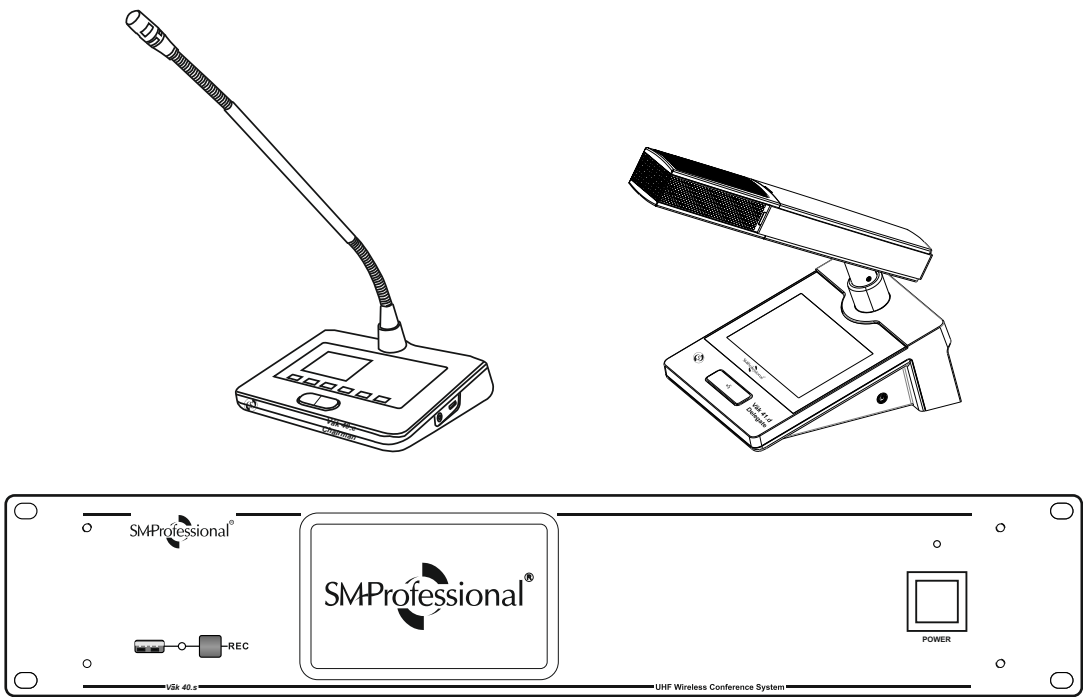




Vāk 40/Vāk 41

Professional UHF Wireless Conference System





FULLY WIRELESS



INTUITIVE INTERFACE



USB MP3 RECORDER



CAMERA TRACKING



DIGITAL VOTING

INDEX:

1.....	Introduction
2.....	Features at a Glance
3.....	System Features
4.....	Operating Instruction
5.....	Software installation & setup
6.....	Installation
7.....	Basic Troubleshooting
8.....	System Connection
9.....	Technical Specifications
10.....	Safety Instructions

1. Introduction

Thank you for buying the SMProfessional Vāk 40 conference system.

To ensure maximum performance & safety, please follow this instruction manual carefully.

Please retain this manual for future reference.

For any complaint, feedback or testimonials please contact our distributor/dealer.

Retain the cartons for future use should the product require servicing / maintenance.

2. Features at a Glance

Vāk 40.s System Controller Unit

- Professional wireless conference system with 4 operating modes, FIFO / LIFO / Limit / Chairman.
- Highly-flexible and customizable system supporting up to 200 units.
- 10 secure UHF channels with editable frequencies for flexibility in complex applications.
- NOM (Number of Open Microphones) - Supports up to 4 active units.
- Remote microphone ON/OFF and shutdown.
- Built-in USB MP3 recorder with sequential file saving and storage.
- Intuitive camera tracking with industry-standard VISCA and PELCO-D/P protocol compatibility.
- RS-232 and RS-485 camera controller interface.
- Easy sign-in and voting function for streamlined decision making.
- Automatic interference correction and anti-RF for dropout-free performance.
- DSP and noise gate for ambient noise suppression and audio clarity.
- Operating distance of up to 100 ft. (line of sight).
- User-friendly interface with responsive LCD touch screen.
- Easy-to-use, no operator required.
- Quick plug-and-play installation.
- Ideal for boardrooms, conference rooms, legislative chambers and other large and complex meeting scenarios.

Common for Vāk 40.c /Vāk 41.c Chairman & Vāk 40.d/Vāk 41.d Delegate Units

- High-quality condenser microphone capsule for superior voice reproduction.
- Illuminated ON/OFF talk switch.
- Priority switch on the chairman unit to override all delegates during a discussion.
- Quick access switches to sign-in for voting function, increase/decrease volume and microphone number editing.
- Power supply options: Removable rechargeable battery or USB type-C connector (cable supplied).
- Long-lasting 20 hours battery life.
- Fully wireless for flexibility in fixed and mobile applications.

Vāk 40.c Chairman & Vāk 40.d Delegate Units

- Sleek and classy 21" 2-bend gooseneck microphone with base.
- Clear 2" TFT colour screen displays microphone ON/OFF status, connectivity status, selected channel number, unit ID, battery level, microphone ON time and analogue watch dial.
- LED ring to indicate 'Mic Active' status.

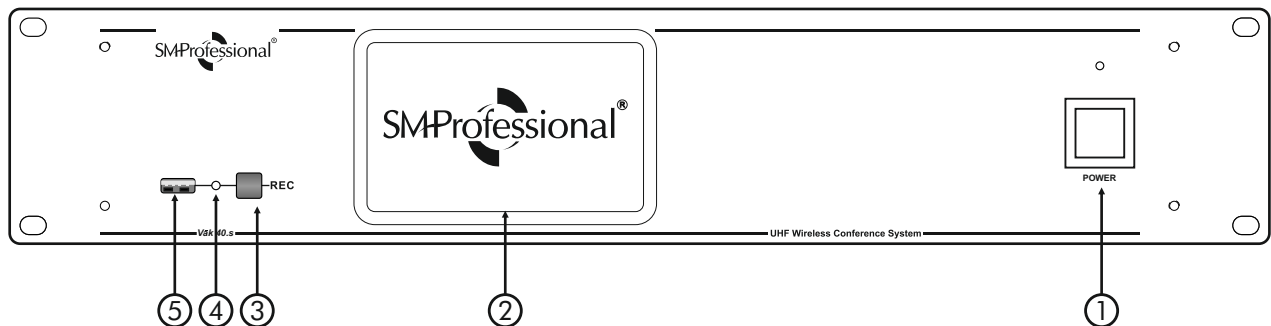
Vāk 41.c Chairman & Vāk 41.d Delegate Units

- Sleek and classy bend shortneck microphone with base.
- Clear 4" TFT colour touch screen displays microphone ON/OFF status, connectivity status, selected channel number, unit ID, battery level, microphone ON time.
- LED to indicate 'Mic Active' status.
- Participants may request services during an active conference using the touchscreen interface.

3. System Features

A common main controller is used for both Vak 40 & Vak 41 System.

A) Vak 40.s System Controller Front Panel Description



- 1) Power Switch:** Press this switch to turn the system controller unit ON or OFF. When powered ON, the screen shows the system initialization page followed by SMProfessional logo and shows the Home screen when the boot sequence is successfully completed.

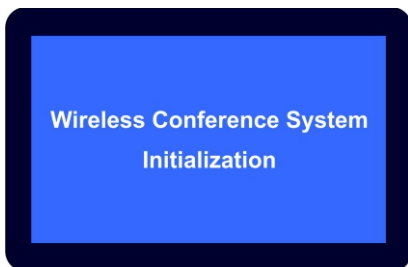


Figure 3.1
Initialization Screen

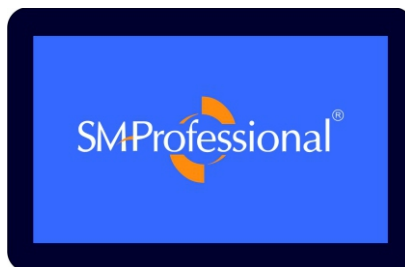


Figure 3.2
SMProfessional Logo Screen

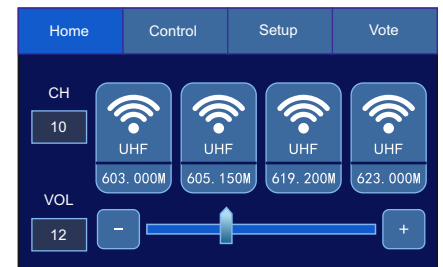


Figure 3.2
Main Screen

- 2) LCD Display:** This touchscreen LCD lets you view, access and edit the various parameters, modes and settings of the system controller unit.
- 3) Record Enable Switch:** Press this button to start recording. Pressing the button again will switch off the function. Recording will stop when the capacity of the external drive is full. Files will be saved automatically. All voice files are stored in sequential order.
- 4) Recording Status LED:** The Red LED is provided to indicate the recording status.
- Initially - OFF
 - USB Inserted and Record Button Pressed - ON
 - Start Recording - LED Flashes Continuously
- 5) USB Socket:** To insert USB disk for recording. Maximum 32 GB USB drive can be connected.

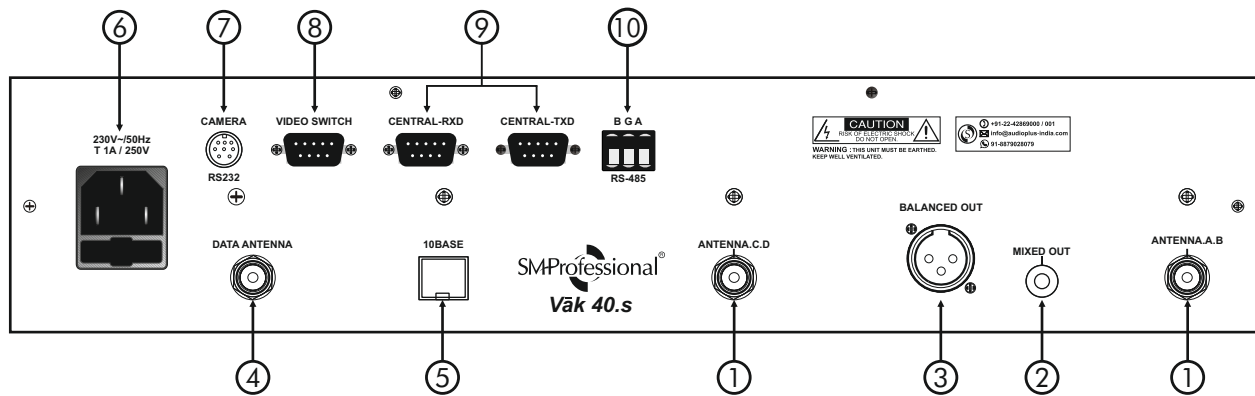
How to record and save data:

- Insert a flash drive in the USB port and press the record button.
- When the LED starts flashing, it means that the data is recording.
- Press the record button again to stop recording.
- The recorded files are saved in an automatically generated folder named "record". The files are named sequentially as follows; REC001, REC002... etc.
- Disconnect the flash drive from the main controller unit and connect it to a PC.
- Make a new folder on the PC and name it as per your choice.
- Move the recorded files from the "record" folder to the newly created folder on the PC and rename them as per your choice. Your files are now ready to play.

