display can realize the centralized control of all conference functions. It has a variety of conference mode selection (the number of speakers selection, speak mode selection). Audio adopts digital DSP technology and environmental noise suppression technology. With built-in equalizer module, it can achieve high-fidelity audio effects. The automatic camera tracking control function is built in, the full automatic tracking shot realize the modern high-tech conference.

## 2.2 CR-WiFi6201 Panel Description

Front panel:




Rear panel:




① **Power switch**

② **LCD display screen**

Display setting interfaces and parameters of the menus of MIC MODE, MIC ACTIVE 'S, BASS, TREBLE, VOLUME, SYSTEM ENQUIRY, ID ENQUIRY and CAMERA.

③ **MENU**

The menu button, press this button to set the menu options.

④ **MODE**

The microphone mode setting key has the following two modes:

A: FIFO (FIFO mode), the first opened speech unit was closed by the latest speech unit when the units reach the setting number.

B: NORMAL (quantitative model), the new speech unit is restricted to speak when the units reach the setting number.

⑤ **ACTIVE MICRO’S**

The restriction on the number of speech units, the number of speech units opening at the same time can be 1/2/4/6.

⑥ **BASS**

Bass gain button, used for bass menu operation settings.

⑦ **TREBLE**

Treble gain button, used for treble menu operation settings.

⑧ **VOLUME**

Output volume adjustment button, press this button for output volume menu settings.

⑨ **AFC**

Automatic frequency control button

⑩ **ANC**

Anti-noise key

⑪ **AGC**

Auto gain control button for Microphone

⑫ **◄ and ►**

The left and right arrow keys: used to move the cursor to determine the options in various operating settings.

⑬ **ENTER**

Confirm key, used for confirming and performing the operation in a variety of settings.

⑭ **ID**

ID setting key is used for global ID encoding settings for all conference units in the system ID setting.

⑮ **IN**

Audio input port, to connect the external device for audio input, such as background music or teleconference terminal output.

⑯ **OUT**

Audio output port, connected to a amplification system to amplify and output the voice of the speaker or record with recording equipment.

⑰ **AUDIO OUTPUTS**

4-way balanced audio output interface, used to connect the AUDIO interface of the wireless AP access device, provides audio and control signals for RF audio channel of wireless AP access device.

⑱ **ETHERNET**

The Ethernet control interface, used to connect the wireless AP access device, can also be connected to switches through the Ethernet interface to expand the number of wireless AP access device.

⑲ **CONTROL SYSTEM**

Can be connected to the third party central control system controller, camera tracking controller or be directly connected to the camera, to realize the automatic camera tracking function.

⑳ **Ground wire interface**

㉑ **System power input port**

He controller power supply, support for AC100~240V 50/60Hz.

## 2.3 CR-WiFi6201 Function Characteristics

◆Support WPA/WPA2 wireless security technology to ensure the conference confidentiality and avoid eavesdropping and malicious interference;

◆With a RJ45 interface, can be directly connected to a wireless AP access device, or be connected to the 100M network switches, then connect wireless AP access device to the switch. Expanding the number of wireless AP access device can realize the application of the multiple meetings;

◆A group of LINE In input interface can be connected to an external audio device;

◆A set of microphone mixer output with recording equipment can carry out on-site meeting recording;

◆4 balanced audio output to the wireless AP access device, to achieve long distance audio transmission of 100M.

◆Support manual button to adjust the output volume, bass, treble adjustment;

◆Built-in DSP automatic frequency control button function;

◆Support for automatic camera tracking function, and a variety of control protocol of CREATOR, PELCO-P/D, VISCA;

◆All-metal shell, circuit and outer shell strengthened with wire connection, with the contact 12kV, air 15kV antistatic ability;

◆The controller can be mounted on a standard 19 inch rack.

## 2.4 CR-WiFi6201 Panel Key Operation

In order to facilitate the management and use, CREATOR design the navigation panel and LCD display, which is simple to operate and easy to master.

**Basic operating instructions**

Function key ⟶ Arrow keys⟶ “ENTER” confirm key

⟶ Arrow keys ⟶“ENTER” to confirm

No operation for about ten seconds after the completion of installation, the system will automatically exit the setting interface.

**LCD screen display**

The LCD screen is in long bright state when the controller is on, and displays the current system state and operation information with white letters on the blue backlight.

**Key lamp description**

Key lamp is in flashing red state, the red lamp flash once, means the setting of key function or parameter has been successful, and the LCD screen will display the corresponding information.

### 2.4.1 MENU Button Operation

MENU button can do operation for MIC MODE, MIC ACTIVE 'S, BASS, TREBLE, VOLUME, SYSTEM ENQUIRY, ID ENQUIRY and CAMERA. The basic steps are as follows:

1, Press the "MENU" button, LCD displays the first option "MIC MODE";

2, Press the “◀ ” or “ ▶”" button to browse all options, while the LCD screen display the current operating state, then select the setting required option, press "ENTER" to confirm;

3, Enter the option parameter setting interface, Press the “◀ ” or “ ▶”" button to move the cursor to select your setting required option;

4, Press "ENTER" button to confirm the parameters set.

