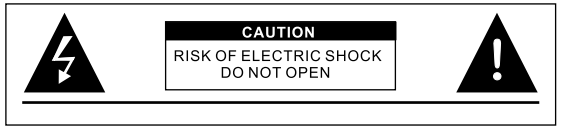
1.Cautions



Internal Dangerous Voltage of the product. Do not touch it,
It can cause electric shock .

The systemt is under operation and maintenance, Be safety.

Do not put anything onto this amplifier.

Huge Power Supply is needed .

Input Level is adjusted by Gain Potential of Each Channal .

Use stereo, mono and bridge mode, the connection method of input and output refer to the introduction of “working mode”

Some Noise from Radiator Fan is normal.

No any obstruction in the ventilated groove in the rear panel.

Do not access to water.

Power Off before clearing the case.

2.Features

►Recognizable and digital audio transmission

44.1k Hz /48k Hz/96kHz/192k Hz sampling frequency S/PDIF format digital coaxial signals, optical signals or AES3 digital audio signals can be input directly and it can transfer the digital signal to output.more stable.

► Wide voltage range,Stable and dependable performance

65% ~ 130% the extra wide working voltage range design against the relative rated Input supply voltage , so it can easlily cope with the strong voltage fluctuation environment.Meanwhile, power volume gradient circuit more considered the audience feelings. Advanced SMT technology make the performance more stable.

► Precise and pure quality and wonderful SNR

Finally, several experiments to eliminate the sound defaults are paid. Consequently, precision and clearity of DA series are remarkable. Let alone the ultra-low distortion and super S/N R.

► Work under long term low-load is available

Work under 2Ωload long and stably is available.

►Designed for the applications of professional equipments,theatres and live amplifying.

The handy 2U-cabinet that makes setting and carrying easier can be fixed on any parts of the rack. The perfect protection circuit makes its self-protected characteristics are as splendid as the aircraft carrier's.

► Totally intelligent dynamic limiter system and distortion eliminate circuit

The circuit which power is controlled by dynamic limiter is a patent, assuring the system is working in a permanent safe situation.

► Patent of earthed technology

The latest patent of earthed technology that is adapted by the DA is able to work without floating switch and minimize the noise no matter what kind the connection is.

► Always pursuit of the best

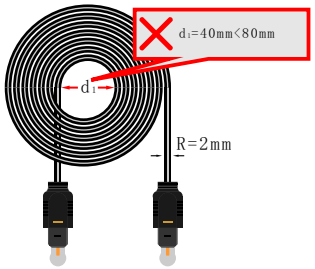
The DA that have been studied for years are the optimum products with elaborated performances, which is proved by the sophisticated interior layou.

12. Attentions of fibre-optical connection

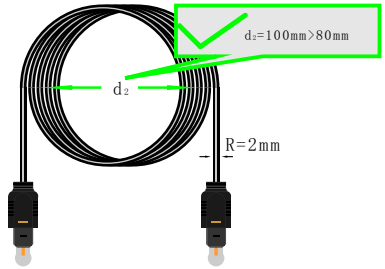
1.Fibre-optical's inflection diameter can not less than 80mm,please do not bend the fibre-optical at will , in order no to jam the signal transmission.

For example:

a. wrong method of bundle the fibre-optical



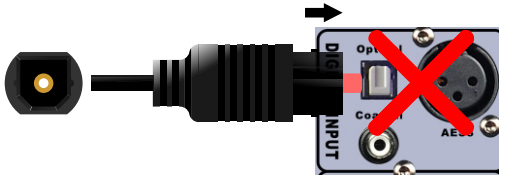
b. correct method of bundle the fibre-optical



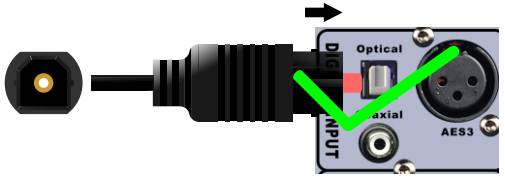
2. Notice the pins direction of the fibre-optical, it might damage the pin and socket if the direction is wrong.

For example:

a.Wrong direction: "fibre-optical chamfer and optical socket chamfer with opposit direction.



b.Right direction: "fibre-optical chamfer and optical socket chamfer with the same direction.



11.Specification

Mode	DA8350	DA8550	DA8750
Rated Output Power,Continuous Average Power,RMS, 1KHz,THD<=1%			
Bridge@4Ω)	1×1400W	1×2000W	1×2600W
Bridge@8Ω)	1×1084W	1×1700W	1×2324W
Bridge@16Ω)	1×700W	1×1100W	1×1500W
Stereo@2Ω)	2×700W	2×1000W	2×1300W
Stereo@4Ω)	2×542W	2×850W	2×1162W
Stereo@8Ω)	2×350W	2×550W	2×750W
Frequency Response,8Ω load, 10dB below rated power	20Hz~20KHz±0.25dB		
THD +N (typical),20Hz~20KHz,8Ω load, 10db,below rated power	<0.05%		
Intermodulation Distortion SMPTE (typical) 8Ω load, 10dB below rated power,60Hz+7KHz	<0.05%		
Signal to Noise Ratio 20Hz~20KHz, 8Ω load,A-weighted	>105dB		
Input CMRR (common mode rejection ratio) @1KHz	>80dB		
Channel separation(crosstalk) @1KHz	>80dB		
Damping Factor 8Ω load,A-weighted	>450	>500	>600
Circuitry	Bipolar, ClassAB		
(Input impedance	Analog input: 20kΩ balance input Digital optical input AES3:110Ω Digital coaxial input RCA: 75Ω		
Slew Rate	45V/μs	55V/μs	60V/μs
Digital Signal Processor	44.1k Hz/48k Hz/96k Hz/192k Hz sampling frequency can convert to 96KHz sampling frequency, 24-bit D/A automatically		
Nominal Gain,rated power@8Ω	37dB	39.5dB	41dB
Input sensitivity,rated power@8Ω	0dBu(0.775Vrms)		
Max Input level	+22.0dBu(10.0Vrms)		
Protection Circuits	Soft-start, inrush-current limitation, temperature monitoring of heat-sinks and transformer, output short protection,output DC protection, output over current protection, protector, turn-on/off muting, RF protection		
Dynamic Limiter	Full auto intelligent)		
Cooling	Four variable-speed DC fans, front-to-rear air flow		
LED Indicators Front panel	Power-ON, Mode, Clip/Limit, Singnal, Protection		
LED Indicators Rear panel	N.A.		
Input Connectors	Analog:3-pin XLR, male and female per channel, pin2=inphase(hot);Digital signal:3-pin XLR, female and coaxial RCA&Opital AES3		
Output Connectors	three 4-pole SPEAKON connectors, both channels and bridge mode output; Digital signal:3-pin XLR, male and coaxial RCA&Optical AES3		
Working mode	Three modes: Stereo, Mono and Bridge. Mono and bridge only can input from channel 1.		
Power Consumption 1/8 rated output power @4Ω	285W	411W	560W
Power Consumption 1/3 rated output power @4Ω	762W	1092W	1493W
Maste reset protector	240V/230V:F15A 120V/100V:F25A		
Power Supply	240V,230V,120V or 100V;50Hz/60Hz(factory configured)		
The height of Unit			
Product Dimension (W*D*H)	482X475X88mm		
Net Weight	17.5kg	19.5kg	21.5kg
Shipping Dimension (W*D*H)	623×653×215mm/0.0875m³		
Gross Weight)	20kg	22kg	24kg

