

INSTALLATION & OPERATION MANUAL

inDESIGN

iD-HP SERIES LOUDSPEAKERS

iD-HP108

iD-HP110

iD-HP112



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INTRODUCTION

Thank you for choosing inDESIGN iD-HP series loudspeaker products for your application. Please spare a little time to read the contents of this manual, so that you can obtain the best possible performance from these products.

The inDESIGN iD-HP loudspeaker series is a compact, high output design suitable for mobile and permanent sound installations.

Attention to detail during development of these products provides high SPL output with a smooth neutral sonic character, multiple installation options at a very competitive price.

All mid-high models are fitted with a NEAR / FAR switch. This feature allows users to change the sonic footprint depending on the listening scenario.

Users may use these products in vertical or horizontal orientations – just rotate the horn!

All models are shipped with a U-bracket and are available in black and white colour.

Electrical and Safety Warnings

CAUTION

THESE SERVICE INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. 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.



The lightning flash with arrowhead symbol, with an equilateral triangle, is intended to alert the user to the presence of un-insulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.






WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



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

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. To prevent injury please refer to these instructions for electrical and safety information before installing or operating the apparatus.
6. No naked flame sources such as lighted candles should be placed on the apparatus.
7. Operation of this apparatus is recommended for moderate climates only.
8. This apparatus must not be exposed to dripping or splashing liquid.
No object filled with liquid, such as a vase, should be placed on the apparatus.
9. Clean only with a dry cloth.
10. Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
11. Do not install near any heat sources such as radiators, heaters, stoves, or other apparatuses (including amplifiers) that produce heat.
12. Unplug this apparatus during lightening storms or when not in use for long periods of time.
13.  Protective Earthing Terminal:
The apparatus should be connected to a mains socket outlet with a protective earthing connection.
14. The mains plug/appliance coupler is used as a disconnect device, the disconnect device shall remain readily operable.
15. When not in use and during transportation, please take care of the power cord set, for example, tie up the power cord set with a cable tie/something similar. It should be kept away from sharp edges and the like that can cause abrasion of the power cord set. When put into use again, check that the power cord set is not damaged. If any damage is found, have the unit checked by a qualified service person to replace the power cord set specified by the manufacturer.
16. The terminals marked with symbol of " " may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by a qualified service person or the use of ready-made leads or cords.
17. Only use attachments/accessories specified by the manufacturer.
18. Check speaker line load prior to connecting to amplifier using an impedance meter.
19. Refer all servicing to qualified service personnel. Servicing is required if the apparatus has been damaged in any way, such as power-supply cord or plug breakage, damage due to liquid or objects falling onto the apparatus, exposure to rain or moisture, or if the apparatus does not operate normally, or has been dropped.
20.  Correct Disposal of this Product:
This marking indicates that this product should not be disposed of with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental-safe recycling.

WARNING: There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

FEATURES

- **Neutral sonic quality:** Carefully designed and matched loudspeaker drive units are used to give you exceptional performance and many years of reliable, trouble free operation.
- **High quality loudspeaker components** are used throughout the range. Low frequency drivers are specified for high sensitivity and durability, while high frequency drivers are selected for consistent and reliable performance.
- **High frequency protection system:** Thermal overload circuits operate on all two-way products to prevent damage to the HF drive units from both transient peaks and long term heating effects.
- **Professional appearance:** iD-HP series enclosures suitable for live sound and DJ applications as well as permanent installations.
- **Wide dispersion:** iD-HP series cabinets are designed to give wide and even dispersion patterns in order to maximise sound coverage over a given area from a single loudspeaker. Each two-way product features a rotate-able HF horn flare allowing horizontal or vertical mounting/operation.
- **Monitor Mode:** A wedge angle is built into each 2 way product, allowing the loudspeakers to be placed on their sides to perform monitor duties. Don't forget to rotate the horn.
- **Near or Far?** Each two-way iD-HP cabinet features a NEAR/FAR switch, allowing you to decide the best HF setting for the situation at hand.
- **Solid construction:** all iD-HP series cabinets are built from high grade, multilayer plywood and are finished in a durable matt textured paint.
- **Integral rigging points:** Fitted as standard, enabling use with optional M8 shoulder eyebolts for many types of fixed installations. All two-way products are shipped with a U-bracket, allowing for easy installation.
- **Pole mount and tripod stand use** is facilitated by the provision of integral 35mm pole mount fittings in both two-way and low extension products.
- **NL4MP connectors** are fitted to all id-HP series cabinets, enabling simple and easy hook-up as well providing loop-in/loop-out facilities to additional enclosures.

