User's Manual





ATLAS 18 isobaric active 3-way monitor

Version 1.2 - 10.08.2023

Contents

DESCRIPTION	1
SAFETY NOTES	2
ACTIVATION	3
Create an Antelope Audio User Account	3
Activation	3
GET STARTED	5
Power supply	5
Connecting a signal source	5
Speaker positioning	5
REAR PANEL EXPLAINED	6
DISPLAY MENU AND ROTARY KNOB	7
Input source	7
Sample rate	8
Analog in Level	8
Two-way mode	8
Bass Extension	8
EQ	8
Delay	9
Save/Load Presets	9
Screen Save time	9
Factory reset	
Device info	10
STANDBY	10
LIMITERS	
AES/EBU	10
ISOBARIC DESIGN	
LIMITED WARRANTY POLICY	11
TECHNICAL SPECIFICATIONS	
Dimensions	
In-the-box Content	

DESCRIPTION

The Atlas i8 is a high-end studio monitor that synergizes Antelope Audio's state-of-theart clock and interface technologies with meticulous acoustical engineering to deliver unparalleled sound accuracy in any studio environment.

Featuring an isobaric configuration with two 8-inch woofers, a coaxial mid and highfrequency driver, and a custom Class-D 400W amplifier, the Atlas i8 delivers precise audio reproduction between 35 and 20 000 Hz with a maximum SPL of 117dB.

A custom digital processing system with FPGA chips enhances the performance, achieving a neutral frequency response and linear phase. The result is an accurate, pinpoint sound and a fatigue-free listening experience. The DSP also unlocks a handful of features that improve everyday studio life.



SAFETY NOTES

Atlas i8 is primarily made for studio monitoring while audio is being recorded and mixed. Use the equipment only in the manner that this user manual instructs. Any other use or use while operating under other circumstances is deemed improper and could lead to property damage or personal injury. No responsibility will be taken for harm brought on by incorrect use.

The Mains power voltage must never exceed 250V. Connecting the power cord to AC power line voltages over 250V can damage the amplifier and potentially cause the risk of fire. Such damage is **not** covered under warranty!



Atlas i8 is capable of producing sound pressure levels above 85dB which can potentially cause permanent hearing damage. Always check that the input signal levels are reduced before powering on the monitor!

To reduce the risk of electrical shocks, fire, and related hazards:

• Do not remove screws, cover, or cabinet. There are no user serviceable parts inside.

Refer servicing to qualified service personnel.

• Do not expose this device to rain, moisture, or spillover of liquid of any kind.

• Should any form of liquid or a foreign object enter the device, do not use it. Switch off the device and then unplug it from the power source. Do not operate the device again until the foreign object is removed, or the liquid has completely dried and its residues fully cleaned up. If in doubt, please consult the manufacturer.

- Do not handle the power cables with wet hands!
- Make sure the device is switched off when plugging/unplugging it to/from the power source.

• Avoid placing things on the cabinet or using the device in a narrow and poorly ventilated place which could affect its operation or the operation of other closely located components.

• If anything goes wrong, turn off the device first and then unplug the power. Do not attempt to repair the device yourself. Consult authorized service personnel or your dealer instead.

• Do not install near any heat sources such as radiators, stoves, or other apparatus (including amplifiers) that produce heat.

• Do not put any objects inside the bass reflex port on the front of the device

• Do not use harsh chemicals to clean your device. Clean only with specialized cleaners for electronics equipment. Do not clean with wet towels/napkins the woofer or coaxial driver.

• This device is connected via its power cord to the mains safety earth. Never operate the unit without this earth connection.

• In case of a lightning storm, disconnect the device from the power grid.

 $\bullet\,$ T he device is designed to operate in a temperate environment, with a correct Operating Temperature of 0-50° C, 32-122° F.

