



# USER'S MANUAL



## CERTIFICATE

Model

QA

Date



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## MT1300

*PROFESSIONAL POWER AMPLIFIER*



NOTES:

Series of horizontal dotted lines for taking notes.

**MT1300**  
PROFESSIONAL POWER AMPLIFIER



**Kindly be noted that we won't inform you any changes of technology and parameter**



## 6.SERVICE

This unit has very sophisticated circuitry and should only be serviced by a fully trained technician. This is why each unit bears the following label:



**To prevent electric shock, do not remove covers. No user serviceable parts inside. Refer servicing to a qualified technician.**

### 6.1 Worldwide Service

Service may be obtained from your local authorized service center . To obtain service , simply present your sales receipt as proof of purchase along with the defective unit to an authorized service center. They will handle the necessary paperwork and repair. Remember to transport your unit in the original factory packaging.

1. When sending a LAX product to the authorized service center for service, be sure to fill out the service information form that is enclosed at the end of this manual and include it inside your unit's shipping pack. Do not send the service information form separately.
2. To ensure the safe transportation of your unit to the authorized service center, ship it in an original factory-packing container.
3. Do not ship the unit in any kind of rack. Ignoring this warning may result in extensive damage to the unit and the equipment rack. Accessories are not needed. Do not send the instruction manual, cables and any other hardware.



#### WEEE Mark

If you want to dispose of this product, do not mix with general household waste. There are separate collection systems for used electronic products in accordance with legislation under the WEEE Directive (Directive 2002/96/EC) and is effective only within the European Union.

## LIMITED WARRANTY

### THE WARRANTY

For a period of one (1) years from the date of delivery to the original purchaser (as shown on the original invoice or sales receipt), LAX INTERNATIONAL GROUP LIMITED of No.114 Yushan Rd,Panyu,Guangdong province,P.R.China (hereinafter"LAX") warrants to the ORIGINAL OWNER of each new LAX SERIES product (provided it was purchased at an authorized LAX Dealer) that it is free of defects in materials and workmanship and that each product will meet or exceed A all factory published specifications for each respective model. LAX agrees to repair or replace (at its discretion) all defective parts at no charge for labor or materials; subject to following provisions:

### WARRANTY VIOLATIONS

LAX shall take no responsibility for repair or replacement as specified under this warranty, if the damaged product has been subject to misuse, accident, neglect or failure to comply with normal maintenance procedures; or if the serial number has been defaced, altered or removed. Nor will LAX accept responsibility for, or resulting from, improper alterations or unauthorized parts or repairs. This warranty does not cover any damage to speakers or any other consequential damage resulting from breach of any written or implied warranty.

### LAX WARRANTY PROVISIONS

LAX will remedy any defect, regardless of the reason for failure (except as excluded ) by repair, or replacement. LAX will remedy the defect and ship the product within a reasonable time after receipt of the defective product at an LAX Authorized Service Center.

### TO OBTAIN WARRANTY SERVICE

In the event that an LAX product requires service, the Owner must contact LAX or an Authorized LAX Service Center to receive an R.A.N. ( Return Authorization Number) and instructions on how to return the product to the LAX Authorized S Service Center, or to the factory. LAX (or its Authorized Service Center) will initiate corrective repairs upon receipt of the returned product. Please save original carton and all the packing materials in case shipping is required. All products being returned to the factory or service center for repairs must be shipped pre-paid.

If the repairs made by LAX or the LAX Authorized Service Center are not satisfactory, Owner is instructed to give written notice to LAX. If the defect or malfunction remains after a reasonable amount of attempts by LAX to remedy the defect or malfunction, the Owner shall then have the option to elect either a refund or replacement of said LAX product free of charge. The refund shall be an amount equal to but not greater than the actual purchase price, not including any taxes, interest, insurance, closing costs and other finance charges (minus reasonable depreciation on the product) . If a refund is necessary, the Owner must make the defective or malfunctioning product available to LAX free and clear of all liens or other restrictions.