Problem in Recording and Playing:

PROBLEM	SOLUTION
1. Data not recorded	• Check if the record button is pressed properly. Kindly press this button only once. • Confirm that the MIC button is pressed on the chairman and delegate unit before speaking/recording. • Check for availability of storage space in the USB flash drive.
2. Data loss	• Check the recording status after the LED starts flashing. • During the recording, check if the MIC button LED on the microphone illuminates. • If the USB flash drive is full, it takes more time to detect & start recording. In this case, kindly create space on the USB storage device or use a different one
3. Recorded file is not playing	• Check if the flash drive is inserted properly. • Check the location of the recorded file in the Record folder. Kindly move the files to a new folder, preferably outside the Record folder.

B) Vāk 40.s System Controller Rear Panel Description



- 1) Audio Signal Antenna Port:** These identical antennas are used to wirelessly receive audio signals from the connected chairman and delegate units. Kindly connect the supplied range extending antennas securely for better signal reception.
- 2) Unbalanced Audio Output:** Use this 1/4" (6.35mm) unbalanced TS jack to connect the audio output into the input of the mixer/amplifier/powered speaker or other sound reinforcement solution of the room.
- 3) Balanced Audio Output:** Use this balanced 3-pin XLR male connector to connect the audio output into the input of the mixer/amplifier/powered speaker or other sound reinforcement solution of the room.
- 4) Control Signal Antenna Port:** This single antenna is used to send and receive the operating (data information) signal between the system controller and the microphone units.
- 5) 10 Base:** This LAN connector is provided to interface with the PC to run the voting software. The voting initiated from the controller is just the basic version. However, an external software can allow you to initiate more sophisticated forms of voting. You can define the types of voting such as normal voting, score, teller or election etc. You can also customise the passing criteria for the vote. You will be able to show the subject and the result of the voting on the projector/TV via the software.
- 6) AC Inlet & Fuse Holder:** Use the supplied AC cord to connect the unit to AC mains. Make sure voltage and frequency stated on the unit matches with your local AC supply. The fuse can be accessed by the small drawer at the AC inlet. To change the fuse, unplug the AC cord first, pull out the fuse drawer and replace the fuse ONLY with a fuse of the same voltage and rating. If the fuse blows again after replacement, hand over the unit to qualified service personnel.
- 7) Camera RS 232 Connector:** This 8-pin mini DIN RS-232 port is provided for easy connection to an external PTZ conferencing camera.
- 8) Video Switch:** Use this 9-pin D-SUB port to deploy external video switchers to manage and switch between multiple cameras and video feeds connected during the conference.
- 9) Central RxD & Central TxD Connectors:** These transmitter and receiver connectors can be used to integrate third party control and automation equipment.
- 10) RS-485 Connector:** This RS-485 connector is provided for easy camera connection.

C) Vāk 40.c Chairman & Vāk 40.d Delegate Units

1) Mic Capsule: This high quality microphone is used to pick up the voice of the person speaking.

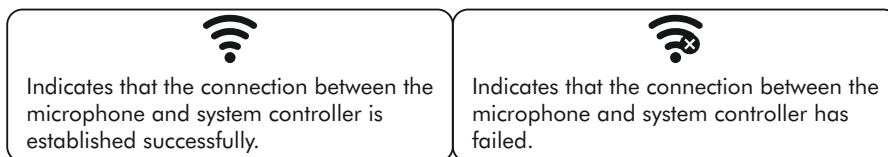
2) Mic LED Ring: This LED Ring displays the status of the Microphone. The LED lights up when the microphone is active.

Note: Do not start speaking if this LED is flashing.

3) Display: Every chairman and delegate unit sports a clear 2" TFT colour screen that displays the following information:

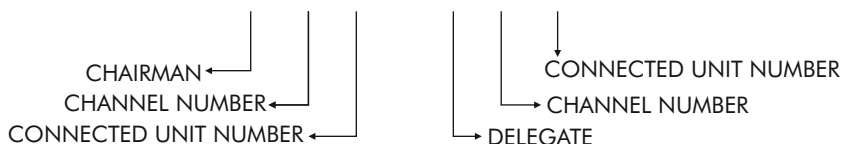


A) Connectivity Status: It displays the connectivity / sync status with the system controller unit.



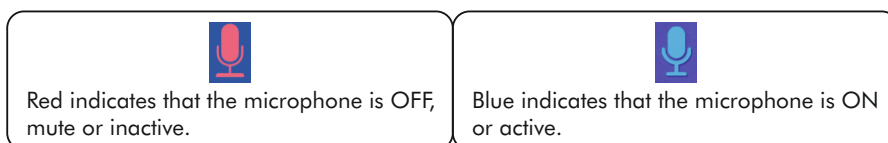
B) Channel / Unit Number: It displays the channel and unit number and information in the following format.

C: 10-001 or D: 10-001



C) Battery Level: It displays the battery level and charging status.

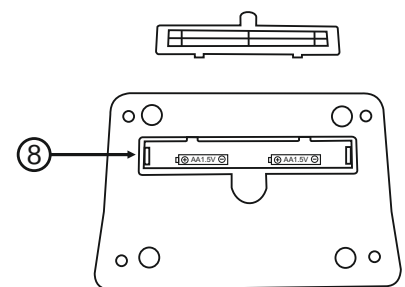
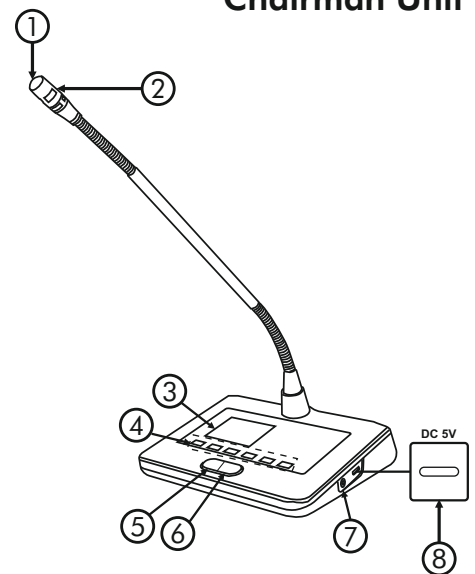
D) Microphone ON/OFF Status: It displays the working status of the microphone.



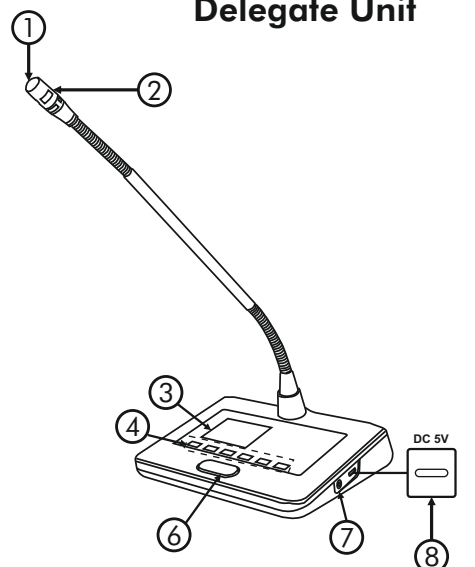
E) Analog Clock: This classy analogue watch dial displays the local standard time where the system installed. It syncs with the system controller's time settings.

F) System on Status: It displays the elapsed runtime and connection duration between the microphone and the system controller unit.

Chairman Unit



Delegate Unit



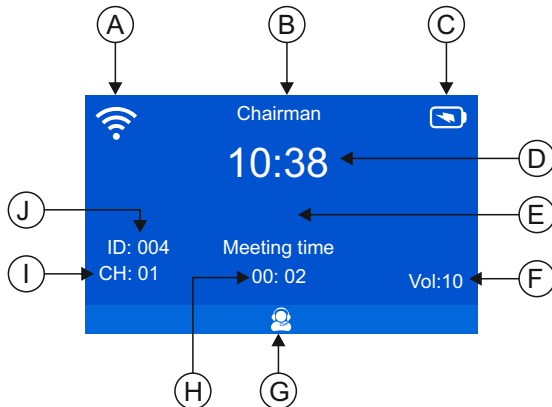
4)Function Keys: These multifunctional tactile function keys are provided to let you access, edit and to use the system features quickly and easily.



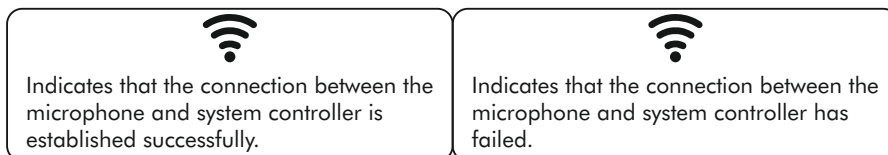
- A) 0 / Enter / Sign-in:** This key is used to select and confirm the sign-in and vote function.
- B) 1 / Yes / ↶ :** This key is used to select “YES” in the voting mode. It is also used to return to the previous menu.
- C) 2 / No / ▲ :** This key is used to select “NO” in the voting mode. It is also used to toggle up or increase the number value during the manual microphone ID editing mode.
- D) 3 / Abst / ▼ :** This key is used to select “ABSTAIN” in the voting mode. It is also used to toggle down or decrease the number value during the manual microphone ID editing mode.
- E) 4 / ◀ :** This key is used to scroll the cursor left during the manual microphone ID editing mode.
- F) 5 / ▶ :** This key is used to scroll the cursor right during the manual microphone ID editing mode.
- 5) Priority Button:** When enabled, it overrides (mute) all delegates. When disabled, the delegates resume their original status. This feature is available only on the Vāk 40.c chairman unit.
- 6) Mic Button:** To activate or deactivate the microphone when required.
Note: Do not start speaking if this button is flashing.
- 7) Power Switch:** Long press this button to switch the unit ON or OFF.
- 8) Power & Charging Connector:** Use the supplied USB type C cable to power up the unit or to charge the inserted batteries.
- 9) Battery Compartment:** Insert the supplied rechargeable batteries in this compartment. You can either use 1 or 2 batteries to power up the unit. A single battery delivers a runtime of up to 12 hours while 2 batteries deliver a runtime of up to 20 hours.

C) Vāk 41.c Chairman & Vāk 41.d Delegate Units

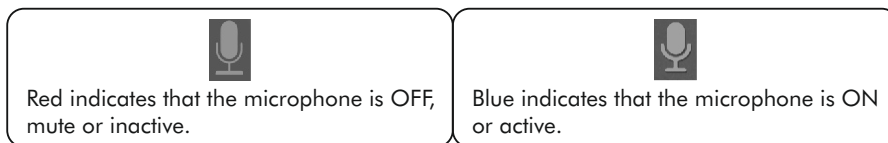
- 1) **Mic Capsule:** This high quality microphone is used to pick up the voice of the person speaking.
- 2) **Mic LED:** This LED displays the status of the Microphone. The LED lights up when the microphone is active.
Note: Do not start speaking if this LED is flashing.
- 3) **Display:** Every chairman and delegate unit sports a clear 4" TFT colour screen that displays the following information:



A) Connectivity Status: It displays the connectivity / sync status with the system controller unit.

