



DSA 100

ITALIAN HI-TECH DIGITAL STEREO AMPLIFIER

Owner's Manual

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Congratulations

Thank you for having purchased a Blacknote® product.

Introduction



The Blacknote DSA is a complete line of Class D innovative digital Amplifiers

The DSA100 is a 100watt superior Class D digital amplifier designed to achieve audiophile performance at very high power rate.

Though the DSA100 has a full digital output stage the amplifier is powered by a traditional massive I.E. handcrafted transformer to ensure the highest quality controls in all the unit separated audio

signal paths.

The DSA100 is an integrated amplifier able to deliver uncompromised sound quality with the typical great power and versatility of such innovative technology.

The DSA100 has the internal preamplifier and power amplifier stages separated can be singularly activated to set up double passive amplification audio systems having the max possible versatility and highest sound performance.

The preamplifier stage is controlled with a classical high quality ALPS volume control while the four different Line Inputs are powered thru electrical 24 Karat gold singularly incapsulated relays guarantee a full isolated line silence with zero negative feedback & crosstalk.

A proprietary Blacknote design enables real “Flat Load Independent-Frequency Response” design which allows perfect matching with any (hi-end) audio speaker of the market. The FLI-FR system apart of keeping the frequency response stable independently of the speaker load enable a perfect linear response down to remarkable 1ohm matching.

The very low output noise & impedance of the Blacknote DSA100 amplifier and super wide bandwidth insure top class performance with level of accuracy hard to reach with traditional amplifiers.

A fully remoted handset complete the unique features of one of the most innovative amplification system available today.

(Contents of Packaging)

- DSA100 UNIT
- A DETACHABLE AC POWER CHORD
- REMOTE CONTROL
- INSTRUCTIONS AND WARRANTY CERTIFICATE.

(Set-Up Instructions)

This section describes how to install the DSA100 Digital Stereo Amplifier. The instructions are purely descriptive and necessarily generic. If you have any doubts or difficulties with this procedure please contact your local Blacknote distributor who will know how to assist you.