### MODIFICATIONS OF EQUIPMENT

LAX reserves the right to modify or change equipment (in whole or part) at any time prior to delivery thereof, in order to include therein electrical or mechanical improvements deemed appropriate by LAX ; but without incurring any liability to modify or change any equipment previously delivered, or to supply new equipment in accordance with any earlier specifications.

### DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

YOU, THE OWNER, ARE NOT ENTITLED TO RECOVER FROM LAX ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE LAX PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT.



### WARRANTY ALTERATIONS

No person has the authority to enlarge, amend, or modify this Warranty. This Warranty is not extended by the length of time which the Owner is deprived of the use of product. Repairs and replacement parts provided pursuant to the Warranty shall carry only the non-expired portion of the Warranty.

**THIS STATEMENT OF WARRANTY SUPERSEDES ALL OTHERS CONTAINED IN THIS MANUAL**

The information furnished in this manual does not include all of the details of design and engineering of this particular product; not does it cover every possible application or situation concerning its usage, which may occur during the installation, operation or maintenance of said our product.

**IMPORTANT  
THE PRODUCT REQUIRES  
CLASS 2 OUTPUT WIRING.**

 <b>CAUTION</b> 	
<p>To Prevent Electric Shock, Do Not Remove Top Or Bottom Covers. No User Serviceable Parts Inside. Refer Servicing To Qualified Service Personnel. Disconnect Power Cord Before Removing Rear Panel Cover To Access Gainswitch.</p>	<p>Shock Hazard - Do Not Enter Choc Hasard - N*entrent Schocke Hazard - Test Nicht Betrete Urto Hazard - Do Non Entrano</p>



**WARNING**  
**TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE!**

Magnetic Field

**CAUTION:** Do not locate sensitive high-gain equipment such as preamplifiers or tape decks directly above or below this unit. Because this amplifier has a high power density, it has a strong magnetic field which can induce hum into unshielded devices that are located nearby. This field is strongest just above and below the unit. If an equipment rack is used, we recommend locating the amplifier(s) at the bottom of the rack and the preamplifier or other sensitive equipment at the top.

The lightning bolt triangle is used alert the user to the risk of electric shock

The exclamation point triangle is used to alert the user to important operating and/or maintenance instructions.

Printed on recycled paper.