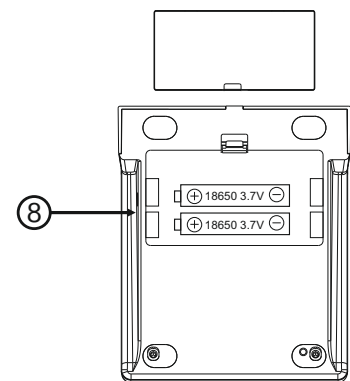
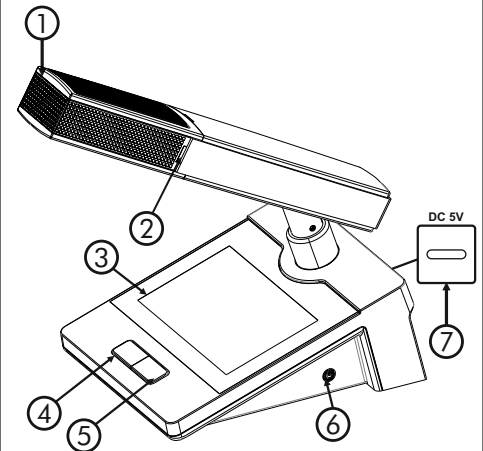


- B) Unit status:** It displays whether it is Chairman or Delegate unit.
- C) Battery Level:** It displays the battery level and charging status.
- D) Time:** It displays the local standard time where the system is installed. It syncs with the system controller's the settings.
- E) Microphone ON/OFF Status:** It displays the working status of the microphone.

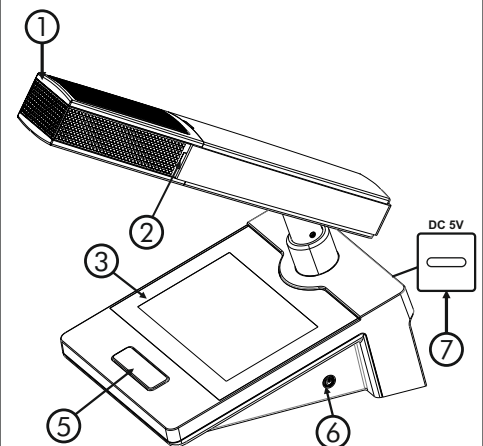


- F) Volume:** Displays headphone volume.
- G) Service Menu:** When pressed it enters into service menu.
- H) System on status:** It displays the elapsed runtime and connection duration between the microphone and the system control unit.
- I) Channel number:** Displays the channel no. of connected unit.
- J) ID number:** Displays the ID no. of unit.

Chairman Unit



Delegate Unit



Note:

- 1) You can power up the microphone unit directly using the supplied USB type C cable or via the rechargeable supplied batteries.
- 2) To charge and recharge the batteries, connect the supplied USB type C cable to a power source. We recommend charging the units up to 100% or for 8 hours, whichever comes first. Kindly check and match the power rating of the adapter before you connect the units. Audioplus shall not be held liable for any damages caused due to improper power adapter usage.
- 3) For better operation/performance, wait for some time (20-30 secs approximately) after switching ON all the microphone units to ensure that they are connected and synchronised with the system controller unit.

4. Operating Instructions

A) Home: Channel Groups, UHF State & Master Volume (Figure 4.1)

CH: It indicates the current working channel group of the system.

UHF State: It indicates the occupancy status and signal level of each channel. When it appears in Blue, it means the channel is occupied by the units (MIC is ON) and communication is established. It also shows the assigned frequency of the channel.

VOL: It shows the volume level of the main/master output of the system. You can increase or decrease the volume either by adjusting the slide bar or by tapping +/- icon as required.

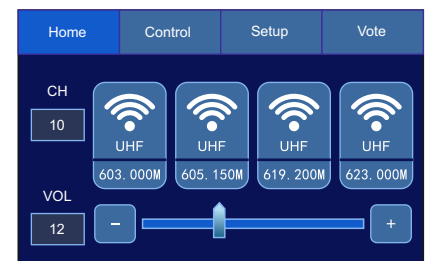


Figure 4.1 Main Screen

B) Control: Unit ID Editing & Remote Management



Figure 4.2
Control Main screen

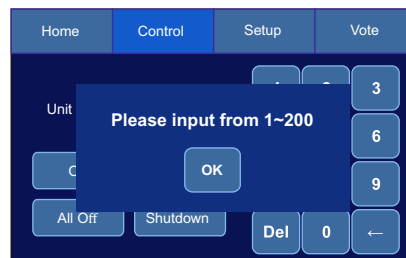


Figure 4.3
Unit ID message

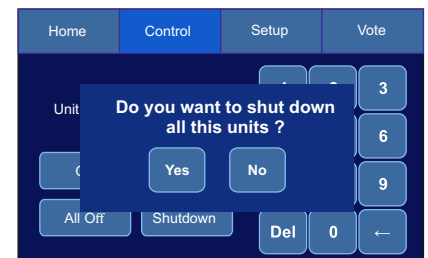


Figure 4.4 Microphone Shut down
message

Unit ID: It refers to the connected microphones. Use the adjacent keypad to enter unit ID between 001 to 200 to select it. The keypad has a back arrow "←" to delete incorrect digits and "Del" to clear all digits. When entering a number, the background turns Red for a brief moment.

Note: If you enter any value more than 200, it will display a prompt reading **"Please input from 1~200"**. (See Figure 4.3)

Remote Management: Use the options mentioned below to remotely manage the connected microphone units as required.

On / Unmute: The selected microphone unit can be UNMUTED.

Off / Mute: The selected microphone unit can be MUTED.

All Off / All Mute: All microphones can be MUTED.

Shutdown: All the microphone units can be powered OFF / shutdown. When pressed, it will display a prompt reading **"Do you want to shut down all the units?"** along with **"Yes"** and **"No"** buttons. (See Figure 4.4).

When selecting the ON (Umute) or OFF (Mute) option, it displays a prompt reading **“Mic XXX is on”** or **“Mic XXX is off”**. Mic XXX refers to the microphone unit selected by you. (See Figure 4.5 & 4.6)

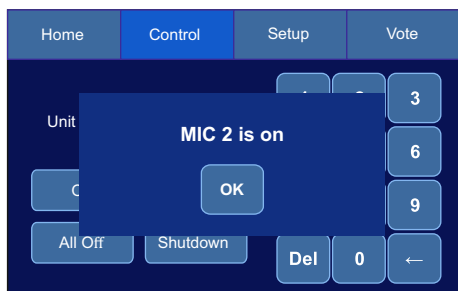


Figure 4.5
Microphone On Screen

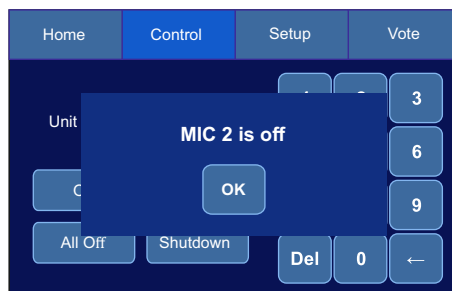


Figure 4.6
Microphone Off Screen

C) Setup: Version Info, Meeting Modes, Camera, Presets & Advanced Features

- 1) **INFO:** It allows you to check the firmware version of both the controller and microphone unit. When clicked, the version info will flash on the display of the microphone units. (See Figure 4.7, 4.8 & 4.9)

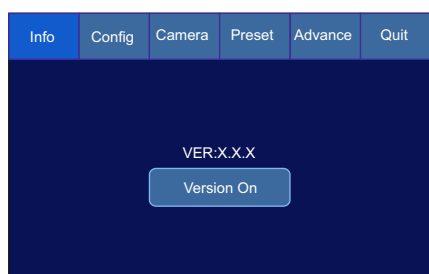


Figure 4.7
Controller Version On Screen

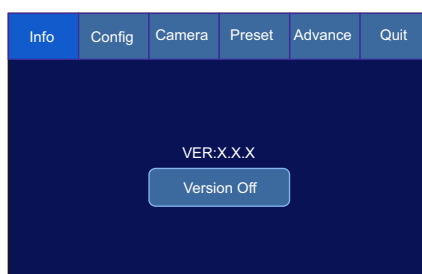


Figure 4.8
Controller Version Off Screen

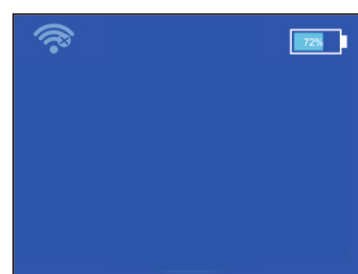


Figure 4.9
Microphone Version Screen

- 2) **Mode:** Use this section to activate or deactivate the ultra-functional meeting modes mentioned below as required. (See Figure 4.10)

Note: Most of the meeting modes work in conjunction with the number of active NOM (Number of Open Microphones). The Vak 40 system supports a maximum NOM of up to 4 active units. The chairman units are not affected by active NOM settings. (See NOM Section for more details)

FIFO: It is the order in which the participants enter the discussion and the order in which they are switched OFF (muted), when a new 'speak' request comes in.

E.g. Active NOM = 4 | Del = Delegate

When Del.1, Del.2, Del.3 and Del.4 press the talk switch in succession, they are able to speak. When Del.5 presses the talk switch last, Del.1 shuts off automatically and Del.5 is able to speak.



Figure 4.10
Mode Options Screen

LIFO: It is the order in which the participants enter the discussion and the order in which they are switched OFF is reversed, when a new 'speak' request comes in. E.g. Active NOM = 4 | Del = Delegate
When Del.1, Del.2, Del.3 and Del.4 press the talk switch in succession, they are able to speak. When Del.5 presses the talk switch last, Del.4 shuts off automatically and Del.5 is able to speak.

Limit: It limits the number of active microphones based on the NOM settings. When activated, no additional microphone units can be switched ON when the maximum OPEN MIC QTY has reached.

Chairman: In this mode, only the chairman units can be switched ON.