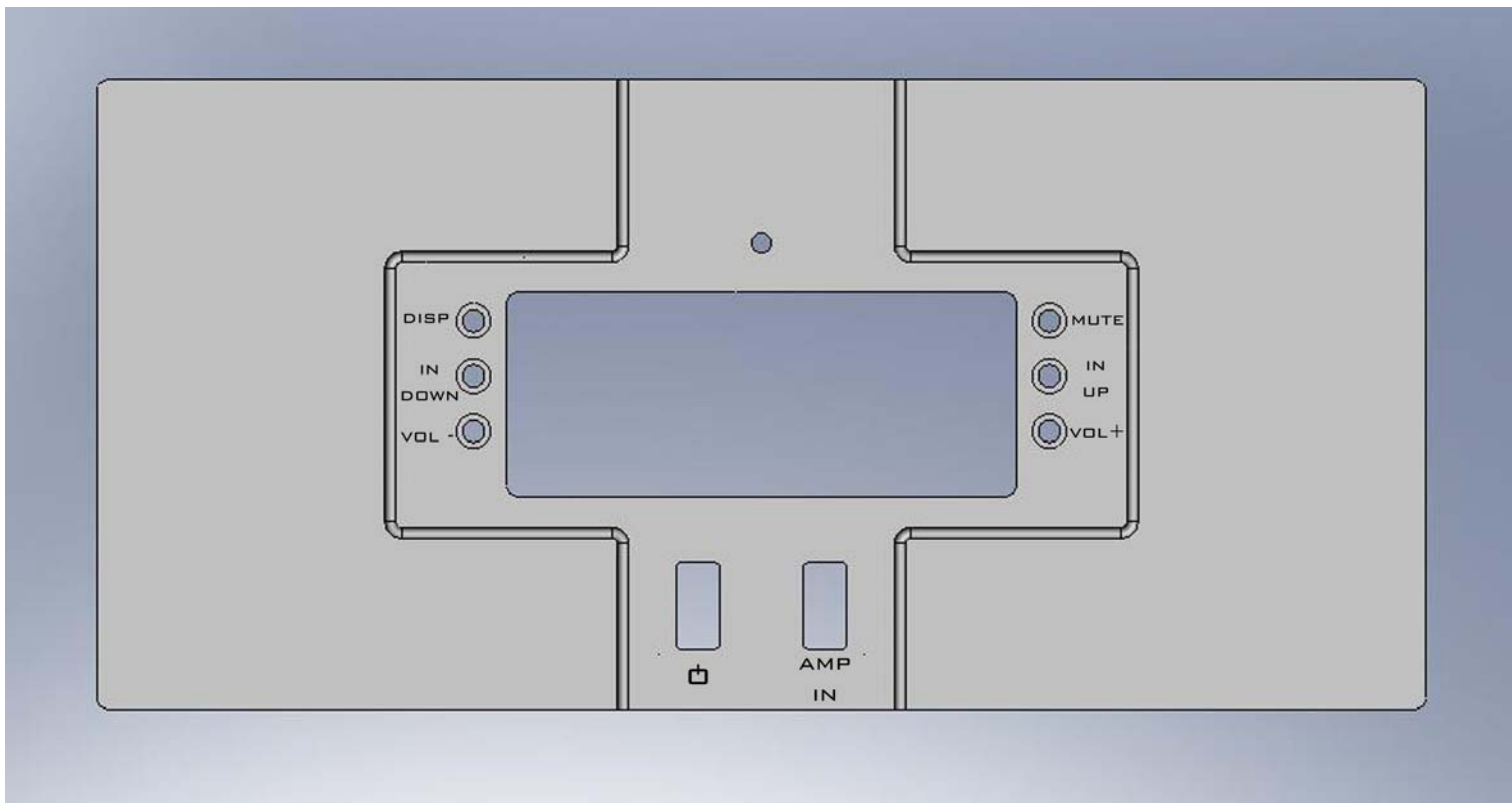
- Open all the cartons inside the main box and look that all the components listed are present.
- Carefully remove the DSA100 Digital Stereo Amplifier unit from the shipping box and foam.
- Connect the audio cable (not supplied) to the amplifier.
- Connect the AC chord supplied.

DSA100 back panel



- **1)** IEC standard AC plug
- **2)** Fuse
- **3)** Speaker connector (Binding post) RIGHT Channel
- **4)** Speaker connector (Binding post) LEFT Channel
- **AMP IN** - it is the direct power amplifier input. The Power Amplifier Mode is particularly useful to have a passive double amplification or to hook directly a processor, sub-woofer, etc...
- **PRE OUT** - it is the direct preamplifier variable output. The Preamplifier mode does not need to be activated. The PRE OUT connection on the back panel enable the variable output stage of the unit directly
- **RCA IN** – Three unbalanced Line Inputs
- **XLR IN** – One balanced Line Inputs

(Operating Conditions)



Once the DSA100 has been correctly assembled and positioned on a solid shelf and fully wired the player is ready to play. The DSA100 front Panel replies six basic function of the unit:

- **ON OFF** - It turns the unit ON/OFF completely.
- **AMP IN** - It enable the unit to work as Power Amplifier. The AMP IN option is not replied on the remote control and it completely disables the handset when selected.
- **VOL-** Volume Control - It turns Down
- **VOL+** Volume Control - It turns Up
- **MUTE** - Shut down the unit
- **IN DOWN** - Input selector scrolling
- **IN UP** - Input selector scrolling
- **DISP** - Turns OFF the Display

AMP IN: The Power Amplifier Mode is particularly useful to have a passive double amplification or to hook directly a processor, sub-woofer, etc...

