AUDIO MATRIX RPM200 Factor Digital Multi Zone Paging Microphone User Manual

AUDIO MATRIX

**USER'S MANUAL
AUDIO MATRIX
RPM200
Paging Station**

Contents

SAFETY RELATED SYMBOLS

CAUTION

⚠ RISK OF ELECTRIC SHOCK DO NOT OPEN ⚠

⚠ The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions.

⚠ The symbol is used in the service documentation to indicate that specific component shall be only replaced by the component specified in that
Documentation for safety reasons.

⏚ Protective grounding terminal.

∿ Alternating current /voltage.

⚡ Hazardous live terminal

ON: Denotes the apparatus turns on.

OFF: Denotes the apparatus turns off, because of using the single pole switch, be sure to unplug the AC power to prevent any electric shock before you proceed your service.

WARNING: Describes precautions that should be observed to prevent the danger of injury or death to the user.

🗑 Disposing of this product should not be placed in municipal waste and should be separate collection.

CAUTION: Describes precautions that should be observed to prevent danger of the apparatus.

WARNING

- **Power Supply**

  Ensure the source voltage matches the voltage of the power supply before turning ON the apparatus. Unplug this apparatus during lightning storms or when unused for long periods of time.

- **External Connection**

  The external wiring connected to the output hazardous live terminals requires installation by an instructed person, or the use of readymade leads or cords.

- **Do not Remove any Cover** There are maybe some areas w ith high voltages inside, to reduce the risk of electric shock, do not remove any cover if the power supply is connected. The cover should be removed by the qualified personnel only.

  No user serviceable parts inside.

- **Fuse** To prevent a fire, make sure to use fuses with specified standard (current, voltage, type). Do not use a

different fuse or short circuit the fuse holder. Before replacing the fuse, turn OFF the apparatus and disconnected the power source.

- **Protective Grounding** Make sure to connect the protective grounding to prevent any electric shock before turning ON the apparatus. Never cut off the internal or external protective grounding wire or disconnect the wiring of protective grounding terminal.
- **Operating Conditions**

  This apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this apparatus.

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
Do not use this apparatus near water. Install in accordance with the manufacture-r's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not block any ventilation openings.
No naked flame sources, such as lighted candles, should be placed on the apparatus.

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Follow all instructions.
- Keep these instructions.
- Heed all warnings.
- Only use attachments/accessories spec ified by the manufacturer.
- **Power Cord and Plug**

  Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

- **Cleaning**

  When the apparatus needs a cleaning, you can blow off dust from the apparatus with a blower or clean with rag etc. Don't use solvents such as benzol, alcohol, or other flu ids with very strong volatility and flammability for cleaning the apparatus body. Clean only with dry cloth.

- **Servicing**

  Refer all servicing to qualified personnel. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so .

  Servicing is required wh en the apparatus has been damaged in any way , such as power supply cord or plug is damaged , liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture , does not operate

  normally, or has been dropped.

The mains plug is used as the disconnect device , the disconnect device shall remain readily operable.
Thanks to purchase the product of our company, please read this manual carefully before any operation.
Note: This guide contains all the information needed for the product. There might be some differences between the item and its description; please refer to the real product for the features.