3.Front Panel's Functions Introduction

1. Power

Press this button and it start to work

2. Power Indicator

3.CH1 Volume Control for Left Channel's Volume, Bridge and Mono Channel's Volume)

4.CH2 Volume Control for Right Channel's Volume

5. Signal Indicator to right channel

6.Clip Indicator to right channel

7.Protect Indicator to right channel

8.Bridge Status Indicator

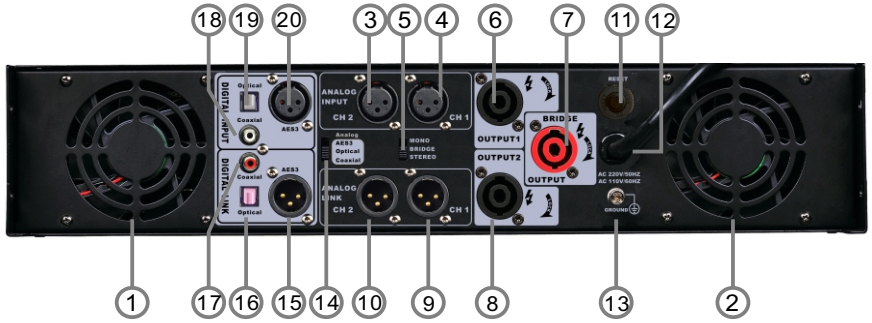
9.Mono Status Indicator

10. Protect Indicator to left channel

11.Clip Indicator to left channel

12.Signal Indicator to left channel

4. Rear Panel's Functions Introduction



1, 2 : the radiator-fan . please do not block up these two air outlets)

3 : Ch2 Channel is XLR input socket, input signal is analog signal of left channel. At this time, the Ch2 XLR of ANALOG LINK has analog signal output.

Connection ways:PIN 1= GROUND; PIN 2=HOT;PIN 3=COLD

4 : Ch1 Channel is XLR input socket, input signal is analog signal of left channel. At this time, the Ch1 XLR of ANALOG LINK has analog signal output.

Connection ways=PIN 1= GROUND; PIN 2=HOT;PIN 3=COLD

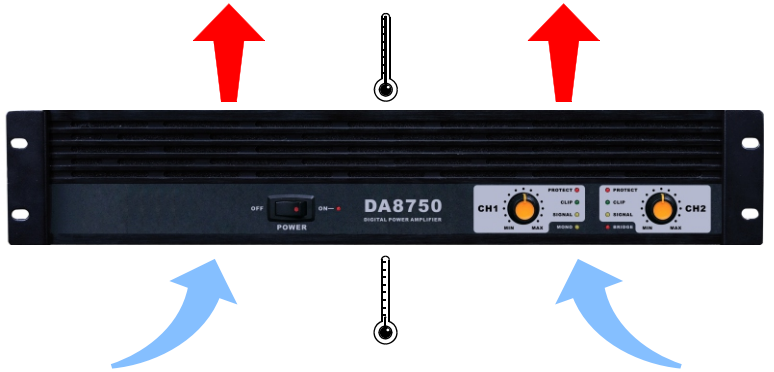
5 : Operating ModesSwitcher (There are 3 modes available for choice . For specific connection mode, please refer to Working Mode Connection Diagram)

a.Mono Mode: Slide the switch button onto the top. Now, signals can be input via Input1 XLR. The 2 channels' Signals will be output via OUTPUT 1 and OUTPUT 2. Meanwhile, the Volume Control of CH1 can control both of the channels' output. (Under Mono Status, INPUT2 and the Volume Control of CH2 can not work

