OWNER'S MANUAL

DEFINITY AUDIO® α-1 C.R.I.S.T.A.L.® AUDIOPHILE STEREO POWER AMPLIFIER

DEFINITY AUDIO®

www.definityaudio.com

SAFETY INSTRUCTIONS & SYMBOLS GUIDE

For your own safety and to avoid invalidation of the warranty, all text marked with these symbols should be read carefully.

SYMBOLS:
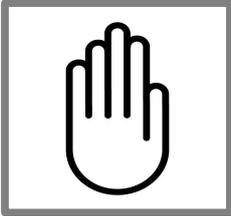
NOTES
Contain important information and useful tips on the operation of your equipment.

WARNING
The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

CAUTIONS
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in thee literature accompanying the appliance. Please read the manual carefully.

HEADPHONES SAFETY WARNING
Contain important information and useful tips for headphones outputs and monitoring levels.

SAFETY INSTRUCTIONS:
- To reduce the risk of electrical shock, do not remove covers. No user-serviceable parts inside. Please refer servicing to qualified personnel.
- To reduce the risk of electrical shock or fire, do not expose the equipment to rain or moisture.
- Do not impose unnecessary stress on your equipment (i.e. placing heavy objects on it, over screwing its mounting, etc).
- Read and keep the instruction manuals in a safe place for future references.
- Do not attempt to clean the equipment with chemical solvents as this may damage the finish. Clean only with a dry cloth.
- Do not block any ventilation openings.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
- Do not defeat the 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 grounding prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for the 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.
- Unplug the apparatus during lightning storms or when it is not in use for a long period of time.
- Always shut down power supply when not in use to save energy and for prolonged lifespan.

- Use only attachments/accessories specified by the manufacturer.
- Always shut down power supply when not in use to save energy and for a prolonged lifespan.
- Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) and the Singapore Workplace Safety and Health Council (WSHC) has specified the permissible noise level exposures shown in the following chart. According to OSHA and WSHC, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Earplugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here:

Duration/Day (Hours)	dB, Sound Pressure Level (SPL)	Descriptions
	Below 90dB	Safe zone
8.00	90	Hearing damage
6.00	92	
4.00	95	
3.00	97	
2.00	100	Serious hearing damage
1.50	102	
1.00	105	
0.50	110	
0.25 or less	115	Human pain threshold

TABLE OF CONTENTS

INTRODUCTION

Congratulations on your purchase of the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier. The **DEFINITY AUDIO® α-1** is a high-fidelity integrated power amplifier which incorporates GECKO®'s revolutionary C.R.I.S.T.A.L.® Audiophile PreAmps and Class-H technology for precision audio reproductions. Both the C.R.I.S.T.A.L.® Audiophile Class-H and PreAmps technology (originally designed for high-precision referencing applications in the recording studios and mastering labs) allows wider frequency bandwidth to be processed in numerous bands of "frequency cells" more efficiently while maintaining the desired RC time constants. The result – superb audio clarity and an energy-efficient amplification system with lots of headroom.

Whether you are using it in the professional recording studio, mastering lab, or in your hi-fi setup, playing a familiar audio source through the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier in your system setup allows you to hear the track in superb clarity and details you have missed out all these while!
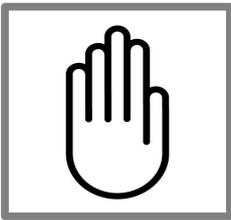
NOTES: Alpha (uppercase **A**, lowercase **α**), is the first letter of the Greek alphabet.

UNPACKING

Included in the packing of your **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier you will find:

- Remote control, bluetooth antenna, batteries (2 x 1.5VDC AAA)
- IEC power cord fitted with correct mains power plug for your country

After removing these items please retain all packing materials for future transportation of your **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier.

