

Operation Manual

PP-6284 8x4 PRE-AMPLIFIER / MIXING MATRIX

RM-6284 REMOTE MIC-STATION

LM-6284 REMOTE WALL PANEL



Thinuna

Contents

Welcome.....	1
Warning.....	1
Installation Environment.....	2
Important safety instructions.....	2

PP-6284 8x4 PRE-AMPLIFIER / MIXING MATRIX

Features.....	3
Front panel.....	4
Back panel.....	5
Circuit block diagram.....	6
Specification.....	6

RM-6284 REMOTE MIC-STATION

Features.....	8
Panel explanation.....	8
Connection.....	9
Operation.....	9
Circuit block diagram.....	10
Specification.....	11

LM-6284 REMOTE WALL PANEL

Features.....	12
Panel explanation.....	12
Specification.....	13
Service.....	13
Others.....	13
Warranty.....	13

Welcome


A personal welcome to you from the management and employees of Thinuna global.


Thanks you for choosing our high quality product, we will always provide innovative, advanced, reliable products like before.

We are sincerely trust these products will provide years of satisfactory service, but if anything is not to your complete satisfaction, we will endeavor to make things right.

Welcome to Thinuna again, and thank you for becoming part of our worldwide extended family!

Warning

**CAUTION**
RISK OF ELECTRIC SHOCK DON'T OPEN




CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK.


DO NOT REMOVE COVER (OR BACK).

NO USER-SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Attentions: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

* Do not install this equipment in a confined space such as a book case or similar unit.

* The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

* Worded: "WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING-WATER AND MOISTURE: Unit should not be used near water(e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so than objects do not fall and liquids are not spilled into the enclosure through openings."

Service Instructions

* Worded: "Caution: These servicing instructions are for use by qualified service personnel only. 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."

* Location: Instruction Manual.

NOTE : This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Installation Environment

Installation this system is not difficult and complex. But you still need to spend some time to read this manual and ensure the connection and installation is exact.

Never place this product in an environment which could alter its performance or reduce its service life.

Such environments usually include high levels of heat, dust, moisture, and vibration.

Important Safety Instructions



1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. 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.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. 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.

- Avoid excessive heat, humidity, dust and vibration

Keep the unit away from locations where it is likely to be exposed to high temperatures or humidity-such as near radiators, stoves, etc. Also avoid locations which are subject to excessive dust accumulation, or to vibration that could cause mechanical damage.

- Avoid physical shocks

Strong physical shocks to the unit may cause damage. Handle the unit with care.

- Do not open the case or attempt repairs or modifications yourself

This product contains no user-serviceable parts. Refer all maintenance to qualified Thinuna service personnel. Opening the case and/or tampering with internal circuitry voids the warranty.

- Always power off before making connections

Always turn the AC mains OFF before connecting or disconnecting cables. This is important to prevent damage to the unit itself as well as other connected equipment.

- Handle cables carefully

Always plug and unplug cables (including the AC mains power cord) by gripping the connector, not the cord.

- Clear with a soft dry cloth

Never use solvents such as benzine or paint thinner to clean the unit. Wipe clean with a soft, dry cloth.



