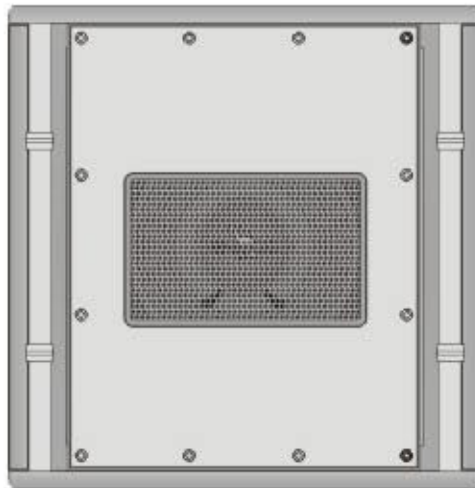




**3BDIO®**  
The Art of Entertainment

# Active Loudspeaker Operation Manual **3BDIO**

*AS Series*



Patent No. : 200730047645. 1

Model No.:

*AS/5T*

**OPERATION MANUAL**



# OWNER'S MANUAL

The information furnished in this manual does not include all of detail of design, production, or variations of the equipment, nor does it cover every possible situation that may arise during installation, operation or maintenance. If you need special assistance beyond the scope of this manual, please contact our Technical Support Group.

## CAUTION

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**

TO PREVENT ELECTRIC SHOCK DO NOT REMOVE COVER OR BACK. NO USER SERVICEABLE PARTS INSIDE REFERS SERVICING TO QUALIFIED SERVICE PERSONNEL.

## MAGNETIC FIELD

CAUTION! Do not locate sensitive high-gain equipment such as preamplifiers or tape decks directly above or below the 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. The field is strongest just above and below the unit. If an equipment rack is used, we recommend locating the amplifiers in the bottom of the rack and the preamplifier or other sensitive equipment at the top.

## WATCH FOR THESE SYMBOLS:



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



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



## WARNING

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## INTRODUCTION

3BDIO AS serial compounding speaker system is the most popular big power but small cabinet, movable active speaker system in the international market. With its versatility, its convenience and easy handling, it adapt to a wide rage of application areas.

AS15T-a comprises two 8" two way full range speakers (SN082) and a signal 15" sub-woofer (AS15T). AS15T-b comprises a 10" two way full range speaker ( SN102) and a signal 15" sub-woofer( AS15T). The sub woofer meticulously equipped with a four channel amplifier module, which enable the speaker having those functions as respective gain for high, mid and low range; total output control. PEQ control and crossover point control, the total power is above 1100W.

1.MH-Limiter for mid/high-range power amp.

- 1).Improved signal quality owing to lower distortion near threshold
- 2). Reinforced the performance resulting from higher usable volume levels
- 3). Applied studio technology to optimize the performance system
- 4).Integrated with specialized limiter module to protect speaker from overload.

2.LC-limiter for low-range power amp

- 1).More low-end punch as more efficient energy is being used
- 2).Protected the speakers from the damage of inharmonic distortion
- 3).Meticulously matched with the low-range power amp

3.Three-band EQ for low/mid/high-range

- 1).Balanced the sound in different environments
- 2).Perfectly matched to the sub-woofer
- 3). Remarkable sound compensation make it good for studio as well as house parties

4.RF Frequency processing technology

- 1)Reduce self-noise
- 2)Eliminated sound-destroying phase problems
- 3)Perfectly matched to each system

**4. Subsonic Filter**

- 1). Protected power amp and speakers from harmful ultra-sub-low frequencies
- 2). Achieved more output power in the usable frequency range.