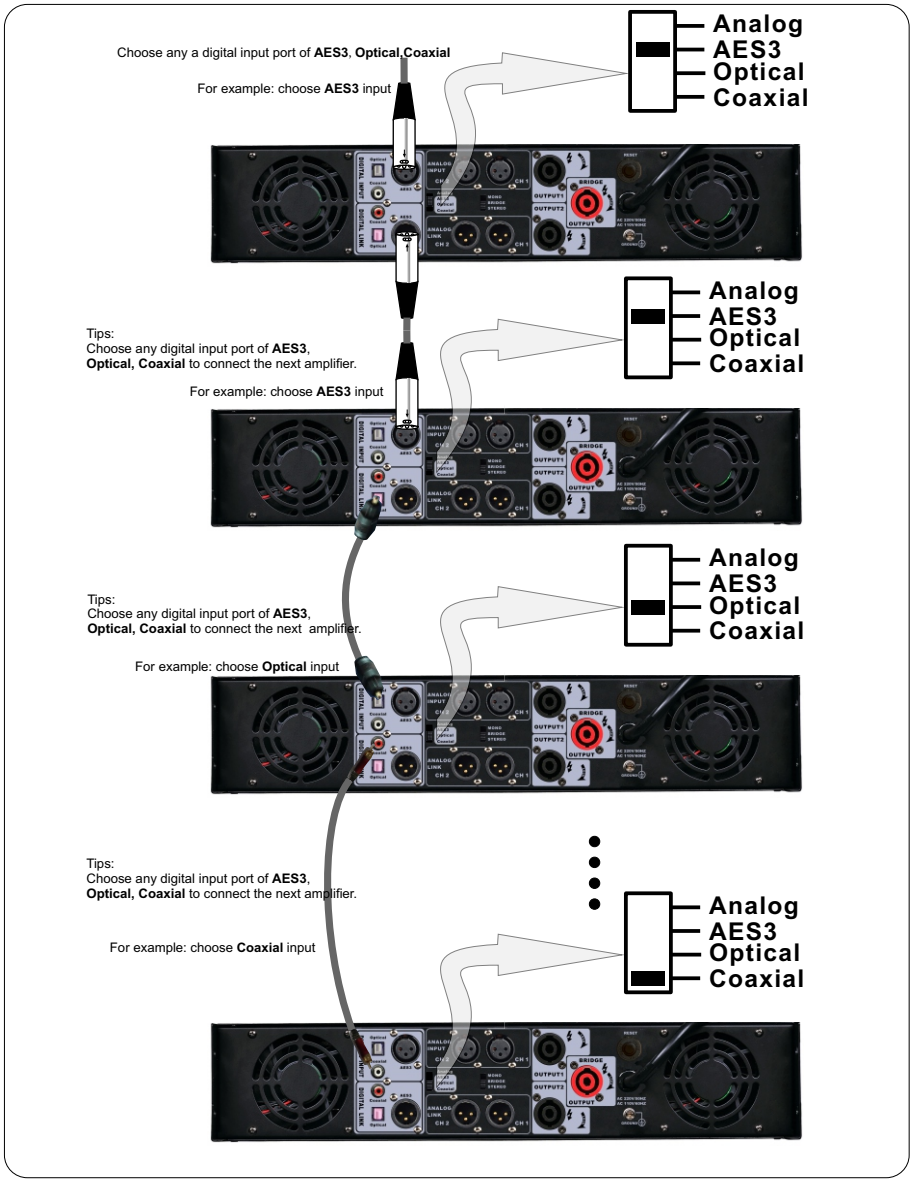
Attention: Working under Mono Status, the two speakons, OUTPUT1 and OUTPUT 2, should be connected with loudspeaker separately. Please do not connect both OUTPUT 1 and OUTPUT 2 with one loudspeaker. There must not be a short-circuit between the mutual output of the 2 channels. The loudspeaker's impedance must not be lower than

10.Airflow Direction

(See picture: The air flows from the front to the back . The cold air enter into the case from the two sides of the front panel and then the hot air will be blowed out from the fan in the rear panel.
Please keep the space at least 50mm and promise the air is flowing , otherwise the amplifier will be damaged .)



9. Sketch map of digital signal cascade connection



the rated impedance from the Specification Chart. Also, there is no signal output from the red speakon, so please do not connect the red speakon with any loudspeaker. Please operate the amplifier according to the instruction.

b.Bridge Mode: Slide the switch button onto the middle. Now, signals can be input via INPUT1 and the Bridge Signals will be output from the red speakon. Meanwhile, the Volume Control of CH1 can control the Bridge Output. (Under Bridge Status, INPUT2 and the Volume Control of CH2 can not work

Attention: Working under Bridge Status, the two speakons, OUTPUT1 and OUTPUT 2, must not be connected with any loudspeaker. There must not be a short-circuit among the mutual output of the Red Speakon. The loudspeaker's impedance must not be lower than the rated impedance from the Specification Chart. Please operate the amplifier according to the instruction.)

c. Stereo Mode: Slide the switch button onto the bottom. Now, the signal from INPUT 1 will be output from the black speakon, OUTPUT1 and the the signal from INPUT 2 will be output from the black speakon, OUTPUT 2. Meanwhile, The Volume Control of CH1 controls the OUTPUT1 and the Volume Control of CH2 controls the OUTPUT2.

Attention: Working under Stereo Status, the two speakons, OUTPUT1 and OUTPUT 2, should be connected with loudspeaker separately. Please do not connect both OUTPUT 1 and OUTPUT 2 with one loudspeaker. There must not be a short-circuit between the mutual output of the 2 channels. The loudspeaker's impedance must not be lower than the rated impedance from the Specification Chart. Also, there is no signal output from the red speakon, so please do not connect the red speakon with any loudspeaker. Please operate the amplifier according to the instruction.)

6:Output of CH1, with special black 4-pin Speakon connector. It only can be connected with loudspeakers under Stereo and Mono Modes. Connection Ways: Pin1+ &Pin2+ = loudspeaker's +

Pin1- &Pin2- = loudspeaker's –

7:Bridge Output, with special red 4-pin Speakon connector. It only can be connected with loudspeakers under Bridge Modes. Connection Ways: Pin1+ &Pin2+ = loudspeaker's +

Pin1- &Pin2- = loudspeaker's –

8:Output of CH2 , with special black 4-pin speakon connector. It only can be connected with loudspeakers under Stereo and Mono Modes. Connection Ways: Pin1+ &Pin2+ = loudspeaker's +

Pin1- &Pin2- = loudspeaker's –

9:CH1 Channel XLR input socket, input signal is analog signal of right channel can connect to the XLR input socket of another amplifier.

Connection ways:PIN 1= GROUND; PIN 2=HOT;PIN 3=COLD

10:CH2 Channel XLR output socket, output signal is analog signal of right channel can connect to the XLR input socket of another amplifier.