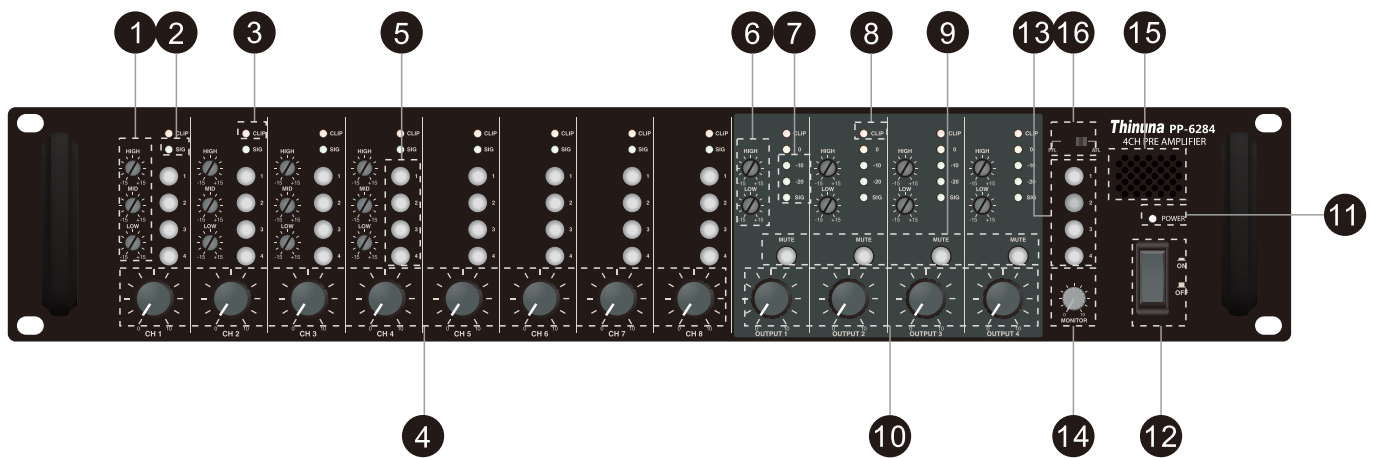
PP-6284 Features:

- * 8 in 4 out Audio Matrix mixer, the sound source input of 8 channels are available distribute to the 4-CH channel sound source output.
- * Can connect with an RM-6284 four zones microphone (RJ45 interface)
- * Can connect with 4 remote sound source input panel LM-6284 (RJ45 interface)
- * 4-CH Mono Mic/line balanced input with three-ban equalizer adjustment between treble and bass (front panel) and input gain adjustment (rear panel).
- * Input CH-1 with override mute function (The override attenuate can be adjust), With Independent phantom power switch.
- * Input CH-2~4 with Phantom power switch
- * 4 channel stereo or mono Line Unbalanced input with input gain adjustment (Rear panel)
- * 4 channel mono balanced output with equalizer between treble and bass and mute button (Front panel)
- * The four output channel with independent remote mute control switch, and one mute control switch which can cover the whole zones.
- * All of the output and input channels are with Level dictator and Clip dictator.
- * Built-in monitor speaker can monitoring 4 channel's output signal with volume control and available to chose Front monitor or Rear monitor.
- * Universal voltage 100-240VAC Power Supply.
- * DC24V DC backup power supply with a parallel output interface.

Accessories:

The product comes with a separation AC power cord for power supply.

PP-6284 Front panel



1.The EQ control of input channel

Control the input signal of CH1~CH4 at 80Hz (LF), 2.5kHz (MF) and 12.5kHz (HF), adjust form -12dB to +12dB.

2.Signal indicator: Display the input signal for each channel.

3.Input signal clip-indicator

Then indicator light warning when each channels are overload or clipping. We suggest to adjust the back panel's TRIM when the peak indicator blinking.

4.Input channel volume: Adjust the level of each input channel.

5.Output channel selection: Can chose output channel for the signal of each input channel.

6.Output channel EQ control:

The Dual-brand equalizer of output channel are adjustable. HF: $\pm 15\text{dB}$ (12kHz), LF: $\pm 15\text{dB}$ (80Hz)

7.Output lever indicator: The indicator display the current output level.

8.Limit instruction of output channel

The indicator light warning when overloading and clipping of each output channel, we suggest to adjust the volume when the limit indicator blinking.

9.Output channel mute switch: Can mute each output channel.

10.Output channel volume: Can adjust the volume for each output channel.

11.Power indicator: The indicator light when power on.

12.Power switch: The power switch knob.