**6. 24dB/octave Electronic Crossover**

- 1). Steep slope of 24dB per octave for purer signal
- 2). Unlike passive crossovers, no signal power loss

**7. Easy set-up and handling**

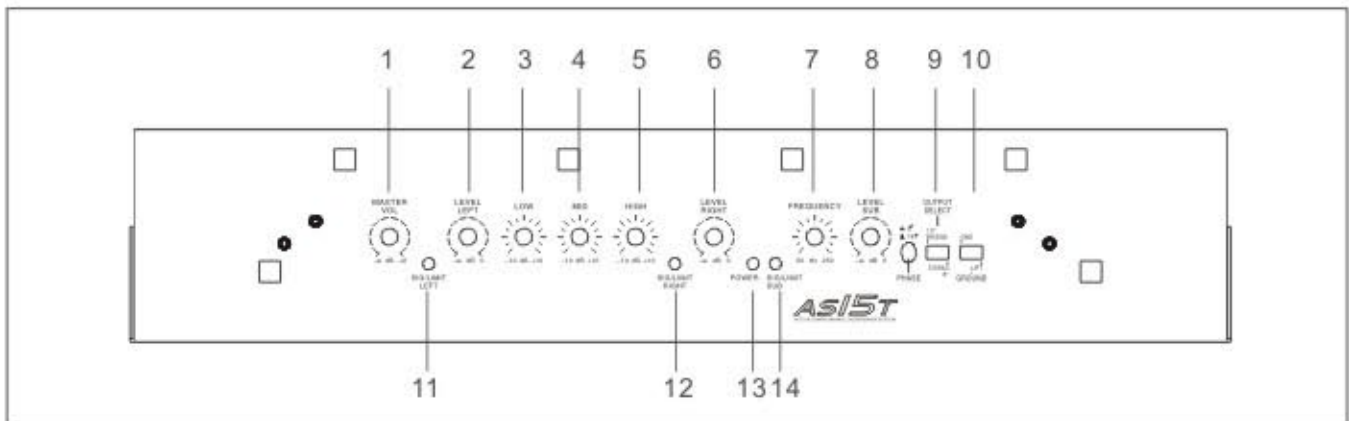
- 1). All functions integrated into one system
- 2). Easy handling and faster setup

**2. STRUCTURE AND CHARACTER**

Ideal for all kinds of outdoors gigs, conference station and house parties.

- 100x50 degree constant directivity horns with 3/4" compression drivers, Built in EQ adjusts the sound for high mid and low range.
- Dual 150W RMS low/mid/high-range power amp with limiter for pure and transparent sound.
- Mid/high speaker has 12dB two way crossover, which can strengthen fluent frequency response of system sound.
- Subsonic filter protects power amp and speakers from any existing harmful ultra-sub-low frequencies.
- Balanced XLR and 1/4" input and output.
- Two-color LEDs show limiter status for bath sub-woofer and satellite.
- Automatic circuit breaker
- Ground controlling switch to eliminate hum
- Locking SPEAKON connectors
- Equipped with several types power cable for user to choose.