**When you have not exit the setting interface, press "MENU" button, the screen will display the last operated option, instead of displaying the first option.**

For example

Set the microphone mode to NORMAL (quantitative model), operation steps are as follows:

1, Press the "MENU" key to enter the microphone mode selection interface in the navigation panel, while the key lamp was lit once, and LCD screen has a corresponding display;

2, Press the “◀ ” or “ ▶” direction key to move left or right, each time the direction key “◀ ” or “ ▶” is pressed, the key lamp will be lit at the same time; select the "MIC MODE" option, press "ENTER" to confirm, the "ENTER" lamp be lit, LCD screen displays the menu of microphone mode settings;

3, Press the “◀ ” or “ ▶” direction key to move cursor left or right, select "NORMAL" (quantitative model), at the same time the button lamp is lit, and LCD screen has a corresponding display.

4, Then press "ENTER" to confirm the operation so as to complete the operation.

You can also directly press the microphone mode setting key "MODE" on navigate panel to enter the menu setting. Follow the third and fourth steps to finish the operation with more convenience. The operations of other keys on navigation panel (including the ACTIVE MICRO 'S’, BASS, TREBLE, VOLUME) are of the same.

#### 2.4.1.1 SYSTEM ENQUIRY Menu

In the menu of MENU, press the “◀ ” or “ ▶” direction key to select sub-menu "SYSTEM ENQUIRY", then press "ENTER" button to enter the system inquiry.

In the "SYSTEM ENQUIRY" menu, press the “◀ ” or “ ▶” direction key to query the number of all the conference units when the system was constructed, and the number of conference units to which wireless AP access device correspondingly connected.

**The queried information is the parameter information when the system was constructed, so as to facilitate the system setting and maintenance, rather than that of the current real-time connection status.**

#### 2.4.1.2 ID ENQUIRY Menu

In the menu of MENU, press the “◀ ” or “ ▶” direction key to select sub-menu "ID ENQUIRY", then press "ENTER" button to enter the ID inquiry.

Press the “◀ ” or “ ▶” direction key in the "ID ENQUIRY" menu to query the assigned ID value of each conference unit when the system was constructed.

#### 2.4.1.3 CAMERA Menu

In the menu of MENU, press the “◀ ” or “ ▶” direction key to select the submenu "CAMERA", then press "ENTER" key to enter the automatic camera tracking settings.

In the "CAMERA" menu, press the “◀ ” or “ ▶” direction key can choose "Protocol" and "Preset" options. Then press "ENTER" key to enter the corresponding settings.

You should first enter into the "Protocol" to select the corresponding camera protocol. Support CREATOR DEF (standard return code of CREATOR conference system), PELCO-D, PELCO-P and VISCA. The unified baud rate of protocols is 9600bps.

After select the appropriate protocol, return to the previous layer menu, enter "Preset" setting of camera, and then bind the preset of the camera with the unit ID to realize the camera tracking.

In the "Preset" menu, select "SET", then enter the camera preset settings; select "CALL", then enter the camera preset recall state.

**For detailed operating, please refer to camera preset setting procedures in the later part.**

### 2.4.2 AFC Key Operation

Automatic frequency control function setting: press "AFC" button on the controller panel, so as to start the automatic frequency control function, at the same time the key lamp is lit up. Press "AFC" button again, button lamp is off, and the automatic frequency control function is closed.

The setting methods of "ANC" anti-noise function and "AGC" microphone auto gain control function are similar to "AFC" operation method.

### 2.4.3 ID Key Operation

ID key is used to control WIFI conference system enter or exit ID setting function when the system is under construction.

Long press "ID" key for 5 seconds, the ID key indicator stay lit, LCD display "SYSTEM SETING", suggest it has entered the ID setting function. In this state, pressing the “◀ ” or “▶” direction key can query the total number of meeting units of currently set ID, and the number of meeting units connected with the wireless AP access device.

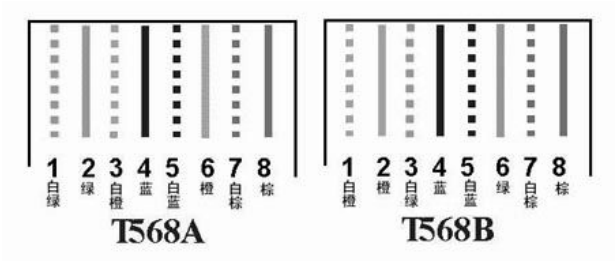
Short press or long press the "ID" key, can exit the ID setup and enter the normal working state.

