LAX®

USER'S MANUAL

Professional Active Loudspeaker

NOTES

Please read this manual carefully before operate the device.
Keep this manual in a safe place for reference.

⚠ WARNING

To avoid causing shock, short cut, damage, fire or any other dangers which lead to serious injury or even death, please ensure follow below notes. These notes include but not limited to below condition:

POWER SUPPLY / POWER CORD

- Keep the power cord away from heat sources, buckled or damaged. Do not place heavy objects on the device, or place the device in places where may causing trampled or crushed.
- Only use specify rated voltage of the device.
- Only use attachments power cord and plug.
- Regular checking and cleaning dirt of the power plug.
- Please ensure connect with grounded power sockets. Any disconnection of the grounding may cause electric shock.

DO NOT UNCLOSE THE DEVICE

Do not open the device, remove any internal parts or make any modifications. Stop using if any abnormal occur.

FIRE

Please do not place burning objects on the device, may causing a fire hazard.

THE DEVICE IS REQUIRED MAINTENANCE IN THE CONDITION BELOW

- If any of below condition occur, please disconnect the power supply by pulling the power plug. Ask professional person for maintenance.
- Wore or damaged power cord or plug.
- Abnormal smells or smokes.
- Articles fall into the device.
- Suddenly no sounds during operating the device.

⚠ CAUTIONS

To avoid causing any personal injury, facility or property damage, ensure follow below notes. These notes include but not limited to below condition:

POWER SUPPLY / POWER CORD

- Please grab the plug when pulling power plug from the device or power socket. Pulling power cord directly may cause damage.
- The device should be disconnected when unused for long periods of time or during lightning storms.

MOUNTED POSITION

- Do not place this device on unstable place, or might cause sudden turnover.
- If no safe fixation of the device, please do not installed in places even flat surface where easy falling down.
- Please do not use handles of the device for suspension installation, may causing damage or personal injury.
- During transportation or moving, make sure the device disconnected.
- Before installation, please contact with professional maintenance personnel, and must follow below notes:
- Choose suitable installation site where can withstand the weight of the device.
- Avoid places where constant vibration.
- Use the correct tools for installation.
- Inspect this device regularly.

CONNECTION

- Before connect this device with any other equipment, please turn off power switch of all the equipment.
- Please tune all the volume to minimum before turn on or off the power switch of all the equipment.

MAINTENANCE

Please ensure pull the power plug from the AC power socket before cleaning this device.

OPERATIONS

- Do not insert fingers or hands in any ventilation slits of this device.
- Do not press body or place heavy objects on this device, avoid operating button, switch or socket excessively and forcibly.
- Do not use this device under very high or uncomfortable volume level for long periods of time, otherwise may cause permanent ear damage.When encounter deafness or tinnitus, please seek medical treatment.
- Stop using this device when output sound distortion. Continue using under such status the device may overheat and cause a fire hazard.

INTRODUCTION

Thank you very much for your purchasing LAX active loudspeaker product.
In order to receive better performance of the product, please read this manual carefully. Keep this manual in a safe place for your future reference.

CONTENT

1、 Product major feature

This series product integrate high quality DSP processor with 2 input,3 or 2 output. Sampling frequency reach up to 96kHz, USB control interface, 120dB input and 117dB output dynamic range, 10Hz - 40kHz frequency range. Each input and output channel have 8 parameters filters, each parameter filter can set as Bell, Shelving, Notch and All-pass mode, each output and input channel with 20ms delay.
This product use Butterworth, Bessel and Linkwitz-Riley filters, ensure high fidelity sound quality and flatness frequency response curve. Integration LCD display controller, process real-time monitoring through PC configuration. 80 presets expand the functions of the product, and protection circuit ensure the safety of horn unit, amplifier and supply unit. Maintaining functionality better improve the performance and stability of the components, prevent the system being distortion even under harsh environments.

