

**CMC-7100****CMD-7200****CMA-7400**

- ♦ Thank you for purchasing the AHUJA Conference System.
- ♦ Please read this manual thoroughly before making connections and turning on the power. Following the instructions in this manual will enable you to obtain optimum performance from your new AHUJA Conference System.
- ♦ Please retain this manual for future reference.

• Safety Instructions

Read the Instructions: Please read all the instructions in this section carefully before installation or use of the product. All the safety instructions must be followed.

Retain the Instructions: Please retain this Instruction Manual for future reference.



This symbol, wherever it appears, alerts you to the presence of uninsulated hazardous voltage that may be sufficient to constitute a risk of electric shock. External wiring to any terminal marked with this symbol must be done by a trained and instructed person only.



This symbol, wherever it appears adjacent to a component, alerts you that the concerned component can only be replaced by another of the exact same specifications.

WARNING

To reduce the risk of electric shock, do not remove the cover. No user serviceable parts inside. Refer all servicing to qualified personnel only.

CAUTIONS

Water & Moisture: To reduce the risk of fire or electrical shock, do not expose this set to rain or moisture. Do not use this set near water or in a wet location. Do not keep any object filled with liquid, such as a vase, on top of this set. Do not insert or remove the AC mains plug with wet hands.

Power Source: The supply voltage to which this set can be connected is marked on the rear panel of the set.

Power Cable Protection: Do not cut, kink, damage or modify the AC power cable supplied with this set. Keep the power cable away from heaters and harmful chemicals. Do not keep any heavy object on the power cable.

Operation on Generator: When operating this set on a generator, make sure the set is switched off till the generator voltage has stabilized.

Stability: This set must be kept in a stable and flat horizontal position, and never in a tilted position. Do not place this set on an unstable stand, tripod, bracket or mount. Do not use attachments which are not supplied or explicitly recommended by the manufacturer.

Earthing: This set must be earthed properly before use. To avoid electric shock, connect the chassis to the electrical earth.

Cleaning: Disconnect this equipment from the AC mains before cleaning. Clean with a damp cloth, but do not allow any liquid to enter the set. Do not clean with liquids or aerosols.

Ventilation: Keep the Central Amplifier in a well ventilated place.

• Table of Contents

Contents	Page No.
• Overview / System Features	3
• Important Settings to be done at time of installation	3
• Schematic Diagram of Central Amplifier	4
• Schematic Diagram of Chairman & Delegate Unit.....	5
• Central Amplifier.....	5
• Setting & Operation of Central Amplifier	6
• Connection between Chairman & Delegate with Central Amplifier	11
• Specifications	12

Overview

The AHUJA Conference System is a highly flexible, feature laden system ideally suited for the most demanding conference room applications. It features audio transmission for best, noise free communication and voting facility.

The system consists of Central Amplifier, Chairman Unit, Delegate Units, and detachable gooseneck microphones.

System Features

- The Ahuja Conference System facilitates smooth conduct of meetings by providing clear and intelligible sound reinforcement. The system is designed to handle a wide variety of conference applications in boardrooms, Convention Halls, Hotels etc.
- Chairman & up to 60 Delegate Units can be connected with one Central Amplifier.
- Bright LED indicator on the mic for visual indication of MIC ON status.
- Headphone output provided in Central Amplifier for sound monitoring purposes through 3.5mm connector.
- Mode Selection feature is available in the Central Amplifier. The system can be operated in various modes: FREE, LIMIT (1-9), FIFO (1-9), VIP, PTT, APPLY and Chairman Only mode (see page no. 8).
- Voting facility available, voting is initiated through the Chairman Unit.
- Automatic Mic Off feature in Chairman/Delegate units. The mic switches off automatically after 60sec, if the delegate forgets to switch it off after using. This feature can be enabled / disabled from the Central Amplifier.
- Central Amplifier has 4.3 inch IPS touch display to show system settings information on Central Amplifier.
- Each conference unit has an LCD display, which shows Mic ID number, mic status, contrast and voting results.
- Central Amplifier has a 50W built in amplifier which can be used for connecting external speakers through speaker output port.
- Central Amplifier has the facility of feeding four independent groups of Delegate Units as required in large conference setups
- AC Mains operation.
- Proceedings can be recorded in the Central Amplifier through a USB pen drive.

• Important Settings to be done at time of installation

- First interconnect all the conference units. Loudspeakers can be connected externally from the SPKR OUT socket on the rear panel of the Central Amplifier. If required, use Balance Audio Out socket on the rear panel of the Central Amplifier to connect a separate amplifier and loudspeakers.
- Switch ON the central amplifier before making any of the settings mentioned below.
- Now first assign Mic ID number to each and every chairman and delegate unit. After assigning ID to every chairman and delegate unit, Central Amplifier should be switched off to save the ID settings. See coding process on (page no. 6)
- Switch ON the power again to proceed.
- Select Conference Mode (see page no. 8) and Chairman Setting from the Central Amplifier (see page no. 10)
- If using LIMIT mode or FIFO mode, select maximum number of microphones (upto 9) which can be ON simultaneously (see page no. 8). The default setting from the factory is FREE mode, Chairman Priority (sub mode).
- Adjust the volume from the Central Amplifier to get the desired sound level from the speakers (see page no. 9).