PRE OUT: The Preamplifier mode does not need to be activated. The PRE OUT connection on the back panel enable the variable output stage of the unit directly

(DSA VOLUME CONTROL)

The volume control of this unit is made with an high quality potentiometer manufactured by ALPS in Japan. It is very precise and its error track ability is very low. Besides it is made with such high quality materials last a very long time

The remote volume control with its proper electronic board and power transformer (to avoid any kind of interferences on signal path) works directly on a DC motors positioned on the back of the potentiometer to avoid the use of electronic controllers can reduce sound quality.

The technology of such high quality potentiometer is completely analog so the amplifier can't display the volume set up on the display.

During Volume turning Up & Down the display shows VOLUME Δ & VOLUME ∇ indicating the function.

PLEASE NOTE: If the unit is turned OFF from the Master Front Panel Switch the volume previously set will keep in the same identical left level.

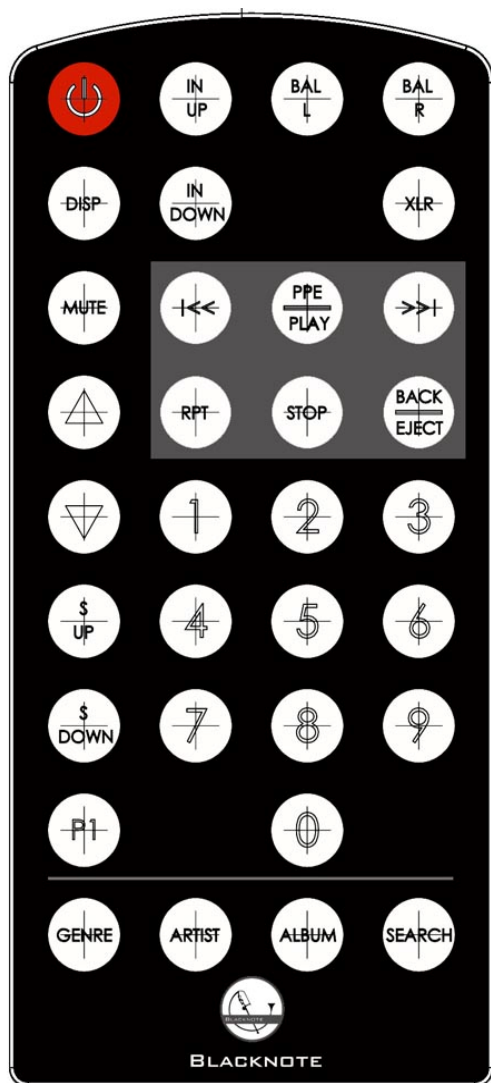
If the unit is set in Stand-By Mode thru the remote control specific button. The amplifier keeps partially ON, ready to work at its max audio performance when turned ON and the volume resets to zero.

(SOFTWARE)

The Software of the DSA can be update at the local Blacknote® distributor only.

(REMOTE CONTROL)

The supplied remote control is the same of the Blacknote® Digital Player to integrate with one handset eventually the control of all the Blacknote unit.



STAND-BY MODE – It partially turns OFF the unit and resets the Volume to zero.

IN Up & IN Down – Input Selector

BAL L & BAL R – BALANCE – Balance Left & Right channel deactivated

XLR – Amplifier Input Selector

DISP – It turns ON/OFF the display

MUTE – MUTE – Muting Key

RPT - - Digital Player configuration only

△ ▽ - VOLUME CONTROL – Up & Down Volume control

S Up & S Down – Service Applications only

P 1 – Changing Source Key

GENRE, ARTIST, ALBUM, SEARCH – Digital Player configuration only

0 to 9 – Digital Player configuration only

Technical Specifications

The following details describe the basic technical specifications of the DSA100 Digital Stereo Amplifier at the time of drafting this manual. The specifications are subject to modification without notice. The product complies with the requirements laid down in the EC regulations.