4、 Product technical parameters

		□		□	
		Full range	**Active Ultra-low Frequency**	**Full range**	**Active Ultra-low Frequency**
Frequency Response		80Hz-20kHz(±3dB) 65Hz-20KHz(-10dB)	55Hz-300Hz(±3dB) 40Hz-300Hz(-10dB)	90Hz-17kHz(±2dB) 80Hz-20KHz(-10dB)	40Hz-400Hz(-10dB)
Norminal Dispersion (HxV)		90°x 30°	/	100°x 10°	/
Sensitivity (1W/1m)		97dB	100dB	102dB	98dB
Max SPL(1m)		126/132dB (continuous / peak)	129/135dB (continuous / peak)	125/131dB (continuous / peak)	127/133dB (continuous / peak)
Power Rating(AES)		800W	900W	200W	800W
Norminal Impedance		8Ω	4Ω	8Ω	8Ω
Drive Unit		4x6.5"Bass 1x1.75"Treble	2x12"Bass	1x8"Bass 1x1.5"Treble	1x15"Bass
Connect Socket		2 NEUTRIK NL4MP 4-Core Socket Full-range 1+1-	2 NEUTRIK NL4MP 4-Core Socket Full-range 1+1-	2 NEUTRIK NL4MP 4-Core Socket Full-range 1+1-	2 NEUTRIK NL4MP 4-Core Socket Full-range 1+1-
Rigging		Dedicated Connector	Dedicated Connector	Dedicated Connector	Dedicated Connector
Digital Active Module		/	Digital Active Module	/	Digital Active Module
Signal Input		/	2pcs XLR Female (balance) TRS input	/	2pcs XLR Female (balance) TRS input
Signal Output		/	2pcs XLR Male	/	2pcs XLR Male
Mode Switch		/	Stereo mode / Mono mode	/	Stereo mode / Mono mode
DSP		/	DSP display read preset program, rotary knob select confirm USB connected to DSP, change the basic system setting.	/	DSP display read preset program, rotary knob select confirm USB connected to DSP, change the basic system setting.
High-effect 3-channel Class D amplifier		/	2*400W+1550W	/	2*400W+1550W
AC Input		/	□ ~220V-230V 50Hz □ ~100V-120V 60Hz	/	□ ~220V-230V 50Hz □ ~100V-120V 60Hz
Dimension (WxDxH)		221.5x925x230mm	850x401x550mm	460x351x259mm	460x600x497mm
Net Weight		23 kg	49 kg	17kg	45 kg

* This User Manual for reference only, no further notice if any contents alter.

InA、InB：

InA/InB: Adjust parameter of input channel, including Gain, 8th order optional, Type, Frequency, BW, Mute. Select "Bypass" to protect other networks cascading the gate way of the device causing accidental failure.

Out1、Out2、Out3、Out4：

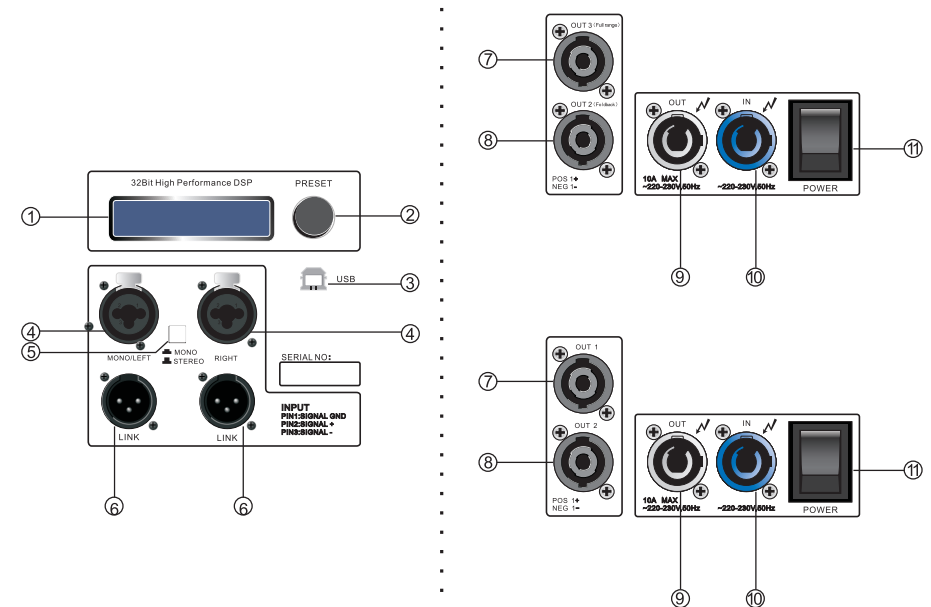Select Out1, Out2, Out3, Out4 to adjust High Pass and Low Pass.