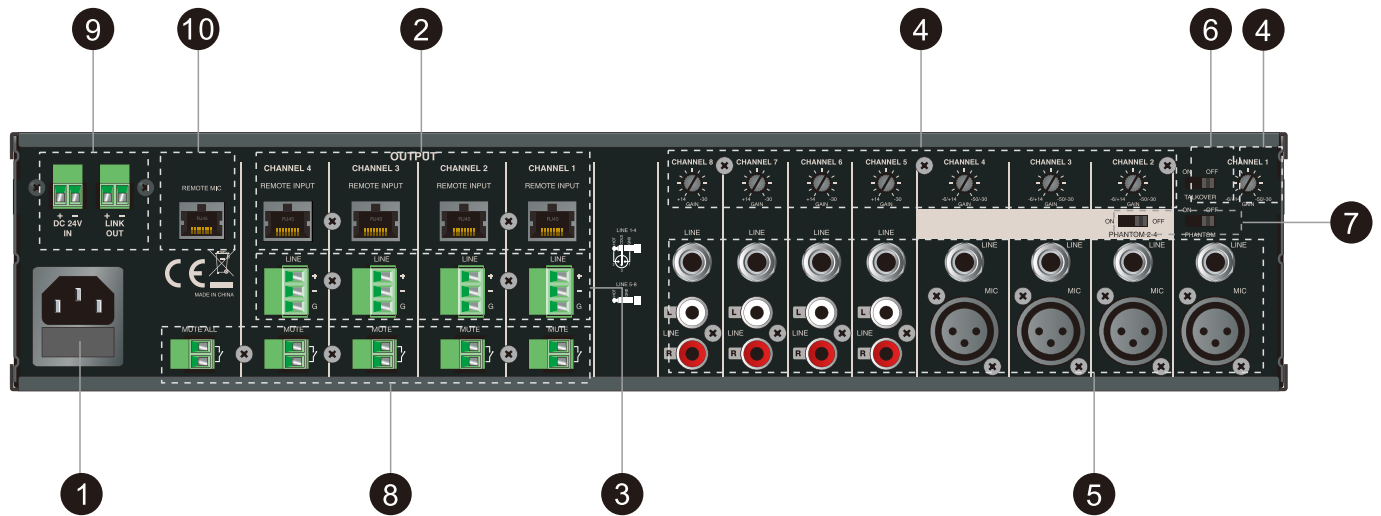
13.Monitor switch: Can monitoring each channel's sound through the monitor speaker.

14.Monitor volume control: Adjust the volume of monitor speaker through this knob.

15.Monitor speaker

16.PFL/AFL selection: Chose to monitoring before or after the main output's volume knob.

PP-6284 Back panel



1.AC power input connection

Require to use the correct fuse and power cord, Please ensure that the fuse is the same specification before replacing.

2.Remote wall panel input interface

RJ45 interface can connect with this mixing matrix and use as volume control and remote audio source input for the current output zones.

3.Four channel audio output interface

Line output interface can connect with amplifier

4.Input signal gain control of each channel

Available for wide horizontal input, the adjust range has 44dB microphone input form -50dB to -6dB, Line input -30dB to +14dB.



5.Eight channel's signal input interface

1~4 channel is Mono balanced input: Including TRS input (HOT, COLD, GND) and XLR microphone input (HOT, COLD, GND). 5~8 channel is Unbalanced line input: Including TS mono input (HOT, GND) and RCA stereo input (HOT, GND).

6.The priority override switch of Input channel 1

When the priority switch turn on, the channel 1's input signal will override to other channel's input channel automatically.

7.The phantom power switch of input channel 1~4

The input channel 1 set a independence phantom switch, Input channel 2~4 simultaneous turn on or turn off the phantom power. Support condenser microphone input.

8.Independence mute switch for output channel 1~4

Through the external dry contact signal of these 4 switch, can remote cut the output signal of 1~4 in order to realize the mute function.