CONNECTIONS

Located on the rear panel of each loudspeaker you'll find 2x NL4 speakon connection points. Use either of the two connection points to connect the loudspeaker to an amplifier.

Note: You may use the second NL4 connection to link to another loudspeaker. Take note of your impedance load as to not overload the connected amplifier.

Speakon Wiring

The loudspeaker connectors are wired pin 1+ and pin 1-

2 + Not used

2 - Not used

Speaker Cable

The gauge of speaker cable should be the heaviest gauge where practical to reduce transmission power loss from the connected amplifier.

2.5 mm² cable is generally an acceptable gauge for 2 way passive loudspeakers.

A gauge smaller than 1.5 mm² should be avoided.

VOICING

Voicing of loudspeakers is such a subjective matter. One size never fits all so we decided to shake it up a little.

The NEAR/FAR switch located on the rear panel of the iD-HP108, iD-HP110 and iD-HP112 loudspeakers gives you the choice to tailor the HF response you see fit for the application, or for your taste.

The loudspeakers should generally be used in FAR mode. This configuration is suitable for most applications, such as medium throw distances and medium to large open spaces.

In some applications such as monitoring, smaller spaces, or if you feel there is a bit too much bite in the HF, you should switch the loudspeaker into NEAR mode. Switching the products into NEAR mode attenuates the HF driver by 1.5dB.

The products deliver neutral voicing no matter which setting is chosen. As we said speaker voicing is subjective, let's leave it at that.

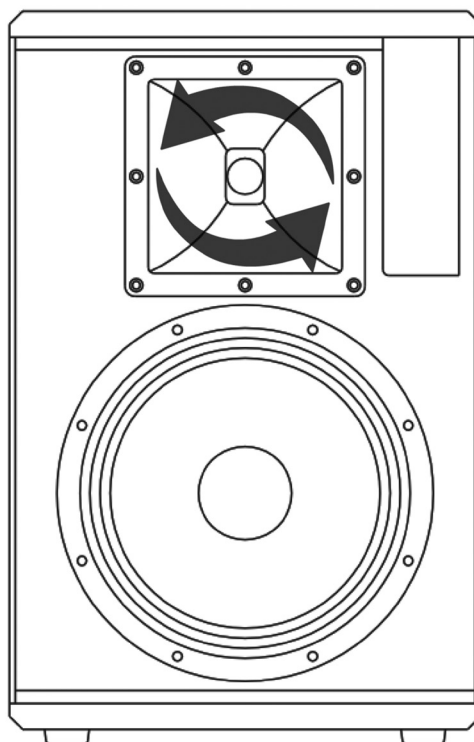
HORN ROTATION

The iD-HP108, iD-HP110 and iD-HP112 loudspeakers can operate in both horizontal and vertical orientations. From the factory the loudspeakers are configured for use in vertical position.

To rotate the loudspeaker horn flare, remove the screws on each side of the cabinet holding the front grill in place.

Using a suitable allen wrench, remove the bolts securing the horn flare to the cabinet and rotate the horn flare.

Follow the instructions above in reverse to reassemble the loudspeaker.



SPEAKER MOUNTING

The mounting of a permanently installed speaker may be dangerous unless undertaken by a qualified professional with the required experience. Walls and mounting surfaces must be capable of supporting the speaker and bracketry in a safe and secure manner. All fixings must be safely attached to the speaker cabinet and the mounting surface. All fixings must be fitted in accordance with the manufacturer's instructions and specifications.