AUDIO MATRIX

Audio Matrix is a system which contains multiple signal inputs and outputs; each input can be assigned to any output like matrix in mathematics. Parameters controls are available for all the inputs and outputs, and are easily changeable; all the configurations can be backed up and restored, easy to copy and to extend. Audio Matrix gives the ability to build complex audio setup in one device providing an instinctive operating interface for both professional and beginner.
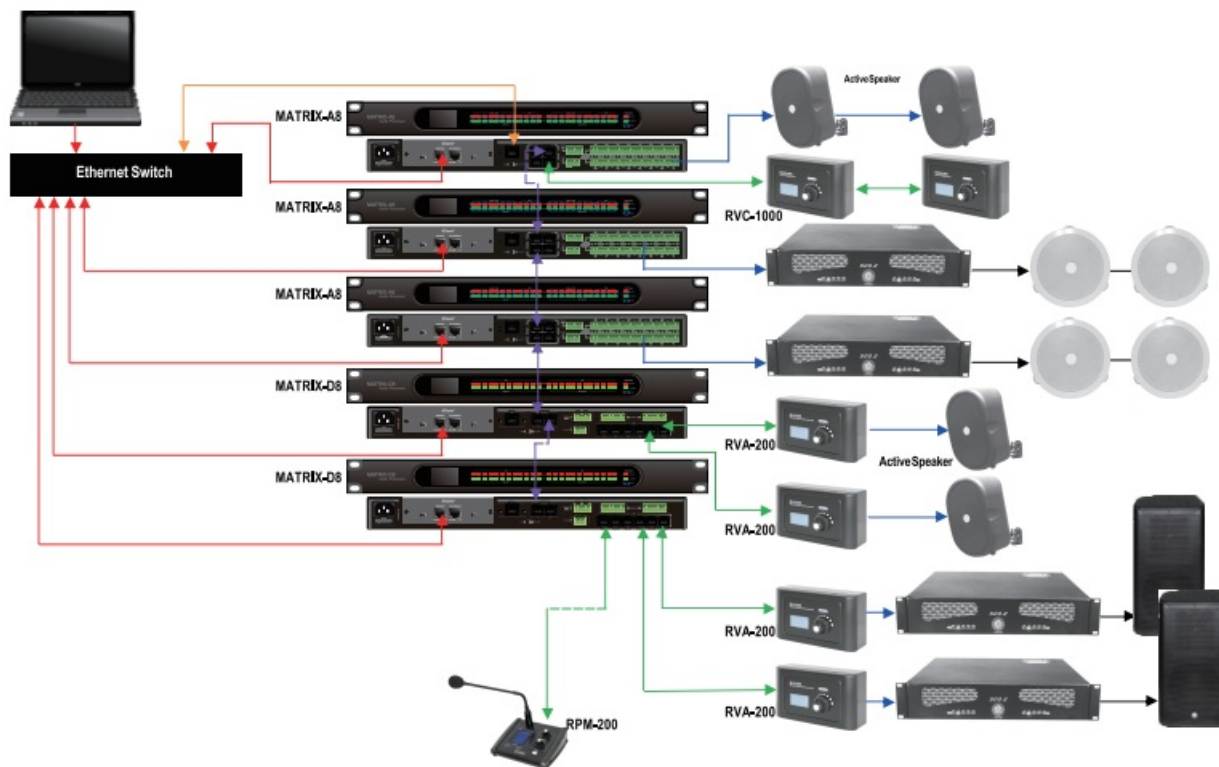
SYSTEM PREVIEW

Audio Matrix is a system which combines the hardware with software. The core device is Matrix A8 or Matrix D8. The major features are listed below:

1. **INPUTS and 12 OUTPUTS**
2. In case of extension links, the maximum goes up to 192 inputs and outputs.
3. Broadcast different zones simply by paging unit control.
4. A remote control unit can assign the volume in different zones separately.
5. Control signals are transferred individually with dedicated wires separated from the audio stream, avoiding conflicts and improving the flexibility and the reliability.
6. The transmission for audio stream is based on AES/EBU protocol, while the control signal used a RS-485 format.

   There are six members in the MATRIX SYSTEM family:

   MATRIX A8 — Server host;

   MATRIX D8 — Server host (Compared to A8, 8 analog I/O for the A8, 8 digital I/O for D8);

   RVC1000 — Remote volume control with a link port;

   RVA200 — Remote volume control with additional outputs;

   RIO200 — Remote analog inputs and outputs;

   RPM200 — Remote paging station.

   By using a combination of the above six devices, most of the broadcasting or routing requirements can be fulfilled.

This system fits perfectly for schools, middle and small companies, supermarkets, bars and restaurants, health clubs, small libraries … The friendly and quick implementation of primary and advance parameters makes easy the design of professional as well as simple applications.