Connection ways:PIN 1= GROUND; PIN 2=HOT;PIN 3=COLD

11:Power protector, when under long term over load, the device power supply will be cut automatically. At the same time, you need to press the button to continue power supply. When the power supply of the power protector was cut, please check the load of speaker linking after the amplifier is lower the rated Min value .

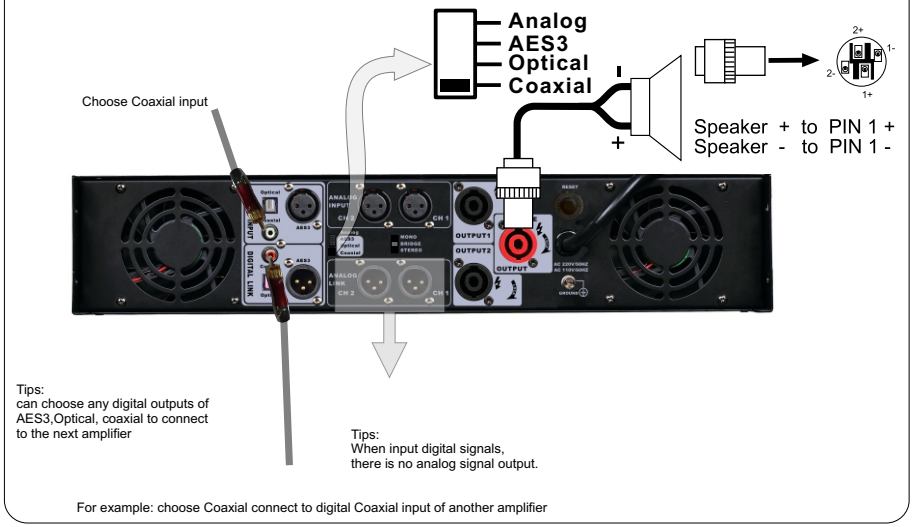
12:Power Input Port : Please make sure the voltage is the same as required before the device working

13:Ground Pole The connection between Amplifier and Ground.

14:Input signal choose switcher

a.When the switcher slide to the top of the **Analog**, the input signal of the amplifier is analog audio signal.The left channel signal input from "position 4" via XLR, the right channel signal input from "position 3".

6、 Connection sketch map of working under bridge mode, how to choose digital signal Coaxial input



For example: choose Coaxial connect to digital Coaxial input of another amplifier

The other channel deal with the same input signal with opposite phase. Using the suitable speakon connector, connect the signal loading into the red speakon. Compared with the Stereo Operation, the total output keep the same, but the available output voltage and the attachable min impendance will be doubled. Only the Input of CH1 is active now. When Signal power feeding, the output of CH2 will not work. Adjust the volume of CH2 to be zero.

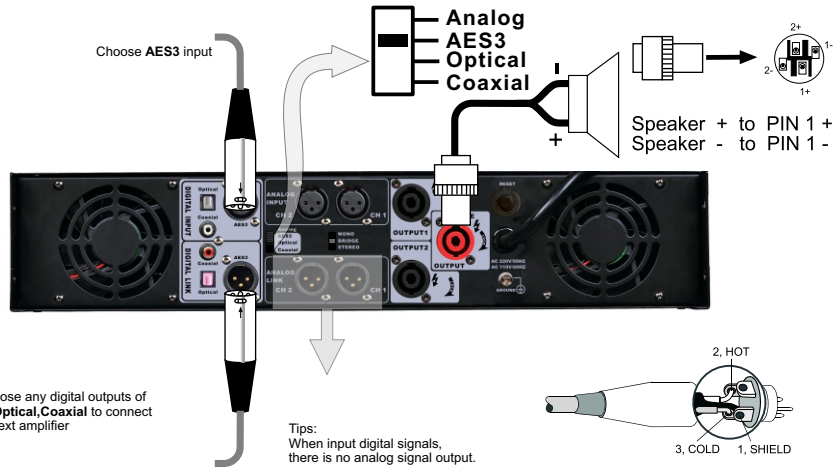
WARNING!

Under Bridge Status, Peak Output Voltage is 230V. The wiring of the amplifier must abide by the NEC 3 or meet all the international or local Electrical codes. All the electrics should be supplied by qualified suppliers and also should be operated by qualified workers.

Z min=2Ω

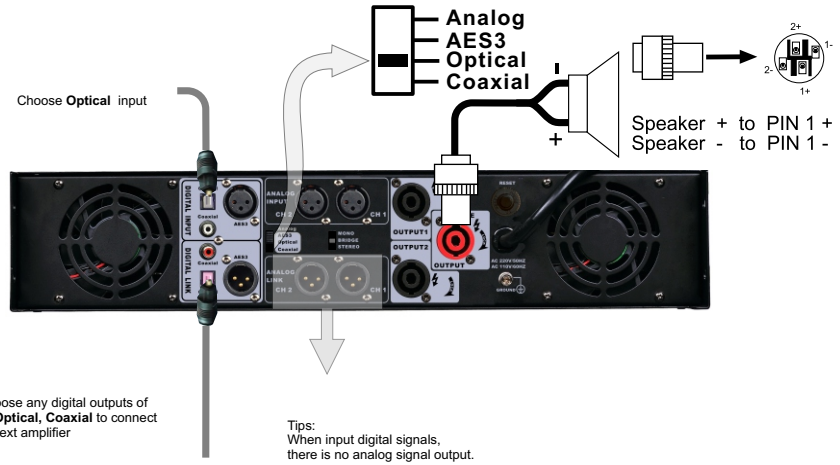
It is recommended that it should not be working under Zmin

4、 Connection sketch map of working under bridge mode, how to choose digital signal **AES3** input



For example: choose **AES3** connect to digital **AES3** input of another amplifier

5、 Connection sketch map of when working under bridge mode, how to choose digital signal **Optical** input



For example: choose **Optical** connect to digital **Optical** input of another amplifier

b. When the switcher slide to the middle of **AES3**, the input signal of the amplifier is digital audio signal.Left and right channel signal input from “position 20" via **AES3** at the same time.

c. When the switcher slide to the middle of **Optical**, the input signal of the amplifier is digital audio signal.Left and right channel signal input from “position 19" via fibre-optical at the same time.

d. d.When the switcher slide to the bottom of **Coaxial**, the input signal of the amplifier is digital audio signal.Left and right channel signal input from “position 18" via coaxial at the same time.