FRONT PANEL FEATURES
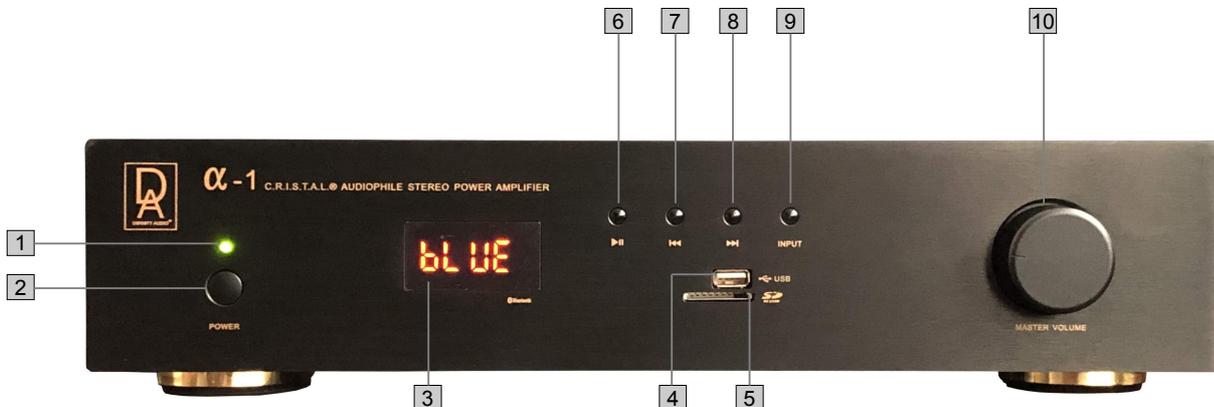
1. POWER LED
Illuminates (green) when the amplifier is powered.

2. POWER SWITCH
Press this switch to turn the power on (depressed) and off (raised).

3. DISPLAY
Digital display with track and status information.

4. USB PORT
Insert USB storage device (up to 64GB) with audio files here. Supported formats are MP3, APE, WMA, WAV (16-Bit, 44.1kHz), FLAC (16-Bit, Level 5). The USB bus goes through the C.R.I.S.T.A.L.® Audiophile PreAmps for pristine quality digital audio performance.

5. SD CARD SLOT
Insert SD card (up to 64GB) with audio files here. Supported formats are MP3, APE, WMA, WAV (16-Bit, 44.1kHz), FLAC (16-Bit, Level 5). The SD card bus goes through the C.R.I.S.T.A.L.® Audiophile PreAmps for pristine quality digital audio performance.

6. PLAY/PAUSE BUTTON
Press to play or pause a track in USB/SD/BT (Bluetooth) mode.

7. PREVIOUS TRACK BUTTON
Press for previous track in USB/SD/BT (Bluetooth) mode.

8. NEXT TRACK BUTTON
Press for next track in USB/SD/BT (Bluetooth) mode.

9. INPUT BUTTON

Press to select your desired mode. The mode sequence is *USB > SD > AUX > BT (Bluetooth)* when both the USB thumb drive and SD card *are* inserted in their respective port and slot, and *BT (Bluetooth) > AUX* when both the USB thumb drive and SD card *are not* inserted in their respective port and slot.

10. MASTER VOLUME

This controls the overall analog stereo output volume on the LEFT **(15.)** and RIGHT **(14.)** loudspeakers respectively.

REAR PANEL CONNECTIONS

11. BLUETOOTH ANT

Bluetooth antenna connection. In BT (Bluetooth) mode, the effective device connecting distance is approximately 10 meters line of sight. The BT (Bluetooth) bus goes through the C.R.I.S.T.A.L.® Audiophile PreAmps for pristine quality wireless digital audio performance.

12. AUX (IN)

Use this to connect your external audio equipment such as a turntable, SACD/CD/DVD player, tuner, tape player, and DAC analog outputs here. You can also connect your TV analog audio output here.

