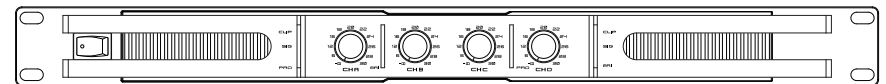


SWITCHING POWER PROFESSIONAL AMPLIFIER

User's Manual

AD300.4 AD500.4



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IMPORTANT!

Please read this manual carefully before operating this unit for the first time.

DANTE

Settings

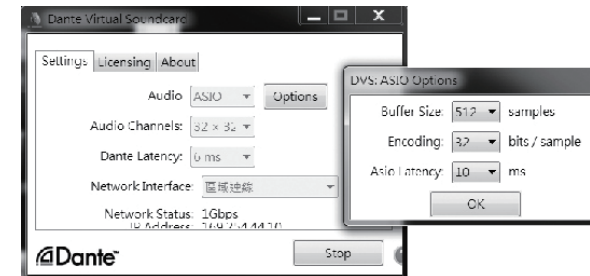
NOTE:Most settings cannot be changed while Dante Virtual Soundcard is running, or when an ASIO application is connected.

NOTE:The device name and audio interface(sample rate and bit depth) must be set in Dante Controller ,While Dante Virtual Soundcard is running.

To change settings:

1. Completely quit out of any audio applications that are using the Dante Virtual Soundcard.
2. Stop Dante Virtual Soundcard
3. Change your Dante Virtual Soundcard settings.
4. Restart Dante Virtual Soundcard
5. Restart your audio application/s.

Click Settings on Dante Virtual Soundcard Control Panel and set up parameters as below:



NOTE:Computer with poor scheduling performance will need to use higher settings of Buffer Size and Asio Latency.

Click Start to start the Dante Virtual Soundcard. When the button shows Stop, it indicates that the Dante Virtual Soundcard is currently running. The icon shows Start, illustrating the Dante Virtual Soundcard is currently stopped. Click the button to toggle the running state of Dante.

• Dante Virtual Soundcard

1.Starting the Dante Virtual Soundcard Control Panel(Windows)

By default , Dante Virtual Soundcard will be installed in:C:\Program Files\Audinate\
Dane Virtual Soundcard\In 64-bit Windows ,it will appear under C:\Program Files(x86)

Dante Virtual Soundcard Control Panel can be started in one of two ways:

One:using the Start menu:Start>Programs>Audinate>Dante Virtual Soundcard>Dante Virtual Soundcard; or Windows 8: Windows key>Dante Virtual Soundcard

Two:navigate to the directory where it is installed,and double-click the Dante Virtual

Soundcard icon:  dvs_gui.exe

The first time you start the Dante Virtual Soundcard Control Panel,you will be presented with the Licensing screen.



Once you have obtained a License ID,it can be entered in the Licensing tab. The Activate button is not enabled until a correctly formatted License ID has been entered into the dialog box.

NOTE:Eusure that your computer has access to the Internet during this step.



SAFETY RELATED SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions.



The symbol is used in the service documentation to indicate that specific component shall be only replaced by the component specified in that Documentation for safety reasons.



Protective grounding terminal.



Alternating current /voltage.



Hazardous live terminal .

ON: Denotes the apparatus turns on.

OFF: Denotes the apparatus turns off, because of using the single pole switch, be sure to unplug the AC power to prevent any electric shock before you proceed your service.

WARNING: Describes precautions that should be observed to prevent the danger of injury or death to the user.



Disposing of this product should not be placed in municipal waste and should be separate collection.

CAUTION: Describes precautions that should be observed to prevent danger of the apparatus.

WARNING

• Power Supply

Ensure the source voltage matches the voltage of the power supply before turning ON the apparatus.

Unplug this apparatus during lightning storms or when unused for long periods of time.

• External Connection

The external wiring connected to the output hazardous live terminals requires installation by an instructed person, or the use of ready-made leads or cords.

• Do not Remove any Cover

There are maybe some areas with high voltages inside, to reduce the risk of electric shock, do not remove any cover if the power supply is connected.