ACTIVATION

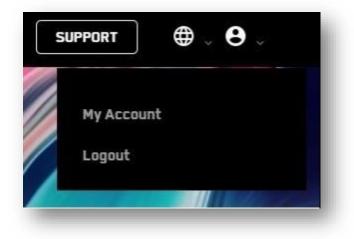
Create an Antelope Audio User Account

To activate the Atlas i8 you will need to create an Antelope account.

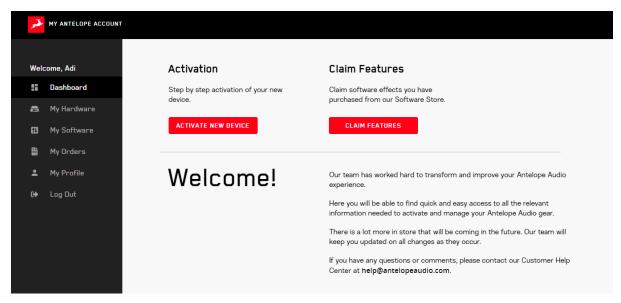
- To create an account, please <u>click here.</u>
- Existing users can log in here.

Activation

Once you have logged in, click on **My Account** in the top right to access the user **Dashboard**



Click on the Activate New Device button on the main Dashboard.



Choose Atlas i8 from the device list:

AUDIO INTERFACE		
	MASTERING CONVERTERS	LEGACY DEVICES
Discrete 4 Pro Synergy Core	Amari	Discrete 4
Discrete 4 Synergy Core	Pure2	Discrete 8
Discrete 8 Pro Synergy Core		Eclipse 384
Discrete 8 Synergy Core	MASTER CLOCKS	Edge Mic
Galaxy 32 Synergy Core	10M-X	Goliath
Galaxy 64 Synergy Core	OCX HD	Goliath HD
Goliath HD Gen 3		Isochrone 10M
Drion 32+ Gen 3	ANALOG PROCESSORS	Isochrone OCX
Drion 32+ Gen 4	MP32	Isochrone OCX-V
Drion 32HD Gen 3	R4S	Isochrone Trinity
Drion Studio Synergy Core	Satori	Live Clock
Zen Go Synergy Core	Saturi	MP8d
Zen Go Synergy Core TB3		Orion 32
Zen Q Synergy Core	HI-FI	Orion 32+
Zen Q Synergy Core USB	Zeo	Orion 32HD
Zen Tour Synergy Core		Orion Studio
	REMOTE CONTROL	Orion Studio HD
MODELING MICS	MRC	Orion Studio Rev 203
Axino Synergy Core		Zen Studio
Discrete MP	STUDIO MONITORS	Zen Studio+
Edge Duo	Atlas 18	Zen Tour
Edge Go Synergy Core		Zodiac Gold
Edge Note		Zodiac Platinum
Edge Quadro		Zodiac Plus
Edge Solo		Zodiac Silver
Verge		

After selecting your device, enter the 13-digit serial number which you can find on a small sticker on the back of the loudspeaker:

Select device	Enter serial number	Confirm activation	Connect device
	You've s		
	Enter Serial Number	E DEVICE	
	Read about minimum syst	tem requirements <u>here</u>	

*The registration process needs to be done for each **Atlas i8** you have.

GET STARTED

Power supply

The monitor requires power supply with a voltage range between 100 and 240V. The maximum electric power is 400W. The power plug is a standard 3-pin AC F256. There is a power fuse with Rated Voltage of 250VAC, Rated current of 0.05 - 20A and Breaking Capacity of 35A - 200A. Based on your region, inside the box you will find a power supply cable compatible with the local power sockets.

Plug in the power cable, and turn on the monitor from the power switch only after all other audio signal cables are connected. Upon turning the monitor on, the LED light on the from will indicate that it's powered on.