15:Digital audio signal output)

when ” input signal choose switcher” slide to any of “**AES3/Optocal/Coaxial**”, and the right input port has connected the digital signal input. This XLR output **AES3** signal, can connect to the **AES3** digital signal input socket of another amplifier.

Connection ways: PIN 1= GROUND; PIN 2=HOT;PIN 3=COLD）

16:Digital audio signal output

When ” input signal choose switcher” slide to any of “**AES3/Optocal/Coaxial**”, and the right input port has connected the digital signal input .This Optical output S/PDIF signal, can connect to the optical input socket of another amplifier.

17:Digital audio signal output

When ” input signal choose switcher” slide to any of “**AES3/Optocal/Coaxial**”, and the right input port has connected the digital signal input .This RCA output S/PDIF digital signal, can connect to the coaxial input socket of another amplifier. The output inpendance is 75 ohm.

18:Digital Coaxial Input Interface

Input impedance is 75ohm, can input S/PDIF digital Coaxial audio frequency signal, includes the signals of the left and right channel.When choose this audio frequency, please slide the “input signal choose switcher” to “**Coaxial**”. Tips: Now every audio frequency of the digital signal output the “**AES3/Coaxial/optical**” has digital audio frequency signal output, can connect to the input of the next amplifier.

19:Optical input Interface

Can input S/PDIF digital coaxial audio frequency signal, includes the signal of he left and right channels.When choose this audio frequency, please slide the “input signal choose switcher” to “**Optical**”. Tips: Now every audio frequency of the digital signal output the “A**ES3/Coaxial/Optical**” has digital audio frequency signal output, can connect to the input of the next amplifier.）

20:AES3 Input Interface

Input impedance is 110ohm, can input **AES3** digital Coaxial audio frequency signal, includes the signals of the left and right channel.When choose this audio frequency, please slide the “input signal choose switcher” to “**AES3**”.

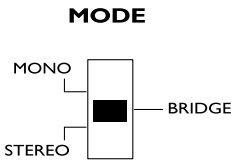
Connection ways: PIN 1= GROUND; PIN 2=HOT;PIN 3=COLD

Tips: Now every audio frequency of the digital signal output the “**AES3/Coaxial/Optical**” has digital audio frequency signal output, can connect to the input of the next amplifier.

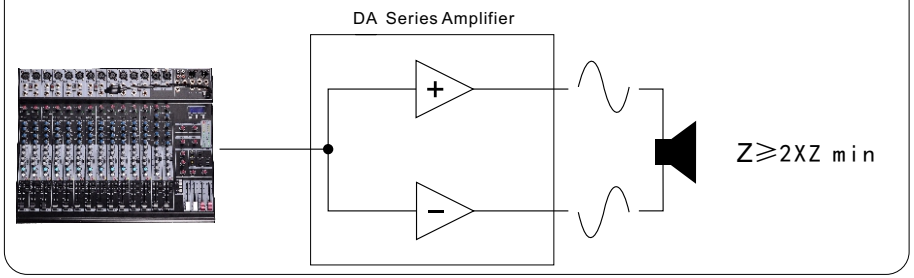
3.Bridge Operation

When inputting Signals via CH1, 2 totally same Amplifiers output the signals with the same output amplitudes and opposite phase.

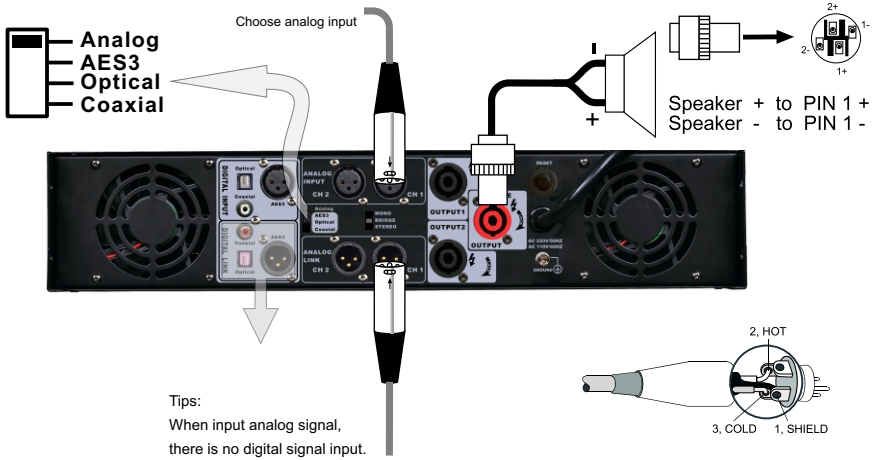
1、 Working mode chosen switch sketch map



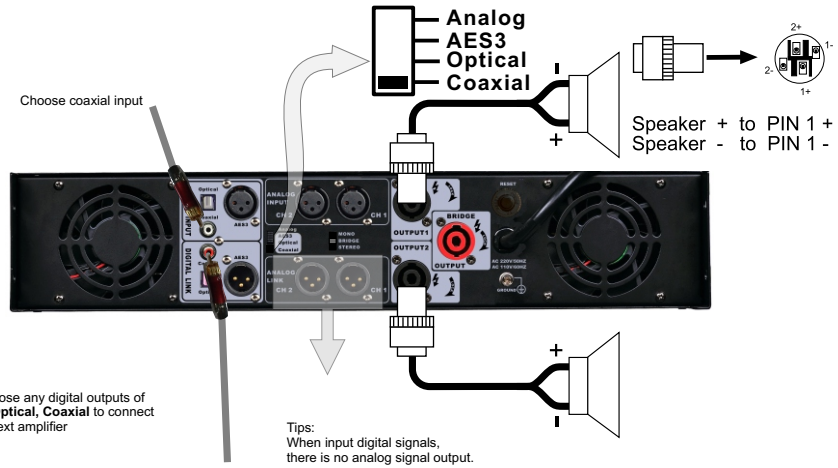
2、 Flow chart of system signals



3、 Under Bridge working mode, choose analog signals input connection map.