9.DC24V power input & output connector

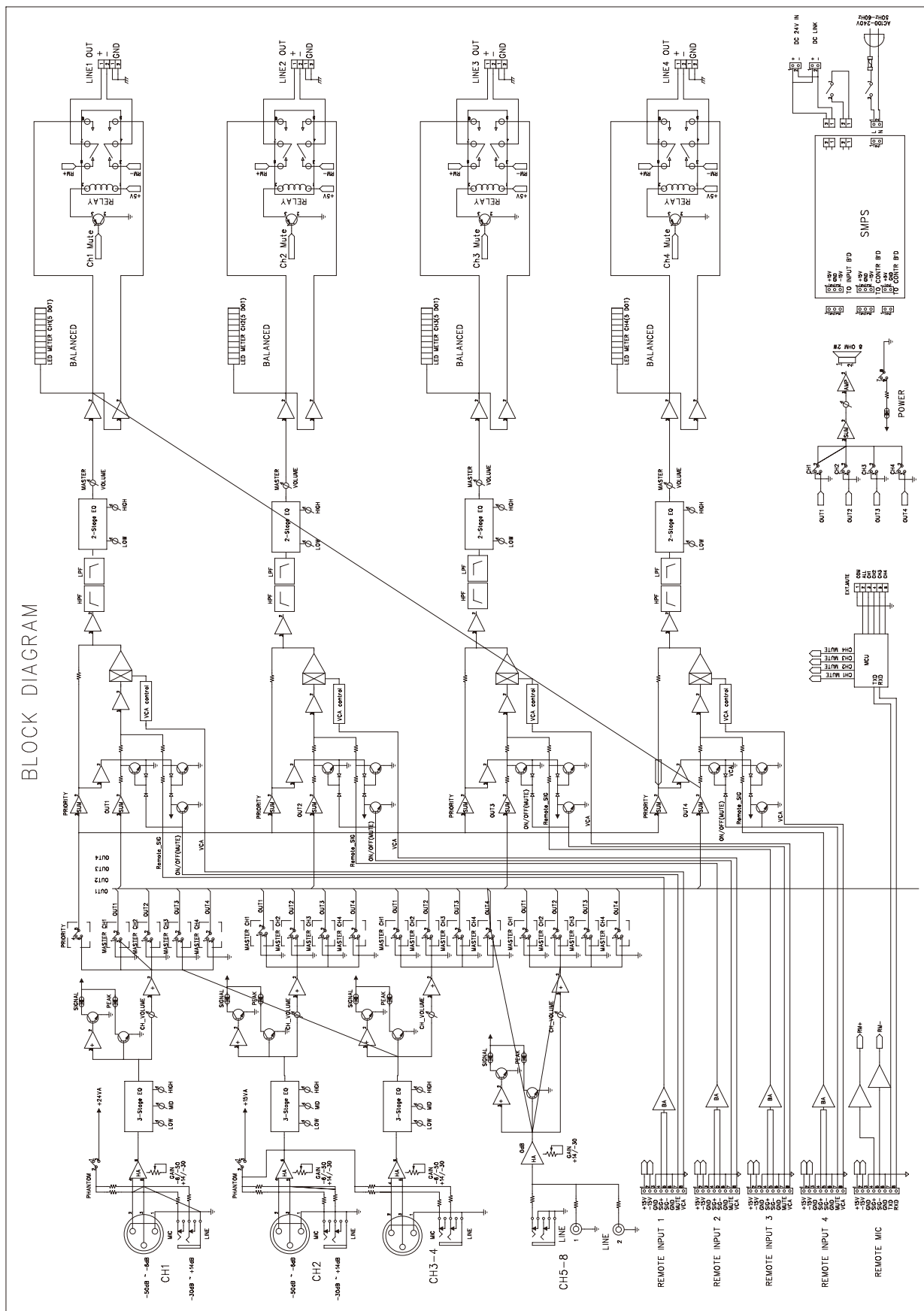
Use this DC24V connector to connect with DC24V power input, Also provide a DC24V power output connector. It can provide DC24V power output to other DC24V power devices through the LINK output terminal.