• Schematic Diagram of Central Amplifier

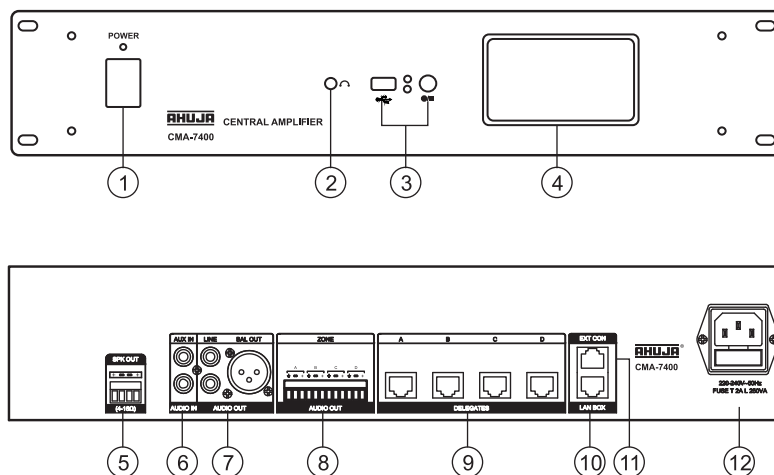
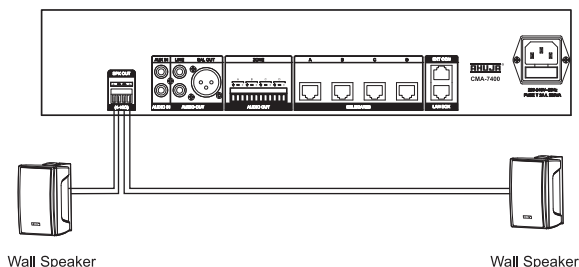


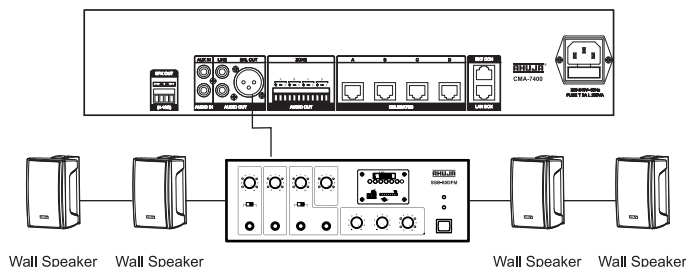
Fig. 1

1. **Power Switch:** Push the top part of the knob to switch the Central Amplifier power ON. The BLUE LED lights up.
2. **HEADPHONE socket:** For connecting Headphone for audio monitoring purpose.
3. **USB Record:** Connect a USB pen drive to record the audio proceedings. Press REC button to start the recording. When recording starts, RED led will start flashing. Press REC again to terminate the recording.
4. **Display:** 4.3 inch touch screen display. It shows system setting configuration like conference mode, system volume, mic setting, camera parameter, video setting, chairman setting etc.
5. **Speaker Out:** For connecting low impedance speakers (2x25W RMS 4 Ohm), see point ((a) connection with inbuilt Amplifier) below.
6. **Audio IN:** Line level AUX input (RCA). Connect this input to an audio source like mobile phone, laptop etc to play background music or pre-recorded messages.
7. **Audio Out:** Balanced signal output (male XLR3) and Unbalanced line level output (RCA). Connect to any suitable external amplifier, if required, see point ((b) connection with external Amplifier) below.
8. **Zone Audio output (4nos.):** Independent line level output of audio corresponding to each Outlet/Zone.
9. **Ethernet Output Interface:** Connect Chairman/Delegate units with CAT 5/CAT6 cable to these outlets. Upto 15 units (max) can be connected to each of these Outlets/Zones.
10. **LAN Box:** This port is used for adding extension units.
11. **EXT Con:** This port is used for connecting PC/Laptop for using the provided operating software.
12. **AC POWER SOCKET:** Connect supplied AC mains cable to this socket.