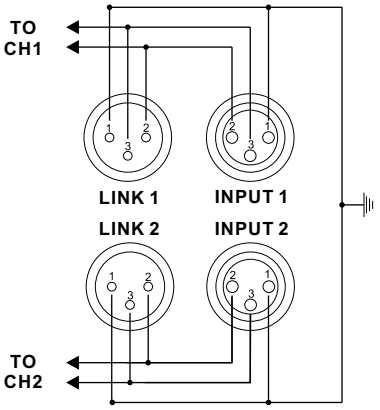


6、 Connection sketch map of when working under mono mode, how to choose the digital signal Coaxial input.



For example: choose **Coaxial** connect to digital **Coaxial** input of another amplifier

5. Analog Input Plug Wiring Diagram

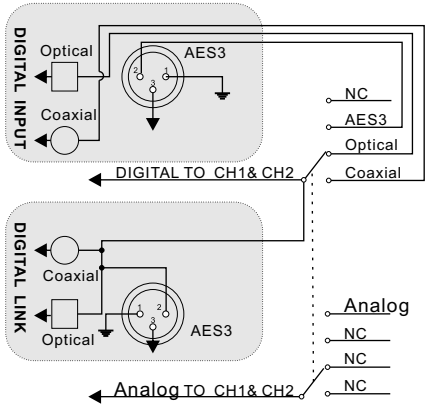


Pin1=Ground

Pin2=Hot（inphase）

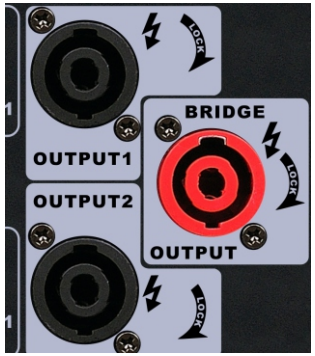
Pin3=Cold（out of phase）

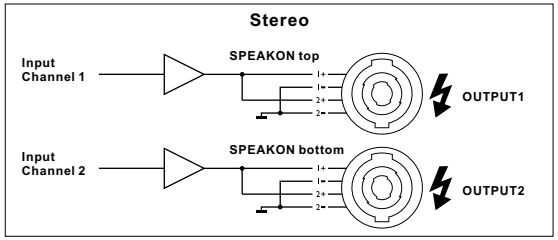
6. Digital Input Plug Wiring Diagram

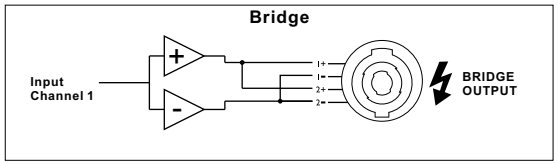


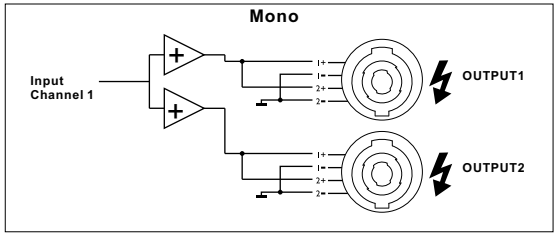
7. Output Plug Wiring Diagram

SPEAKON top:			SPEAKON bottom:			SPEAKON right:	
Pin1+	Channel 1	signal	Pin1+	Channel 2	signal	Pin1+	Bridge output signal+
Pin1-	Channel 1	ground	Pin1-	Channel 2	ground	Pin1-	Bridge output signal-
Pin2+	Channel 1	signal	Pin2+	Channel 2	signal	Pin2+	Bridge output signal+
Pin2-	Channel 1	ground	Pin2-	Channel 2	ground	Pin2-	Bridge output signal-