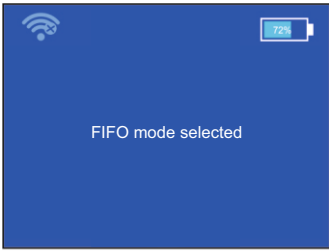


Figure 4.11
FIFO Mode Selected

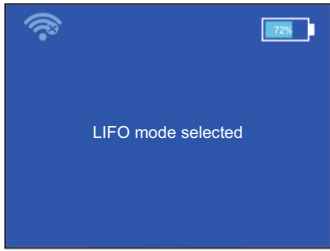


Figure 4.12
LIFO Mode Selected

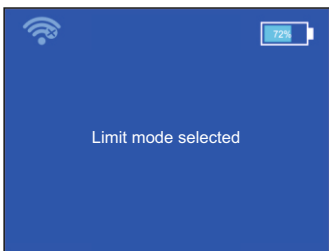


Figure 4.13
Limit Mode Selected

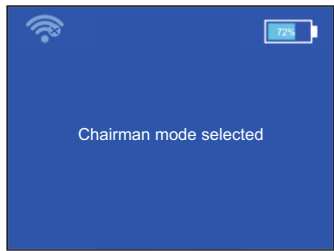


Figure 4.14
Chairman Mode Selected

Note: When activating any of the meeting modes, text on the system controller screen turns Red briefly as shown in figure 4.10 and it displays a prompt on the microphone screen reading "AAA mode selected". AAA refers to the meeting mode selected by you. (See Figure 4.11, 4.12, 4.13 and 4.14)

Config: Open Mic (NOM), Time Off, Unit Vol, Noise Gate & Buzzer (Touch Sound)

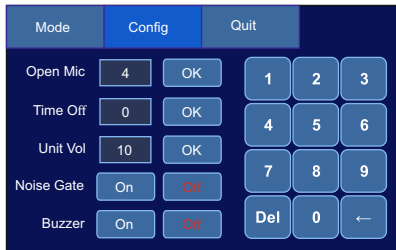


Figure 4.15
Config Option Screen

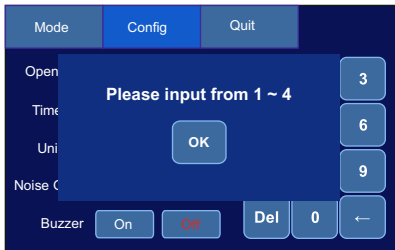


Figure 4.16
Open MIC Error Message

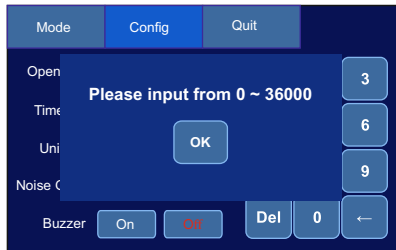


Figure 4.17
Time Off Error Message

Open MIC (NOM): This is the NOM or Number of Microphones setting. It lets you set the number of delegate units that can be active at any given time. The maximum NOM in this system is 4. This feature helps to regulate the meetings effectively. To set the number of Open MICs, edit the number using the adjacent keypad and press "OK". If you keep this field empty or enter a number more than 4 and press "OK", it will display a prompt reading **"Please input from 1 ~ 4"** along with an "OK" button. (Refer Figure 4.16)

Note: The chairman units are not affected by this parameter.

Time OFF: In this mode, the delegate units will be automatically "Turned OFF (Muted)" after the "Set" time. The mic active time range is between 0~36000 seconds. To set the active time, input the desired numbers using the adjacent keypad and press "OK". To disable this mode, set the value to "0". If you enter a time value more than 36000 seconds, it will display a prompt reading **"Please input from 0 ~ 36000"** along with an "OK" button. (See Figure 4.17)

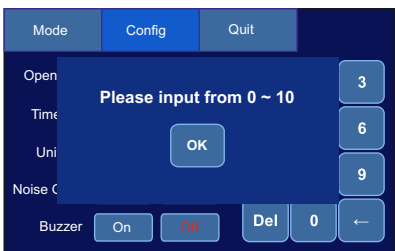


Figure 4.18
Unit Volume Error Message

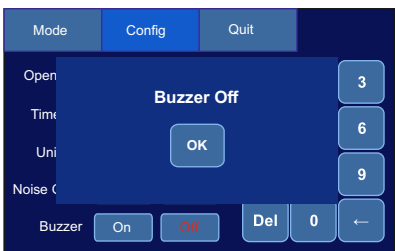


Figure 4.19
Buzzer Off Message



Figure 4.20 A
Microphone

Unit VOL: This is used to set the gain/volume level of all the connected microphone units at the same level. Edit the number using the adjacent keypad and press "OK". If you enter a value more than 10, it will display a prompt reading **"Please input from 0 ~10"** along with an "OK" button.
(See Figure 4.18)

Note (Vak 40): You can also change the volume level directly from the microphone unit. Press and hold the "ENTER + ►" keys for 5 seconds to enter the gain adjustment menu and then use the ▲(UP) and ▼ (DOWN) keys to adjust volume as required. (See Figure 4.20 A)



Figure 4.20 B
Microphone

Note (Vak 41): User can also change the volume level directly from Microphone unit. When Microphone unit is ON, press Power ON + talk (🗣️) switch for 5 sec. to enter volume adjustment menu on microphone then press plus and minus key to adjust volume. (Refer figure 4.20B).

Noise Gate: The noise gate is designed to attenuate pickup of ambient noise to enable clear voice reproduction. You can use this to minimise humming and buzzing sounds from the HVAC system. We recommend keeping this enabled for a better experience in larger installations with multiple participants sitting close to each other. Press the "ON/OFF" switch to enable/disable the noise gate. (See Figure 4.15)

Buzzer (Touch Sound): The system can play a beep sound to denote a button is pressed/ touched (input feedback). Press the "ON/OFF" switch to enable/disable the sound feature as required. (Refer Figure 4.19)

4) Camera: Protocol Selection, Camera ID and Tracking

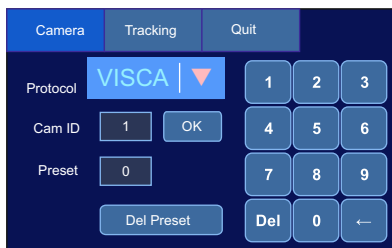


Figure 4.21
Camera Screen

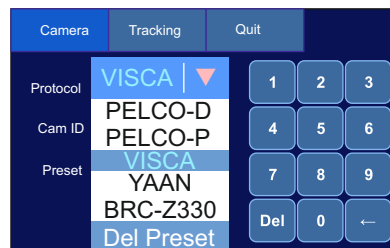


Figure 4.22
Protocol Option

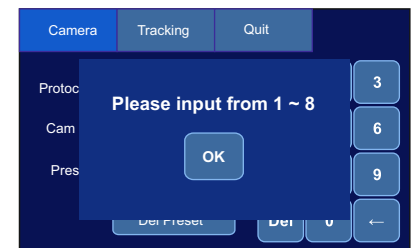


Figure 4.23
Cam ID Message

Protocol: Use this drop menu to set and match the communication protocol between the system controller unit and the connected PTZ camera. The Vāk 40 supports the following protocols: (See Figure 4.22).
PELCO-D / PELCO-P (Baud Rate:9600) / YAAN (Baud Rate:4800) / BRC-Z330

CAM ID: You can connect up to 8 cameras to the system. The connected cameras will be assigned an ID number. Use the adjacent keypad to enter the desired CAM ID. If you enter an ID number more than 8, it will display a prompt reading **"Please input from 1 ~ 8"** along with an "OK" button. (See Figure 4.23)

PRESET: It indicates the total number of microphones that have been set for camera tracking.

Del Preset: It is used to delete all saved presets on the system controller unit. If this option is selected, it will display a prompt reading **"Do you want to delete all Presets?"** along with an "OK" button. After deleting the preset, it will display a prompt reading **"Presets Deleted"** along with an "OK" button.
(See Figure 4.24 and 4.25)

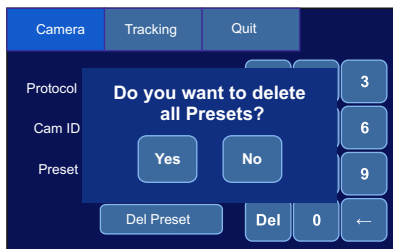


Figure 4.24
Message Before Deleting Preset

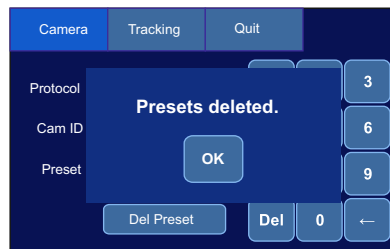


Figure 4.25
Message Before Deleting Preset

Tracking: Use this section to access and edit the advanced camera tracking features of the system. (See Figure 4.26)

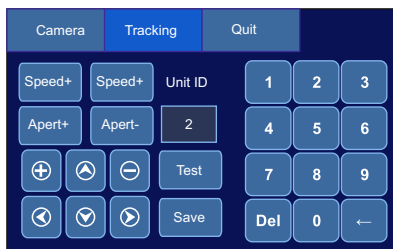


Figure 4.26
Camera Tracking Screen

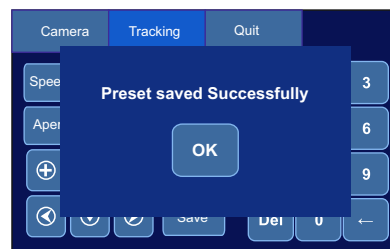


Figure 4.27
Preset Saved Message

SPEED +/-: Use this to adjust the speed of panning or tilting while setting up camera tracking.

APERT +/-: To adjust the aperture settings especially for cameras without auto aperture adjustment.

ZOOM IN (+)/OUT (-): Press the ⊕ icon to Zoom in and ⊖ icon to Zoom Out.

Direction Arrow: Press the direction arrows Up ▲ / Down ▼ / Left ◀ / Right ▶ to adjust the camera lens movement as required.

UNIT ID: This is used to set the camera to a dedicated microphone unit. Use the adjacent keypad to enter the ID of the microphone to be tracked. We recommend setting this up before the meeting begins. If the value is set to "0", the camera will default to the general view of the meeting room.

TEST: Use this to check/test tracking settings of any microphone configured earlier. Enter the microphone ID using the adjacent keypad and press the "Test" button. The camera will move and point towards the selected pre-configured microphone's position.

Save: All individual configured parameters will be saved based on the microphone IDs. If this option is selected, it will display a prompt reading **"Preset saved successfully"** along with an "OK" button. (See Figure 4.27).

How to Setup Camera Tracking:

Step 1. Check if the camera is in default mode. If not, reset the camera into default mode.

Step 2. Reset the system controller to default setting.

Step 3. Ensure to match the protocol settings between the camera and the system controller unit.

Step 4. Use the keypad to enter the number into the unit ID section. Set the position you want to track using the Up ▲ / Down ▼ / Left ◀ / Right ▶ keys as shown in Figure 4.26. After setting up, press the "Save" button. The unit ID will automatically increase by one.

Step 5. Follow Step 3 to configure all other microphone positions as required. Kindly, the maximum number of microphones that can be deployed is 200 and the maximum number of cameras that can be connected is 8.

Step 6. Use "Speed +/-" buttons to control the camera tracking speed, the "Apert +/-" buttons to adjust the aperture and the "⊕/⊖" buttons to set the Zoom level and fine tune the visuals as required.

Step 7. Use the "Test" button to test/recall the reconfigured positions to check if the tracking position is set correctly.

Note: The default baud rate of the Vak 40 system is 9600. Ensure to set and match the same rate on the camera to enable the proper communication in between the two.

4. PRESET: This is a bundle of system settings that can be pre-configured and saved in advance. This lets you quickly recall and switch system configurations depending on the different meeting scenarios. Only data from the "CONFIG" menu can be stored in presets. This includes MODE, OPEN MIC, TIME OFF and SYSTEM VOLUME. We recommend finishing the setup at the "CONFIG" menu and then saving it in the "PRESET" section. You can save up to 4 presets in the Vak 40 system.

Note: Data will be overwritten once "SAVE" is pressed.