(a) Connection with inbuilt Amplifier



(b) Connection with external Amplifier



• Schematic Diagram of Chairman & Delegate Unit

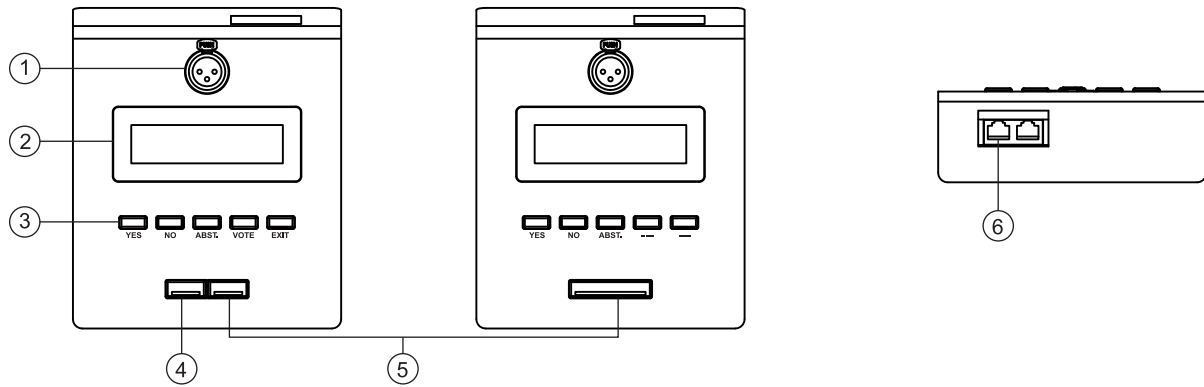


Fig. 2

1. **3pin XLR Socket:** This socket is used for plugging the gooseneck microphone.
2. **Display:** To display the microphone status and other information like MIC No., Contrast, language and voting.
3. **Settings & Voting Buttons:** With the help of these buttons you can see settings of microphone unit like contrast, mic no. and language and also you can initiate voting.

NOTE:

- **YES button:** During Voting this button indicates a 'YES' or positive Vote.
- **NO button:** During Voting this button indicates a 'NO' or negative Vote.
- **ABST button:** This button indicates abstention from Voting (No Vote).
- **VOTE button:** This button is available only on chairman unit. It is used for initiating voting by long press and after valid votes have been cast

by all, press this button for 1-2 seconds. The votes will be collected and the result displayed.

- **EXIT button:** This button is used to exit from voting result screen. Also by long press user can see settings like mic id, brightness and language and press **ABST** button for exit from setting window.
- 4. **Priority key (for chairman unit only):** When priority mode activated, it overrides (mute) all the delegate unit, and this priority mode is ended by pressing talk button.
- 5. **Mic ON/OFF button:** It is used for microphone ON/OFF.
- 6. **Ethernet interface:** Use for connecting the previous and next units.

• Central Amplifier

- Put on the table or install in 19" rack.
- Keep away from powerful and strong radiation equipment, because it may influence the receiver performance.
- Use it in a well ventilated and water proof area.



Fig. 3

The Central Amplifier forms the core of the entire conference system. It provides power supply to all Chairman and delegate unit and serves as key component to link system hardware to software control.

• Settings & Operation of Central Amplifier

Main Features and Specifications of Central Amplifier

POWER ON: To switch ON the Central Amplifier, press the “POWER” button on the left of the front panel of the Central Amplifier. The Central Amplifier will display “CONFERENCE SYSTEM”, window shown in Fig.4 will appear.

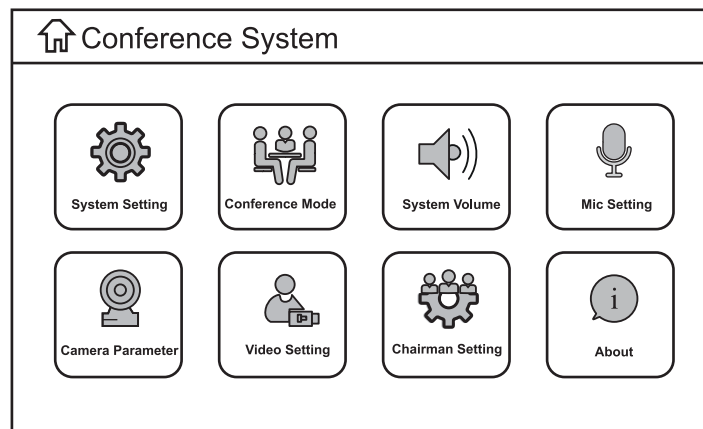


Fig. 4

a) System Setting: Press on system setting Icon (see fig no. 4), a new window of settings will appear on the screen show in fig. 5

Coding:

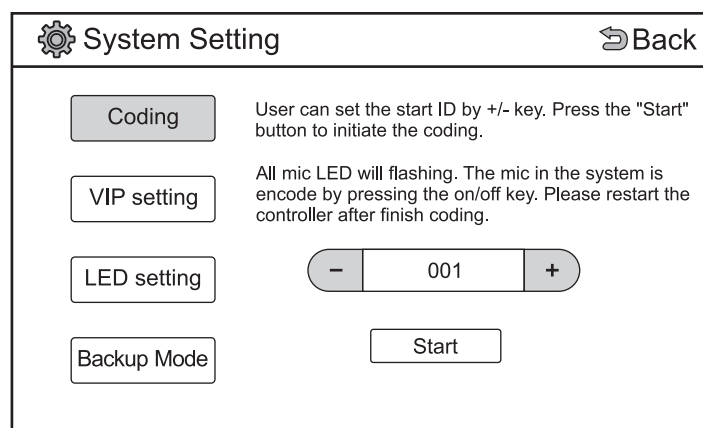


Fig. 5

Each mic has a Mic ID no. which is assigned (this setting is very important during installation for the discussion mode, and voting function), user can set the microphone id after installing the system. Chairman unit should be always Mic id no.1.