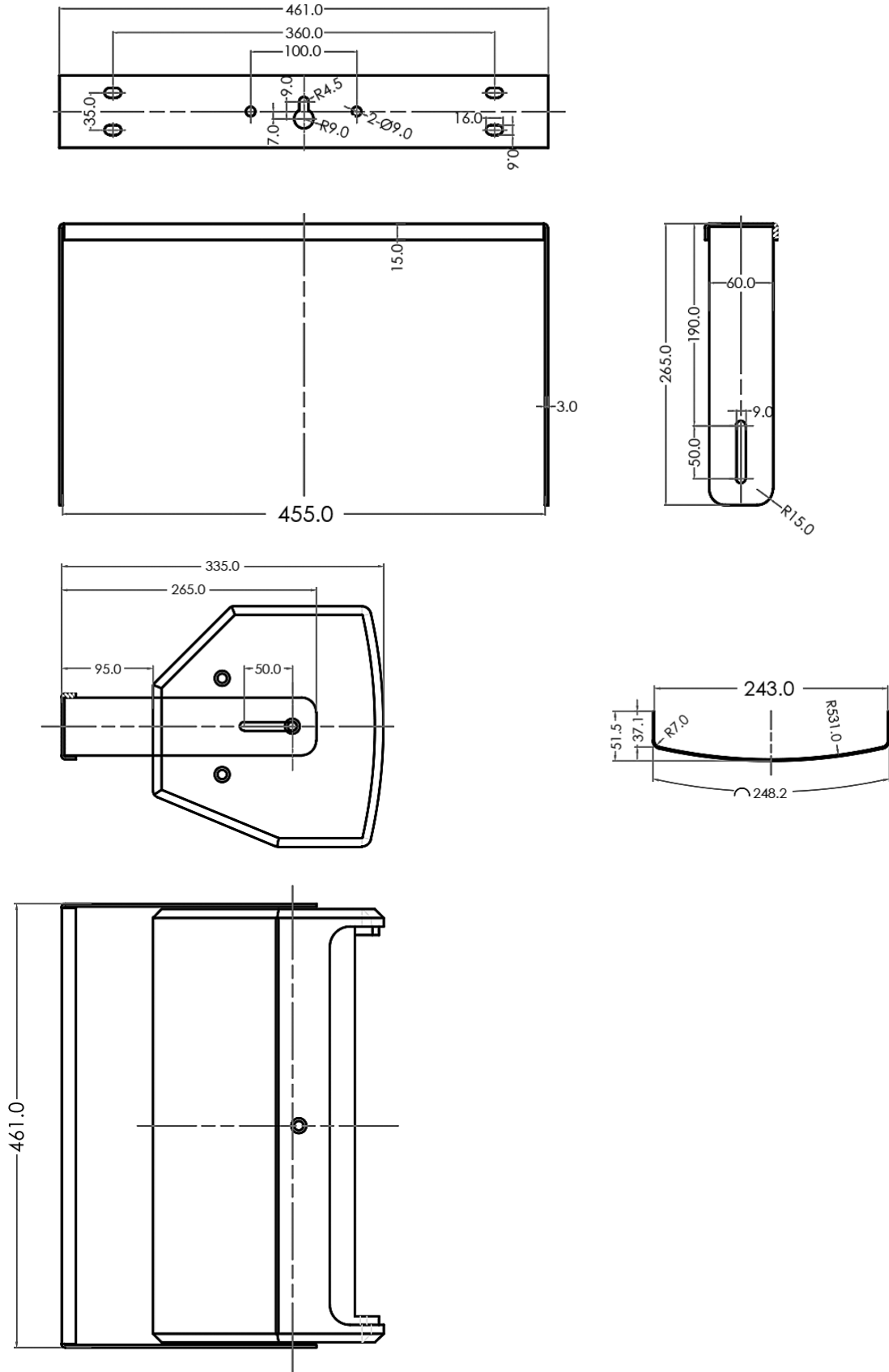
U-Bracket Mounting

Each 2-way passive model is shipped with a U-bracket. Study the diagrams on pages 7-9 to determine mounting measurements.