Limiters：
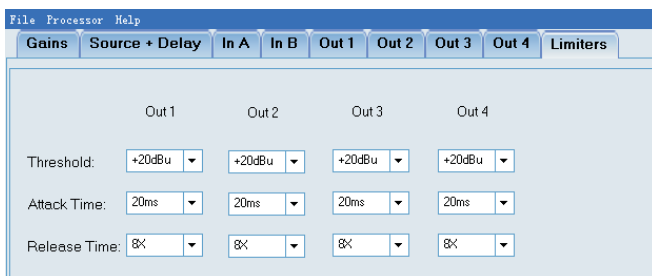
Output power limiter, including Theshoid, Attack Time, Release Time setting to control out1, out2, out3, out4.

2、MAIN OPERATIONAL KEY AND FUNCTION

REAR PANEL

1、LCD Screen

2、Preset

3、USB：Used for connection with standard PC and external device, support PnP and hot-plug function.

4、Input XLR: Signal input

5、Mode switch: Using this switch to select bridge, stereo or mono mode of the amplifier。

6、Output XLR: Signal output

7、4-core speakon output: Full-range out 3 / Full-range out 1

8、4-core speakon output: Foldback out 2 / Full-range out 2

9、Power output

10、Power input

11、Power switch

3、 CONNECTION

1、CONNECTING：

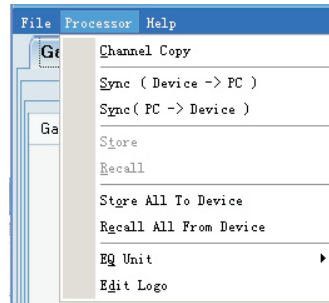This series product no need install, copy file from the CD, save in PC and then click.

<1> Double click "DSP24" to open operation platform.
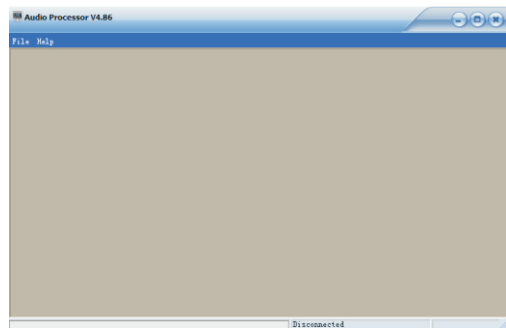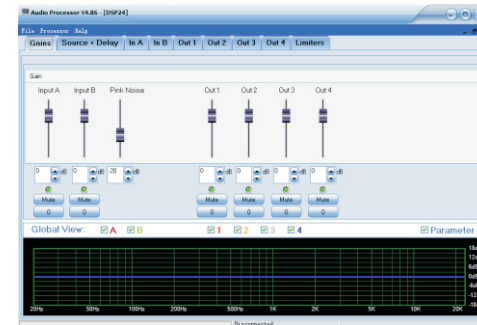
<2> Click "File" →"New" →"DSP24" enter control center.

<3>Processor sub-menu：

● Store：

Store setup file from PC to device.

● Recall：

Recall setup procedure from device memory to PC.

# 2、 CONTROL CENTER MENU：

Control center menu display as below:

Sub-menu: Gains, Source+Delay, InA, InB, Out 1, Out 2, Out 3, Out 4, Limiters select then access: Gain Control, Source+Delay,Input channel 1,Input channel2, Output channel 1, Output channel 2, Output channel 3, Output channel 4, Output limits. Each sub-menu can set relevant parameters.
Notes: Parameters of this product have been debug and set by professional, advise do not reset.
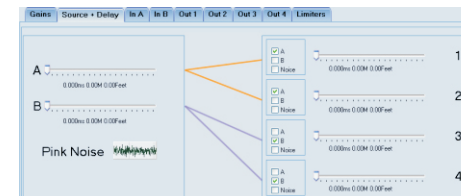
3、PARAMETER EDIT MODE

Gains：
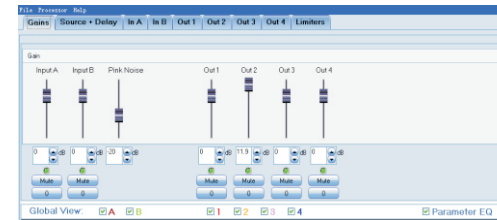
Gains: Input A、Input B、Pink Noise、Out1、Out2、Out3、Out4 functions, click "Enter" after input value into the textbox, or use "mouse" adjust the gains, more flexible.
Global View: A / B input channel, Noise filter optimize, 1 / 2 / 3 / 4 output channel, Parameter EQ selection.
Mute:mute selection button of input channel.

Source+Delay ：

Source+Delay：Left signal source A and B can adjust and match freely with right "A，B, Noise" unity or mixture. The right side delay "1, 2, 3, 4", delay time can be set manually.