The cover should be removed by the qualified personnel only.

No user serviceable parts inside.

• Fuse

To prevent a fire, make sure to use fuses with specified standard (current, voltage, type). Do not use a different fuse or short circuit the fuse holder.

Before replacing the fuse, turn OFF the apparatus and disconnected the power source.

• Protective Grounding

Make sure to connect the protective grounding to prevent any electric shock before turning ON the apparatus.

Never cut off the internal or external protective grounding wire or disconnect the wiring of protective grounding terminal.

• Operating Conditions

This apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this apparatus.

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Do not use this apparatus near water. Install in accordance with the manufacture-r's instructions. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not block any ventilation openings.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Follow all instructions.
- Keep these instructions.
- Heed all warnings.
- Only use attachments/accessories specified by the manufacturer.
- **Power Cord and Plug**

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.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

- **Cleaning**

When the apparatus needs a cleaning, you can blow off dust from the apparatus with

a blower or clean with rag etc.

Don't use solvents such as benzol, alcohol, or other fluids with very strong volatility and flammability for cleaning the apparatus body. Clean only with dry cloth.

- **Servicing**

Refer all servicing to qualified personnel. 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 .

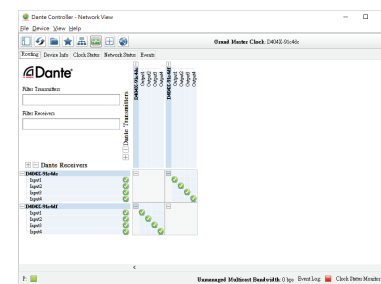
Servicing is required when the apparatus has been damaged in any way , such as power supply cord or plug is damaged , liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture , does not operate normally, or has been dropped.

The mains plug is used as the disconnect device, the disconnect device shall remain readily operable.

DANTE

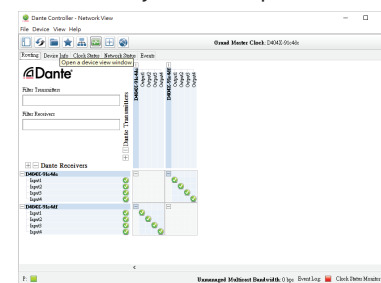
Click [+] between different devices to show Tx channels and Rx channels, and click any grid between Tx channels and Rx channels to change the connected state of the two channels .

NOTE: There is no sense to click any grid between Tx channels and Rx channels of the same device.



Next , configure audio interface and device name of Dante Virtual Soundcard using Dante Controller. By default, the device name of Dante Virtual Soundcard is user name of your computer.

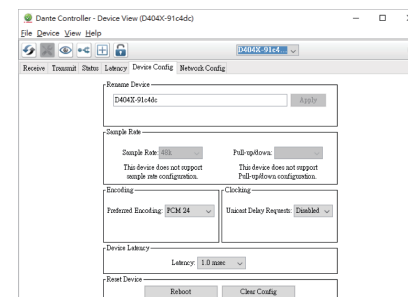
Click Device button on Menu bar , you will be presented with the Device view.



Select the device name of Dante Virtual Soundcard on the screen.



Click Device Config to display the configuration of Dante Virtual Soundcard and then change the setting of Dante Virtual Soundcard.



DANTE

6) Acknowledge/accept any Windows security warnings that are displayed.
7) click Launch to start the software application or click Close to finish installing.



- Audio Applications for recording and playback
Please refer to 'operating instructions for recording and playback.doc' file.

Configuration

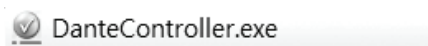
Starting the Dante Controller

By default ,Dante Controller will be installed in:C:\Program Files\Audinate\Dane controller\In 64-bit Windows ,it will appear under C:\Program Files (x86)

The Dante Controller can be started in several ways :

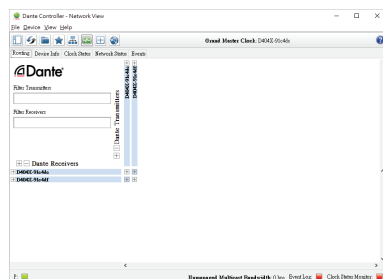
One : using the Start menu: Start>Programs>Audinate>Dante Controller>Dante Controller

Two : navigate to the directory where it is installed, and double-click the Dante Controller.