Here are some common examples:

RESTAURANT

RPM200 · MP3/CD Player · Video Player · MATRIX A8 · TV · 4CH 70/100V · RVA200 · Restaurant · Bar · Active Satellite · Active Sub · Terrace · Cloak Room · Toilet

SCHOOL

MATRIX A8 · Video Projector · RIO200 · Active Speakers · Classroom · RIO200 · Active Speakers · Classroom
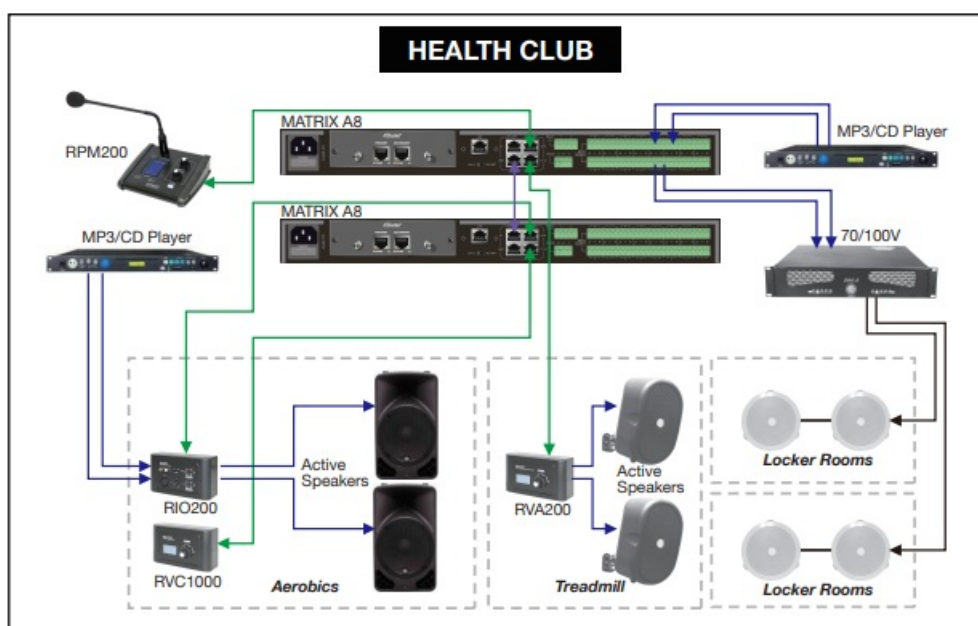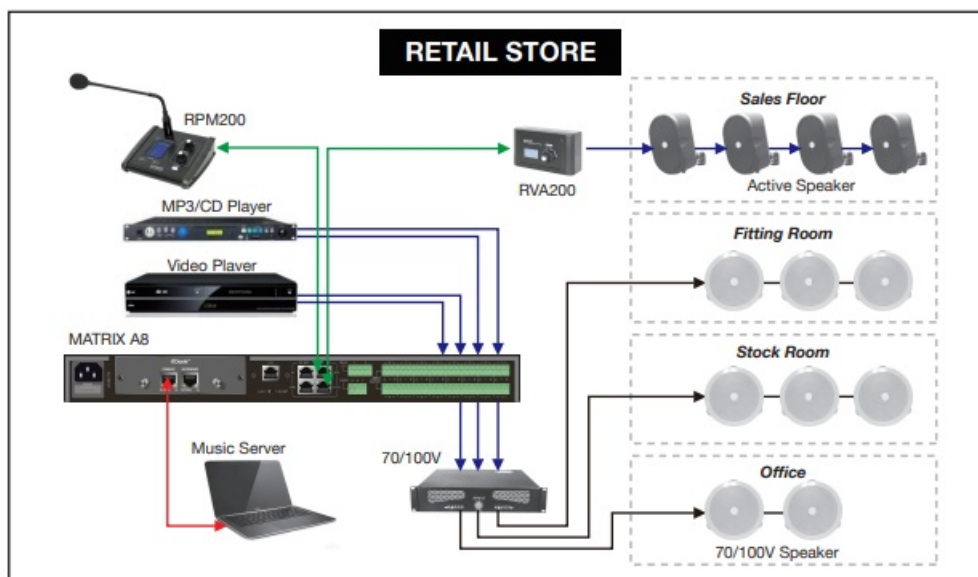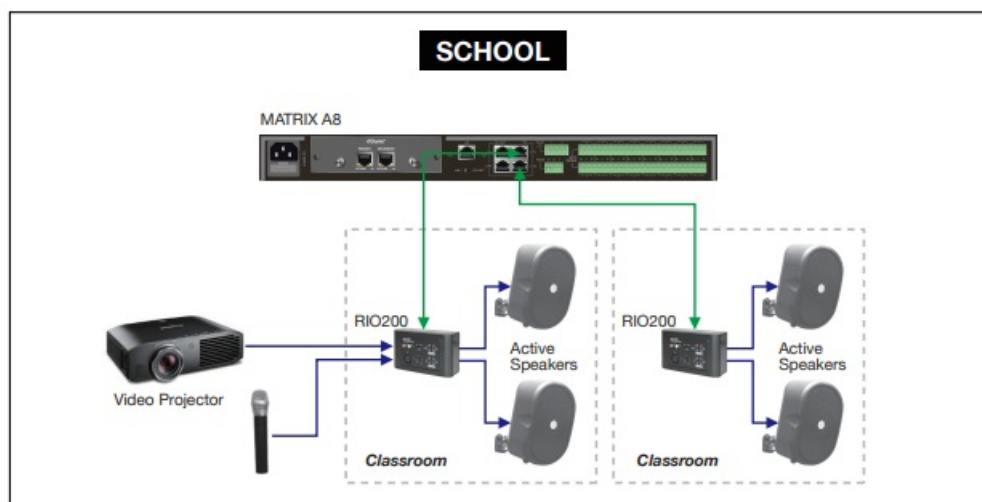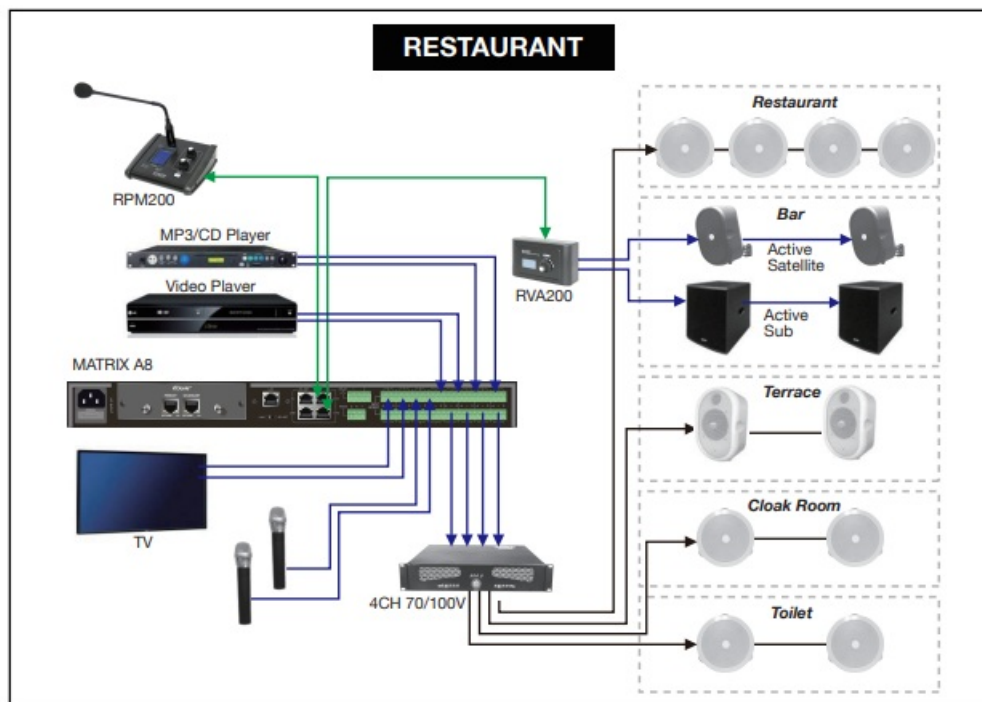
BASIC OPERATION