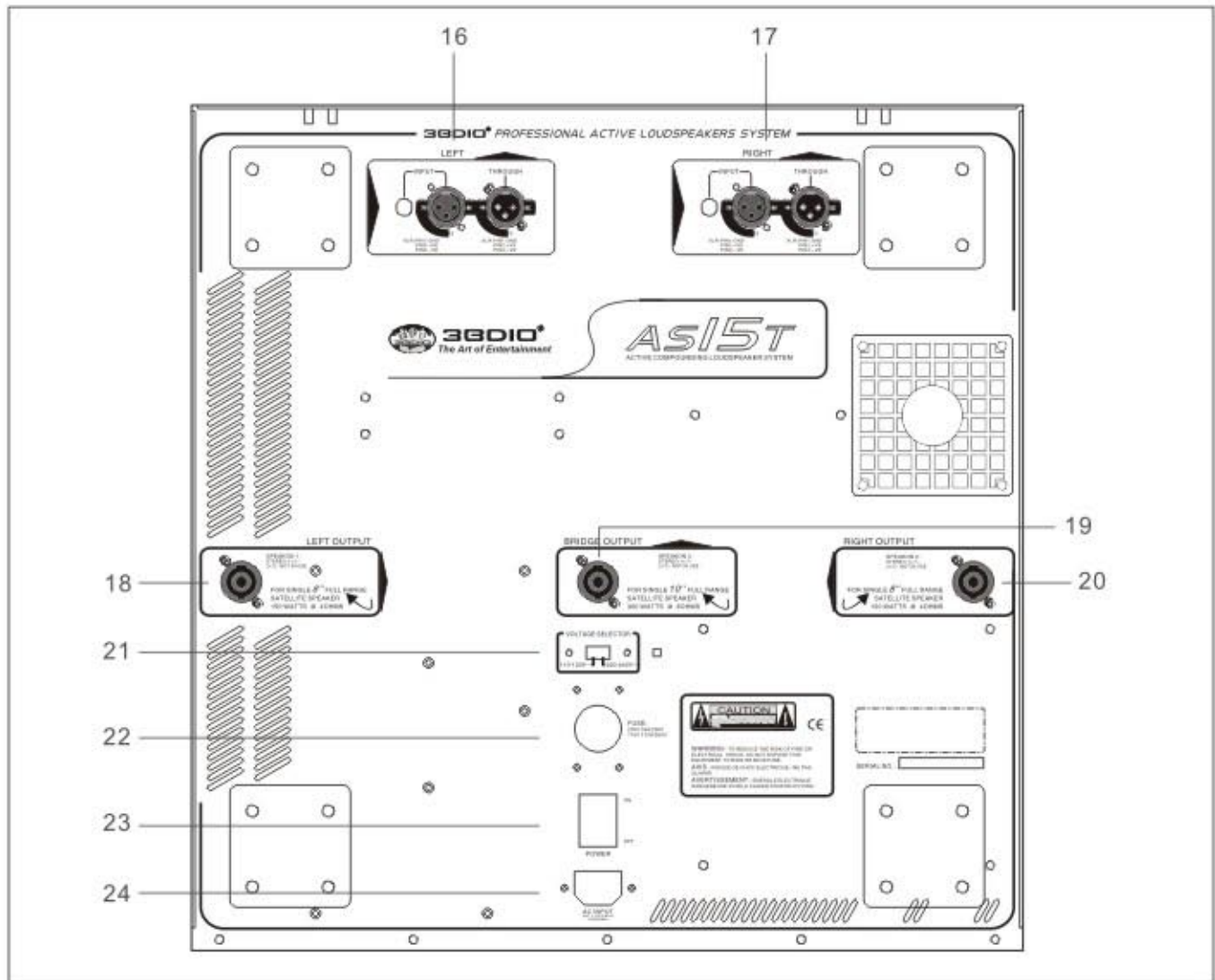
**3. FUNCTION OF REAR PANEL (figure 1 and figure 2)**



- 1). Master VOL: adjust left, right channel volume
- 2). LEVEL LEFT: in the system of AS15T-a, the function is to control left channel volume. In the system of AS15T-b the function is to control full range input volume
- 3). LOW: adjust left, right channel low volume
- 4). MID: adjust left, right channel mid volume
- 5). HIGH: adjust left, right channel high volume
- 6). LEVEL RIGHT: in the system of AS15T-b control right volume
- 7). FREQUENCY: adjust low crossover, from 50 to 250 Hz, frequency cut in the speed of 24dB/OCT
- 8). LEVEL SUB: adjust low volume
- 9). OUTPUT SELECT: can use it choose the model you need
- 10). GROUND: ground switch, can choose directly ground or lift
- 11). SIG/LIMIT LEFT: left channel signal indicator (green) and compress indicator (red)
- 12). SIG/LIMIT RIGHT: right channel signal indicator (green) and compress indicator (red)



- 13).POWER: power indicator
- 14).SIG/LIMIT SUB: low signal indicator (green) and compress indicator (red)
- 15). PHASE: woof phase switch, press in is in-phase, press out is out-phase



- 16).LEFT SIGNAL INPUT(1/4"signal plug or XLR) and line output (XLR).
- 17).RIGHT SIGNAL INPUT(1/4" signal plug or XLR) and line output(XLR).
- 18) Left channel full range amplifier output, SPEAKON can connect left channel satellite speaker.
- 19) When use the system of AS15T-a, the output of full range amplifier is available. The impedance of connected is 8ohm.
- 20).Right channel full range amplifier output, SPEAKON can connect right channel satellite speaker.
- 21).VOLTAGE SWITCH: the power of 110-120 or 220-240 can be used.
- 22) FUSE: When use the power of 115V, use the fuse of T12A/250V, when used the power of 230V, use the fuse of T6A/250V
- 23). POWER SWITCH
- 24). POWER INPUT SOCKET: input power can choose 115V/60Hz or 230V/50Hz.