Routing:

When Dante Controller is started, it always displays the Routing Tab within the Network View. In this view the network is shown in the form of grid. Devices with Tx channels are displayed along the top row of the grid, and those with Rx channels are displayed along the left-hand column of the grid. Initially a collapsed view is presented; individual channels cannot be seen.



INTRODUCTION

Thanks for the acquisition of the AD300.4/AD500.4. This four channels power amplifier has been developed to drive two satellites and one subwoofer in fixed installations requiring limited space in the bays.

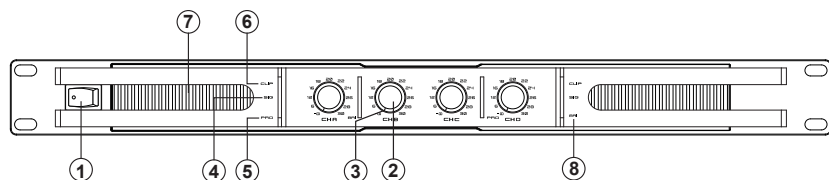
the AD300.4/AD500.4 has a high efficiency thanks to his Class-D technology and can deliver 4x150W RMS/4 Ohms or 2x150W RMS/4 Ohms+300W RMS/8 Ohms(Bridged).

Main Features

- High current switching power allowing high power output with low noise and low distortion
- Substantial protection circuitry like thermal, short circuit, power on/off muting and Therefore protection
- Built-in limiter
- Euroblock input and output
- front mounted gain controls for easy access
- Signal, Clip protect, and Power LED indicators to monitor performance.
- Stereo/Parallel/Bridged/Mute/Select operation Mode
- Amplifier Disable/Prior/Failure Status

FUNCTIONS

FRONT PANEL



① Power Switch

It switches ON/OFF the unit main power.

② Level Control

These volume controls allow you to adjust the volume level.

③ Power/Prior LED

The Green LED light up when the amplifier is powered ON. The Red LED light up when the amplifier is input priority

④ Signal LED

These green LED light up when the respective channel's output signal pass through .

⑤ Protection LED

In normal operation, the LED will not illuminate; If the LED is red, it means the unit is in heat protection, no sound is output. The speaker system is actually disconnected from the amplifier outputs when this LED is red, the temperature must be lowered by better ventilation and decrease the signal level etc. if the problem is corrected, the protection systems deactivate automatically, and normal amplifier operation is resumed.

⑥ Clip LED

This red LED lights up when the input signal is too strong. it is time to reduce input level until clip LED turns off.

⑦ Air Intake Vents

A300.4/A500.4 employ a variable speed internal cooling fan to intake the air through front grill to keep it running cool even under extreme operating conditions. Please keep these vents clear and free from obstruction at all times to insure proper cooling.

⑧ Bridged LED

The Bridged LED light up when the amplifier is Bridged Mode.

DANTE

Dante Virtual Soundcard

Dante Virtual Soundcard is a software application that turns your PC or Mac into a Dante-enabled device, allowing Dante audio traffic to be transmitted and received using the standard Ethernet port. No additional hardware is required.

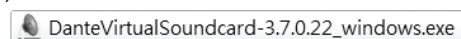
NOTE: The Dante Virtual Soundcard does not support virtual machines-it must be installed on a computer with a standard Windows or Mac OS X operating system.

Installing Dante Virtual Soundcard

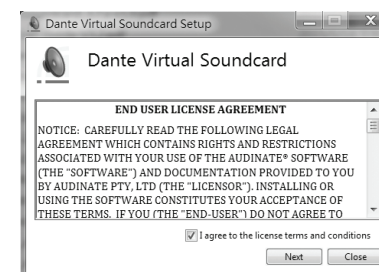
NOTE: Before installing, please turn on Firewall.