10.Remote 4 partition microphone connector

Can connect with 4 partition microphone to realize remote microphone partition broadcast through this RJ45 terminal.



Circuit Block Diagram



PP-6284 Specification

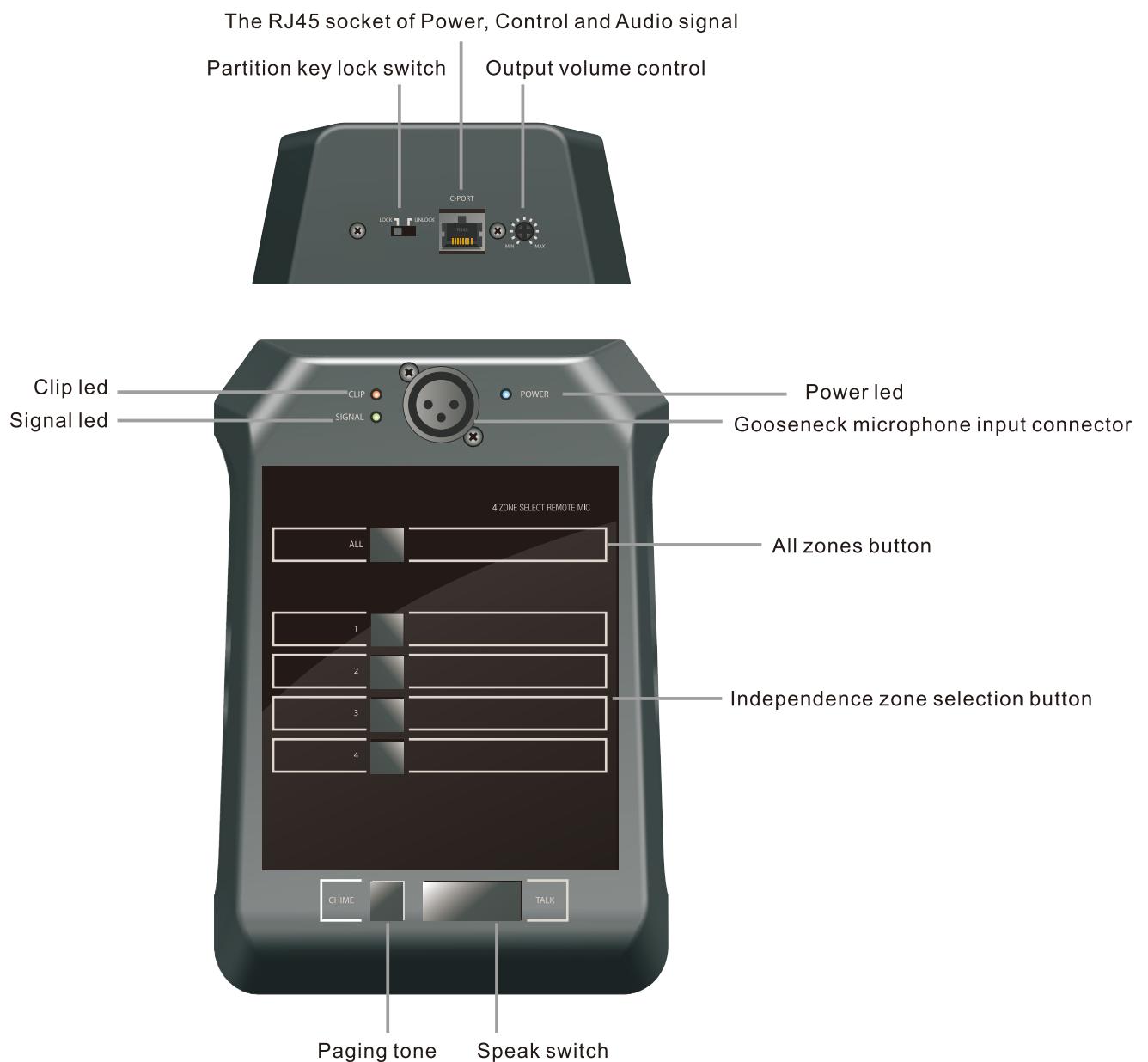
Model	PP-6284
Mic input	-60dB~-16dB , Balanced , 20k Ω
Line input	-20dB~+4dB , Unbalanced , 10k Ω
Remote mic and Sound input	0dB , Balanced , 600 Ω
Audio output	0dB , Balanced , 600 Ω
frequency response	20Hz~20kHz (\pm 3dB)
IMD	>70dB
THD	<0.1%
EQ	Input : Treble : 12kHz \pm 15dB ; Mediant : 2.5kHz \pm 15dB ; Bass : 80Hz \pm 15dB Input : Treble : 10kHz \pm 15dB ; Mediant : 2.5kHz \pm 15dB ; Bass : 80Hz \pm 15dB
Power	Universal voltage: 100~240VAC , 50/60Hz or DC24V
Power consumption	<10W
Operate temp/ humidity	0°C~40°C , <95%
Net weight	9kg
Dimensions	482(W) \times 88(H) \times 320(D) mm

