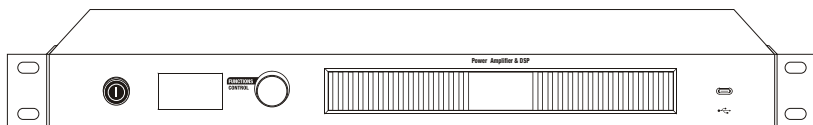


SWITCHING POWER PROFESSIONAL AMPLIFIER

User's Manual

D series Digital Amplifier



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FCC Part 15 Statement

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the Federal Communications Commission (FCC) rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Privacy of communications may not be ensured when using this device.

IMPORTANT!

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

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.

INTRODUCTION

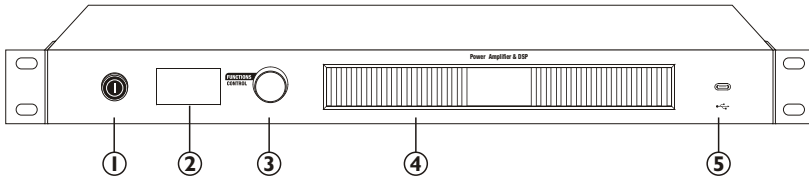
The D series switching power professional Amplifier is designed for professional use on stage. The high-quality components and the carefully designed circuits ensure excellent audio performance and an extremely linear frequency response. In fact, the switching technology offers, together with an increased efficiency and a better control of heat dissipation than conventional power supply systems, a drastic reduction of dimensions and weight, for easier transportation and installation. This Amplifier guarantees total reliability and a trouble-free use even in the most demanding conditions. We believe the D series will provide a perfect performance, what you get is unprecedented performance at an incredibly attractive price.

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
- Balanced XLR-TRS combo input jack
- Speakon output connectors
- Built in high-performance DSP
- Up data with USB and adjust measure with a PC soft
- Easy to operate by OLED and Encoder

CONTROL ELEMENTS

FRONT PANEL



① Power Switch

It switches ON/OFF the unit main power.

② OLED Display

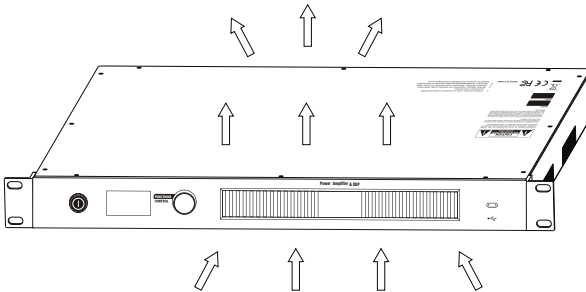
OLED is used to operate with the encoder.

③ Encoder

The encoder is used to control the parameters of amplifier.

④ Air Intake Vents

D series Digital Amplifier 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.

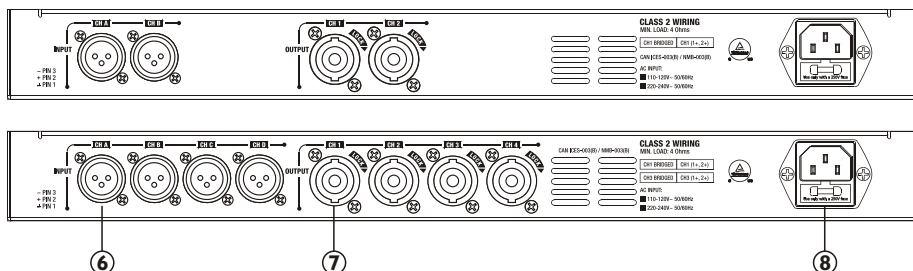


Air flow in D series Digital Amplifier: Cool air is drawn into the left of the amplifier by the cooling fan. Warm air exits the right of the amplifier.

⑤ TYPE-C

Using for updata new program and adjust measures of the amplifier with a PC soft.

REAR PANEL



⑥ XLR Input

This XLR jack will accept XLR Input balanced low impedance line level source by means of a three-pin XLR plug. The wiring for the plug is as follows: Pin1 (Sleeve)=Ground, Pin2(TIP)=Signal+, Pin3(Ring)=Signal-.