RPM200–Paging Station

RPM200 can manage the zones you want to be broadcasted, the upper quantity is determinated by the amount of the linked server host. And you can choose the prelude as you wished (MP3 and wav are supported, less than 12M.) Zones can be selected for the ones needed or for all, it ensures the information coverage and delivering selectivity at the same time.

a. LCD screen

It displays the selected zones, the volume and ID number.

b. Signal status indicators

The green LED indicates the presence of signal when the microphone is ON. The red LED indicates the limit of clipping.

c. Communication status indicators

When the communication with the MATRIX-A8 iscorrect, the green LED blinks.
In case of problem, the BUSY red LED lights up.

d. Volume control and all zone selector

It controls the volume of the microphone for each selected zones.

By pushing on the button, it selects all zones.

e. Zone selector

It selects one or several zones by turning the button left or right and pushing on it to validate.

f. Push-to-talk switch

When the button is pushed, the chimes sounds and the red ring on the microphone lights up indicating that one can talk.

g. XLR connector

Female 3 pin XLR connector for the gooseneck electret microphone. It uses a phantom power controlled by software.

h. USB port

This port is used to load MP3 files for chimes sound. The maximum time for the chimes is 4 seconds.

i. RD port

Connection to the MATRIX-A8. The maximum CAT 5e cable length is 100 meters.

PHYSICAL INSTALLATION

Insert the extended reticle terminal to RD port of remote device and the other end to the serve host. Please note link with shield cat5e or better cable, the total length end to end should be no more than 100m.

OPERATION

Volume adjustment

Turn "scroll" encoder to choose the zones intended to be tuned, short pushing to confirm, rotating "Volume" encoder to change volume value of selected ones.(shows on the upper right corner 0-32 can be adjusted) If all zones needed, just push "Volume" encoder once to select all and turn the "Volume" encoder.

Broadcast

Turn "Scroll" encoder to choose the zones intended to be paged, choose the ones by pushing "Scroll" encoder shortly and repeat until all the zones needed hooked. If all zones needed, just push "Volume" encoder once to select all. After paging zones selected, click

the "Talk" button to speak, click again to stop. Normally, there is a chime sound before your speech, you can change or cancel it by replacing or removing the inner sound file. (You should connect the USB port to your computer to accomplish this work.) Please make certain all the zone to be used are selected before speaking, if not, the system would remind you "Select Zones First !" .

Rename zones

Holding the "volume" to enter the modifying interface, please note only alphabet, number, common used symbol supposed.

Reset device

Holding "Volume" and "Scroll" encoder together more than 3 seconds to enter factory resetting, "Load default setting …" would be showed on screen at the same time. The device would restart automatically after process finished.

SOFTWARE CONTROL

Please use high rated network cable to connect the Ethernet port of PC and the LAN port of serve host device. Then run MatrixSystemEditor, make sure the IP is linked rightly by the remarks given by dialogs. At the main interface, you can drag the device in the left column to the right area, that is the operation to add a device. Please make sure the device you added is physically linked, or there would be no effects even if all settings are saved. Double click for specific operation, here we add a RPM200.