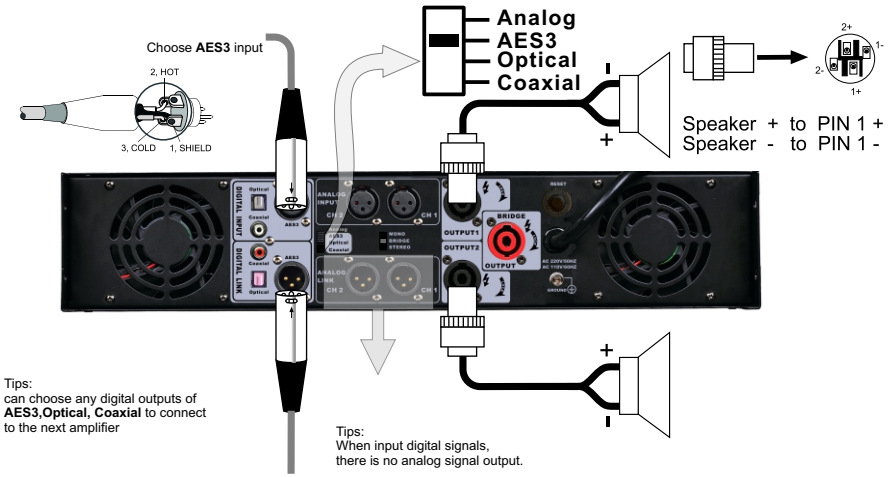






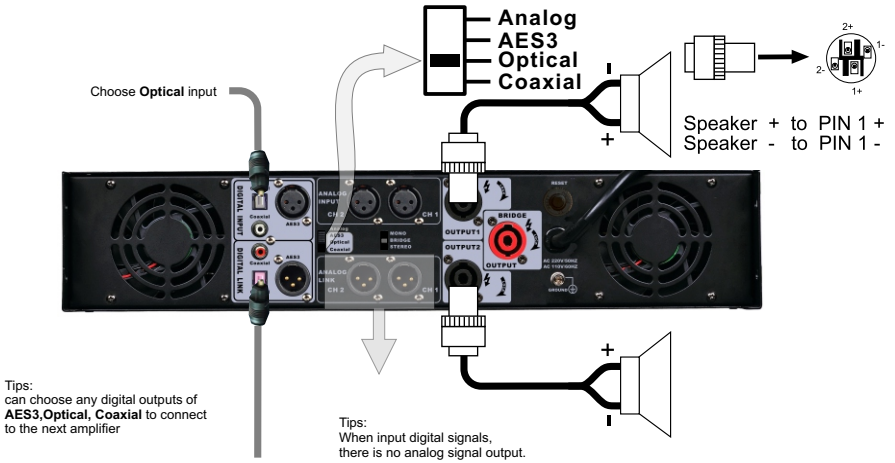


4、 Connection sketch map of when working under mono mode, how to choose the digital signal **AES3** input.



For example: choose **AES3** connect to digital **AES3** input of another amplifier

5、 Connection sketch map of when working under mono mode, how to choose the digital signal **Optical** input.

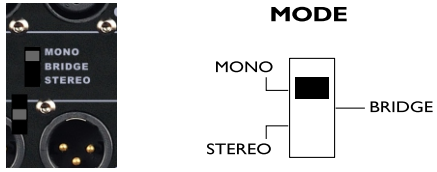


For example: choose **Optical** connect to digital **Optical** input of another amplifier

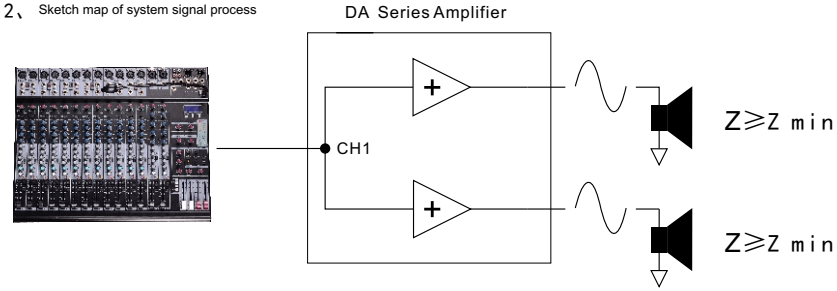
2.Mono Operation

(When inputting Signals via CH1, the 2 totally independent Amplifiers output the same signals.

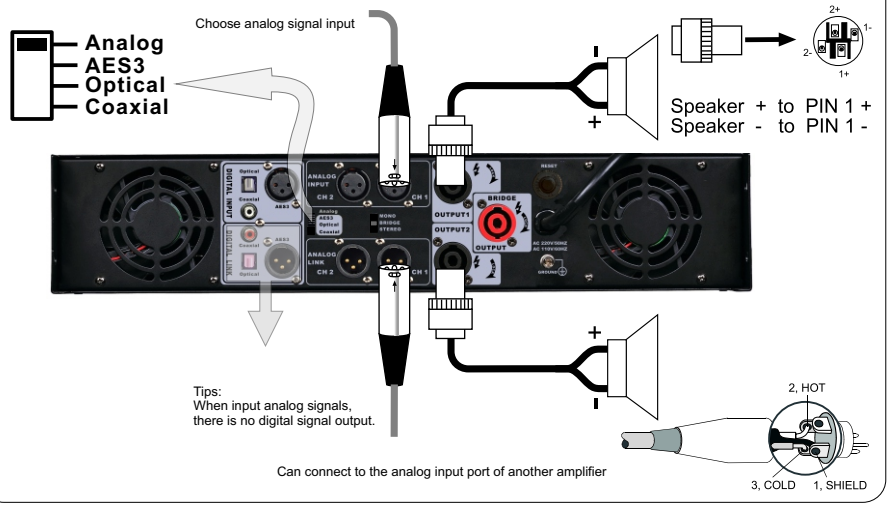
1、 Sketch map of working mode switcher choose



2、 Sketch map of system signal process



3、 Connection sketch map of when working on mono mode, how to choose the analog signal input.

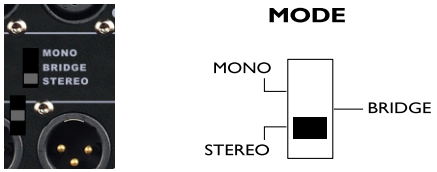


8.Operating Modes

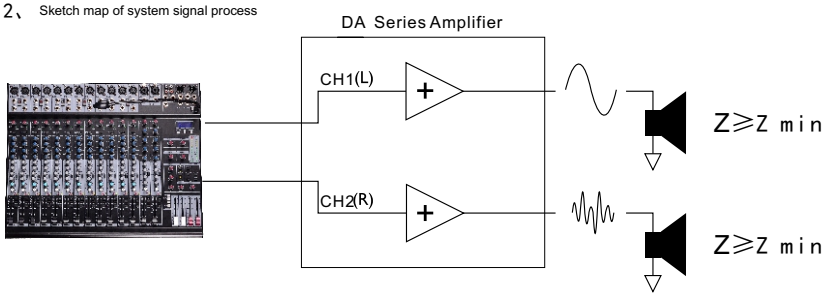
1.Stereo Operation

Two fully independent amplifier channels(normal operating mode)