## 4.SPECIFICATION

### AS15T-II Active Compounding Speaker 有源衛星箱組合

Construction	Two-way full range
Model	SN-082
LF unit	1x8" (φ 50mm)
HF unit	1x1.4" (φ 34mm)
Frequency response	70Hz-21kHz
Power Rms/Peak	150w-300w
Sensitivity(1w/1m)	96dB
Maximum SPL	115dB
Nominal Impedance	8 ohm
Dispersion Angle	100°x40°
Plug	2xspeakon NL4(+1/-1)
Product Dimensions	260x430x250mm
Packing	Carton(1 pc / CTN)
NW/GW	12.5kg/13.8kg
Shipping Dimensions	320x500x310mm

Construction	Sub-Woofer
Model	AS15T
Woofer	1x15" (φ 75mm)
Frequency response	50Hz-250Hz
Power for sub woofer	600w/1800w
Power for satellite	250w×2 / 750w×2
Circuit Protection	Opto-limiter,subsonic filter
Sensitivity(1w/1m)	103dB
Maximum SPL	138dB
Input Sensitivity	0.775v
EQ L	70Hz ±10dB
M	1.6kHz ±10dB
H	10kHz ±10dB
Low Pass Turning Freq.	55-250Hz -3dB
Connector	2 x XLR through 2 x XLR speakon@satellite out 2 x XLR input 2 x 1/4"TRS input
Product Dimensions	530x540x640mm
Packing	Flight case(1 pc / case)
NW/GW	58.2kg/87.2kg
Shipping Dimensions	580x930x600mm

### AS15T-I Active Compounding Speaker 有源衛星箱組合

Construction	Two-way full range
Model	SN-102
LF unit	1x10" (φ 50mm)
HF unit	1x1.4" (φ 34mm)
Frequency response	45Hz-21kHz
Power Rms/Peak	250w-500w
Sensitivity(1w/1m)	97dB
Maximum SPL	118dB
Nominal Impedance	8 ohm
Dispersion Angle	100°x50°
Plug	2xspeakon NL4(+1/-1)
Product Dimensions	320x500x295mm
Packing	Carton(1 pc / CTN)
NW/GW	13kg/14.8kg
Shipping Dimensions	365x575x390mm

Construction	Sub-Woofer
Model	AS15T
Woofer	1x15" (φ 75mm)
Frequency response	50Hz-250Hz
Power for sub woofer	600w/1800w
Power for satellite	500w/1500w
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## 介绍

3BDIO [AS]系列音箱是目前国际上最为流行的小体积、大功率、流动型有源音箱组合系统，它功能全，搬运使用灵活方便，适用范围很广。

AS15T-a 是由两只单8寸二分频全音音箱(SN082)和一只单15寸超低音箱的组合，AS15T-b 是由一只10寸二分频全音音箱(SN102)和一只单15寸超低频音组合成一个通道，并由超低频音箱上的专用4通道有源功放模块匹配功率输出，设高、中、低独立增益和总输出控制、参量均衡控制、分频点控制等功能。总功率达1100W以上。