⑦ Speakon Output

Connect the amplifier to your speaker using these speaker jacks.

⑧ AC POWER

Use it to connect your D series Digital Amplifier to the supplied AC cord.

APPLICATIONS

Stereo Operation

500w x 4ch can be used in the stereo mode as two separate 1000 watt units;

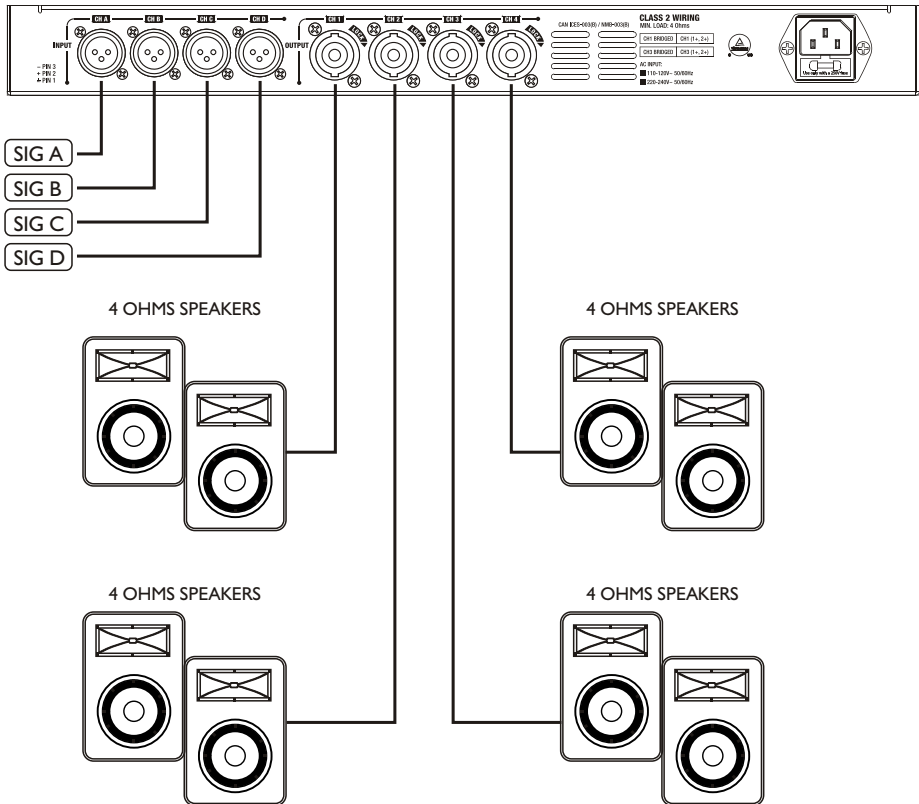
500w x 2ch can be used in the stereo mode as one separate 1000 watt unit;

300w x 4ch can be used in the stereo mode as two separate 600 watt units;

300w x 2ch can be used in the stereo mode as one separate 600 watt unit;

each capable of driving loads down to 4 ohms. Each channel operates independently and has its own input connectors, sensitivity level controls, automatic limiter, fault protection circuitry, power amp, and speaker outputs.

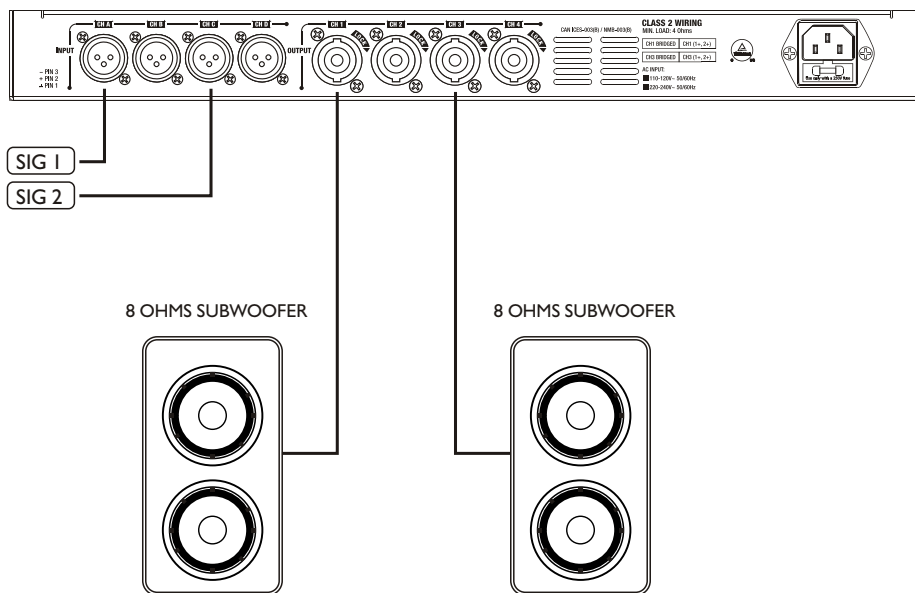
The default settings of the mode is stereo mode. This approach provides a more accurate reproduction of the live performance.



