USER'S MANUAL

AUDIO MATRIX

RVC1000
Volume Control

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.

SPECIFICATIONS

RVC1000 -- Remote Volume Control

LCD Display
• Adjustable volume range: -∞ ~ +15dB

Ports
• RD net to Matrix: RJ45, 100 m CAT 5e cable (150 m with ground connection)
• RD net LINK: RJ45, 100 m CAT 5e cable (150 m with ground connection)

Dimensions
• L x H x D: 147 x 86 x 47 mm

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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 ready-made leads or cords.

• **Do not Remove any Cover**

There are maybe some areas with 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.

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, it 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 RVC1000.

If the device is connected properly, the gray rectangle in the left middle would turn to green.
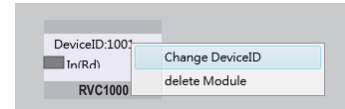
ID modification
Right click on the "DeviceID" position, the function menu popped up as shown; click "Change DeviceID" , then enter the number(4 bit) you wanted in the text box, finally click OK to save and to take effect.
Note: The first time to use the whole system, initial work to assign ID for each device is necessary for its functioning.
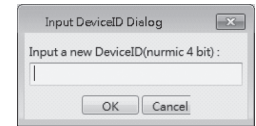

Device rename
Double click on the device block, and the click the "CHANGE DEVICE NAME" on the shown dialog, another window popped up, enter the name you wanted to textbox and click "Submit" button to save.(Please make sure the name can only consist of alphabets, numbers and common symbols.)

OPERATION

Channel assignment

Scroll encoder to move cursor on In* item，push to enter select interface, check the ones needed by clicking encoder. After the items checked, shift cursor to "exit"，push to back to main menu.

```
▶ OUT01
▶ No  BGM
▶ 🔊 ▬▬▬▬▬▬▬▬
   🖳        &1660
```

```
▶        OUT01
11.      IN11      ☑
12.      IN12      ☐
Exit
```
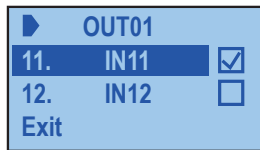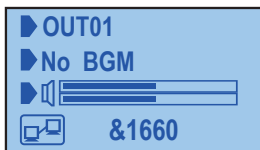
Volume adjustment

Rotate encoder to move cursor on Output* item, push encoder and turn over to select the channels needed to be adjusted. Click to confirm the output, scroll to adjust. Value shows on the upper right corner of the screen.

```
▶        OUT12
▶        IN07
▶ 🔊 ▬▬▬▬▬▬▬▬  ⯅⯆
   🖳        &1660
```
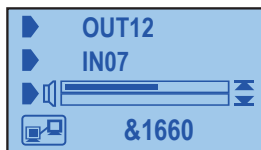
To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

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 am-plifiers) 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 replace-ment of the obsolete outlet.

Protect the power cord from being walk-ed 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 fluids 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 when 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.

FOREWORD

Thanks to purchase the product of our company, please read this manual carefully before any operation.

Note: This guide contains all the information for the series needed, there might be some differences between the entity and the description, please refer to the real product for criterion.

AUDIO MATRIX

Audio Matrix is a system contains multiple signal inputs and outputs, each input can be assigned to any output like matrix in mathematic. And there are parameters controls for all the inputs and outputs, flexible and changeable, all the configuration can be backed up and restored, easy to copy and to extend. Audio Matrix gives the ability to arrange complex audio disposition in one device, it provides the opportunity of humanized control for both professional and beginner.
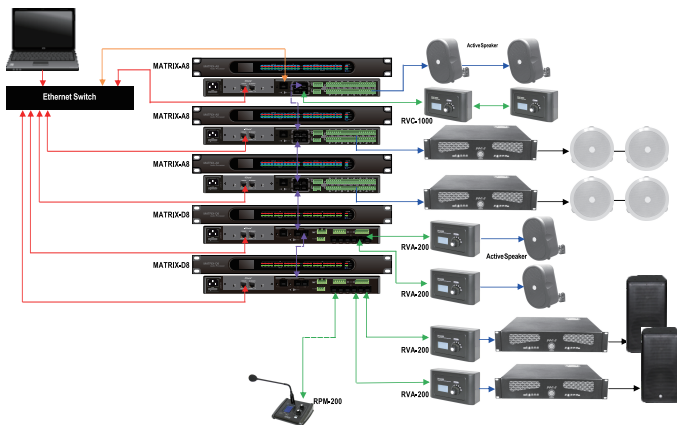
INSTALLATION