If the device is connected properly, the gray rectangle in the left middle would turn to green.
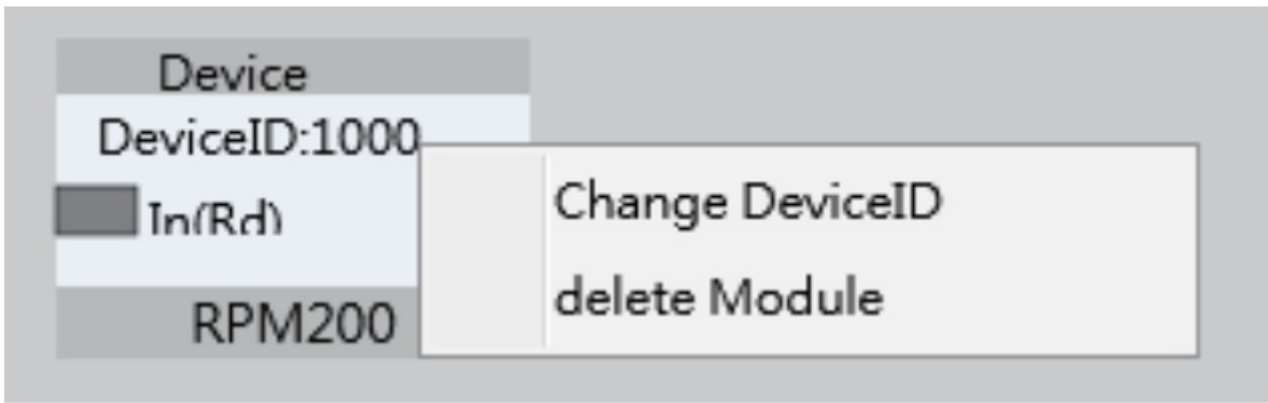
ID modification

Right click on the "DeviceID" position, the function menu popped up as shown; click "Change DeviceID", then enter the number(4 bit) you wanted in the text box, finally click OK to save and to take effect.

Note: The first time to use the whole system, initial work to assign ID for each device is necessary for its functioning.

Rename device

Double click on the device block to enter the page, "APP ID", "Device ID", "Firmware Version" would show automatically according to the information of the device linked. Enter a name into the "Device name" textbox and click "Save" button to take effect. Please make sure the name can only consist of alphabets, numbers and common symbols.

Mic Volume

Click the upward icon next to the text box for turning up the volume, and the downward icon for decreasing, 0-32

stage can be adjusted. Click "Save" button to take effect.

Master Volume

Same as the Mic Volume, 0-32 stage can be adjusted.

Priority

To define the priority of the device presented, 1-8 accepted, bigger for higher priority, click "Save" button to take effect.

Chime Time

To define the time of Chime Sound, click upward and downward icon to adjust, 0.5 for variation, 0.5-12S accepted, click "Save" button to take effect. If the chime sound not uploaded, there would be no chime to be played.

Zone List

To define the quantity of zones, click upward and downward icon to adjust, 12 for variation, 12-192 accepted, click "Save" button to take effect.

Zone List

097. Zone	098. Zone	099. Zone	100. Zone	101. Zone	102. Zone
103. Zone	104. Zone	105. Zone	106. Zone	107. Zone	108. Zone
109. Zone	110. Zone	111. Zone	112. Zone	113. Zone	114. Zone
115. Zone	116. Zone	117. Zone	118. Zone	119. Zone	120. Zone
121. Zone	122. Zone	123. Zone	124. Zone	125. Zone	126. Zone
127. Zone	128. Zone	129. Zone	130. Zone	131. Zone	132. Zone
133. Zone	134. Zone	135. Zone	136. Zone	137. Zone	138. Zone
139. Zone	140. Zone	141. Zone	142. Zone	143. Zone	144. Zone
145. Zone	146. Zone	147. Zone	148. Zone	149. Zone	150. Zone
151. Zone	152. Zone	153. Zone	154. Zone	155. Zone	156. Zone
157. Zone	158. Zone	159. Zone	160. Zone	161. Zone	162. Zone
163. Zone	164. Zone	165. Zone	166. Zone	167. Zone	168. Zone
169. Zone	170. Zone	171. Zone	172. Zone	173. Zone	174. Zone
175. Zone	176. Zone	177. Zone	178. Zone	179. Zone	180. Zone
181. Zone	182. Zone	183. Zone	184. Zone	185. Zone	186. Zone
187. Zone	188. Zone	189. Zone	190. Zone	191. Zone	192. Zone

Attached

Configuration for multiple sever host linked :

Dante Control software is required for this action, please visit **WWW.SEIKAKU.HK** to download.