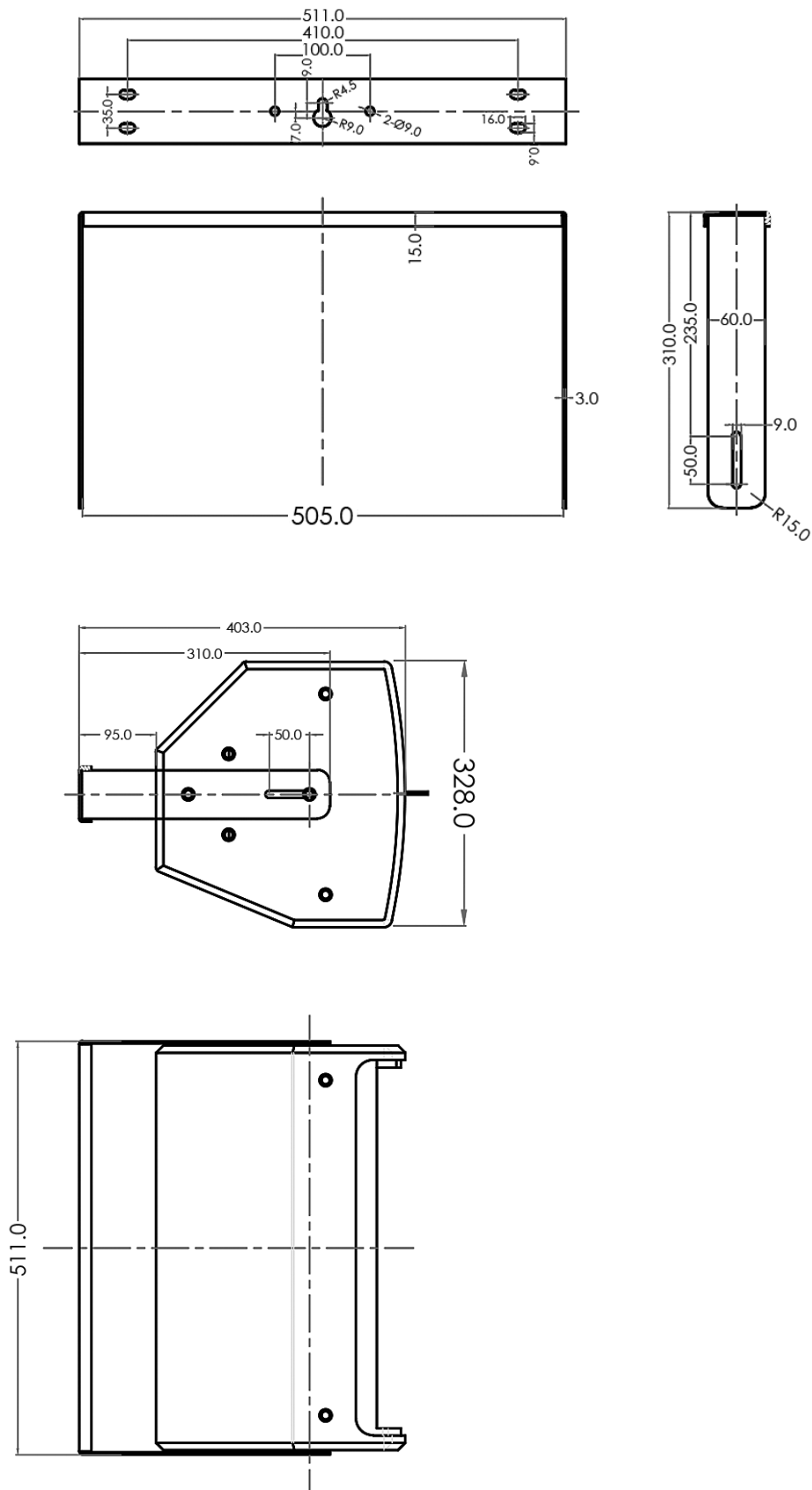
The loudspeakers can be mounted in horizontal or vertical orientation with the supplied U-brackets. Be sure to rotate the horn flare according to the installed orientation.

Note: The installer must ensure suitable fasteners are used to secure the U-brackets to mounting surface/s.