Pass cables through inner wall rear case, insert the incoming cable to the RJ45 port, and the extender cable to link port; then fix panel with crews and clip the decorated frame.
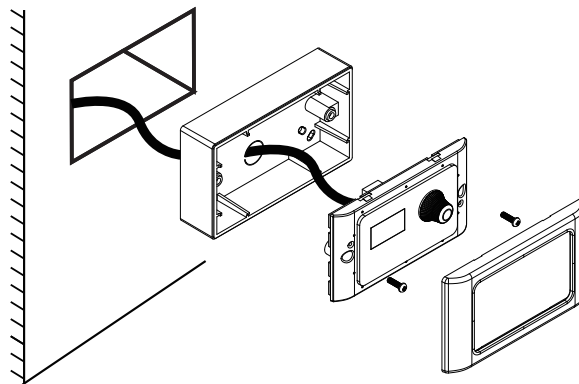
BASIC OPERATION

RVC1000--Volume Control
This volume controller can be assigned to any output of the MATRIX-A8. It can also route any input to any output like in the Matrix menu of the Editor Software.

a. LCD screen
It displays the volume level and the signal level for a dedicated output.

b. Volume control
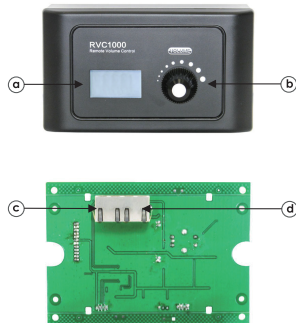Turn the button left or right to adjust the volume.
Push the button to access to the inputs and outputs routing menu.

c. RD port IN
Connection to MATRIX-A8. The maximum CAT 5e cable length is 100 meters.

d. RD port LINK
Daisy connection for additional remote controller.

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:
1.12 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;
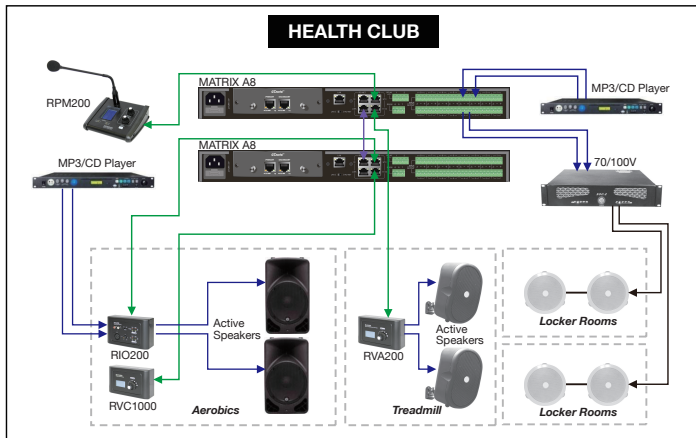RIO200 --- Remote analog inputs and outputs;
RPM200 --- Remote paging station.

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:

SYSTEM PREVIEW

RETAIL STORE

RPM200

MP3/CD Player

Video Player

MATRIX A8

Music Server

RVA200

70/100V

Sales Floor

Active Speaker

Fitting Room

Stock Room

Office

70/100V Speaker

HEALTH CLUB

RPM200

MP3/CD Player

MATRIX A8

MATRIX A8

MP3/CD Player

70/100V

RIO200

RVC1000

Active Speakers

Aerobics

RVA200

Active Speakers

Treadmill

Locker Rooms

Locker Rooms

RESTAURANT

RPM200

MP3/CD Player

Video Player

MATRIX A8

TV

RVA200

4CH 70/100V

Restaurant

Bar

Active Satellite

Active Sub

Terrace

Cloak Room

Toilet

SCHOOL

MATRIX A8

Video Projector

RIO200

Active Speakers

Classroom

RIO200

Active Speakers

Classroom