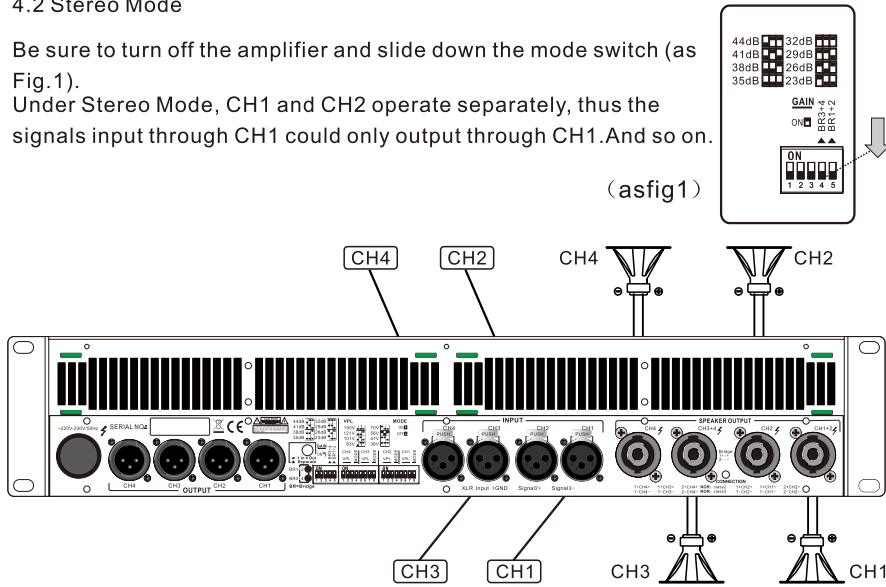
### 5. Specifications

Stereo Mode 8 ohm(1kHz)	4×1300W *
Stereo Mode 4 ohm	4×2200W*
Stereo Mode 2 ohm	4×2400W *
Bridge Mode 8 ohm	2×4400W*
Bridge Mode 4 ohm	2×4800W*
Frequency Response (1W 8Ω)20Hz-20KHz	±1. 5dB
THD+N (standard measure condition: 8Ω/1kHz)	≤0. 1%
SNR	>100dB
Input Socket	23, 26, 29, 32, 35, 38, 41, 44dB
Power Gain Selection	XLR female
Input Impedance	20kΩ Balanced /10kΩ Unbalanced
Output Socket	Speakon, output terminal
Power	~110-230V/ 50-60Hz
Dimensions	483×377×88mm
Net Weight	15kg

\*Above signals of 1 kHz are the sinusoidal pulse signals on at 33ms and off at 66ms.

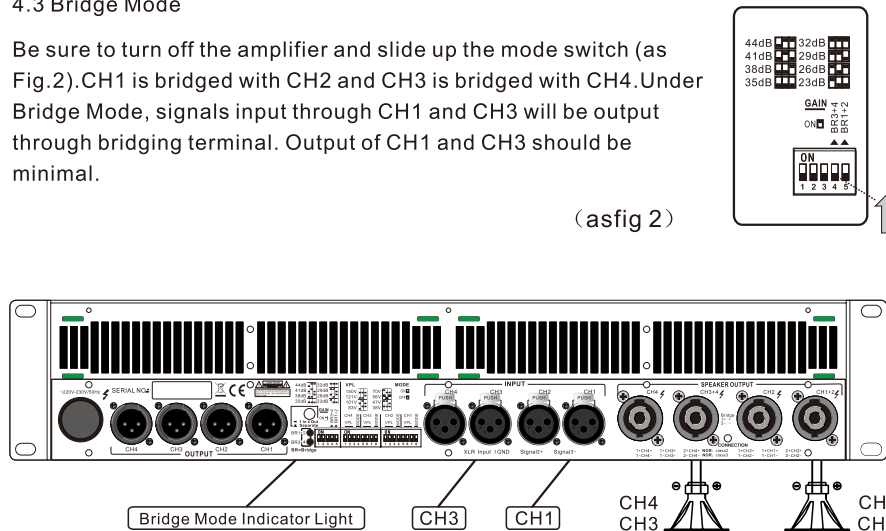
4.2 Stereo Mode

Be sure to turn off the amplifier and slide down the mode switch (as Fig.1). Under Stereo Mode, CH1 and CH2 operate separately, thus the signals input through CH1 could only output through CH1. And so on.



4.3 Bridge Mode

Be sure to turn off the amplifier and slide up the mode switch (as Fig.2). CH1 is bridged with CH2 and CH3 is bridged with CH4. Under Bridge Mode, signals input through CH1 and CH3 will be output through bridging terminal. Output of CH1 and CH3 should be minimal.



IMPORT 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. No jam to the ventilation system of the machine's back panel. pull out the power plug. Before clean the machine ,scrub it with dry cloths don't scrub it with corrosiveness liquor.
7. Do not block any of the 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 that produce heat.
9. Do not install the safety purpose of he polarized or grounding-type plug. A polarized plug has two blades with one wide than the other. A grounding-type plug has two blades and third grounding prong. The wide blade or the third prong is provided for your safety. When 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 at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use power cord from attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, 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 personal. Servicing is required when the apparatus us 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.

## 1. Welcome!

Thank you very much for choosing LAX professional amplifier! You now possess LAX most advanced power amplifier. Thus, we warmly welcome you in LAX family! Each LAX product has been meticulously designed, please read this manual carefully. It includes important information and help so that you will be able to use your new product in the best way.

### 1.1 Unpacking and Inspection

It's wise to thoroughly inspect each unit after the product has been removed from the packaging. Please note that you must file a claim directly with the freight company if any damage occurred.

### 1.2 Product Features

<1> MT1300 employs the 3.5" (8.9 cm) amplifier chassis according to E.I.A Standard.