Figure 4.28
Preset Menu

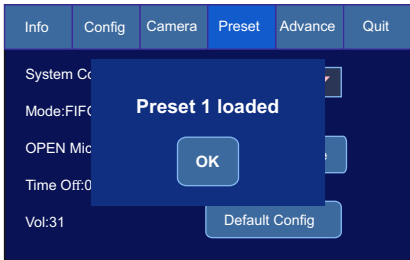


Figure 4.29
Preset Loaded Message

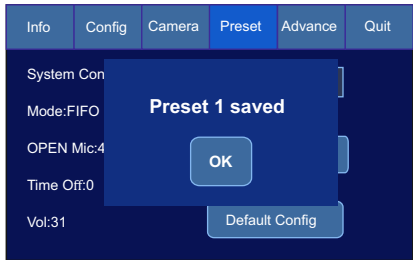


Figure 4.30
Preset Saved Message

Load: Use the drop menu above to select between Preset 1 – Preset 4 and press the "Load" button to activate the selected preset. The screen displays a prompt reading **"Preset x loaded"** along with an "OK" button. X refers to the preset numbers ranging from 1 to 4. (See Figure 4.29)

Save: Use this to save any changes made to the configuration or settings of a preset. When the "Touch" button is pressed, it displays a prompt reading **"Preset x saved"** along with an "OK" button. X refers to the preset numbers ranging from 1 to 4. (See Figure 4.30)

Default Config: Press this button to set the default preset configuration. In this mode, the system resets to its initial settings and parameters.

- 1.When selected, it will ask to resume default configuration and display a prompt **"Do you want to resume to default config?"** along with "Yes" and "No" buttons. (See Figure 4.31)
- 2.After resuming to default configuration, it will display a prompt reading **"Default config loaded. Please reboot the system"** along with "Yes" and "No" buttons.(See Figure 4.32)
3. When "Default Config" is activated, the system will resume to its default setup mentioned below:

CH: 1
MODE: FIFO
OPEN MIC: 4
TIME OFF: 0

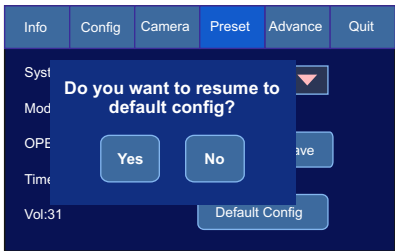


Figure 4.31
Default Setting Restore Message

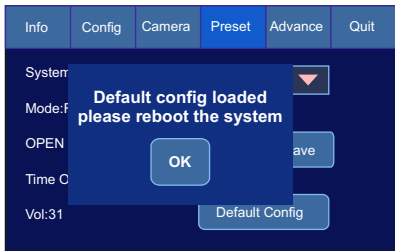


Figure 4.32
Default Setting Loaded Message

5) Advance: Microphone ID, Signal, IP, Time and Frequency Settings

ID Config: This allows you to allocate ID numbers to microphone units and to switch the system channel as required. This comes in handy when configuring large installations with multiple participants and complex meeting configurations.

ID: Use this to assign/re-assign a single or all microphone unit IDs as required.

To change the microphone ID, keep the required microphone ON. Change the ID using +/- icon and press the “Start” button. The controller displays a prompt reading **“Hint: setting unit ID X”** positioned towards the bottom left of the screen. X refers to the microphone numbers ranging from 1 to 200.
(See Figure 4.33 & 4.34)

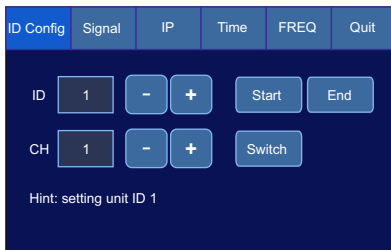


Figure 4.33
Microphone ID Edit Screen

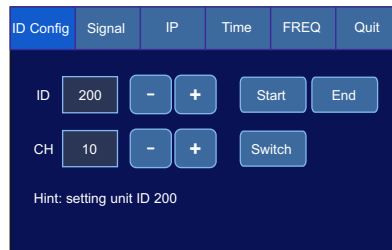


Figure 4.34
Channel ID Edit Screen

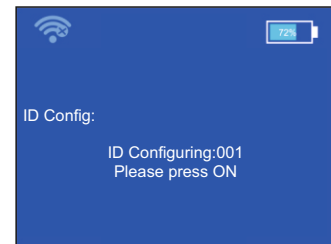


Figure 4.35
Microphone Screen

The microphone’s screen displays a prompt reading **“ID Configuring: XXX, Please press ON”**. Press the “ON / 🗣️ (Speak)” button on the respective microphone from which you want to start/assign numbering. (See Figure 4.35)

After assigning numbers on the microphone units, press the “End” button on the controller units to complete the process.

E.g. If you have 4 units with random unit IDs (say 2, 10, 25, 157) and we want the numbers to continue in succession (say 1, 2, 3, 4), then follow the steps below.

Step 1. Enter the highest MIC ID number which the microphone unit has and press the “Start” button in the system controller “ID Config” menu. When activated, the screen on the microphone unit displays a prompt reading **“ID Configuring: XXX, Please press ON”**. (See Figure 4.35)

Step 2. Press the “ON / 🗣️ (Speak)” button on each microphone one by one in succession.

Step 3. Press the “End” button on the system controller unit to stop the configuration setup.

Step 4. Now enter the number “1” in the ID option on the system controller unit, press the “Start” button and repeat Step 1, 2 and 3 mentioned above. The microphone IDs will now be in succession from 1 to 4.

How to Change Microphone ID from the System Controller Unit:

1) Specific/Individual Microphone ID Configuration:

Step 1. Switch ON the microphone and ensure it is connected to the system controller on the same channel.

Step 2. Input the ID number and press “Start” on the system controller.

Step 3. Units connected to the system will receive a config command. A message will show on the microphone display and the indicator keeps blinking till an ID is acquired.

Step 4. Press the 🗣️ (Speak) button on the microphone unit to acquire the ID.

Step 5. Press “End” on the system controller to finish the setup.

2) All Microphones ID Configuration:

- Switch ON the microphone and ensure it is connected to the system controller on the same channel.
- Input the initial ID number and press “Start” on the system controller.
- Units connected to the system will receive a config command. A message will show on the microphone display and the indicator keeps blinking till an ID is acquired.
- Press the  (Speak) button on the microphone unit to acquire the ID.
- IDs will be set in ascending order to each microphone unit.
- Press “End” on the system controller to finish the setup.

How to Change Microphone ID Manually (Vak 40):

- Power OFF the microphone unit.
- Long press POWER (side panel) + ENTER for a few seconds to enter the manual ID setup menu.
- Use the forward ► and back ◀ arrow keys to move the cursor from left to right and vice versa.
- Use the up ▲ and down ▼ keys to change the numbers as required.
- The microphone unit will sync with the system controller automatically.
- Press the POWER switch button to exit the manual mode.

How to Change Microphone ID Manually (Vak 41):

- Power OFF the microphone unit.
- Long press POWER (side panel) + speak for a few seconds to enter the manual ID setup menu.
Use the plus and minus keys on screen to change the numbers as required.
- The microphone unit will sync with the system controller automatically.
- Press the POWER switch button to exit the manual mode.

CH: The Vāk 40 has 10 frequency groups. Use this to change the frequency group of the system. This is useful when deploying multiple units especially when a frequency band is unavailable due to various external factors

SIGNAL: Use the window to monitor the occupancy status of the frequency groups. You can use this to observe the existence of external wireless interference before the system is configured and deployed. (See Figure 4.36).

E.g. Let’s assume no microphone unit from the Vāk 40 is active/connected. However, on the “Signal” screen you see that one of the four channels shows it is occupied. This implies the existence of interference on that channel. Use this information to mark and avoid that frequency and switch the system to another frequency.

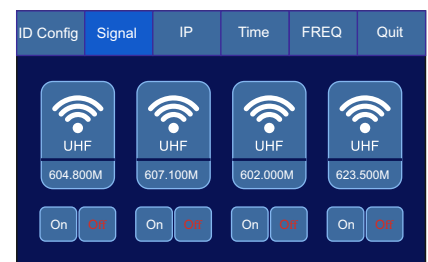


Figure 4.36
Signal Screen

IP: Use this to access and edit the IP (Internet Protocol) settings of the system. Use the adjacent keypad to edit the IP address, Subnet Mask and Gateway details as required. Press “Save” to apply the IP settings. IP configuration used to configure the external voting program. Ensure that the IP settings on the system controller the voting system match for seamless functioning.



Figure 4.37
IP Screen

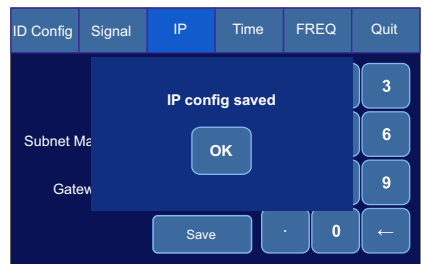


Figure 4.38
IP Config Saved

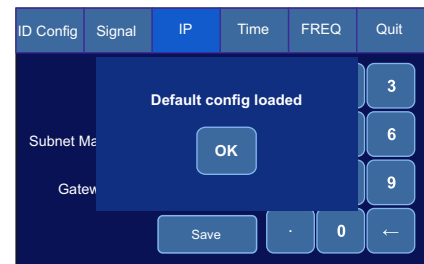


Figure 4.39
Default Config Loaded

Time: Use this to access and edit the date and time information being displayed on the system controller and microphone unit. (See Figure 4.40)



Figure 4.40
Time Setting Screen



Figure 4.41
Frequency Screen with Custom

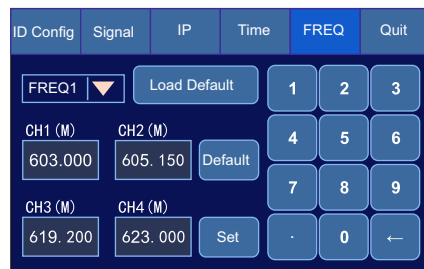


Figure 4.42
Frequency Screen with Default

FREQ: Use this to change, adjust and fine tune the actual frequency number values of the frequency groups. By default the Vāk 40 has 10 frequency groups distributed between 600 to 630 MHz. This setting can be used to counter conflict and interference issues in some frequency spectrums. (See Figure 4.41).

How to Edit & Customise Frequency Groups:

- Select the frequency group from the drop down menu. Press “Custom” to start editing the frequencies. You may need to change the state from “Default” to “Custom”, depending on the previous frequency settings.
- Upon selecting the frequency to be edited, the background turns Red. Using the adjacent keypad, delete the existing frequency using back arrow (←), type the new frequency and press the “Set” button. The system displays a prompt reading **“New frequency set, synchronizing!”** along with an “OK” button. (See Figure 4.43)
- If the entered frequency is less or more than the allowed frequency band i.e. 600 MHz to 630 MHz, it displays a prompt reading **“CHX out of the range (600 ~ 630MHz)”** along with an “OK” button. X refers to the channel number ranging from 1 – 4. (See Figure 4.45).
- If needed, you can press the **“Load Default”** to resume the factory frequency settings.
- Connected microphone units will communicate and sync automatically soon after every frequency setup as shown in figure 4.43.