Mono Bridge Operation

The two internal power amplifiers (CHA and CHB or CHC and CHD) can be bridged together to form a single, higher powered amp. This is especially useful when using the amplifier to power a sub woofer. In the mono mode, the amplifier uses the channel A or C input jacks and sensitivity control(channel B and D's are disabled). When operation in this mode, each channel is independently protected. The minimum speaker load impedance must be 8 ohms.

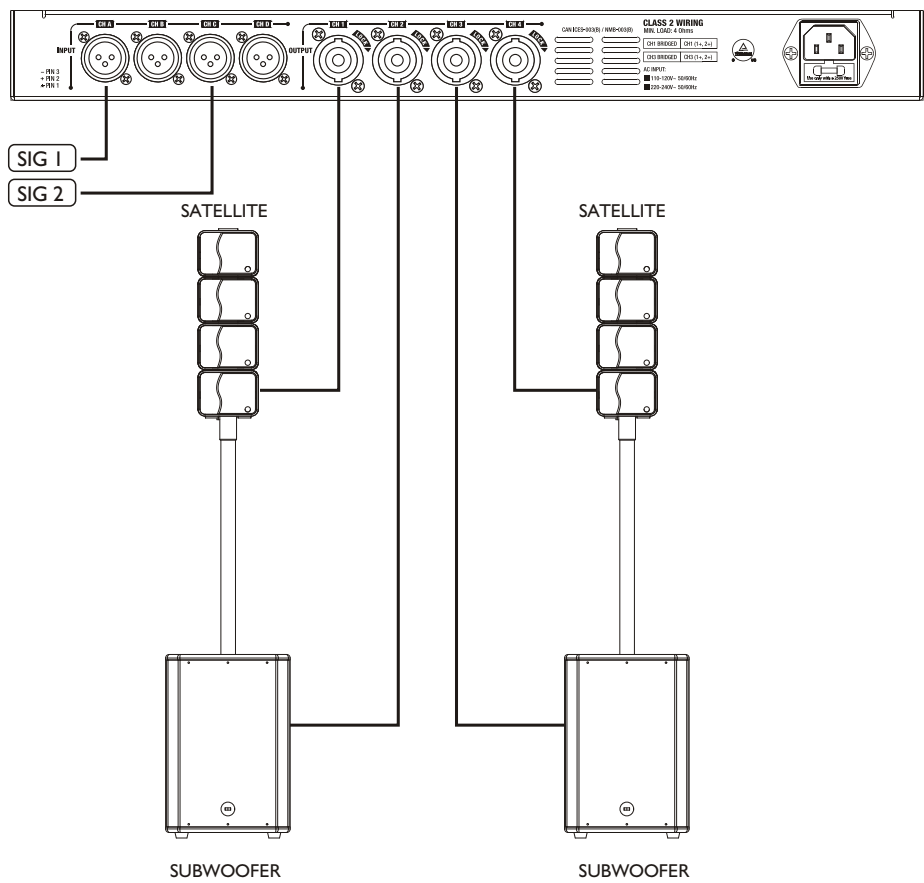
Please set the amplifier as follow: Link CHA and CHB ,or CHC and CHD, Set the phase of the CHB or CHD to 180°



WARNING! Due to higher output power per speaker, be careful when setting levels.