<2> Power Supply Design:

Each amplifier includes two groups of independent logic high power supply. With logic power, the product can control and adjust the outputs and the operating voltage in real time. Also, it is able to realize real-time adaptation of the requirements of signals and loads so that in large load conditions, the amplifier can match the power and superheat will not occur.

<3> Signal Limiter:

Each input includes a voltage limiter, by detecting the output signals it controls the input signals and protects the speakers from overheat. In case of superheats of the amplifier, the product will control the input signals automatically to cool down and secure the system.

<4> Professional Speakon socket, suitable for engineering projects and mobile performances.

<5> Aim to be able to withstand long-term bumps, all the parts are specially reinforced.

<6> Integrated steel stamped by precision CNC lathes, possesses extremely robust structure, can endure great instantaneous pressure.

<7> Perfect protection:

This amplifier possesses different types of protections including: DC protection, internal fault protection, input overload protection, RFI filter and output short circuit protection. It does not match the load and high frequency overload protection, radiator and transformer over-temperature protection and input over-current protection (over-current protection switch)

<8> XLR balanced input and output.

<9> Cooling System :

Each channel has two groups of stepless speed fans as its own cooling system. Sealing air goes through the radiator to strengthen heat dissipation as well as avoid the pollution of dust and stage fog to the circuit board.

<10> Perfect Interface :

Signal Input :XLR,input/ parallel signals output

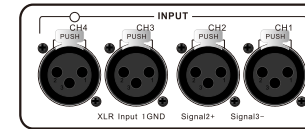
Speaker Output :professional Speakon socket

<11> It is guaranteed for one year.

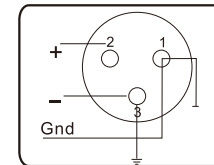
## 4. Connection Pattern

### 4.1 Audio Input & Output Selection

#### Balanced Input Connections



Electronic balanced XLR input connector in accordance with IEC268 (Pin2: Hot).

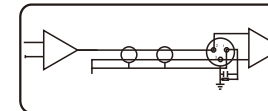


Pin1: Shielding line  
Pin2: Hot (+)  
Pin3: Cold (-)



Notice the limit in input audio operating channels when an audio signal is connected to other input channels. External line driver, certain audio output such as DSP will drive four channels.

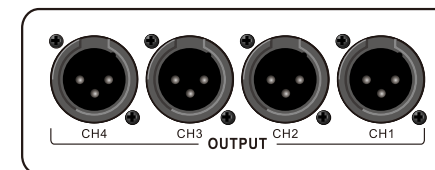
#### Unbalanced Input Connections



The end of the cable should be connected to Pin1 and Pin3 of XLR socket when audio is input under unbalanced. However, the best way is to connect Pin3 to the shielding line, which will probably bring interference. If possible, it is recommended to employ "Balanced Input Connections".

#### Speaker Output Connections

Please refer to the instructions in this section if your amplifier is equipped with speakers.



4-channel Speaker Output

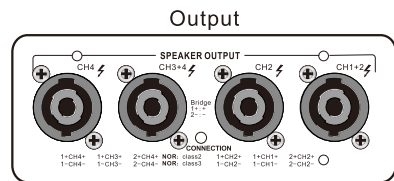


VPL - VOLTAGE CLIP LIMITER			
150V		70V	
121V		56V	
101V		47V	
83V		38V	

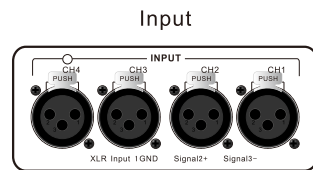
Limiter control aims at providing users with 8 different modes for each channel. Choose appropriate channel according to the connected audio device.

VPL-in Bridge Mode	
300V	
242V	
202V	
166V	
140V	
112V	
94V	
76V	

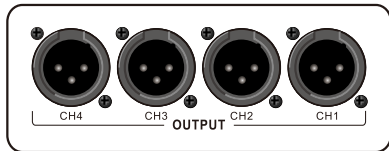
Bridge Mode: selecting VPL-in Bridge Mode enables hard reset of bass and low frequency driver. It is recommended to employ soft reset for medium high frequency driver.