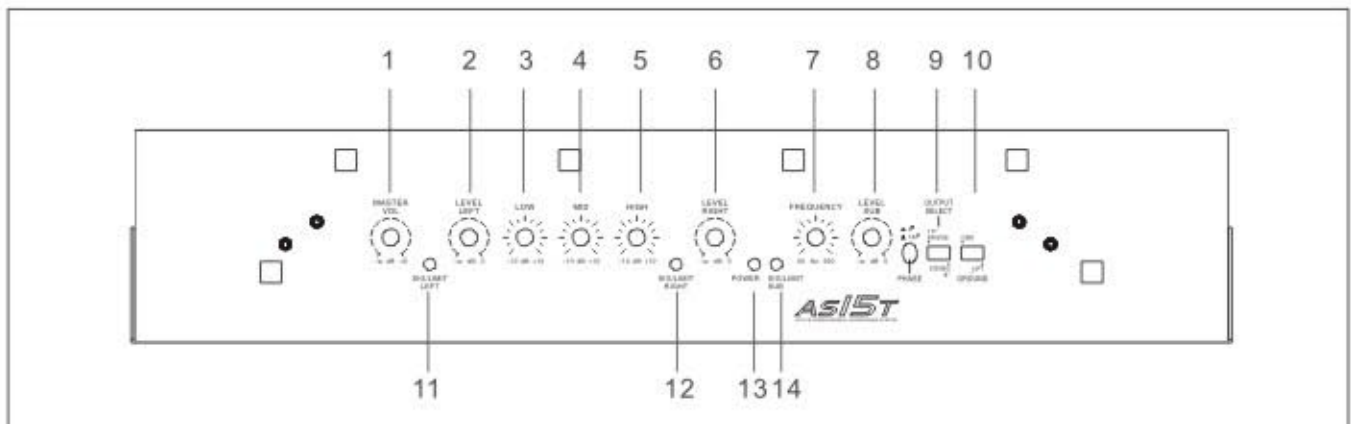
1. M/H中/高音区工放限幅器
  - 1) 最低失真度，提高信号质量
  - 2) 更高的可应用音量水平加强了性能
  - 3) 应用演播技术优化性能
  - 4) 专用限幅模块运用，音箱过载保护
  
2. L C 低音功放限幅器
  - 1) 通过更有效的能量使用获得更低档的冲压
  - 2) 防止音箱遭受谐波失真的危害
  - 3) 与低音功放有机完美组合
  
3. 三段高、中、低均衡
  - 1) 平衡不同环境的音源
  - 2) 与低音音箱完美组合
  - 3) 显著的补偿功能适用于演播室和家庭应用
  
4. R F 频率处理技术
  - 1) 降低自有噪音
  - 2) 消除破坏声音的相位问题
  - 3) 能与每个系统完美组合
  - 4) 适用不同的音量调节范围，每一范围都是全音域输出
  
5. 次音过滤器
  - 1) 防止功放和音箱遭受超次低频的危害
  - 2) 在有用的频率范围内释放更多的输出功率
  
6. 四阶有源电子分频器
  - 1) 每倍频程 2.4 dB 急剧衰减，产生出更纯的信号
  - 2) 与无源分频不同，无信号功率损失
  
7. 易于安装与操作
  - 1) 所有功能全为一个系统
  - 2) 易于处理，快速启动

## 二. 结构与特征

- \* 适用于各类户外流动演出，会议场所及家庭娱乐场所需音频放大设备。
- \* 3 / 4 " 压缩单元带有100° x50° 树脂合成定向号角，具备全音频率高，中，低EQ调音
- \* 限幅器的双重150W RMS低 / 中 / 高音范围的功放带有纯而透明的立体声
- \* 中/高音箱中带有12dB两份频活动电子技术系统，可以增强系统声音流畅的频率响应
- \* 次音过滤器保护存在有危害的、潜在超低音频率的功放及音箱
- \* 平衡XLR及1/4" 输入及输出插孔
- \* 两色LED显示超低音箱及小音箱压限器状态
- \* 自动电路断路器
- \* 接地控制开关消除嗡嗡声
- \* 锁紧SPEAKON接头
- \* 配备各种规格的音源电缆供客户自选择。