Composing with Q3 System

Please load the Q3's preset of the amplifier first.



WIRING CONNECTIONS

Strain Clamp

Sleeve

Tip

Ring

Ring=Right Signal

Tip=Left Signal

Sleeve=Ground/Screen

Use for Headphone

1/4" Stereo (TRS) Jack Plug

Strain Clamp

Sleeve

Tip

Sleeve=Ground/Screen

Tip=Signal

Use for Mono Line In, Mono 1/4" Jack Plugs

1/4" Mono (TS) Jack Plug

Strain Clamp

Sleeve

Tip

Ring

Ring=Return Signal

Tip=Send Signal

Sleeve=Ground/Screen

Use for Inserts Points

1/4" Stereo (TRS) Jack Plug

2=Hot(+)

1=Ground/Screen

3=Cold(-)

Use for Balanced Mic Inputs
(For unbalanced use, connect pin 1 to 3)

3-pin XLR Male Plug
(seen from soldering side)

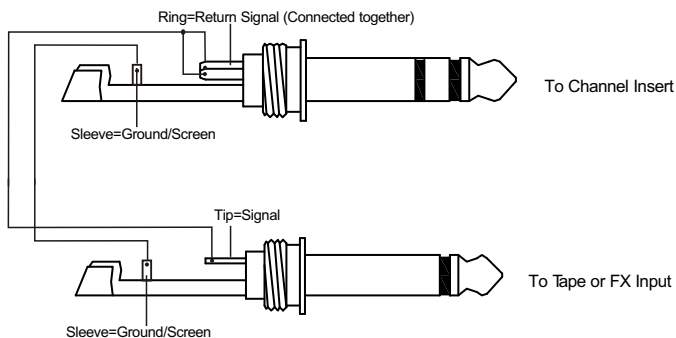
2=Hot(+)

1=Ground/Screen

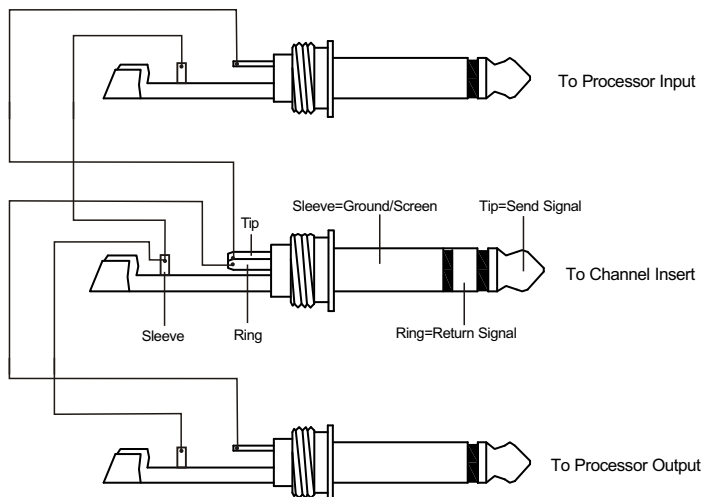
3=Cold(-)

Use for Main output
(For unbalanced use, leave pin 3 unconnected)

3-pin XLR Line Socket
(seen from soldering side)