RM-6284 Features:

- * Connect with PP-6284 8X4 pre-amplifier, Each pre-amplifier can connect with one RM-6284 Four partitions Remote paging mic.
- * Four partitions selection button and One all region button.
- * Beep sound feature buttons and Speech button.
- * Output volume control knob.
- * Toggle lock switch (PTT function)
- * Signal dictator, Clip dictator, Power dictator.
- * Standard Network Rj45 interface.

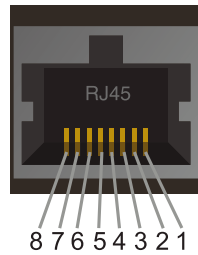


RM-6284 panel explanation:



RM-6284 connection

For the normal operation, This Mic-station RM-6284 should be connect with the Remote MIC port on the back panel of the mixing matrix PP-6284



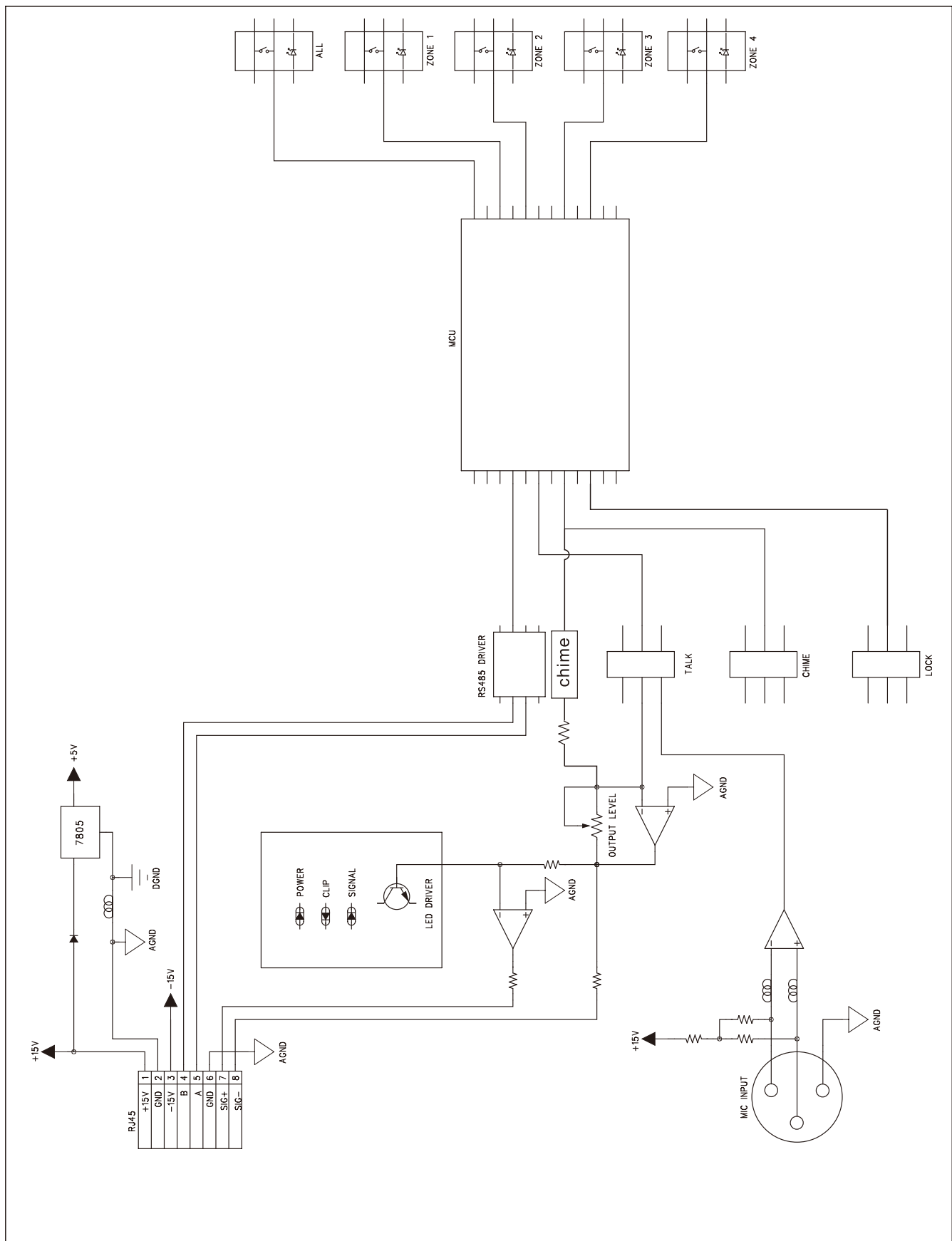
- 1. + 15 Volts
- 2. Ground
- 3. - 15 Volts
- 4. Data -
- 5. Data +
- 6. Ground
- 7. Signal +
- 8. Signal -

The corresponding function of RJ45 PIN

RM-6284 Paging operation:

- 1.You can paging by press the Z1~Z4 independence button or the All zones button
- 2.For the selected zones the LED will bright, press the button again it can cancel the selection.
- 3.“CHIME” button allow to play warn tone before paging.
- 4.After you chose the zones, please Long Press the button in order to paging.
- 5.When the Key lock on the panel under the “LOCK” status, all zones can not be select.
- 6.The output volume can be adjust through the volume knob of the back panel.