Figure 4.43
System Synchronizing

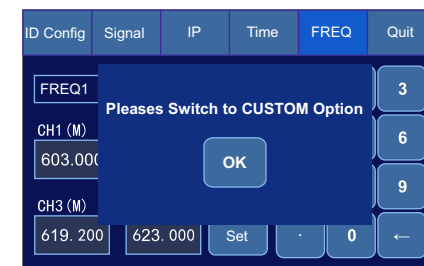


Figure 4.44
Custom Option Message

D) Vote: Online Info,
Sign-In, Voting
& Results

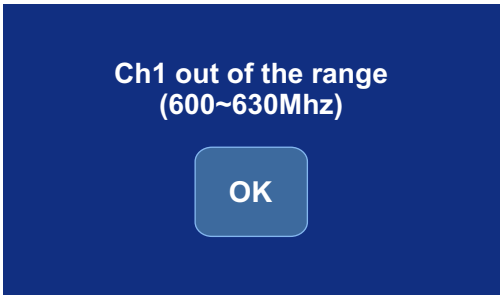


Figure 4.45
Frequency Error Message



Figure 4.46 Vote Option

Online Info: Use this to check the status and number of microphones connected to the system along with their IDs.

Note: Information presented in this screen may be based on the results from the last session.

Online Check: Use this to refresh and update the number of microphones connected to the system. When the “Online Check” button is pressed, it displays a prompt reading **“Do you want to check the state of online units?”** along with “Yes” and “No” buttons. In the illustration below, Figure 4.48 shows results before running “Online Check” (Online unit number:0) and Figure 4.49 shows results after running “Online Check” (Online unit number:2) along with detailed unit ID logs. We recommend using features before starting the “Sign-In” and “Vote” features.

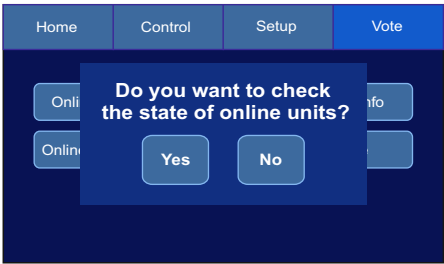


Figure 4.47
Online Status Check

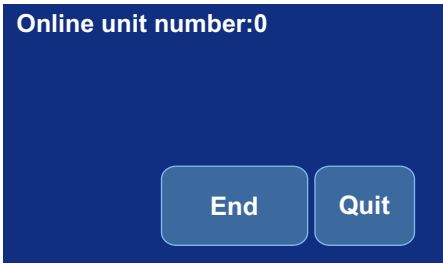


Figure 4.48
Online Unit Check

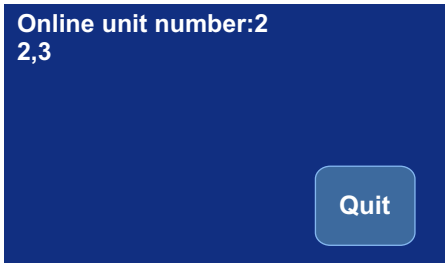


Figure 4.49
Online Unit Number

Sign-in Info: Use this to check the status and number of microphones signed-in to the system along with their IDs. (See Figure 4.52)

Note: Information presented in this screen may be based on the results from the last session.

Sign-in: Use this to check and count the actual present attendee numbers along with their microphone IDs. For best voting results, we recommend running the “Sign-In” process till the number of online units and signed-in units match your voting requirements.

How to Sign-in Before Voting:

- Upon pressing the “Sign-in” button, the screen displays a prompt reading **“Do you want to proceed sign-in?”** along with “Yes” and “No” buttons. (See Figure 4.50)
- All microphone units will receive a prompt reading **“Please press SIGN-IN button”**. Attendees who are involved in the voting process should press the “Sign-in” button on their respective microphone units. (See Figure 4.51)



Figure 4.50
Sign-in Message



Figure 4.51
Sign-in Message On Microphone

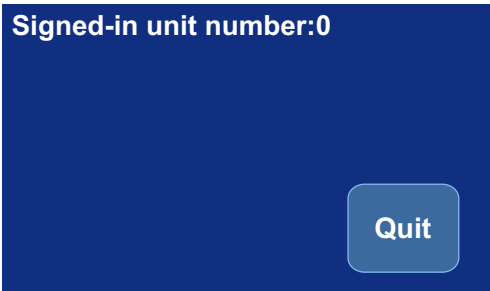


Figure 4.52
Sign In Units Status

Vote Info: Use this to check the voting results.

Note: Information presented in this screen may be based on the results from the last voting session.

Vote: Use this to start the voting process.

How to Start the Voting Process:

Note: Only microphones that have signed-in are eligible to take part into the voting process.

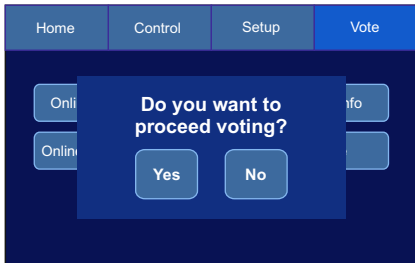


Figure 4.53 Start Voting

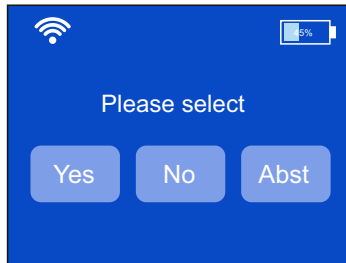


Figure 4.54

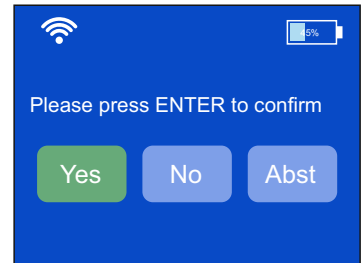


Figure 4.55

- Upon pressing the "Vote" button, the system displays a prompt reading **"Do you want to proceed voting?"** along with "Yes" and "No" buttons. (See Figure 4.53)
- The microphone units will display a prompt with three options "Yes", "No" and "Abst". (See Figure 4.54)
- On the microphone units, the participants have to select one option from "Yes", "No" and "Abst" using their respective buttons (1, 2 and 3) and then press "Enter" to confirm the vote.
- After the participants have cast their respective votes, press the "End" button on the system controller to stop the voting process.
- Figure 4.57 and 4.58 show the results of the vote.

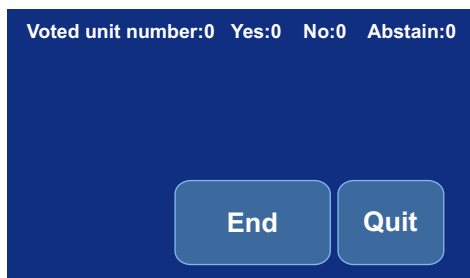


Figure 4.57
Voting Process Result

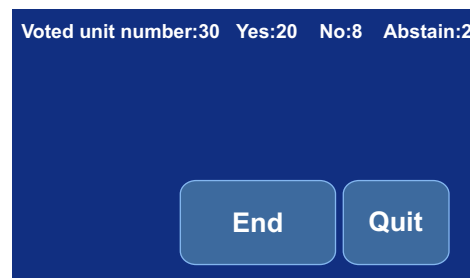


Figure 4.58
Voting Process Result

5. Software installation & setup

Vak 41 Service Software – Installation & User Guide

VAK 41 service software is the portal to configure VAK 41 system from PC / Laptop.

5.1 Downloading the Software

- Navigate to the Studiomaster website.
- Go to Installation Products and select VAK 41 from the drop-down menu.
- Once the VAK 41 product page opens, scroll down to the page **Navigation Menu** and select **Downloads**.
- Within the Downloads section, choose Software.
- Download the file: **"VAK 41 Service Software.RAR"**

5.2 Extracting the Package

- Extract (unpack) the downloaded **RAR** file to your PC.
- Save the extracted folder containing **VAK 41 Service Software.msi** and **AccessDatabaseEngine** in a convenient directory.

5.3 Connecting the Controller to the PC/Laptop:

Step 1: Physically connect the devices

- Take an **RJ45 Ethernet cable**.
- Plug one end into the **10Base connector** on the rear panel of the Vak 40.s main controller.
- Plug the other end into the **Ethernet port** of your PC or Laptop.

Step 2: Check your PC/Laptop network settings

On your PC/Laptop:

- Open Control Panel → Network and Sharing Center → Ethernet
- Click Details. (See Figure 5.1)
- Note down the following information:
 - IPv4 Address (e.g., 10.123.0.62)
 - Subnet Mask (e.g., 255.255.0.0)
 - Gateway (if any, e.g., 10.123.0.4)

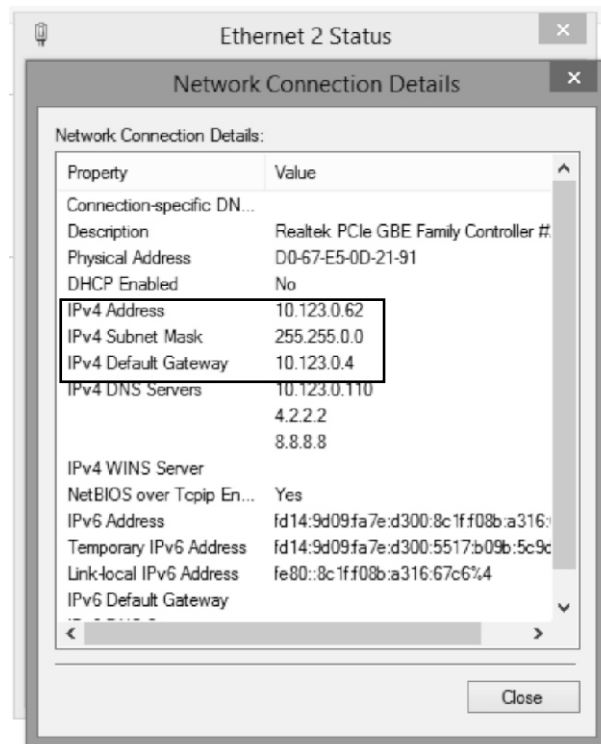


Figure 5.1: IPV4 Address of PC/ Laptop

Step 3: Access the controller's setup

- On the main controller, go to the Home screen.
- Navigate to Setup → Advanced → IP tab.

Step 4: Configure the controller's IP

On the main controller:

- Enter an **IP address in the same network segment** as your PC. For example, if your PC's IP is 10.123.0.62, you could set the controller to 10.123.0.63.
- Enter the **same Subnet Mask** and **Gateway** as noted from your PC.
- Click Save. You should see a prompt "**IP Config saved**" → click OK.

5.4 Launching the Application

- Locate **AccessDatabaseEngine** and double-click it.
- Install the AccessDatabaseEngine on your PC / Laptop.
- Locate **VAK 41 Service Software.msi** and double-click it.
- Install the Vak 41 Service Software on your PC / Laptop.
- Software is made to run in two different formats. One for the administrator and one for the service personal (user) who will be providing service during conference.

5.4.A. Administrator screen:

- Log in to your PC/Laptop as **Administrator** to run the software in the administrator mode.
- Go to This PC > C drive > Program Files (x86) > Vak 41 Service Software > Vak 41 Service Software folder.