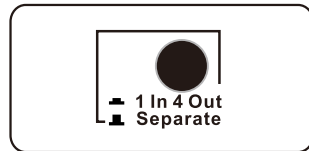
4-channel Speaker Output



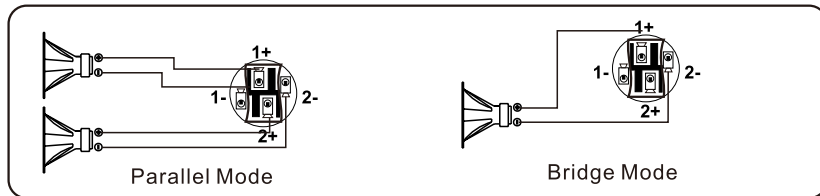
4-channel Audio Input



Stereo/Parallel Mode



1 In 4 Out Separate



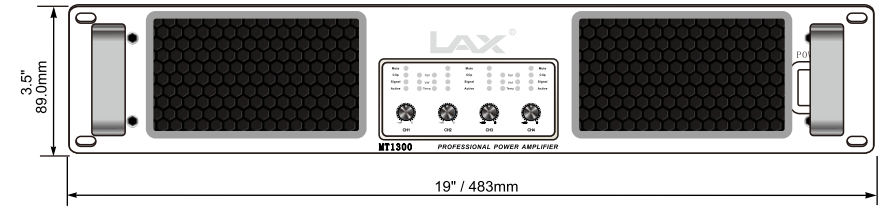
Parallel Mode

Bridge Mode

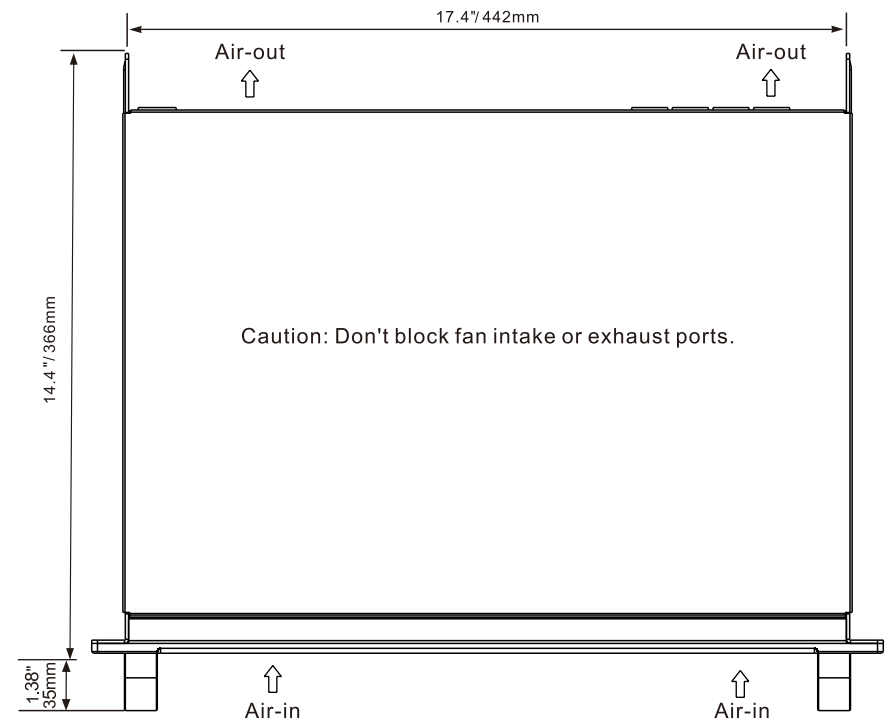
Extra connectors for 4-channel amplifier are provided by CH3 and CH4. CH3 is above CH1. CH4 is above CH2.