**For detailed operating, please refer to the below ID setup instructions.**

## 2.5 The Method of Producing ETHERNET Line

The system adopts the CAT-5 (super 5 cable) as the wire. Install RJ45 connector (commonly known as crystal head) at both ends of the CAT-5 to connect network devices. The standard connection of twisted pair cable is not predetermined. The purpose is to ensure the symmetry of the layout of cable splice, so you can make the interference between the joint inner cables cancel each other. General UTP line has four pairs of twisted thin line, and marked with different colors.

Twisted pair line has two configurations: EIA / TIA 568B standard and EIA / TIA 568A standard.




| T568A linear order | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| white green | green | White orange | blue | White blue | orange | White brown | brown |

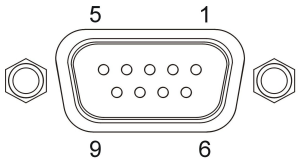
| T568B linear order | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| White orange | orange | White green | blue | White blue | green | White brown | brown |

Direct line: two ends connected according to T568B wire order standard.

Cross-line: One end connected according to T568A line order, the other connected according toT568B linear order standard.

**Use cross-line to connect router and PC**

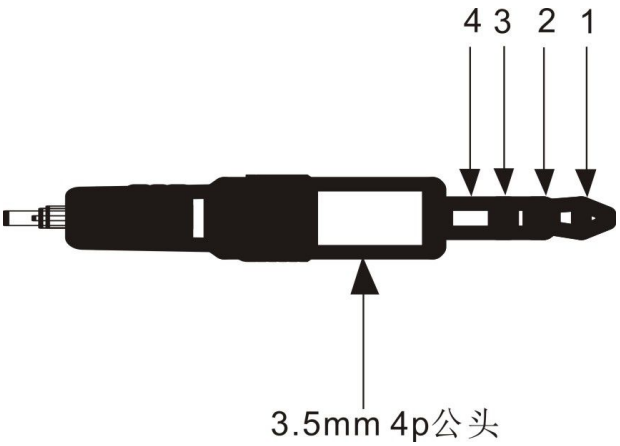
## 2.6 CONTROL SYSTEM COM Pin Function Description



Female

| | Pin | Signal | Description |
|---|---|---|---|
| Control System | 1 | — | — |
| | 2 | RXD | Receive data |
| | 3 | TXD | Send data |
| | 4 | — | — |
| | 5 | GND | Signal ground |
| | 6 | — | — |
| | 7 | — | — |
| | 8 | — | — |
| | 9 | — | — |

## 2.7 AUDIO OUTPUTS 3.5mm Audio Interface Connection Description




| Pin | Signal | Description |
|---|---|---|
| 1 | AU+ | Audio signal+ |
| 2 | AU- | Audio signal - |

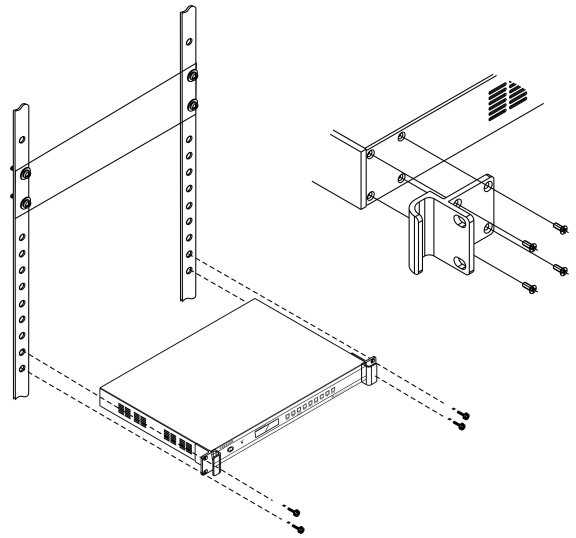
| | | |
|---|---|---|
| 3 | SIG | Control signal |
| 4 | GND | Signal ground |

**AUDIO interface pin function of wireless AP access device is same with this description.**

**Connection wire between this interface and the wireless AP access device should be the audio wire with shielding layer, so as to effectively guarantee the audio transmission quality.**

## 2.8 CR-WiFi6201 Controller Installation

WiFi conference system controller can be mounted in a standard 19 inch rack, the standard controller accessories contain a pair of cabinet mounting brackets , see below:



## 2.9 CR-WiFi6201 Technical Parameters

| | |
|---|---|
| Network interface | RJ45 port |
| Control interface | DB9 female port |
| Display | 1602LCD displayer |
| Signal to noise ratio(S/N) | >80dB |
| Harmonic distortion | <0.5% |
| Carrier distortion | <1% |
| Crosstalk attenuation(1KHz) | >50dB |
| Static power consumption | 3W |
| Maximum power dissipation | 70W |
| Dynamic range | >80dB |
| Frequency response | 20Hz~20KHz |
| communication distance between AP and controllert | <100m |
| Dimension | 483LX290WX43.6H(mm) |
| Power supply (America, Japan) | AC100V~AC120V 60Hz |
| Power supply (Eurasia) | AC200V~AC240V 50Hz |