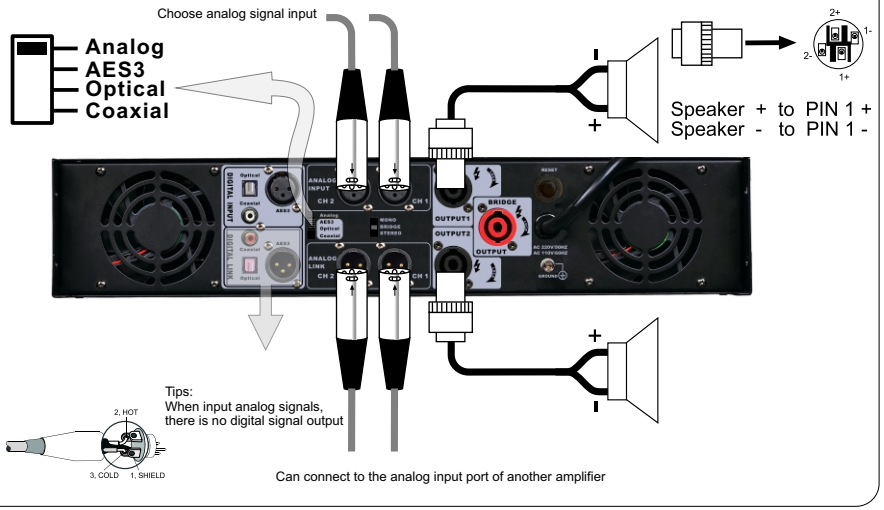
1、 Sketch map of working mode switcher choose



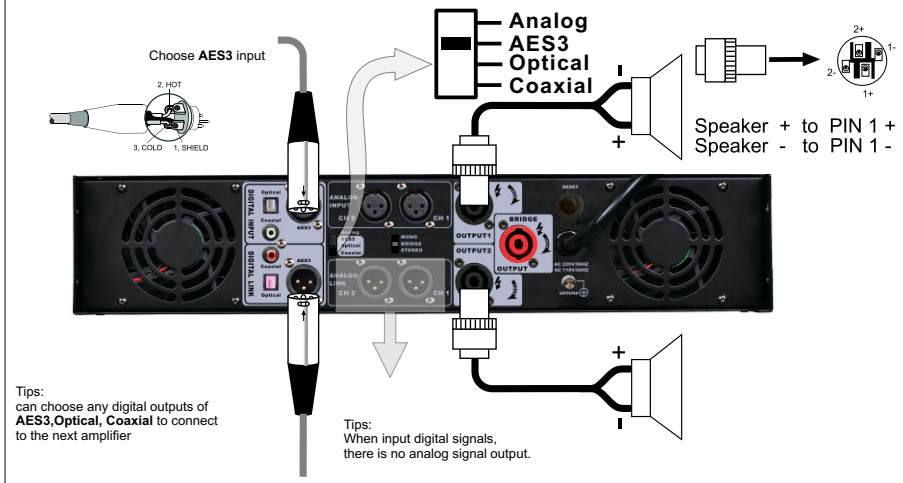
2、 Sketch map of system signal process



3、 Connection sketch map of when working on stereo mode, how to choose the analog signal input.

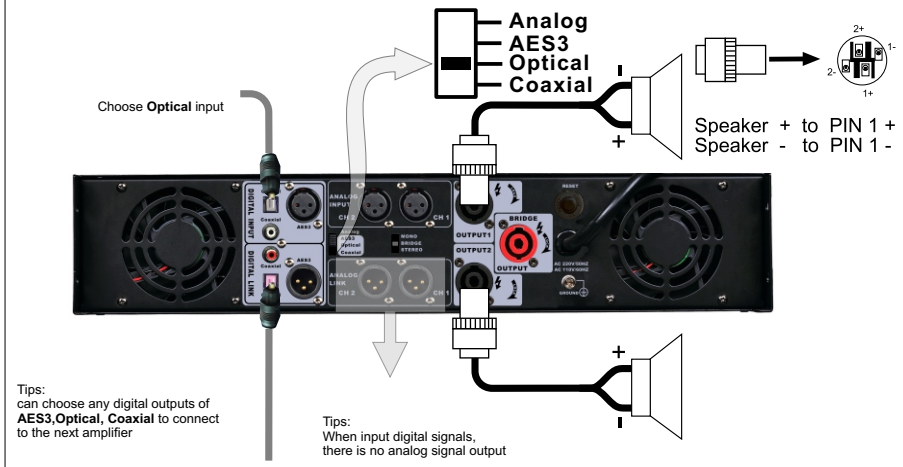


4、 Connection sketch map of when working under mono mode, how to choose the digital signal AES3 input.



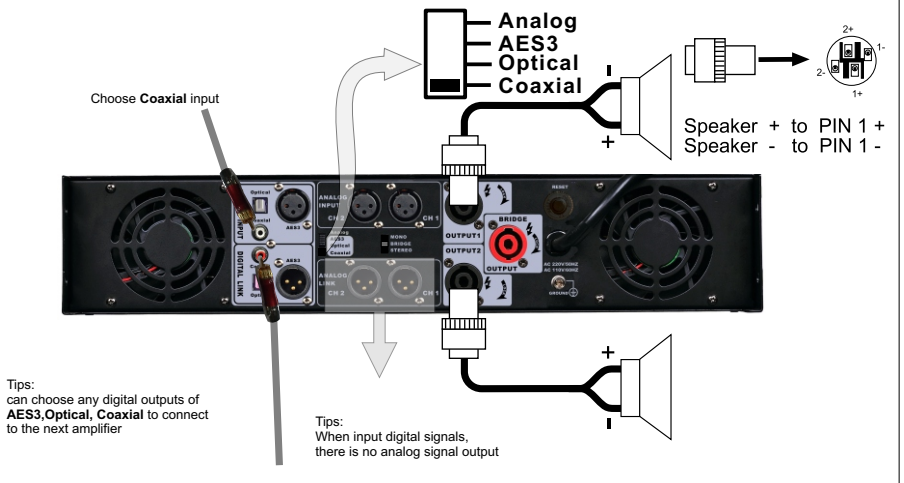
For example: choose **AES3** connect to digital **AES3** input of another amplifier

5、 Connection sketch map of when working under mono mode, how to choose the digital signal Optical input.



For example: choose **Optical** connect to digital **Optical** input of another amplifier

6、 Connection sketch map of when working under mono mode, how to choose the digital signal Coaxial input.



For example: choose **Coaxial** connect to digital **Coaxial** input of another amplifier