For those who wish to use the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier for studio recording and mastering referencing, you can connect either your audio interface or mixing console to AUX (IN). The AUX (IN) bus goes through the C.R.I.S.T.A.L.® Audiophile PreAmps for pristine quality analog audio performance.
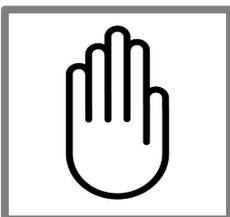
NOTES: The onboard EQ **(21.)** is bypassed in BT (Bluetooth) and AUX (IN) mode. Every time the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier is rebooted, it will go into BT (Bluetooth) mode automatically.

13. OUTPUT

Use these OUTPUT connections to connect to an external recording device for audio recording, or to an external preamplifier for sound playback on another hi-fi system, or you can also connect the OUTPUT connections to the AUX (IN) on another **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier unit for driving additional speakers.
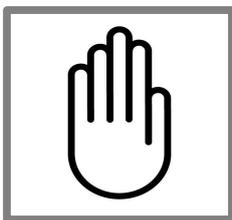
NOTES: The OUTPUT is not affected by the onboard EQ **(21.)** and MASTER VOLUME **(10.)**. It is however affected by the PREAMPLIFIER VOLUME **(22.)** & **(24.)**.

14. RIGHT SPEAKER OUTPUT

Connect RIGHT SPEAKER RED(+) binding post to (+) lead of your speaker cable (usually come with white insulator) and BLACK(-) binding post to (-) lead of your speaker cable (usually come with black insulator).

Now connect the other end of (+) and (-) leads of your speaker cable to the respective (+) and (-) terminals on your right speaker. See WIRING THE LOUDSPEAKERS on page **11**.

15. LEFT SPEAKER OUTPUT

Connect LEFT SPEAKER RED(+) binding post to (+) lead of your speaker cable (usually come with white insulator) and BLACK(-) binding post to (-) lead of your speaker cable (usually come with black insulator).

Now connect the other end of (+) and (-) leads of your speaker cable to the respective (+) and (-) terminals on your left speaker. See WIRING THE LOUDSPEAKERS on page **11**.

16. AC MAINS INPUT

This AC MAINS input is an integrated IEC mains inlet. Connect the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier using the IEC power cord provided.

17. AC MAINS SELECTOR

The **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier comes equipped with a built-in selectable power transformer. Select **115V** (selector at the bottom position) for *90~120VAC*, 50/60Hz and **230V** (selector at the top position) for *220~250VAC*, 50/60Hz.

WARNING: Always check that you have selected the correct voltage on the AC MAINS SELECTOR **(17.)** for your country before plugging into your mains. Connecting the wrong mains voltage may cause damage to your equipment which is not covered by the warranty.

REMOTE CONTROL

The **DEFINITY AUDIO® α-1** remote control unit is designed to control the C.R.I.S.T.A.L.® Audiophile PreAmps gain as well as other functionalities of the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier.

The remote control unit is powered using two 1.5VDC AAA batteries. Under normal operation, the batteries should last about one year. When operating the remote control unit, point its transmitter directly at the remote sensor, which is located on the front of the power amplifier. Make sure the remote control unit is no further than about 5 meters from the remote sensor. Remote control operation may not be possible if the remote control unit's transmitter is not pointing directly at the remote sensor, or if there is an obstruction between the transmitter and sensor.

18. STANDBY/ON BUTTON
When the unit **DEFINITY AUDIO® α-1** is powered, press this STANDBY/ON button to put the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier into standby mode. Press again and the **DEFINITY AUDIO® α-1** will resume normal operation.

19. MODE BUTTON
Like the INPUT button **(9.)** on the front panel, press this MODE button to select your desired mode. The mode sequence is *USB > SD > AUX > BT (Bluetooth)* when both the USB thumb drive and SD card *are* inserted in their respective port and slot, and *BT (Bluetooth) > AUX* when both the USB thumb drive and SD card *are not* inserted in their respective port and slot. The current mode status is indicated on the front panel display.

20. MUTE BUTTON
Press this button to mute the preamplifier on the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier.