Circuit Block Diagram



RM-6284 Specification

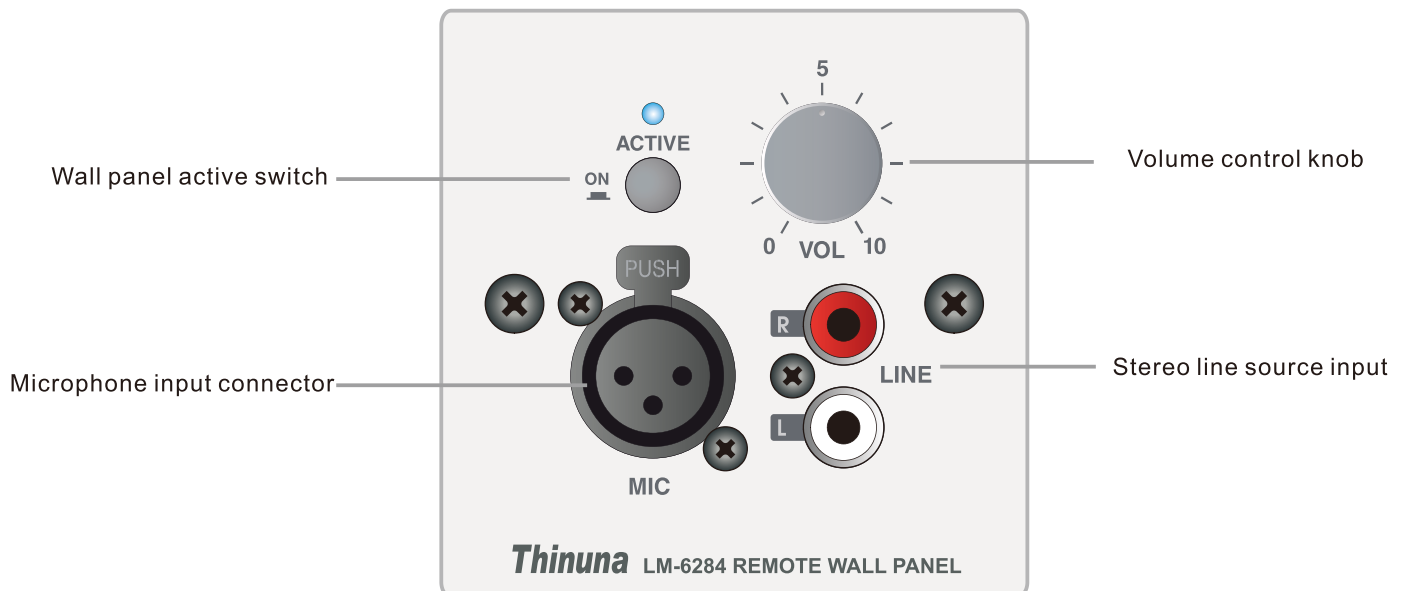
Model	RM-6284
Mic input	-60dB , Balanced , 600Ω
Audio output	0dB , Balanced , 600Ω
Frequency response	45Hz~15kHz (±3dB)
SNR	>90dB
THD	<0.1%
Partitions control	Four partitions independent selection switch, One all region switch.
Power source	Provide from the Matrix host PP-6284
Operation Temp/ Humidity	0°C~40°C , <95%
Net weight	1kg
Dimensions	140(W) × 60(H) × 205(D) mm , Not include the gooseneck microphone.

LM-6284 Features:

- * IWall Control Panel for PP-6284
- * IEach output channel of PP-6284 can connect 1 pc of wall panel
- * IThe wall panel with ACTIVE button
- * ICan use as the local input microphone or Stereo line source
- * IRJ45 stander network interface
- * IUSe CAT5



LM-6284 Wall panel explanation



LM-6284 Specification

Model	LM-6284
Microphone input	-50dB, 20KΩ, Balanced
Line Input	-0dB, 10KΩ, Unbalanced
Audio Output	0dB, 600Ω, Balanced
Frequency Response	20Hz~20kHz
T.H.D	>0.1%
S/N	>90dB
Power Source	DC±15V, Provide from PP-6284 host
Power Consumption	<1W
Weight	0.5kg
Temperature / Humidity	0°C~40°C, <95%
Dimensions	86(W) x 86(H) x 50(D)mm
Flush Box	Standard chinese 86(Black box)

Service

Procedures

Ensure the problem is not related to operator error, or external system devices, Once it is certain that the problem is related to the product contact your warranty provider as described in the warranty section of this manual.

Variations

Variations of this product exist to reflect the variations in AC power requirements throughout the world. Product supplied through local sources are compatible with local AC power requirements 110VAC or 220VAC.

Optional accessory

This product do no have others optional accessory.

Warranty

Warranty terms and conditions vary by country and may not be the same for all products. Terms and conditions of warranty for a given product may be determined first by locating the appropriate country which the product was purchased in, then by locating the product type.

To obtain specific warranty information and available service locations contact Thinuna directly or the authorized distributor for your specific country or region.

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Notice: Thinuna Technology makes every effort to ensure the accuracy of information on this manual. The documents, graphics, and other information included in this manual may include technical inaccuracies, typographical, or other errors.

Specifications are subject to change without notice.