1) Ensure you are logged on to your PC as an administrator.

2) Double-click the icon for the Dante Virtual Soundcard.



3) Read the license text, and if you accept the terms of the agreement, click the "I Agree ..." checkbox. If you do not accept the terms, click Close to terminate the installation.



4) The Network Throttling Management screen is displayed. Audinate advises that you let Dante Virtual Soundcard manage network throttling (the default option).

5) Click Install.



Softwares to be intalled

• Dante Controller

Dante Controller is a software application provided by Audinate which allows users to configure and route audio around Dante networks .It is available for Windows and OS X.

Installing Dante Controller

NOTE:Before installing,please turn on Firewall.

1)Double-click the icon for Dante Controller.exe

 DanteController-4.0.6.5_windows.exe

2)Read the license text,and if you accept the terms of the agreement ,click the 'I Agree ...'check- box. If you don't accept the terms,click Close to termina te the installation.

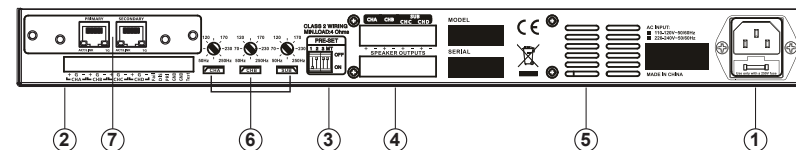


3)Acknowledge/accept any Windows security warning that are displayed.

4)Click Launch to start Dante Controller or Click Close to finish installing.



Back Panel



① AC Input

Use it to connect your AD300.4/AD500.4 to the supplied AC cord.

② Euroblock input

CHA + :CHA balanced signal input+ or unbalanced signal input

CHA G:CHA signal GND

CHA - :CHA balanced signal input- or unbalanced signal not connect

CHB ,CHC and CHD are the same.

Fail:Failure Status output

Failure Status with +5V high level;

disabled/protection/inactive are all with output low level.

DIS: Amplifier disabled ,input control PIN

While operating the disabled function of amplifier with +5V high level,linked to GND.the amplifier will shutdown with all protection LEDS lighting. at this moment the status will be changed from +5V high level (normal status) to Low level (amplifier disabled or unconnected. using the disabled function of the amplifier and then connect to speaker output ,finally the amplifier will start again after sucessful connection.

PRI: Input Priority Control PIN

When PRI connect to GND directly , TEST input has priority , at this moment VR RED LEDS lighting.

GND: signal GND and control GND.

TEST: Input Priority test/alarm signal

When PRI connect to GND directly, Test/alarm signal is the top priority level.

③ Mode select

Mode 1 : All channels stereo

All input and output channels are independent.

Mode 2: All channels parallel

All outputs are the same with any channel input.

Mode 3: A/B bridged C/D bridged

Input the signal to channel A, connect the speaker's "+" to the output A+, connect speaker's '-' to the output B+. Then you get a 300W(8Ω) power. CH C and CH D are the same.

Mode 4: A/B parallel C/D parallel

CHA output and CHB output are the same whether input from CH A or CH B. The CH C and CH D are the same.

FUNCTIONS

Mode 5: A/B stereo C/D bridged

CH A's input and outputs are independent from CH B. CH C and CH D are bridged.

Mode 6: A/B parallel C/D bridged

CH A and CH B are parallel. CH C and CH D are bridged.

Mode 7: A/B stereo C/D SUB

CH A and CH B are stereo. CH C and CH D are bridged. SUB output signal is low frequency from CH C input. X-OVER FREQ is available.

Mode 8: A/B stereo C/D SUB

CH A and CH B are stereo. CH C and CH D are bridged and the device filters and amplifies signal A+B to feed the Subwoofer with the low frequencies only. X-OVER FREQ is available.

Mode 9: Amplifier Mute

Amplifier is Mute.

* X-OVER FREQ is available in Mode 7 and Mode 8 only.