Figure 5.2: Login Page

- Right-click on the **service.exe** and choose **Run as Administrator**.
- When the login window appears (see figure 5.2), enter the **login ID** and the **password**

Default admin login credentials are:

Login ID: admin

Password: 123456

- The main screen will now appear as shown in the figure 5.3.

1. Unit Management:

- Use this window to add, delete, or edit any unit name.
- **Add:** Click Add, enter the Microphone number into "Unit ID" and set the microphone name into "Unit Name" section using keyboard.
- **Save:** When Unit ID and Unit Name is added, Add Button changes into Save Button. Click Save to store changes.
- **Edit:** Use this to make any changes into the Unit ID or Unit Name.
- **Delete:** Use this button to delete any single previous entries (Unit ID & Unit Name).
- **Delete All:** Deletes all previous entries (Unit IDs & Unit Names).

Figure 5.3: Administrator Screen

2. Service Management:

- There are total 6 editable service menu items available for VAK 41.
- Out of 6 services 5 service names are editable, user can change it as per the requirements or disable all if not required.
- Default service names are:
 Service 1 Water Service 4 Attendant
 Service 2 Tea Service 5 Stationary
 Service 3 Coffee Service 6 Help
- The **"Help"** service is fixed and cannot be edited.
- **Edit:** This is use to edit Unit ID, Unit Name.
- **Upload:** After editing the services, click Upload to load the menu onto the chairman or delegate units.
- **Enable/Disable:** Use this to enable or disable the service menu on microphone.
- **Exit:** This is use to exit the Vak 41 Service Software.

3. Password Management:

- **Admin Password:** This is used to change the administrator password. Enter the new password and click Save.
- **User Password:** This is used to set new user ID and password. Enter the User Name and the New Password, then click Save.

5.4.B User Screen

- Use the same software to login into service personal user screen.
- This screen is intended for service personnel providing support during an ongoing conference.

How to navigate to User Screen

- Follow the same steps 5.4 and 5.4.B to login into service personal user screen.

Or

- Go to desktop. Double click on Vak 41 Service Software icon.
- Use User Login Credentials to login in to this screen.
- Default User login credentials are:

User ID: user

Password: user

The software opens a different screen as shown in figure 5.4.

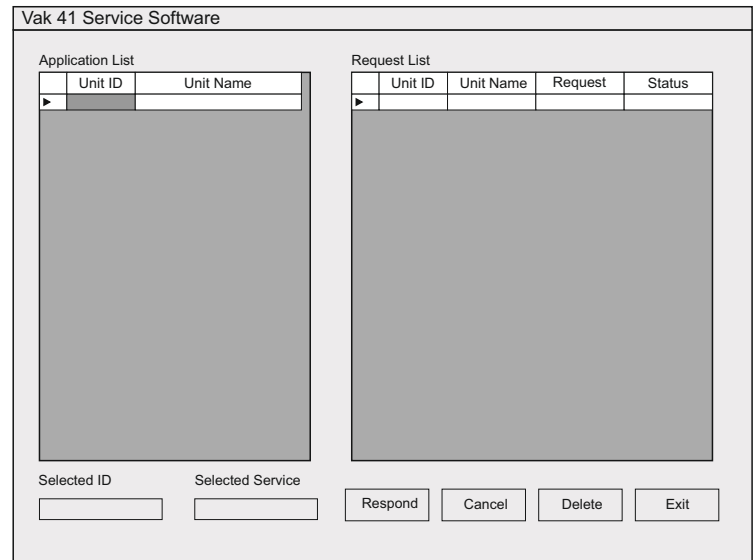


Figure 5.4: User Screen

B.1. Application List:

This section will show all the Microphone ID with the user names as shown in figure 5.5.

B.2. Request List:

- All the service requests received from conference will appear in Request List section with Microphone ID, Name (set in administrator screen with unit ID) and the requested service followed by Status.
- The Status will change from Pending to Responded when the service person processes the request.
- When the service is responded it will be moved down to the last line.
- The most recent request appears at the top of the list with the status Pending.

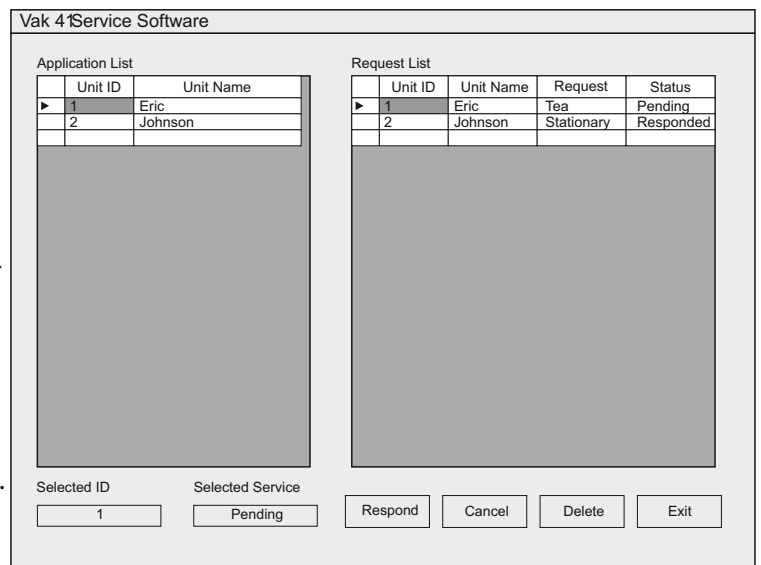


Figure 5.5: User screen with requests

B.3. How to Respond a Request?

- Keep the cursor on the Microphone ID in the request list section.
- The selected Microphone ID and the service request will be displayed on left bottom side in "**Selected ID**" and "**Selected Service**" section.
- Select Respond button to process the request.
- User can check the status in Request List "**Status**" section.
- The status will change from pending to responded.
- User has to delete the request after processing.

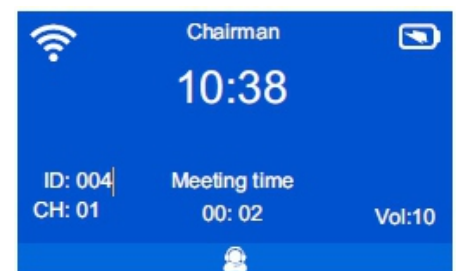


Figure 5.6: Microphone home screen

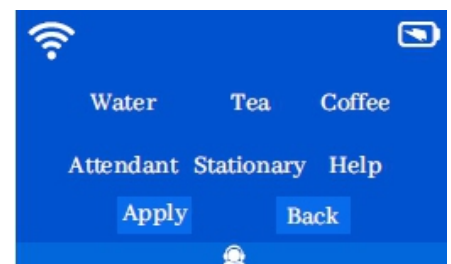


Figure 5.7: Service request screen

B.4. How to place service request from microphone unit:

- Select user symbol from the screen (see figure 5.6).
- The service request screen will appear on the screen as shown in the figure 5.7.
- Service request can be placed by selecting any of the services set by the admin before starting the conference and selecting apply.
- Service selected by that microphone unit will be displayed on the screen as shown in user screen as shown in figure 5.8.

Note: Please use same PC for administrator and user login.

B.5. In case Administrator and user PC / Laptop are different follow these steps:

B.5.1 For Administrator PC:

- Follow steps 5.1, 5.2, 5.3 and 5.4 in administrator PC/ Laptop.
- Set the microphone ID, names and update the service names as per requirement.
- Click the upload button to update the changes.

B.5.2 For User PC:

- Follow steps 5.1, 5.2 and 5.3 in user PC/ Laptop.
- Follow point 5.4.B from section 5.4.
- Copy the data base file with extension **.accdb** from Administrator PC / Laptop Vak 41 folder to user PC / Laptop Vak 41 folder for smooth operation.