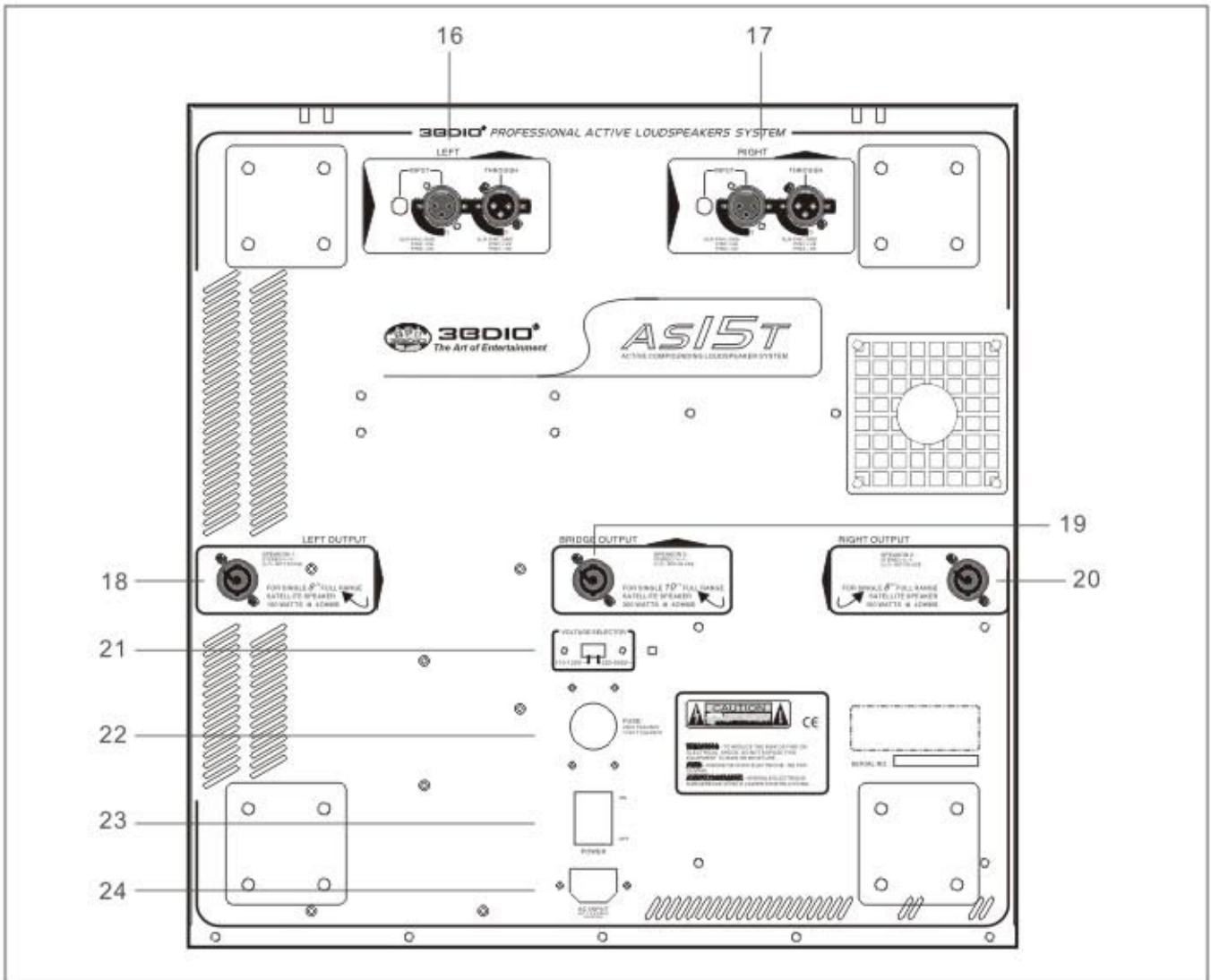


### 三、后板功能如（如图 1、图 2）



1. MASTER VOL:调整左、右声道的总音量
2. LEVEL LEFT:在AS15T-a系统中为左声道音量电位器，控制左声道音；在AS15T-b系统中为控制全音域输出音量
3. LOW:调节左、右声道的低音
4. MID:调节左、右声道的中音
5. HIGH:调节左、右声道的高音
6. LEVEL RIGHT:在AS15T-a系统中为右声道音量电位器，控制右声道音量。
7. FREQUENCY:调节低音分频点，50-250Hz 连续可调，从分频点开始以上频率以24dB/OCT衰减。
8. LEVEL SUB:调节低音的音量
9. 输出选择开关:可拨动开关选择10" bridge或stereo8" 输出模式，当拨至STEREO 8" 位置时，左右卫星箱的 SPEAKON输出口有信号输出，当拨动至10" BRIDGE 位置时，只有RIGHT OUTPUT 的SPEAKON输出口才有信号输出。
10. GROUND:接地开关，可选择直接接地或悬浮接地以适应不同的系统连接。
11. SIG/LIMIT LEFT:左声道信号指示（绿色）和压缩指示（红色）
12. SIG/LIMIT RIGHT:右声道信号指示（绿色）和压缩指示（红色）





13. POWER:电源指示灯
14. SIG/LIMIT SUB:低音信号指示(绿色)和压缩指示(红色)
15. PHASE: 低音相位开关, 按进为同相, 按出为反相。
16. 左声道信号输入(可使用1/4"单插或XLR卡侬)和线路输出口(XLR卡侬)
17. 右声道信号输入(可使用1/4"单插或XLR卡侬)和线路输出口(XLR卡侬)
18. 左声道全音功放输出口, SPEAKON口可连接左声道卫星音箱。(只适用于系统工作在AS15T-a模式时连接连接SN082音箱)
19. 系统连接为系统AS15T-b 模式时的全音功放输出口中, 所接音箱的最低阻抗为8ohm。(只适用于系统工作在AS15T-b模式时连接SN102音箱。)
20. 右声道全音功放输入输出口, SPEAKON 口可连右声道卫星箱。(只适用于系统工作在AS15T-a模式时连接连接SN082音箱)
21. 电压转换开关, 可适应115V或230V电源
22. 保险丝:使用115V电源时T25A/250V, 使用230V电源时T12A/250V。接通电源前请检查插座中的保险丝规格以及选压开关设定的电压和当地的电网电压是否相符。