- Press on coding button, a window (see fig no. 5), will appear on the screen of the Central Amplifier, select ID no. and press on start button. All chairman unit and delegate unit microphones will start flashing. Press ON/OFF button on each unit to assign the microphone ID no., after assigned ID no. please switch OFF the Central Amplifier to save the setting.
- This coding information is displayed on all the Delegate unit LCD display, microphone led will start flashing during coding. Press the on/off button of the corresponding mic to the assign the number.
- Please make sure the Mic id number should be different for each Chairman/Delegate Unit in one system.
- Please make sure chairman unit has Mic id no. 001, when you use software also (through PC/Laptop).

• Settings & Operation of Central Amplifier

VIP Setting

Press on system setting Icon (see fig no. 4), a new window of settings will appear on the screen as shown in fig. 6. If you set any of the delegate units as a VIP units, that microphone will not be limited by any system conference mode control.

Press the VIP setting icon (see fig no. 6) and select the ID of the delegate unit you want to make VIP as per your need and press the enable button. Your delegate unit will become VIP mic.

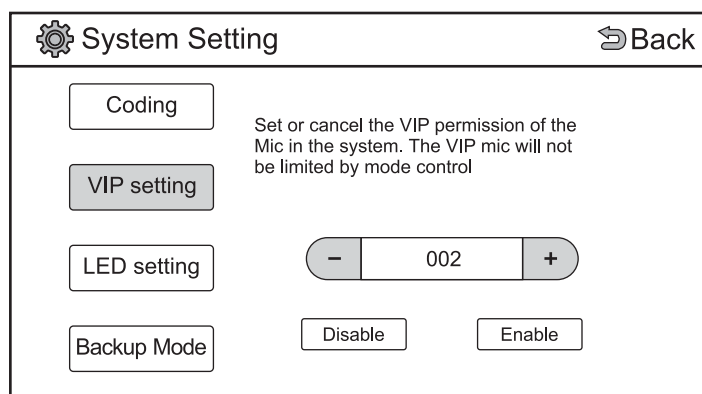


Fig. 6

LED Setting

Press on system setting Icon (see fig no. 4), a new window of settings will appear on the screen show in fig. 7. The Chairman and Delegate gooseneck microphone unit ring LED can be enabled or disabled by this setting.

Press the LED setting icon (see fig no. 7) and you will get the option to enable or disable the microphone LED. Press the option to enable or disable according to your desired setting.

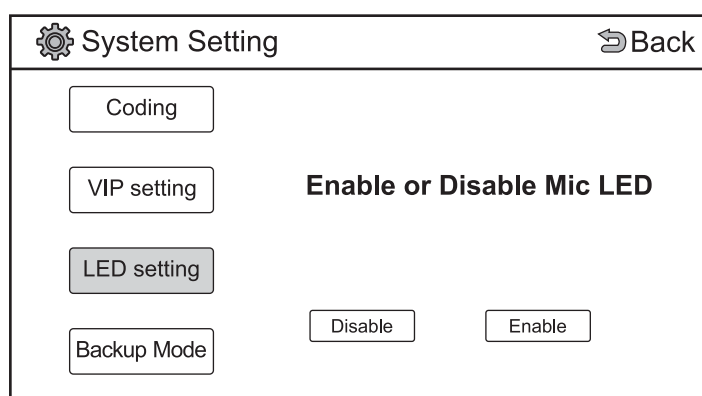


Fig. 7

Backup Mode

Press on system setting icon (see fig no. 4), a new window of settings will appear on the screen as shown in fig. 8. Press the Backup mode setting icon (see fig no. 8), and user will get the options to enable or disable controller backup mode.

Use two Host units, connected together through their LAN port.

Enable backup mode (see fig. no. 8) in both the Host unit, now if main host unit (host unit through which chairman and delegate unit is connected) malfunctions due to any reason, the backup host unit will automatically and seamlessly take over the microphone units.