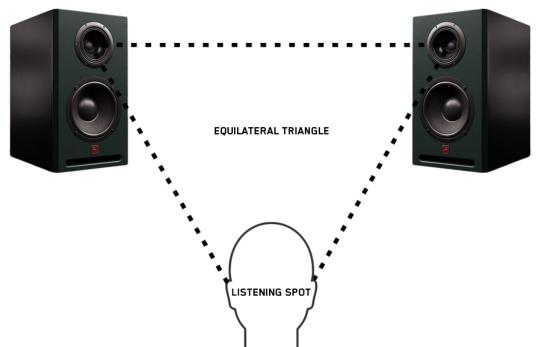
Connecting a signal source

The Atlas i8 can receive analog line level signal via the combo XLR/TRS inputs or digital AES3 signal via the AES. Use your audio interface monitor or line outputs, preamplifier, monitoring controller or mixing console to connect with a balanced XLR/TRS cable to the monitor speaker. Make sure that the audio signal is fully attenuated before connecting the cable.

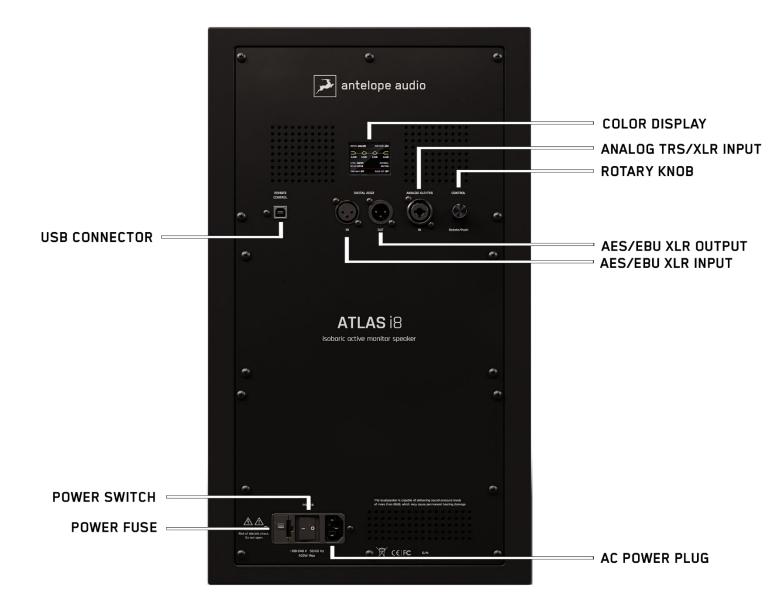
Speaker positioning

In a situation where there is a pair of monitors configured in stereo, the distance between the monitors and the distance from each monitor to the listening spot should be ideally equal. Since the bass reflex port is at the front of the monitor, closer positioning to walls is possible without causing turbulence. Every room has it's own unique acoustic characteristics, therefore positioning is subject to experiments and measurements.

The monitors should be positioned so that the high frequency driver is at the height of your ears. Thanks to the coaxial design for the mid and high frequency drivers, the monitors can be positioned both horizontally or vertically without risk of comb filtering effects or fidelity loss. Recommended positioning from the listening spot is between 5-10 feet (1.5 - 3 meters).



REAR PANEL EXPLAINED



DISPLAY MENU AND ROTARY KNOB

The color display in combination with the rotary knob provide access to all functionalities and settings of the Atlas i8.

The default screen layout provides information about Input source, Volume level, EQ adjustments, Delay offset, clock source, sample rate and states of the Two-way and Bass extension modes:

INPUT: ANALOG		VOLUME: Ode	
OdB	OdB	OdB	0dB
LEVEL:	20dBu	IN	TERNAL
DELAY:	Oms	192.0 kHz	

The Rotary knob has the following functions used to navigate through the menu:

Rotate, Push, Double click, and Hold.

- Rotate to adjust the Volume
- Push to mute
- Double click to dim
- Hold to enter the Settings menu, to select and confirm options, to go back

Input source

The input source gives the option to select between ANALOG, AES IN 1 or AES IN 2.