21. EQ BUTTON

The **DEFINITY AUDIO® α-1** has six EQ presets designed for USB/SD card digital music playback. They are as follow:

EQ0: Equalizer bypassed
EQ1: Rock
EQ2: Pop
EQ3: Classical
EQ4: Jazz
EQ5: Country
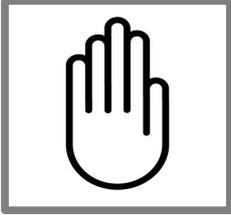
NOTES: By default, the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier comes ready with EQ bypassed (no equalizing) for the truest unaltered form of music referencing. We recommend this setting be used at all times.

Every time the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier is rebooted, the EQ will be set to bypassed automatically.

22. VOLUME INCREASE BUTTON

This button is used to increase the preamplifier gain on the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier. The preamplifier has gain scale range from 0 to 30. By default, the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier comes ready with preamplifier gain set at scale 18.

Every time the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier is rebooted, the preamplifier gain scale will be reset to 18 automatically.

23. NEXT TRACK BUTTON

Press for next track in USB/SD/BT (Bluetooth) mode.

24. VOLUME DECREASE BUTTON

This button is used to decrease the preamplifier's gain on the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier. The preamplifier has gain scale range from 0 to 30. By default, the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier comes ready with its preamplifier's gain set at scale 18.

Every time the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier is rebooted, the preamplifier's gain scale will be reset to 18 automatically.

25. REPEAT (RPT) BUTTON

Press once for repeating *ONE* track, press again for repeating *ALL* tracks in USB/SD/BT (Bluetooth) mode.

26. PREVIOUS TRACK BUTTON

Press for previous track in USB/SD/BT (Bluetooth) mode.

27. PLAY/PAUSE BUTTON

Press to play or pause a track in USB/SD/BT (Bluetooth) mode.

28. SCAN (SCN) BUTTON
Press to select between USB and SD mode while both the USB port and SD card slot are active (when USB drive and SD card slotted in).

29. DIRECT TRACK SELECTION BUTTONS
Use to select track in USB and SD mode.

BLUETOOTH PAIRING & CONNECTIONS

Make sure your device's Bluetooth is enabled and press the INPUT button **(9.)** on the front panel of the **DEFINITY AUDIO® α-1** or the MODE button **(19.)** on the remote control unit to enter BT (Bluetooth) mode. This will select the Bluetooth source and when your device has found the power amplifier, 'X5' will appear on your device. Next, connect to pair your device. You will hear a "ding" when your device is connected with the **DEFINITY AUDIO® α-1**. You are now ready to stream music to the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier from the paired device. If your device is aptX™ compatible and contains high-resolution audio files, then these will be streamed in the original high-quality bit rate through the **DEFINITY AUDIO® α-1** C.R.I.S.T.A.L.® Audiophile stereo power amplifier. It is recommended that you set the volume of your paired audio device to the maximum position for optimized op-amp performance on your device.

WIRING THE LOUDSPEAKERS

The right and left loudspeakers are connected to the power amplifier via the rear panel binding posts **(14.)** and **(15.)** respectively.

There are two basic types of cable -

• Figure 8 cable has two insulated conductors which lie parallel, either side by side or spaced by insulation.
• Overall sheathed cable has both conductors insulated and enclosed in an overall PVC heath.

Carefully remove any overall sheath or split the figure 8 cable to a depth of about 75mm (3"). Carefully strip the insulation on each wire to a depth of about 12mm (½") exposing the bare core. If the conductor is stranded, twist the strands together on each conductor (if desired, the twisted ends can be tinned with solder to keep the strands together, or attach spade lug and/or banana connector).