	Preset				Operation Mode
	1	2	3	MT	
1	OFF	OFF	OFF	OFF	CHA/CHB/CHC/CHD ALL STEREO
2	ON	OFF	OFF	OFF	CHA/CHB/CHC/CHD ALL PARALLEL
3	OFF	ON	OFF	OFF	CHA/CHB BRIDGED ,CHC/CHD/ BRIDGED
4	ON	ON	OFF	OFF	CHA/CHB PARALLEL,CHC/CHD/ PARALLEL
5	OFF	OFF	ON	OFF	CHA/CHB STEREO,CHC/CHD BRIDGED(FULL RANGE)
6	ON	OFF	ON	OFF	CHA/CHB PARALLEL, CHC/CHD BRIDGED(FULL RANGE)
7	OFF	ON	ON	OFF	CHA/CHB STEREO, SUB(CHC/CHD BRIDGED,INPUT=CHC)
8	ON	ON	ON	OFF	CHA/CHB STEREO, SUB(CHC/CHD BRIDGED,INPUT=CHA+CHB)
9				ON	AMPLIFIER MUTE

④ Speakers connectors

Euroblock speakers output.The up and down outputs are connected together.

⑤ Vent grille

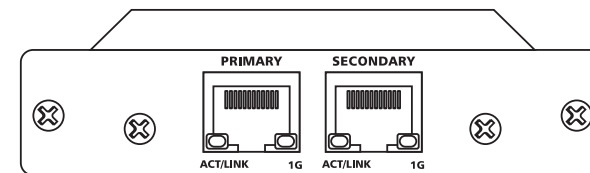
This fan has three level speed. The fan will speed up when the temperature of the amplifie rise up.When you set the amplifie in mute mode, the fan run fastest. Check that the vent grille is not obstructed.

⑥ X-OVER FREQ

Cut off frequency selectors for hi-pass(CH A,CH B)and low-pass(SUB) filters. The value can be set from 50Hz to 250Hz.

⑦ see attached DANTE file decsription.

DANTE



1. Feature summary

- On-board microprocessor to handle local control and management functions
- Redundant network connections via switch
- Bit depths:32 per sample
- Up to 2*2,4*4 channels at 48kHz
- Up to 2*2,4*4 simultaneous audio streams
- Hardware audio metering
- High-quality,low jitter on-board clock
- Up to 2000 sample audio buffering per channel
- Standard RGMII/MII interface for Ethernet PHY or switch chip
- Software is upgradable over network

2. Temperature Charateristics

- Operating temperature range : 0°X to 40°X Celsius
- Recommended storage temperature: -20°X to +60°X Celsius

3. Electrical Characteristics

- Power Supply: 5V
- Power Consumption: < 2W

4. Minimum System Requirement

The tables below list the minimum system specification for your computer to be able to use Dante Controller

disclaimer : It is possible that your computer may meet the requirements below, but suffer from some other individual performance limitation related to its particular hardware.Please seek the advice of your computer support administrator.

Component	Recommended Minimum Requirement
Processor	1GHz or better,Dual core CPU
Memory	1 Gigabyte of RAM
network	A Gigabit(1000 Mbps) Ethernet network interface is required for channel conuts above 32x32@48kHz. Wireless LAN(WiFi) Ethernet interfaces are not supported.
Operating System(Windows)	Windows 7 (SP1 and above),8 and 8.1.NOTE:both UTF-8 and Unicode are supported EXCEPT for host or device names ; the DNS standard does not support Unicode for these
Storage /Disk	As is the case with any application of this type,higher transfer rates are required for recording and playing back large numbers of audio tracks to and from disk . Disk speeds of 7200rpm and above are recommended for more than 16 channels of record/playback from disk.

WARRANTY

This device is warranted parts and labor against any manufacturing defects for a period of two years from the date of purchase by the first user.