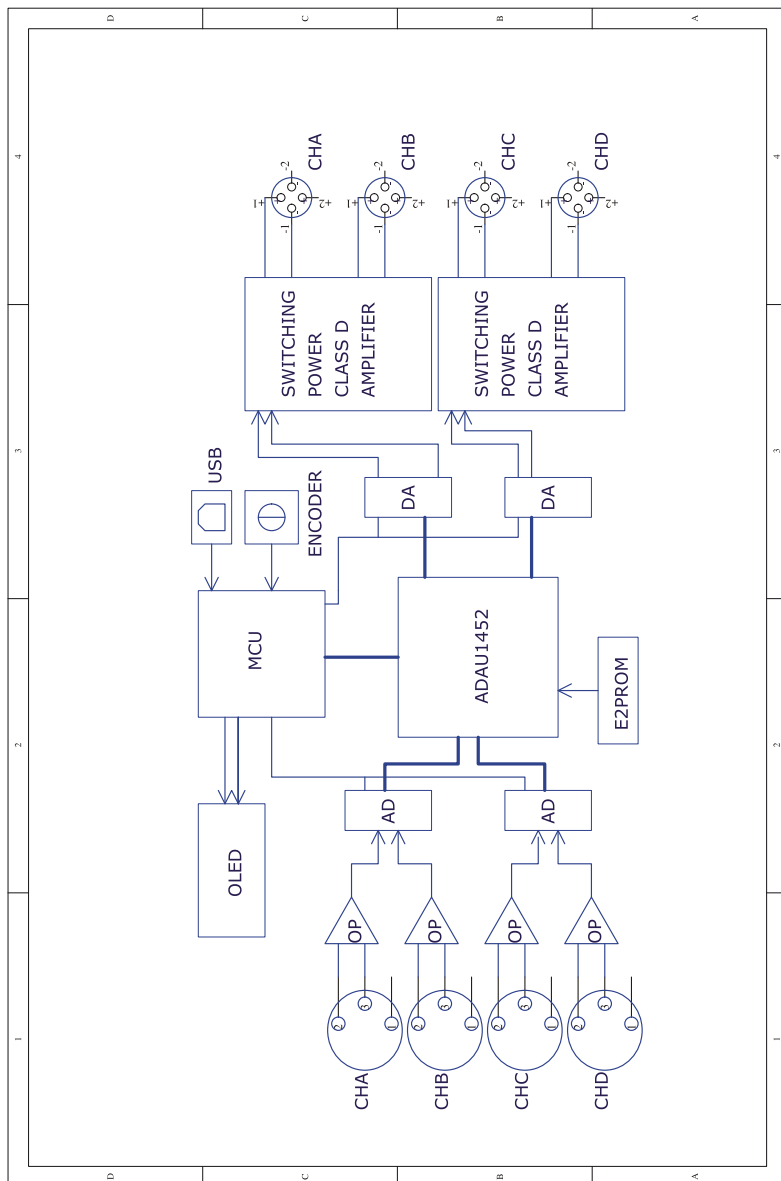


'Tapped' Connection Direct Output Lead
 (Enables the Insert to be used as a Direct Output while maintaining the channel signal flow)



Y-Stereo lead for insert Connection
 (To be used when the processor does not employ a single jack connection for the In/Out Connections)

BLOCK DIAGRAM



TECHNICAL SPECIFICATIONS

Power Specifications(tolerance +/-5%)		500w x 4ch	500w x 2ch	300w x 4ch	300w x 2ch
Stereo Mode (Both Channels Drive)	4 ohms(RMS)	480W x 4	480W x 2	300W x 4	300W x 2
	8 ohms(RMS)	240W x 4	240W x 2	150W x 4	150W x 2
Bridge Mono Mode	8 ohms(RMS)	900w	900w	600w	600w

Electrical Specification	
Input Sensitivity (Limit Off)	0.9-1.1V(0+/-1dBv)
Input Impedance	20k ohms balanced or 10k Ohms unbalanced
Frequency Response (at 10dB Rated Output Power 8Ω)	20Hz ~ 20KHz(+0/-1dB)
Voltage Gain	34+/-0.5dB
THD+N (Ref. 1K 1/8 Rated Power;A-Weighted)	<0.15%
S/N rate (Ref. Rated Power; A-Weighted)	>95dB
Crosstalk (Below Rated Power)	>50dB
Damping Factor(1K 8 ohms)	>180
Power/Output Circuitry	Switching Power Class D

General Specifications		
Protections	Full short circuit, open circuit, thermal, ultrasonic, and RF protection stable into reactive or mismatched loads, turn ON/OFF, muting, tried crowbar.	
Controls	Encoder	
Indicators	OLED Display	
Connectors	INPUT : Active balanced XLR OUTPUT: Speak-on jacks	
Power Supply	110V-120V or 220V-240V AC 50/60 Hz $\pm 10\%$	
Dimensions(mm)	483(W)*280(D)*44(H)	
Weight	4 channels amplifier: 6.0kg	2 channels amplifier: 4.7kg