- Chose **ANALOG** to use the TRS/XLR input.
- Chose **AES IN 1** or **AES IN 2** to use the digital XLR input.

AES/EBU protocol contains two channels of signal. Two monitors can be daisy chained by connecting the AES OUT of an interface to the AES IN of monitor A then connect an XLR balanced cable from monitor A AES OUT to monitor B AES IN. Finally, Chose AES IN 1 on monitor A and AES IN 2 on monitor B.

Sample rate

The sample rate menu allows to choose between 176.4kHz and 192kHz sample rate. In case AES/EBU connection is used for input source, sample rate can be changed depending on the sample rate source.

For example, if the input source is on 44.1; 88.2 or 176.4kHz , the Atlas sample should be set to 176.4kHz.

If the input source is on 48 ; 96 or 192kHz, the Atlas sample rate should be set to 192kHz. Typically, the monitor will lock automatically to the sample rate of the source signal and no manual configurations will be required.

Analog in Level

The Analog in Level allows to select the suitable gain stage for the analog signal received. The level can be set between 20dBu and 0dBu – set the level to match the output level of your audio interface.

For example, if the audio interface has analog output level of 14dBu, set the Analog in Level of the Atlas i8 to 14dBu.

Two-way mode

Two-way mode allows low-cut filter on a preferred frequency - 80Hz, 100Hz and 120Hz. This option can be used when the monitors are combined with additional subwoofer or for referencing audio, simulating playback systems with limited frequency response, such as TVs, laptops, cars, and portable speaker systems.

Bass Extension

Bass extension mode applies a different type of IIR filters, specifically designed to enhance the low-end frequency range. Bass extension allows the monitor to reach lower frequencies and overall boost the low-end.

EQ

The Atlas i8 is intended to provide a neutral frequency response in anechoic environment when all EQ parameters are set to OdB.

When the loudspeaker is installed in a monitoring environment, the response changes. Changing the position of the monitor will result in frequency change, therefore it will require different acoustical control settings.

The EQ section provides 4 individual bands with gain with range between -6 and +6dB and frequency:

- Low frequencies between 20Hz and 100Hz (Q = 0.7) low shelf filter
- Mid low frequencies between 100Hz and 250Hz (Q = 3) peak filter
- Mid frequencies between 250Hz and 2500Hz (Q = 0.7) peak filter
- High frequencies between 2500Hz and 20 000Hz (Q = 0.7) high shelf filter

Note!

Using different EQ settings, Bass extension and Two-way mode changes the phase of some frequencies due to the use of Minimum phase filters. This might result in a deteriorated stereo image and transient response due to changes in the phase. In some cases, improving the frequency response with the help of those settings can be more beneficial to the end result in comparison to keeping the linearity of the phase.

Delay

The delay functionality allows better stereo imaging and balance in case when two or more monitors are positioned in a non-equal distance from the listening spot. Such difference can cause phase issues and incoherence of the audio reproduction. A delay between 0 and 10ms can be added with steps of 0.1. To adjust the correct delay offset, the distance between each monitor and the listening spot must be measured.

Delay should be added on the monitor which is closer to the sweet spot for both audio signals to arrive at the same time and achieve.

Example: if monitor A has distance to the listening spot of 2 meters and monitor B has distance to the listening spot of 2.3 meters, monitor A must be delayed with 0.9ms.

- 0.1 ms equals approximately 3.4 cm (1.33 in) (minimum delay)
- 10 cm (3.93 in) equals approximately 0.3 ms
- 1 m (39.37 in) equals approximately 2.9 ms
- 10 ms equals approximately 3.4 meters (maximum delay)

Compensating for video delay (lip sync)

When working on a video production, a time delay between the video and audio signal might occur. To compensate for video delay and calculate how much milliseconds of delay should be added based on the frame rate used, the following FPS to MS converter can be used: <u>https://fpstoms.com/</u>

Save/Load Presets

All settings and can be saved into 4 individual presets and recalled. Once all settings are set, navigate to Save Presets and choose from Preset 1-4 and click to confirm. To Load presets, navigate to Load Presets and choose from Preset 1-4 to load the selected preset.