Unscrew the binding post. There is a cross-hole about 5mm from the panel end of the binding post. Insert the bared conductor through the hole and tighten the binding post securely making sure that there are no loose strands or bare ends protruding through the post. Carefully observe polarity ensuring that the RED(+) speaker terminal is connected to the RED(+) amplifier terminal and the BLACK(-) speaker terminal to the BLACK(-) amplifier terminal. When both left and right channels are connected to their respective speaker's terminals, the amplifier is ready for use. We recommend the use of quality speaker cable such as the **GECKO® TRUTH T2** audiophile-grade speaker cable for optimum performance.
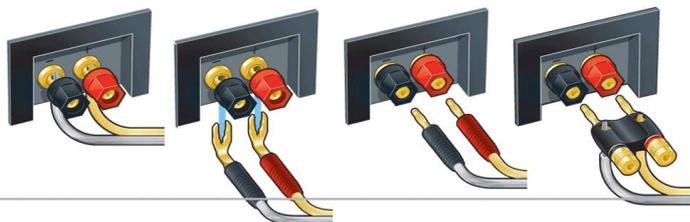
SPECIFICATIONS

Amplifiers:
GECKO® 4-Tier C.R.I.S.T.A.L.® Audiophile Class-H

Pre-Amplifiers:
GECKO® C.R.I.S.T.A.L.® Audiophile PreAmps

Frequency Response:
18Hz ~ 25kHz, +/- 0.5dB

Rated Outputs:
2 x 160W RMS @ 8Ω
2 x 250W RMS @ 4Ω

System Performance:
Input Sensitivity (8Ω): 1V
Damping Factor (8Ω, 20Hz ~ 1kHz): 400
Slew Rate: 30V/μs
THD + N: <0.05% (1kHz)
Signal-to-Noise: >100dB
Crosstalk: >70dB @ 1kHz

Audio Connectors:
Aux (In): RCA (L, R)
Input Impedance: 47kΩ
Output: RCA (L, R)
Loudspeaker Connections: 24K Gold-Plated Binding Posts
Binding Post Output Impedance: 4Ω – 8Ω

Power Supply:
Built-In Selectable: 115V (90-120V, 50/60Hz), 230V (210-250V, 50/60Hz)

Physical Properties:
Enclosure: Steel Chassis
Faceplate: One-Piece Brushed Aluminium Front Panel
Colours: Black
Net Weight: 9.3kg
Dimension: (H) 88mm x (W) 430mm x (D) 360mm

Specifications subject to change without prior notice. Manufactured under ISO9000 certified management system.

TERMS OF WARRANTY

WARRANTY:
DEFINITY AUDIO® warrants its products against defects in materials and workmanship and against malfunctions for a period of one (1) year from the original date of purchase.

WHAT IS NOT COVERED:
1. If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national or local level, in any country which is not the country where the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in material or workmanship.

2. Normal wear and tear, in particular, of faders, crossfaders, potentiometers, keys/buttons, valves, chassis covers, vinyl covers, illuminants, and similar parts are not covered by this warranty.

3. Improper handling, neglect or failure to operate the unit in compliance with the instructions given in the user or service manuals.

4. Connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used.

5. Damages/defects caused by the force of nature or any other condition that is beyond the control of DEFINITY AUDIO®.

6. Any repair or opening of the unit carried out by unauthorized personnel (user included) will void the warranty.

7. Modification or removal of serial numbers.

OBTAINING WARRANTY SERVICE:
All claims under this warranty must be made through an authorized DEFINITY AUDIO® retailer. If equipment returned for repair to DEFINITY AUDIO® is found on inspection to comply with the product specification, DEFINITY AUDIO® reserves the right to make a charge for examination and return carriage.

Carriage costs to DEFINITY AUDIO® shall be borne by the consignor.

Warranty will only be valid when the product is bought through the authorized DEFINITY AUDIO® retailer. All the warranty issues will be dealt with through the selling retailer.
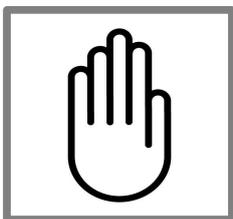
NOTES: When seeking a warranty service, it is the responsibility of the consumer to establish proof and date of purchase. Your purchase receipt or invoice is adequate for such proof.

Your purchase receipt is your permanent record of a valuable purchase. It should be kept in a safe place to be referred to as necessary for insurance purposes or when corresponding with DEFINITY AUDIO®. DEFINITY AUDIO® reserves the right to ask for a copy of your purchase invoice.