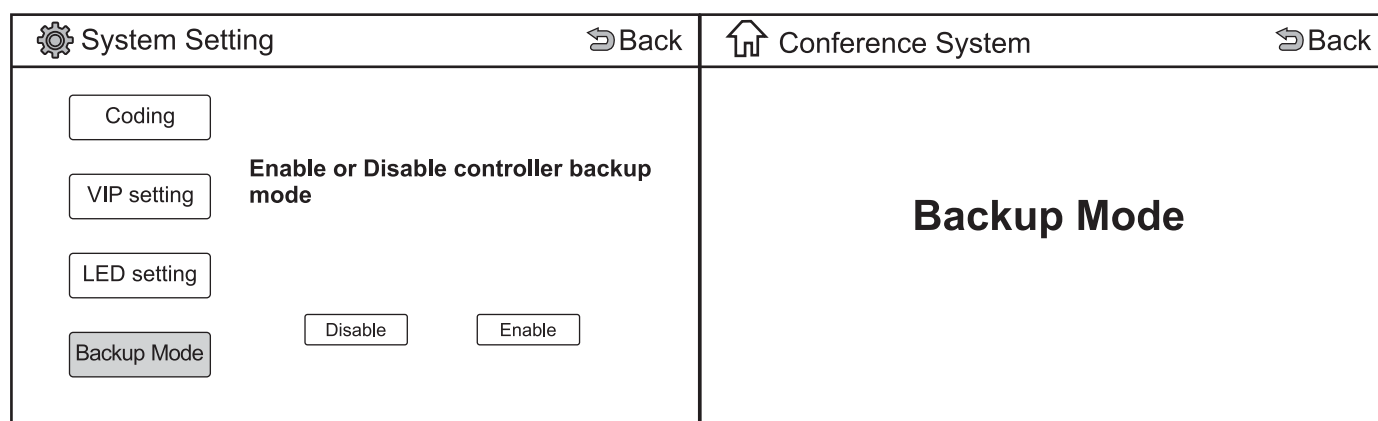


Fig. 8

• Settings & Operation of Central Amplifier

b) Conference Mode

Press on conference mode setting icon (see fig no. 4), a new window of settings will appear on the screen as shown in fig. 9. In this setting, we can select FREE mode, FIFO mode, LIMIT mode, APPLY mode, PTT mode, and VIP mode.

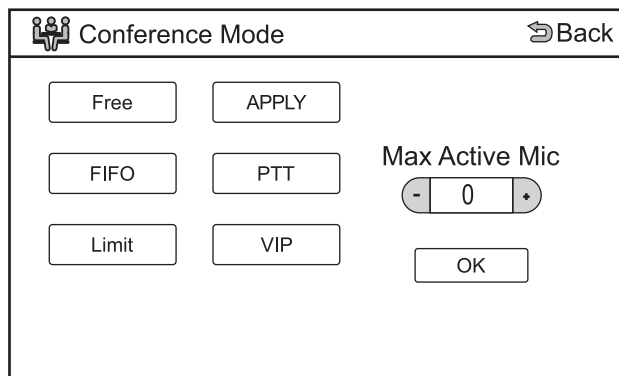


Fig. 9

Free Mode

When this mode is selected, all delegate unit mics can be ON simultaneously. (for the safe use Up to 60 units with one Central Amplifier)

Limit Mode (Max 1-9)

When this mode is selected, the no. of microphones which can be ON at the same time is limited. The limit can be set from 1-9. When this number of microphones are already ON, no further mic will switch ON (until one or more mics which are already ON are switched OFF).

FIFO Mode (Max 1-9)

In this mode, delegate microphone unit (1-9) is the max active number of delegates who can speak simultaneously. Once the preset limit of simultaneous delegates has been reached and an other delegate switches ON his mic, the microphone which was switched on first will automatically switch OFF to allow the next delegate to speak.

Apply/Request Mode

This mode is only controlled by the software operator. When a delegate wants to speak (in apply/request mode), the delegate should press the TALK button on his unit. A request will be initiated to the software operator and red led on the microphone will flash. The mic will actually switch ON only when enabled by the software operator.

VIP Mode

VIP microphone is not limited by any conference mode, only controlled by itself or software, you can enable or disable the VIP function of the delegate microphone. (In this mode only VIP mics and Chairman unit microphones are allowed to switched ON, other delegate unit will not switch ON)

PTT Mode

In this mode, the delegate has to press and hold the talk button while speaking. The mic remains ON only while the TALK button is pressed.

• Settings & Operation of Central Amplifier

c) System Volume

Press on System Volume Setting icon (see fig no. 4), a new window of settings will appear on the screen as shown in fig. 10. In this setting we can adjust the system volume settings.

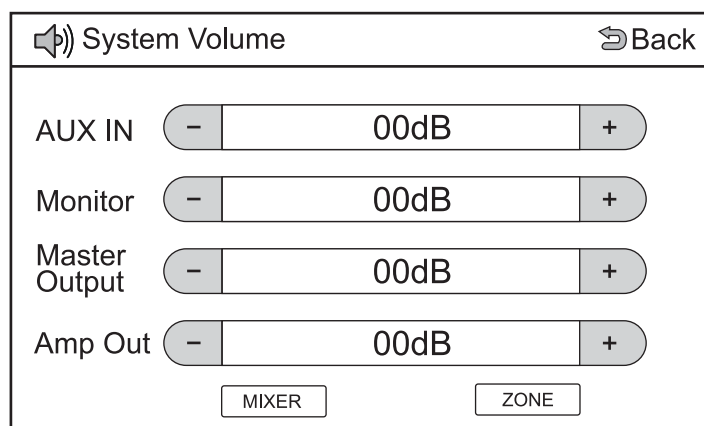


Fig.10

AUX IN

This volume control is use to adjust the system audio input volume (adjustment range: -84dB-00dB) (see fig. 1, point no. 6, page no. 4)

MONITOR

This volume control is use to adjust the volume of the monitoring earphones volume (adjustment range: -84dB-00dB) (see fig. 1, point no. 3, page no. 4)

MASTER OUTPUT

This volume control is used to adjust the balance audio output going to an external amp. (adjustment range: -84dB-00dB) (see fig. 1, point no. 7, page no. 4)

AMPOUT

This volume control is used to adjust the output of the built in amplifier, to which external speaker may be connected. (adjustment range: -84dB-00dB) (see fig. 1, point no. 5, page no. 4)

MIXER

Before using all volume controls mentioned above the user needs to enable the mixer icon, only then all volume controls will work (see fig. 1, point no. 4, page no. 4)

ZONE

This volume control is used for Independent Zone audio outputs (see fig. 1, point no. 8, page no. 4) corresponding to each zone microphone outlets (A/B/C/D). Press zone icon for enabling zone volume outputs.

d) Mic Setting

Press on MIC setting icon (see fig no. 4), a new window of settings will appear on the screen as shown in fig. 11.