POWER OUTPUT:	2 X 100W Continuous Power at 8, 4, 2 & 1ohms 100% stability at 1ohm speaker load working
FREQUENCY RESPONSE:	10Hz – 50KHz @ +/- 3dB
THD (Total Harmonic Distortion):	<0.05% THD @ 20Hz-20KHz
RATIO SIGNAL/NOISE	>95dB
INPUT IMPEDANCE:	47Kohm
OUTPUT IMPEDANCE:	0,02ohm @ 1KHz
DYNAMIC POWER:	>350W IHF
DYNAMIC RANGE:	>120dB
DAMPING FACTOR:	>400
MAX OUPUT NOISE:	80uV
INPUT:	3 x RCA Single End Inputs 1 x XLR Balanced Inputs
INPUT SENSIVITY:	450mV RMS
SLEW RATE:	15Volt/μs
PREAMP OUTPUT STAGE:	True Separate stage – RCA OUT PINS
AMP IN STAGE:	True Separate stage - RCA IN PINS (disables the remote functions)
VOLUME COTROL:	High-End ALPS remote volume control
DISPLAY:	Switchable On/Off LCD display
POWER ABSORBATION:	Min. <1watt – Max.300watt
DIMENSION:	240mm L x 120mm H x 400mm D (9.5" L x 4¾ " H x 15¾ D)
WEIGHT:	10Kilos (22Lbs.)

NOTES: Flat Load Independent Frequency Response design allows perfect speaker matching and stable frequency response with all audio loudspeakers.

(Warranty Certificate)

The warranty certificate is enclosed separately and to be valid must be completed fill and returned to Blacknote® factory or the official distribution. In all countries where there is an official distribution network, the dealer must stamp the warranty certificate. In compliance with the laws in force, the dealer may modify the official Blacknote warranty certificate wholly or partially without notice and without further mention being made in this instruction manual.

Unit with the logo warranty label damaged or broken won't be covered by any warranty.

(Customer Service)

All BLACKNOTE® products are the result of meticulous technological research, and consequently their correct functioning is guaranteed. In spite of this it is possible that problems may emerge which non-specialist users cannot resolve. In this case, contact your local distributor who will advise you on how to resolve the problem.

Do not return any object directly to the factory or to the national distributor or without being authorized to do so. In such cases both BLACKNOTE® and the distribution agents operating within your territory decline responsibility of any kind.

Please Note: Descriptions and technical characteristics may vary in any moment without notice.

Warnings

1. **DO NOT SHORT THE UNIT WHEN TURNED ON .**
2. Do not disassemble any part of the product.
3. Do not use any part of the product for other purposes.
4. For service and problems of any kind, contact qualified Blacknote personnel.
5. Protect the product from rain and humidity and keep away from heat sources, electric and electronic motors etc.
6. The power Chord supplied must be used only on this unit.
7. Blacknote® does not have responsibility for any improper use of this unit

(F.A.Q.)

QUESTION	DESCRIPTION	REASON/SOLUTION
Why the DSA can drive low impedance & efficiency loudspeakers?	<ul style="list-style-type: none"> • <i>The DSA is designed around an innovative digital technology enable the Blacknote® amplifier to drive speaker down to 1ohm impedance without clipping troubles.</i> 	The Technology of the DSA amplifier line is based around an innovative Flat Load Independent Frequency Response design allows perfect speaker matching and stable frequency response with all audio loudspeakers
Why the Volume control can't be adjusted manually thru a potentiometer knob and can't be shown the set up on the amplifier display?	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • The insistence to use high quality analogue potentiometer does not allow such functionality. Anyway the display shows volume UP&Down during operation. • Turning OFF the volume from the Master Switch Front Panel (MSFP) the volume will be kept in the left position. • Turning OFF the volume from the Stand-by mode on the remote control the volume will be reset completely.
Why the AMP IN disables the remote control and can be activated only from the front panel	<ul style="list-style-type: none"> • <i>Once the Power amplifier mode is activated the remote is totally disabled</i> 	For security reason there is only a front panel switch can activate the Power Amplifier mode of the DSA amplifier