Conditions

1. The unit has been installed and implemented by observing the safety instructions in this operating manual.
2. The device was not diverted from its destination, either voluntary or accidental, and suffered no deterioration or modification other than those described here or explicitly authorized by
3. All modifications or repairs have been carried out by an authorized service station.
4. The defective product must be returned with the dealer who made the sale or to an authorized service station with proof of purchase.
5. The device was properly packaged to avoid damage in transport.

APPLICATIONS

Inputs connections

The inputs can be connected to the Euroblock socket using the female free part connectors supplied with the device.

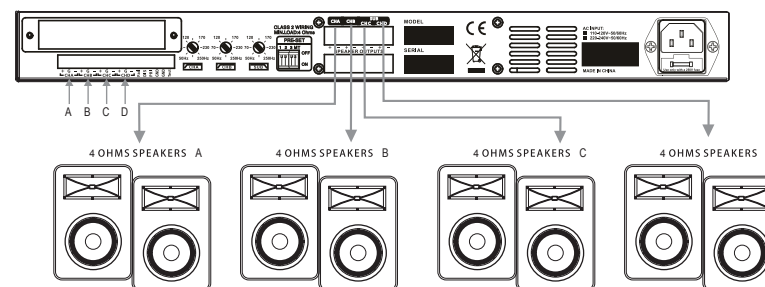
For balanced inputs use Hot pin(+), Cold pin(-) and Ground pin(G) terminals.

For unbalanced inputs use Hot pin(+) and Ground pin(G) only.

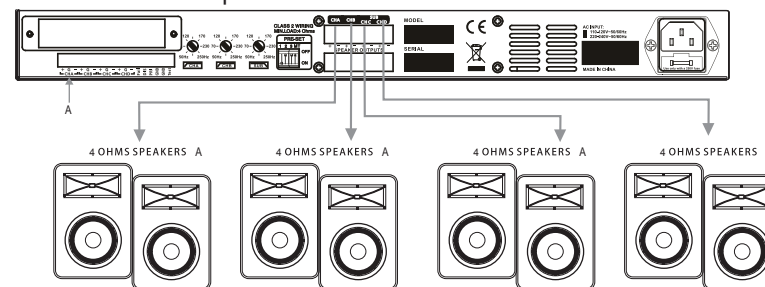
Speaker connections

Check that the polarity is well respected for every speaker. Two Euroblocks connected point to point are available for easy parallel set up. The impedance output must not be higher than 2 Ohms per channel.