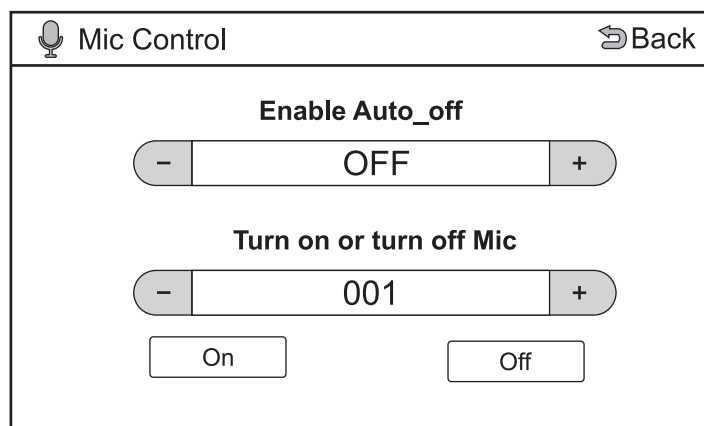


Fig. 11

• Settings & Operation of Central Amplifier

Enable Auto off

When this setting is ON, all the conference microphones automatically get switched off with in a minute (approx. 56sec) when no audio signal is provided. This enables all microphones (which have been accidentally left ON) to be automatically switched OFF when the conference is over.

Turn on/off Mic

Select the MIC ID number of the corresponding microphone unit to turn it ON/OFF.

NOTE: Factory settings of all Chairman and Delegate unit microphone in the system default as max volume.

e) Chairman Setting

Press on Chairman setting icon (see fig no. 4), a new window of chairman settings will appear on the screen as shown in fig. 15.

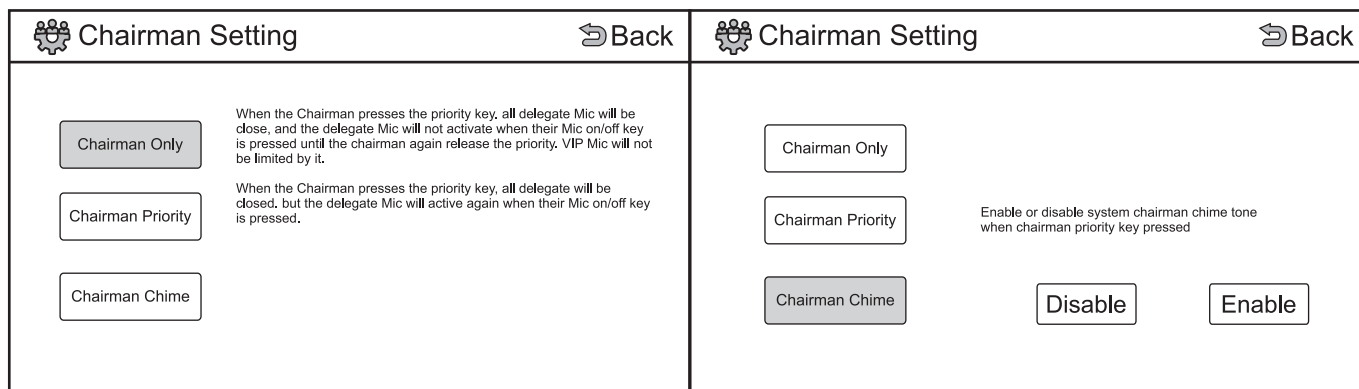


Fig. 15

Chairman only mode

when “Chairman Only” function is active, all delegate microphones will be switched off automatically (delegate microphone IPS display will show “Chairman Only” mode), and the delegate microphones will not reactivate when their MIC ON/OFF key is pressed. These will remain switched off until the chairman again presses the MIC ON/OFF key to switch off their microphone. (see fig no. 15)

Chairman priority mode

When the chairman presses the PRIORITY key, all the delegate microphone will be instantly switched off automatically, but the delegate microphones will be switched ON again when their MIC ON/OFF keys are pressed.

Chairman Chime

The Chairman chime tone can be enabled or disabled by this setting. Enabling the chime tone setting will produce a “Chime tone” when chairman presses priority button.

f) About

Press on About setting icon (see fig no. 4), a new window of settings will appear on the screen as shown in fig. 16.