Screen Save time

Screen Save time enables the display to turn off after a period. Choose between: Off; 2; 5; 15; 30 ; 60 ; 120 minutes

Factory reset

Restore all factory settings to default. Factory reset will delete all saved presets!

Device info

Get information about the hardware revision, serial number and firmware version installed on the monitor.

STANDBY

Digitally turn off the speaker. This option does not completely turn off electrically the monitor. To turn the monitor electrically off, the power button on the bottom left corner of the rear panel must be switched off.

LIMITERS

The low, mid and high frequency channels have individual Peak and RMS limiters, designed to protect each driver from high amplitudes, short and long duration input signal spikes that might cause damage due to over excursion of the voice coil. These limiters are implemented digitally within the digital signal processing, and they do not affect the audio if it is below the threshold values.

AES/EBU

The AES3 protocol uses 110 ohm shielded twisted pair (STP) cable with XLR connectors up to 100 meters. The monitor can receive and transmit 2 channels of PCM signal up to 24 bit, 192kHz via AES.

If a standard XLR cable for analog signals is used, that might deteriorate the digital signal transmitted, therefore an XLR cable for AES connection is recommended.

Using AES connection bypasses the DA converter of the interface and the AD converter of the monitor.

ISOBARIC DESIGN

The Atlas i8 has two identical 8-inch woofers that are sealed in an isobaric configuration, one behind the other and moving together in sync. The air pressure caused by the first one is compensated by the movement of the second one, creating a sealed volume with an even pressure level. Usually, to get lower frequencies, one would need a bigger volume in

the cabinet. Using this isobaric design allows a drastic reduction in cabinet volume without sacrificing low-end performance. The monitor can get as low as 35Hz without any boosts, ensuring minimal distortion and high sound pressure levels.

LIMITED WARRANTY POLICY

This is a non-transferable voluntary Limited Product Warranty provided to end-customers who have purchased Antelope Audio-branded hardware product (hereinafter referred to as "Product") from an authorized Antelope Audio re-seller.

For customers covered by consumer protection laws or regulations in their country of purchase or, if different, their country of residence, the benefits conferred by Antelope Audio's Limited Warranty are in addition to, and not instead of, rights and remedies convened by such consumer protection laws and regulations and it does not exclude, limit or suspend buyer's rights arising from consumer law. Consumers have

the right to choose whether to claim service under the Antelope Audio Limited Warranty or under their consumer law rights.

All claims made under the Antelope Audio Limited Warranty will be governed by the terms set out in this warranty document.

Warranty Coverage

Antelope Audio warrants that the Product will be free from defects in material and workmanship for the period of 1 (one) year commencing on the date of purchase of Product by end-customer from authorized Antelope Audio's re-seller.

Except where explicitly prohibited by applicable local law, this warranty is limited to the original purchaser and is non-transferable. This warranty provides you with specific legal rights, and you may have additional rights that vary under local laws.

In general, this warranty means your Antelope Audio hardware product will operate in accordance with published technical specifications, as specified by its datasheet, and in the operating environment for which it was intended for the length of the warranty period.

This version of the warranty applies to products purchased on or after January 1, 2018. For prior versions of the Antelope Audio limited warranty, please contact customer service.

Limited Factory Refurbished (B-stock) Warranty

Antelope Audio warrants products sold as "B-stock, Factory Refurbished or Open Box" to be free from defects in materials (unless otherwise stated in product description) and workmanship. Only products purchased from an authorized dealer or directly from Antelope Audio are covered by this Warranty.

The Limited Factory Refurbished (B-stock) Warranty is valid for the period of 6 (six) months, commencing on the date of purchase of Product, if local regulations do not require otherwise.

All warranty terms contained hereunder apply also to the B-stock Warranty, unless otherwise specified.