## 2. AMPLIFIER VIEWS

### 2.1 Front View



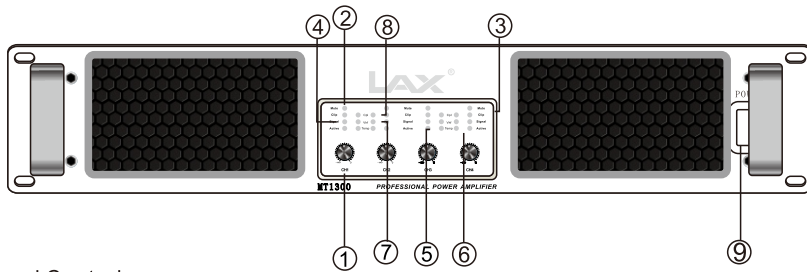
### 2.2 Top View



### 3.MAIN OPERATION KEY AND IT'S FUNCTION

#### 3.1 FRONT PANEL:

Each indicator light



##### 1. Level Control

Amplifier gain could be changed by gradually steering the potentiometer. It is advised to keep the input signal between 0dB to 25dB with the potentiometer in case of input distortion. The data indicated by the potentiometer for reference only.

##### 2. Protection

Mute Indicator Light

##### 3. Distortion/Limiter

The indicator light will be on when distortions occur or the limiter begins to work

a. The indicator light will be temporarily on for a short time when the limiter begins to work

b. The indicator light will be on for a long time when the limiter is under standby mode.

##### 4. Signal Indicator Light

Green light indicates both input and output of the signals are under normal operations; Orange indicates high input impedance or open load diagnostics.

##### 5. Power Light

This light will be on when the amplifier is power on; if not, connection failure between the power plug and the main power or blown fuses

##### 6. Overheating Indicator Light

This light will be on when the operating temperature of the amplifier reaches the maximum(90°C).Input signal will fall and cooling diagnostics will be performed in the meantime. Mute protection will be activated once the operating temperature is much higher than the maximum. As long as the temperature of the cooling system come down to the normal level, input signal will be restored.

##### 7. High Frequency Protection

Under high frequency protection, the amplifier will activate mute protection for output.

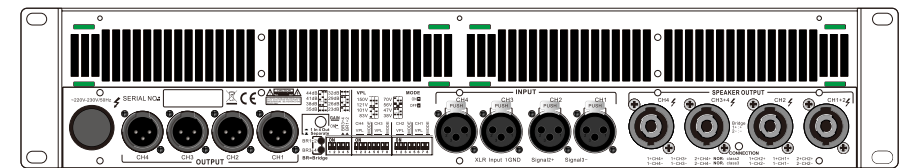
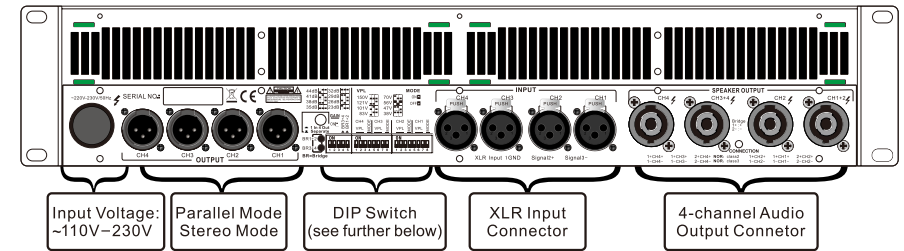
##### 8. CPL Indicator Light

Under CPL (mute): low impedance or short circuit diagnostics.

##### 9. Power Switch

Switch the main power on or off.

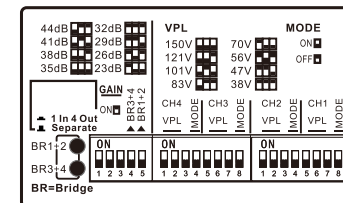
#### 3.2 Rear Panel



Rear Panel of 4-channel Audio Connector



4-channel Mode. Both the VPL and the bridge switch control a group of two channels.



##### DIP Switch

Sensitivity of each channel is set within the range from +23dB to +44dB.

Switches of "Bridge 1+2" and "Bridge 3+4" are to activate or inactivate Bridge Mode. Under Bridge Mode, there is an auto gain control of -6dB.