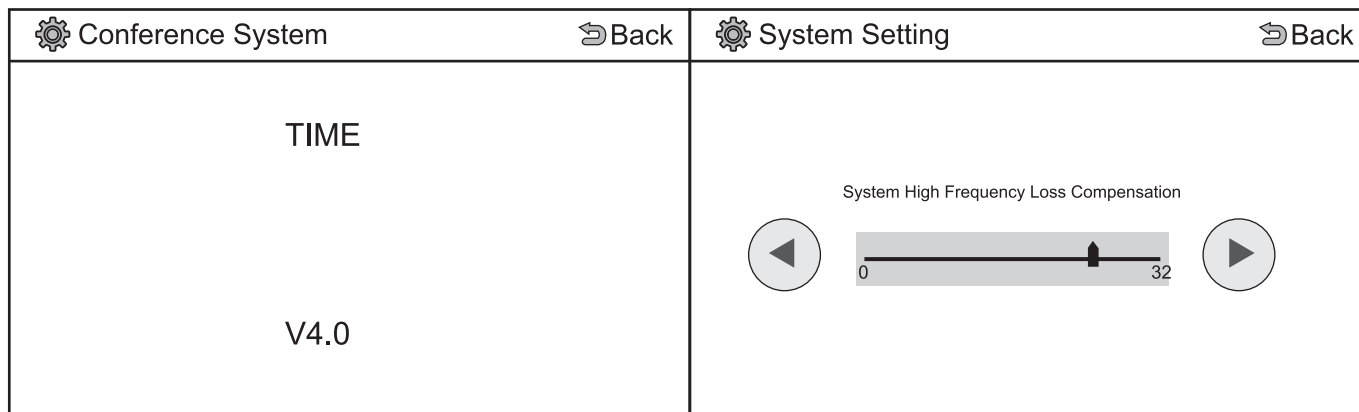


Fig. 16

Check the current system version, click on the Version number “V3.0” to enter the line high-frequency loss compensation function interface, which can adjust the line high-frequency loss compensation having range of (0-32).

• Connection between Chairman & Delegate with Central Amplifier

Installation and Connection of Central Amplifier with Chairman and Delegate unit

Chairman and Delegate unit is stylish design cabinet that can be install on Conference table. Central Amplifier has 4 delegate outlets i.e., Ethernet connectors for Chairman and delegate microphone units. When connecting the Central Amplifier to the Chairman and delegate units, just connect the RJ45 cable of the first unit to the Ethernet output of the Central Amplifier. For longer distance between the Chairman and delegate microphone unit and Central Amplifier, a CAT-5/6 cable(15m). having both end of this cable equipped with RJ45 connector is used. (see fig no. 17.)