After all the physical linkage confirmed, start the software and set tiks like below in the indicated area. That is to assign the all Broadcast outputs of the pervious device to the all Broadcast inputs of the next one, and so foth except the last ; for the last, we should connect its Broadcast outputs back to the Broadcast inputs of the first one. Here is the example for three host.
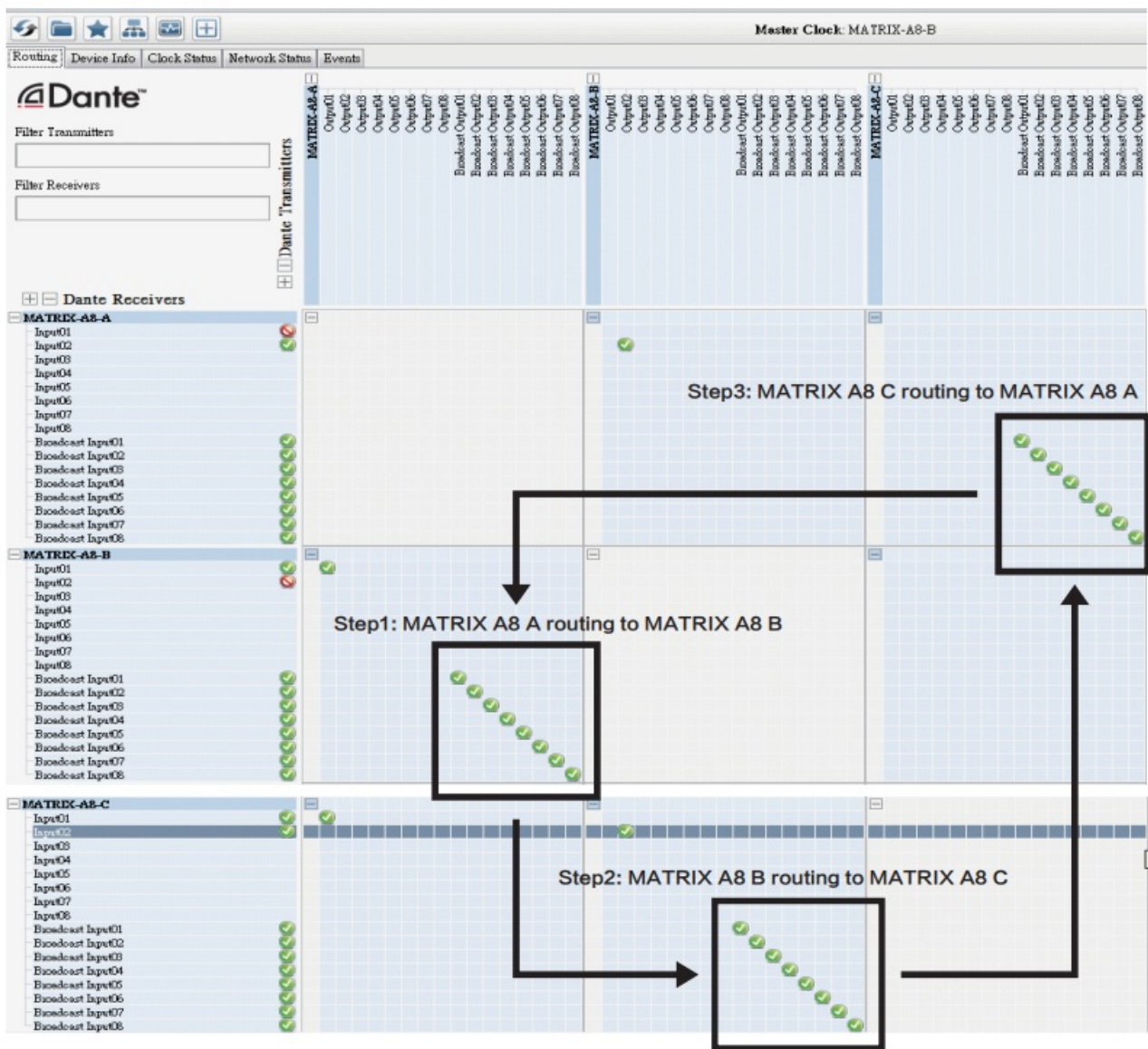
FIRMWARE UPDATE