23. 电源开关
24. 电源输入座:入电源可选择115V/60Hz 或交流230V/50Hz



## 四、技术指示

### AS15T-II Active Compounding Speaker 有源衛星箱組合

產品結構	Two-way full range
型號	SN-082
低音配置	1x8" (φ 50mm)
高音配置	1x1.4" (φ 34mm)
頻響	70Hz-21kHz
功率Rms/Peak	150w-300w
靈敏度	96dB
最大聲壓 SPL	115dB
阻抗	8 ohm
擴散角度	100°x40°
插頭	2xspeakon NL4(+1/-1)
產品尺寸	260x430x250mm
包裝:	Carton(1 pc / CTN)
淨重/毛重	12.5kg/13.8kg
裝運尺寸	320x500x310mm

產品結構	Sub-Woofer
型號	AS15T
低音喇叭	1x15" (φ 75mm)
頻響(±3dB)	50Hz-250Hz
低音功率	600w/1800w
全頻功率	250w×2 / 750w×2
電路保護	Opto-limiter,subsonic filter
靈敏度	103dB
最大聲壓 SPL	138dB
輸入靈敏度	0.775v
頻率 低	70Hz ±10dB
頻率 中	1.6kHz ±10dB
頻率 高	10kHz ±10dB
低通轉折頻率	55-250Hz -3dB
連接插座	2 x XLR through 2 x XLR speakon@satellite out 2 x XLR input 2 x 1/4"TRS input
產品尺寸	530x540x640mm
包裝	Flight case(1 pc / case)
淨重/毛重	58.2kg/87.2kg
裝運尺寸	580x930x600mm

### AS15T-I Active Compounding Speaker 有源衛星箱組合

產品結構	Two-way full range
型號	SN-102
低音配置	1x10" (φ 50mm)
高音配置	1x1.4" (φ 34mm)
頻響	45Hz-21kHz
功率Rms/Peak	250w-500w
靈敏度	97dB
最大聲壓 SPL	118dB
阻抗	8 ohm
擴散角度	100°x50°
插頭	2xspeakon NL4(+1/-1)
產品尺寸	320x500x295mm
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