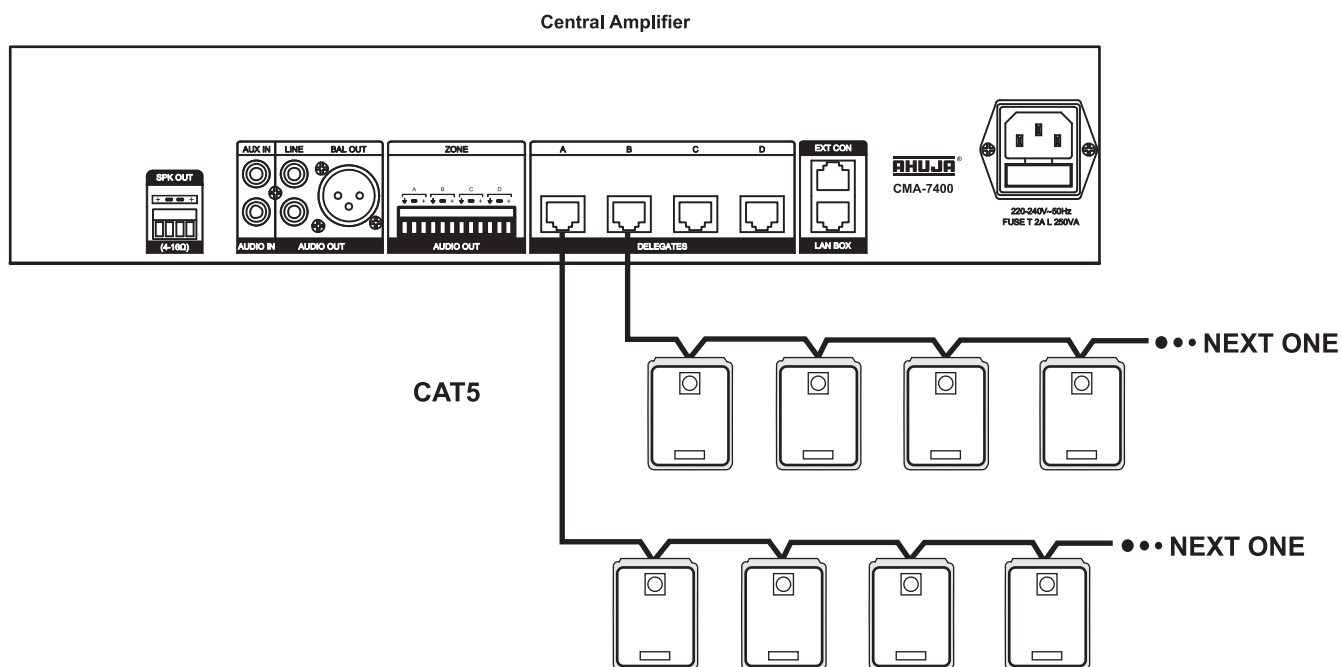


Fig. 17

Connection microphone closed-loop lines

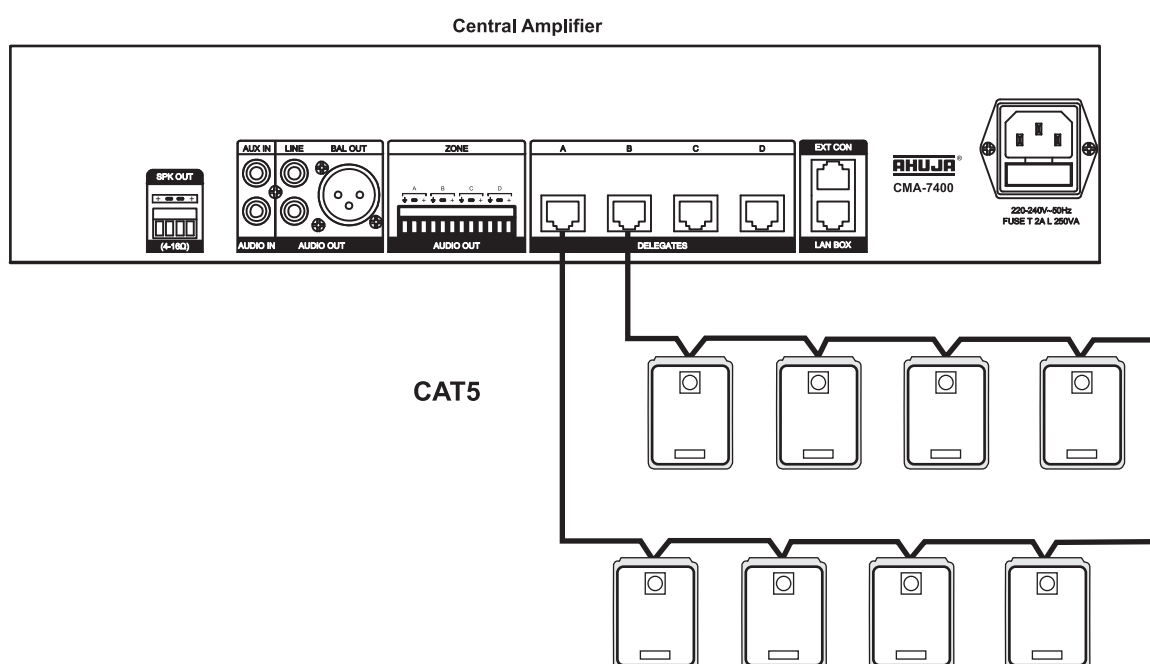


Fig. 18

You cannot use zone audio output if system microphone connected in closed-loop lines, (see fig. no. 18).

• Specifications

CENTRAL AMPLIFIER

Physical characteristics

Installation	Standard 19" rack
Dimensions (mm)	W485 x H105 x D330mm
Weight	5kg Approx.
Electrical characteristics	
Frequency response	100Hz-15KHz
SNR	> 96dB
T.H.D	0.1%@1kHz
Mains power supply	240V AC 50/60Hz
Audio output	+ 18dBu balanced
Control Interface	RJ45 Ethernet Interface
Power Output	50W (25+25W @4Ω)

ACCESSORIES: 1xPower Chord, 1x15mtr. RJ45 Cable (CAT-5), 1x2mtr. RJ-45 (CAT-5) Audio-Visual Patch Cable, 1xLicenses Key Dongle, 1xSoftware Dongle, 1xRJ45 to USB convertor device, 1xFemale XLR to mono jack cable, 1xOperation Manual, 1xWarranty Card.

CHAIRMAN UNIT AND DELEGATE UNIT

Physical characteristics

Installation	Tabletop
Dimensions (mm)	W145 x H55 x D175mm
Weight	550g Approx.
Electrical characteristics	
Frequency response	100Hz -15Khz
Connection	CAT-5/6 Ethernet cable
Type	Unidirectional electret condenser microphone
Sensitivity	7mV/Pa
Impedance	1000 Ohm

ACCESSORIES: 1xRJ45 Cable (CAT-5), 1xFoam windshield, 1xGooseneck mic, 1xWarranty Card.

AHUJA RADIOS

215, Okhla Industrial Estate, New Delhi-110020, INDIA
 C-45, Phase-II, Noida-201305 (UP) INDIA • 3, Okhla Industrial Estate, New Delhi-110020 INDIA
 Tel.: +91-11-26831549, 41612474 Fax: +91-11-26847287 E-mail: ahuja@ahujaradios.com
 Website: www.ahujaradios.com

- Design and Specifications are subject to change without notice owing to continuous product up-gradation
- Technical specifications are subject to production tolerances.
- We cannot be held responsible for printing errors, should they occur.
- **AHUJA** is a registered trademark of Ahuja Radios in India and other countries.
- © Copyright Ahuja Radios, 2025. All rights reserved. Any unauthorized reproduction or use of logos, images or design elements is strictly prohibited by law.
- No part of this compilation may be reproduced in any manner or translated without written permission.

AHUJA®