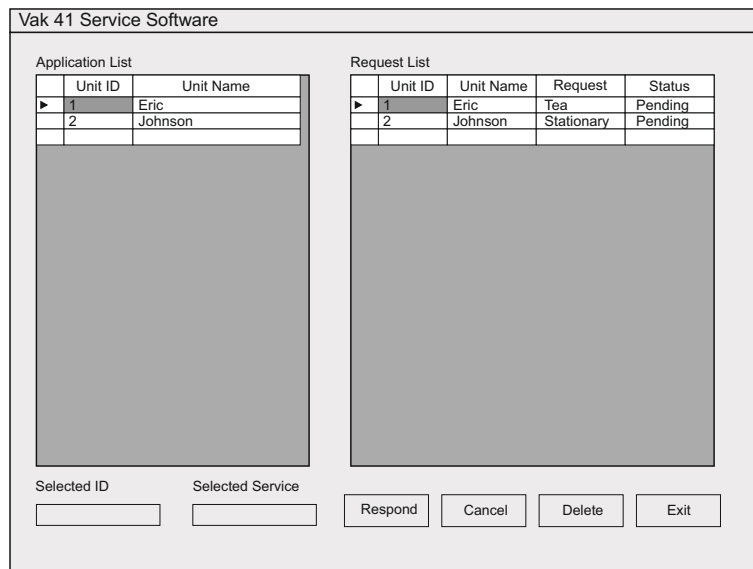


Figure 5.8: User screen

6. Installation

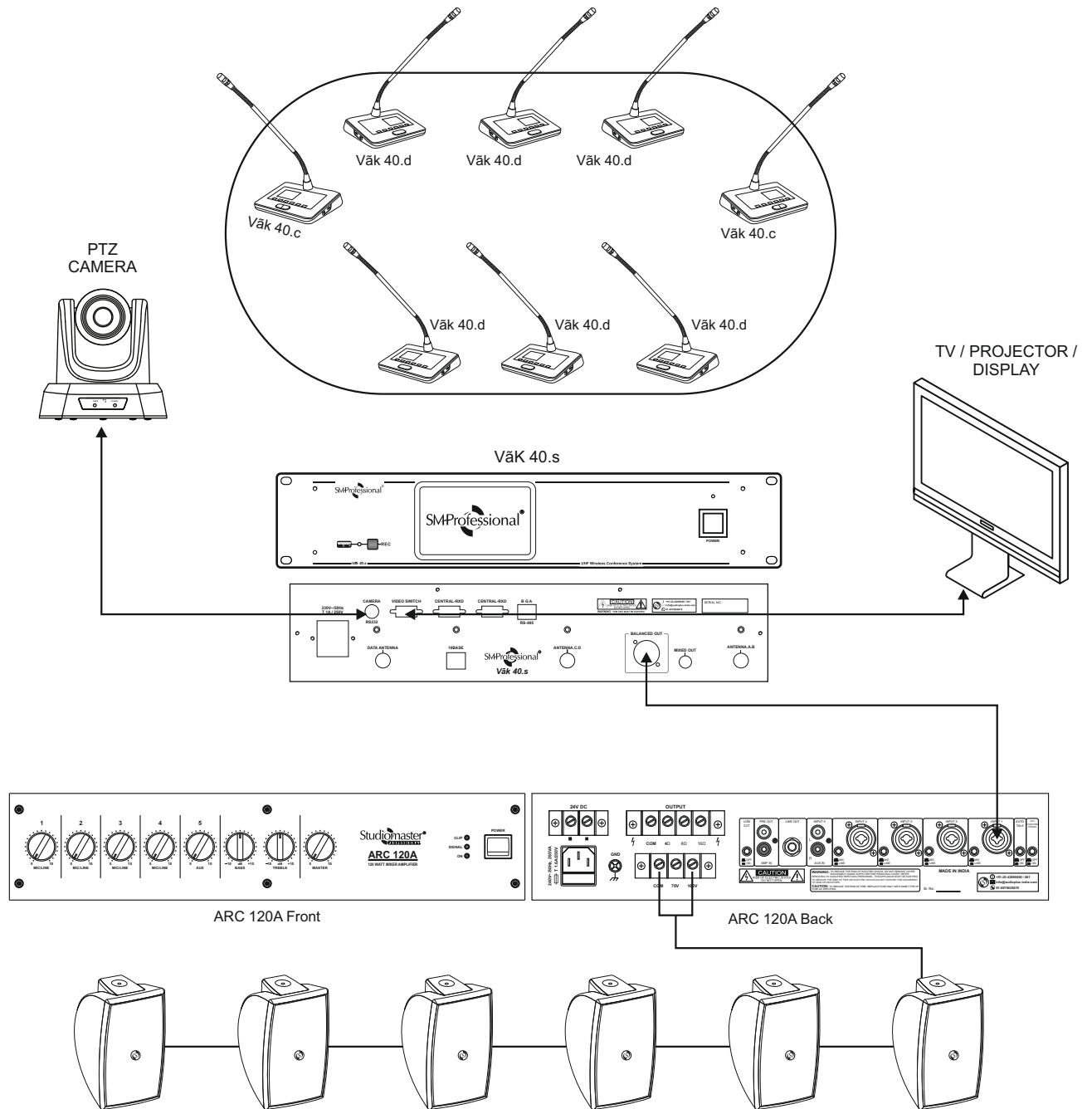
- 1) Connect the A,B, C,D & Data antennas on the rear panel. Extend the antennas and angle them at 45°. The audio signal antennas A/B/C/D and Data antenna are different. They can not be used interchangeably.
- 2) Connect the XLR or 1/4" jack output to the PA system.
- 3) To get the best communication, the minimum installation height from the ground should be 1m. The minimum distance between the microphone units and the main controller should be 2m and the minimum distance from the wall should be 1m.
- 4) Keep the antennas away from interference sources such as computers, WiFi routers, digital equipment, TV and heavy machineries.
- 5) Keep the amplifier gain controls and mixer levels at minimum before switching ON the microphone unit.

7. Basic Troubleshooting

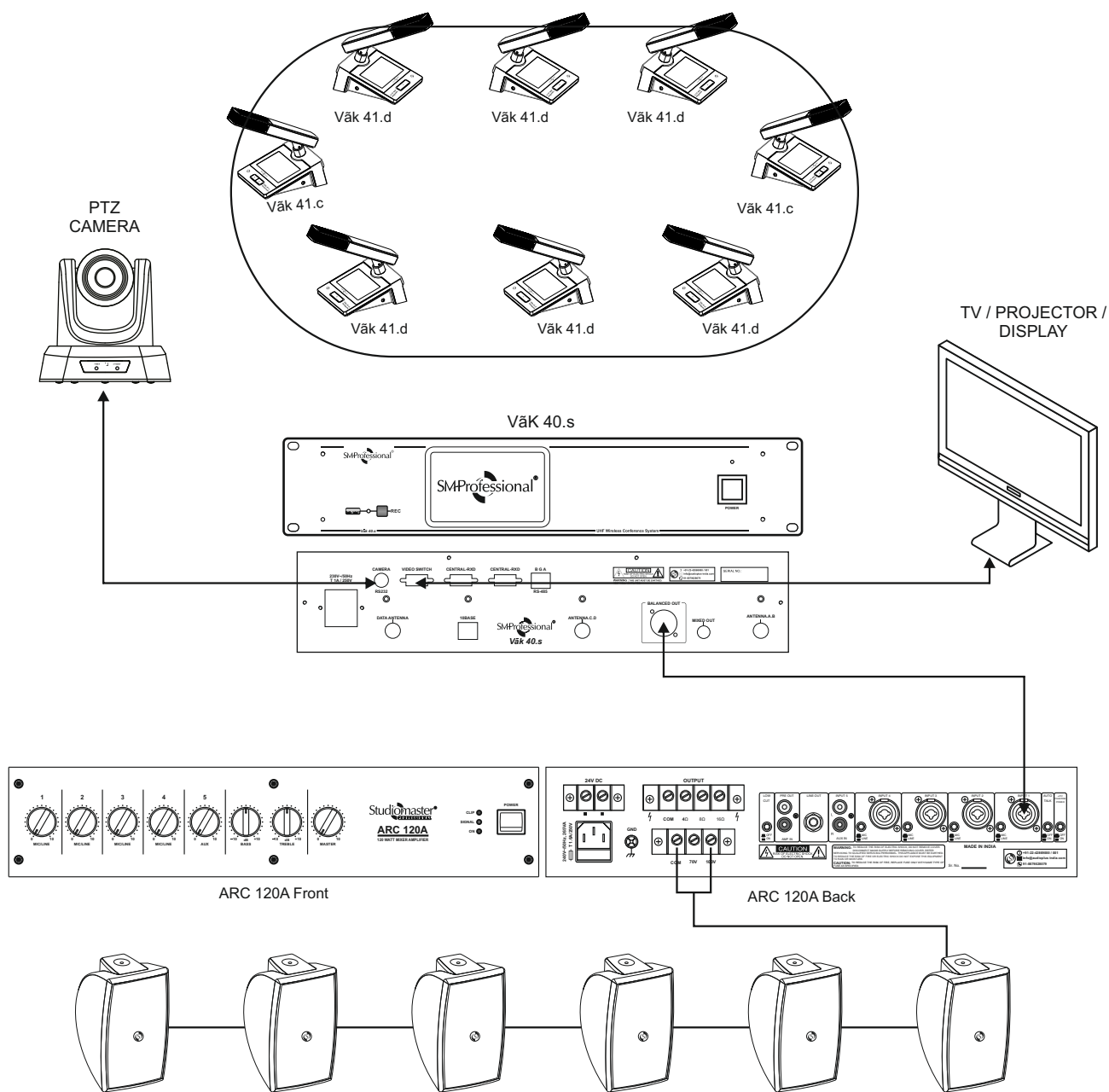
Problem	Solution
No Voice (No signal on receiver)	• Check if the power switches of the transmitter & receiver are ON. • Check if the battery connections & polarity in the transmitter are correct. • Check if the Mic unit is synchronized to the same channel as displayed on the controller unit. • Check if the antenna is connected properly on the receiver. • Make sure that there is no obstruction between the antenna & the transmitter.
No Voice (Signal is normal)	• Check if the connection between the receiver & mixer, the mixer & amplifier or the amplifier & speaker are correct. Also, check if the mixer or amplifier volume levels are ok.
No Voice (Microphone is ON)	• Check if the transmitter battery is fully charged.
When transmitter is ON, there is noise or interruption in the receiving signal.	• Assign it to another channel.

8. System Connection

A) Vak 40.c & 40.d



B) Vak 41.c & 41.d



9. Technical Specifications

VãK 40.s System Controller Unit

Modulation	FM
Operation Distance	60m
Oscillation	PLL
Sensitivity	-100dBm @ ± 25 kHz
Band Width	30MHz
Max Deviation Range	± 45 kHz
SNR	>60dB
T.H.D	<0.7% @ 1kHz
Frequency Response	45Hz-18kHz ± 1 dB
Power supply	AC 240V
Max. Current Consumption	110 mA
Output Connector	XLR & 1/4" Jack
Dimension (W x D x H)mm	483 x 323 x 90
Net Weight (Kg)	5.1

VãK 40.c Chairman & VãK 40.d Delegate Units

Carrier Frequency	UHF 600 – 630MHz
Oscillation	PLL
Harmonic Radiation	<-65dBm
Band Width	30MHz
Max Deviation Range	± 45 KHz
RF Power Output	15mW
Power Supply	3.7V DC
Max. Current Consumption	240mA
Length of MIC Tube	21" / 533mm (2 Bends)
Priority Button	Only on the Vak 40.c Chairman Unit
Dimension (W x D x H)mm	160 x 138 x 49
Net Weight (Kg)	0.76

VãK 41.c Chairman & VãK 41.d Delegate Units

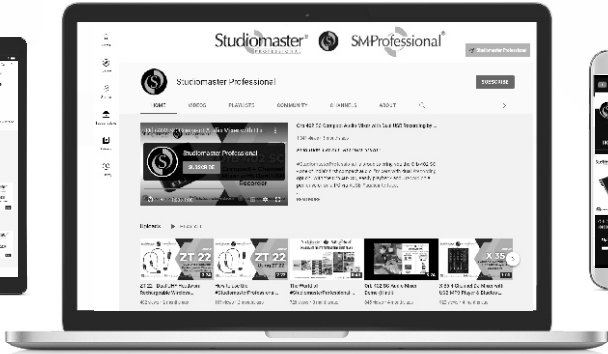
Carrier Frequency	UHF 600 – 630MHz
Oscillation	PLL
Harmonic Radiation	<-65dBm
Band Width	30MHz
Max Deviation Range	± 45 KHz
RF Power Output	15mW
Power Supply	3.7V DC
Max. Current Consumption	240mA
Length of MIC Tube	215mm (Shortneck)
Priority Button	Only on the Vak 41.c Chairman Unit
Dimension (W x D x H)mm	148 x 124 x 60 (Base)
Net Weight (Kg)	0.75

10. Safety Instructions

- Keep the wireless receiver in a good location to ensure good signal strength.
- Please keep the product away from direct sunrays & rain.
- Please keep the product away from heavy magnetic or electromagnetic fields, it could affect product performance.
- Please switch off when removing the batteries.
- Please remove the batteries/ power supply when the product is not being used for a long time.
- Do not open any of the components yourself, for repairs please contact an authorised Studiomaster Professional dealer.
- Do not use systems with the same frequency at the same place, please separate them by a considerable distance.

Subscribe to our Channel





SCAN
REGISTER
& WIN



SUBSCRIBE
ON
YOUTUBE



FOLLOW US
ON
INSTAGRAM



VISIT
OUR
WEBSITE



SCAN
TO
WHATSAPP



Disclaimer: Specifications are subject to change without notice. Unauthorized reproduction of this manual is prohibited.

Studiomaster[®]  SMProfessional[®] are registered trademarks of Audioplus in India. © Copyright Audioplus. All rights reserved. Any unauthorised reproduction or use of logos, images or design elements is strictly prohibited by law. No part of the compilation may be reproduced in any manner or translated without written permission.

Brought to you by: **AUDIOPLUS**

For any service-related queries, contact
A1/A2, Giriraj Industrial Estate, Mahakali Caves Road, Andheri (East), Mumbai - 400 093. India
Tel.: +91-22-42869000 / 001 WhatsApp: +91-8879028079 E info@audioplus-india.com
W www.audioplus-india.com / www.studiomasterprofessional.com