Remedies

Antelope Audio's entire liability and your exclusive remedy for any Antelope Audio Product that is not operating in accordance with its published technical specifications is at Antelope Audio's discretion:

1) to repair the Product at Antelope Audio's expense using new or equivalent-to new refurbished parts in good working condition; or

2) to replace the Product at Antelope Audio's expense with a product with equivalent functionality formed from new and/or equivalent-to new refurbished parts in good working condition, or

3) to refund the price paid. Should Antelope Audio decide to refund the price paid, it may deduct from the paid Product's price any damages caused to the Product; where, within fourteen (14) days of the expiration of the warranty period,(i) Antelope Audio has received written notice of any nonconformity;(ii) after Antelope Audio's written authorization, customer has returned the nonconforming product to the designated place; and (iii)Antelope Audio has determined that the Product is nonconforming and that such non conformity is not the result of any of the exclusions designated below.

These warranty obligations are conditioned upon the hardware being returned to the original place of purchase, or another place as directed by Antelope Audio, with the original sales receipt attached. You will be required to pay shipping and handling charges for returning the product. You may be required to pay any other applicable tariffs, duties, taxes, or other fees with regard to returning the products.

Any repaired or replacement Product will be warranted for the remainder of the original warranty period.

Obsolete or Discontinued Products

An obsolete or discontinued product will be repaired or replaced with the same product if available. If Antelope Audio is unable to replace your obsolete or discontinued product with the same product, Antelope Audio will replace the obsolete or discontinued product, in its sole discretion, with a product having similar function and capacity.

Exclusions

This warranty does not cover problems or damage resulting from, but not limited to, any of the following: (i)Wear and tear associated with normal use; (ii)Any modification,

abuse, accident, disassembly, misapplication, misuse, negligence, acts of God, accident; (iii)Unauthorized repair or attempted repair by anyone other than Antelope Audio or someone authorized by Antelope Audio to do warranty work; any unauthorized repairs will void this warranty(iv)Any improper operation, maintenance or installation, including any use not in accordance with any supplied product instructions; (v)Connection to any improper voltage supply; (vi)Use of consumables or spare parts not supplied by Antelope Audio, except where such restriction is prohibited by applicable local law; (vii)Any other cause which does not relate to a Product defect in materials or workmanship. The warranty does not apply to any Products which have been subject to misuse, neglect, accident or modification or which have been soldered or altered such that they are not capable of being tested under normal test conditions.

This warranty does not cover (i) any counterfeit products, i.e. Products that Antelope Audio, at its sole discretion, determines were not manufactured by Antelope Audio or any

of its authorized manufacturing partners; (ii) Products purchased from a person or entity which is not an authorized dealer or re-seller of Antelope Audio; (iii)Product sold "as is" or "with all faults", to the extend permitted by local law.

This warranty is not valid in case any manufacturer label(s), serial numbers, date stamp(s) or warranty sticker(s) has been altered or removed from the Product.

Limitation of Liability

ANTELOPE AUDIO SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOSS OF PROFITS, REVENUE, OR DATA (WHETHER DIRECT OR INDIRECT) OR COMMERCIAL LOSS FOR BREACH OF ANY EXPRESS OR IMPLIED WARRANTY ON YOUR PRODUCT EVEN IF Antelope Audio HAS BEEN ADVISED PREVIOUSLY OF THE POSSIBILITY OF SUCH DAMAGES. Some local laws do not allow the exclusion or limitation of special, indirect, incidental or consequential damages, so this limitation or exclusion may not apply in your jurisdiction.

ANTELOPE AUDIO WILL NOT ASSUME OR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH ITS PRODUCTS.

Data Recovery

In the event of data loss using Antelope Audio storage devices, Antelope Audio is not responsible for backing up or recovering any data that you may have lost.

No Other Warranties

No Antelope Audio employee, dealer, re-seller, or other agent is authorized to make any modification, extension, or addition to this warranty.