For more information about firmware, please visit **WWW.SEIKAKU.COM**. Please check the hardware version twice to identify the compatibility of firmware tended to upgrade.

FAQ

a. There is no sound for the system

1). Please check if the device powered on, its screen lit or not. 2). Please make sure "Talk" button was pressed before voicing. 3). Please recheck the setting of MIC volume, make sure it was in a proper position. 4). Please check the channels assignment, make sure the one you output in hooked up with the input at present. 5). Please the amplifier or active speaker on the circuit, make sure they are charged and set appropriately. 6). Please make sure the entire system configuration is set rightly. 7). Please try to restart all the devices. 8). Please make sure all the physical connections are stable and right. 9). If all steps above checked, defects still exited, please insult the professional for help.

b. Sound seems to be abnormal

1). Please check the sound sources, low quality input always cause distortion and resonance. 2). Please check the volume setting, consumption overloaded would cause distortion and resonance either. 3). Please

try to restart all the devices. 4). Please make sure all the digital linkages are adopted high quality shield cat5e network cable or above, and professional cables for analog too. 5). If there some intermittent clipping sound, please check all the joint point are fixed well. 6). Please make sure devices and cables are not under high magnetic or high radical environment. 7). Please make sure the furthest length form the sever host is no more than 100m. (150m for the grounded linkage) 8). Please make sure the analog transmission also within the fidelity limitation. 9). If all steps above checked, defects still exited, please insult the professional for help.

c. Devices can not be found

1). Please make sure devices are linked well. 2). Please make sure all devices were assigned their unique ID with MatrixSystemEditor at the initial configuration. 3). If this system using several sever hosts for extend linkage, please make sure the system were set rightly by DANTE Controller. Please refer to "Configuration for multiple sever host linked" part for details. 4). Please try to restart all the devices. 5). If all steps above checked, defects still exited, please insult the professional for help.

d. Software can not start

1). Please make sure the operating system version is later than Windows 7. 2). Please make sure NetFreameWork4.5.* suit is installed. 3). Please make sure no firewall or antivirus software affects their running. 4). Please make sure system acquired valid IP and shown no error. 5). If all steps above checked, defects still exited, please insult the professional for help.

SPECIFICATIONS

MIC Input

- Active balanced
- Connector: 3-pin female XLR, ,(1 Gnd,2 Signal, 3 LED Power)
- Phantom Power: +12VDC @ 6mA

Indicators and switch

- LCD Display: Zone activation
- LEDs: Signal Status
- Switch: Push to Talk

Ports

- RD net to Matrix: RJ45, 100 m CAT 5e cable
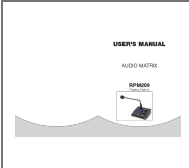- USB: For Chimes Sound file (4 seconds)

Dimensions

- L x H x D: 166 x 53 x 162 mm

AUDIO MATRIX

Documents / Resources

USER'S MANUAL AUDIO MATRIX RPM200 Paging Station	**[AUDIO MATRIX RPM200 Factor Digital Multi Zone Paging Microphone](#)** [pdf] User Manual RPM200 Factor Digital Multi Zone Paging Microphone, RPM200, Factor Digital Multi Zone Paging Microphone, Digital Multi Zone Paging Microphone, Multi Zone Paging Microphone, Paging Microphone, Microphone

References

- 🔴 **[SEIKAKU TECHNICAL GROUP LIMITED](#)**
- **[User Manual](#)**