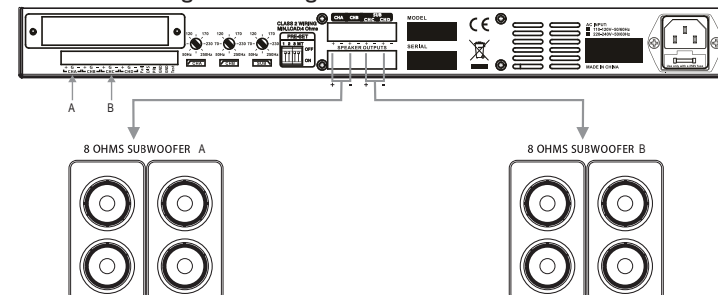
Mode 1: All channels stereo



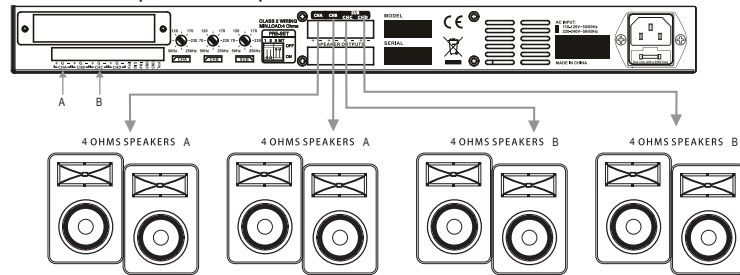
Mode 2: All channels parallel



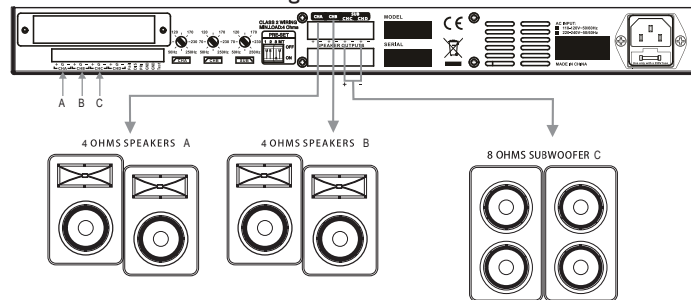
Mode 3: A/B bridged C/D bridged



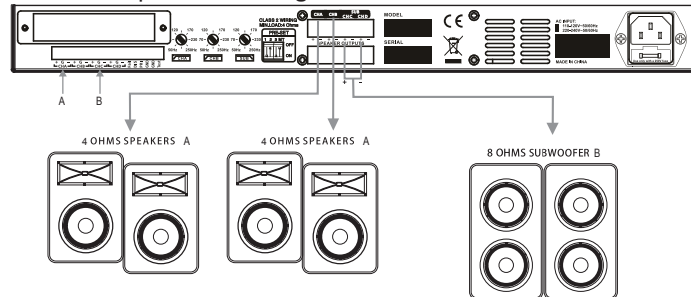
Mode 4: A/B parallel C/D parallel



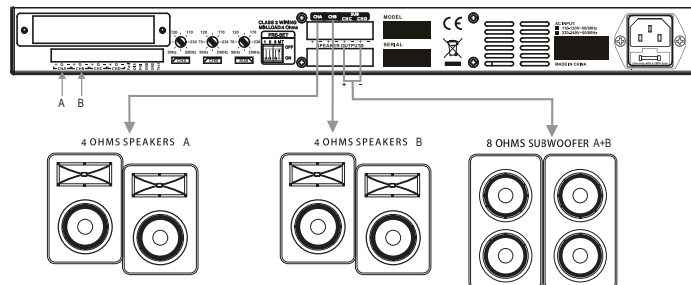
Mode 5: A/B stereo C/D bridged



Mode 6: A/B parallel C/D bridged



Mode 8: A/B stereo C/D SUB



TECHNICAL SPECIFICATIONS

Power Specifications(tolerance +/-5%)		A300.4	A500.4
CHA/B (One Channel drive)	4 Ω (RMS)	300W	600W
CHA & CHB CHC & CHD (All Channel drive)	2 Ω (EIAJ)	600W x4	1200W x4
	4 Ω (RMS)	270W x4	450W x4
CHA & CHB CHC & CHD (Bridge Mono mode)	4 Ω (EIAJ)	1200W x2	2400W x2
	8 Ω (RMS)	540W x2	900W x2
THD		< 0,1%	
Frequency Response	CHA-CHD	20 Hz - 20k Hz +0/-1 dB	
Frequency Response (SUB Mode)	CHA & CHB	(50 Hz – 250 Hz) – 20 kHz +0/-3 dB	
	SUB	20 Hz – (50Hz – 250 Hz) +0/-3 dB	
S/N rate		> 96 dB	
Gain (V)		30 ± 0,5 dB	33 ± 0,5 dB
Input Sensitivity		0,9-1,1 V (0+/-1 dBv)	
Input Impedance		20 kΩ balanced or 10 kΩ unbalanced	
Controls		Front panel: On/Off Power Switch, volum channel A,B & SUB Real pauer: SUB, CHA+CHB selector: Cut off frequency selectors Modes select	
Indicators		POWER ON : Green Led SIGN : Green Led PROT : Red Led CLIP : Red Led	Bridged: Red LED Prior: Green /Red LED
Connectors		Inputs: Euroblock Outputs: Euroblock	
Load Protection		On/Off Mute, DC fault grounding relay, internal fault fuses	
Power Supply		110 - 120 V or 220 - 240 V 50 ~ 60 Hz	
Dimensions (L x D x H)		483 x 360 x 44 mm	
Net Weight		6.2 kg	6.3 kg