How to Make a Warranty Claim

Valid warranty claims should be processed through your point of purchase. Please also verify the return policy directly with the retailer where you purchased your product. Any warranty claims that cannot reprocessed through your original point of purchase should be

addressed directly to Antelope Audio. Our customer service contact information can be found

on the web or in the documentation included with your Product.

Returning Your Product

In the event that you need to return your Antelope Audio products for repair or replacement, Antelope Audio will provide you with a Return Merchandise Authorization Number (RMA#) as well as return instructions. Do not return your product without prior approval from Antelope Audio. Any product returned without a valid unique RMA# will be

refused and returned to the sender at the sender's expense. To avoid problems at the time of receipt, clearly write your RMA# on the outside of the package and include a copy of your RMA confirmation-mail within the package.

In certain situations, for in-warranty units, we may (entirely at our opinion) offer you a temporary replacement unit, provided that we have such on stock in your state. To request a temporary replacement unit, a valid credit card must be provided to secure the new replacement unit for shipping prior to Antelope Audio receiving the defective one.

Request a Return Material Authorization Number (RMA#)

Please follow these steps to obtain an RMA number:

(I) For end user customers, submit a claim online at: support.antelopeaudio.com. For business to business (B2B) / Direct customers of Antelope Audio please email us at techsupport@antelopeaudio.com

(ii) A valid proof of purchase is required for RMA processing (i.e. receipt, invoice, etc). Antelope Audio will provide you with the RMA number within 2 working days as of the claim submission date.

RMA Return Addresses

We have multiple RMA receiving locations worldwide. Your RMA confirmation will specify the specific return address you must use when sending your RMA package. Any packages

received at an unauthorized location may be refused and returned to the sender at the sender's expense.

Products Lost or Damaged During Transit

The original packaging material should be used to pack the product for return; if the original packaging is not available, you should use such materials that provide the same or greater protection to the product. All packages that arrive with any external damage or appear inadequately packed will be refused and returned to the sender at the sender's expense. We are not responsible for damage incurred during shipping to our RMA receiving locations or for lost or stolen products.

Company information

Antelope Audio is the trade name, under which the company Elektrosfera ltd., registered under the legislation of the Republic of Bulgaria with UIN: 131052590, is doing business and is worldwide known. Elsewhere in this document where the trade name Antelope Audio is used shall refer to Elektrosfera ltd., with address of management: Tsarigradsko Shose Blvd., 7th km, Building of BIC IZOT, floor 6, Mladost region, Sofia, Bulgaria.

If any term hereunder is held to be illegal or unenforceable, it shall be severed from this warranty and the legality or enforceability of the remaining terms shall not be affected.

TECHNICAL SPECIFICATIONS

- Frequency range: 35 20 000 Hz
- Max SPL: 117dB at 1 m
- Amp wattage: 400W (200W low + 100W mid + 100W high)
- Input connectors: Analog XLR/TRS; Digital AES/EBU
- Output connectors: Digital AES/EBU
- Driver sizes: LF: 2x8" isobaric, MF: 5,5", HF: 1,5" coaxial
- Speaker configuration: Three-way
- Active or passive: Active
- AD/DA converter: 24-bit/ 192 kHz
- Equalization: Digital parametric
- Enclosure Type: Front ported
- Monitor application: Mid-field
- Dimensions: W 292 mm, D 387 mm, H 500 mm
- Weight: 24 kg

Dimensions

Device:

W: 29 cm (11.4 in); D: 38.7 cm (15.2 in); H: 50 cm (19.7 in); 24 kg (52.9 lbs)

Box:

W: 59.4 cm (23.4 in); **D**: 46.2 cm (18.2 in); **H**: 40.4 cm (15.9 in); 28 kg (61.7 lbs)

In-the-box Content

- Atlas i8
- Getting started guide
- Power supply cable
- USB type A to type B Cable