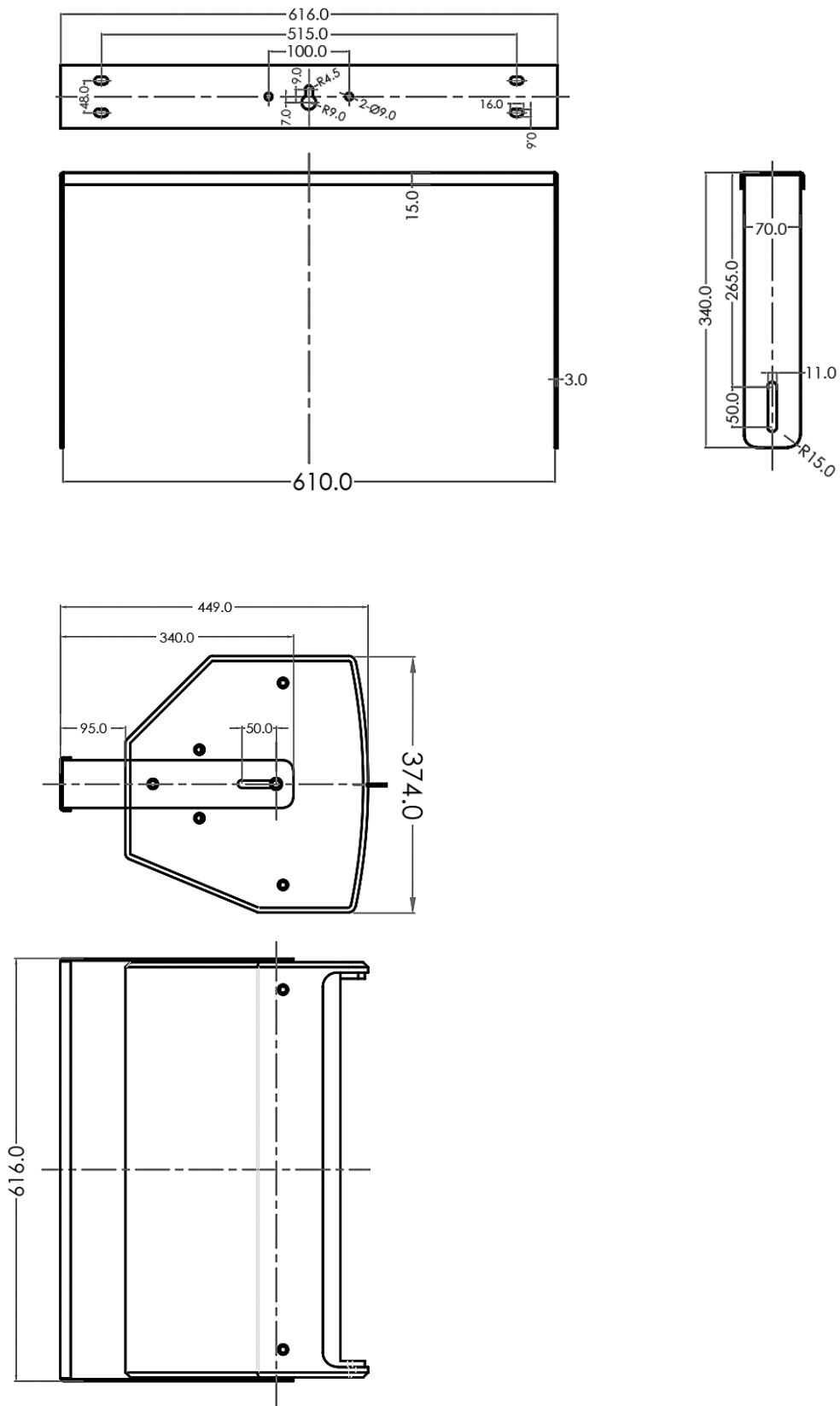
iD-HP108 U-Bracket Diagram



iD-HP110 U-Bracket Diagram



iD-HP112 U-Bracket Diagram



Top Hat Mounting

Each 2-way passive model comes equipped with a 35mm top hat located in the bottom of each cabinet. You may use a tripod stand or wall mount brackets with your loudspeaker. See examples below.



Eye Bolt Suspension

The iD-HP series of loudspeakers provide a number of secured mounting points for use with M8 eye bolts. The two mounting points towards the front of the cabinet should be used, with the 3rd point used to angle the enclosure as needed. All iD-HP series 2-way loudspeakers require the following eyebolt.

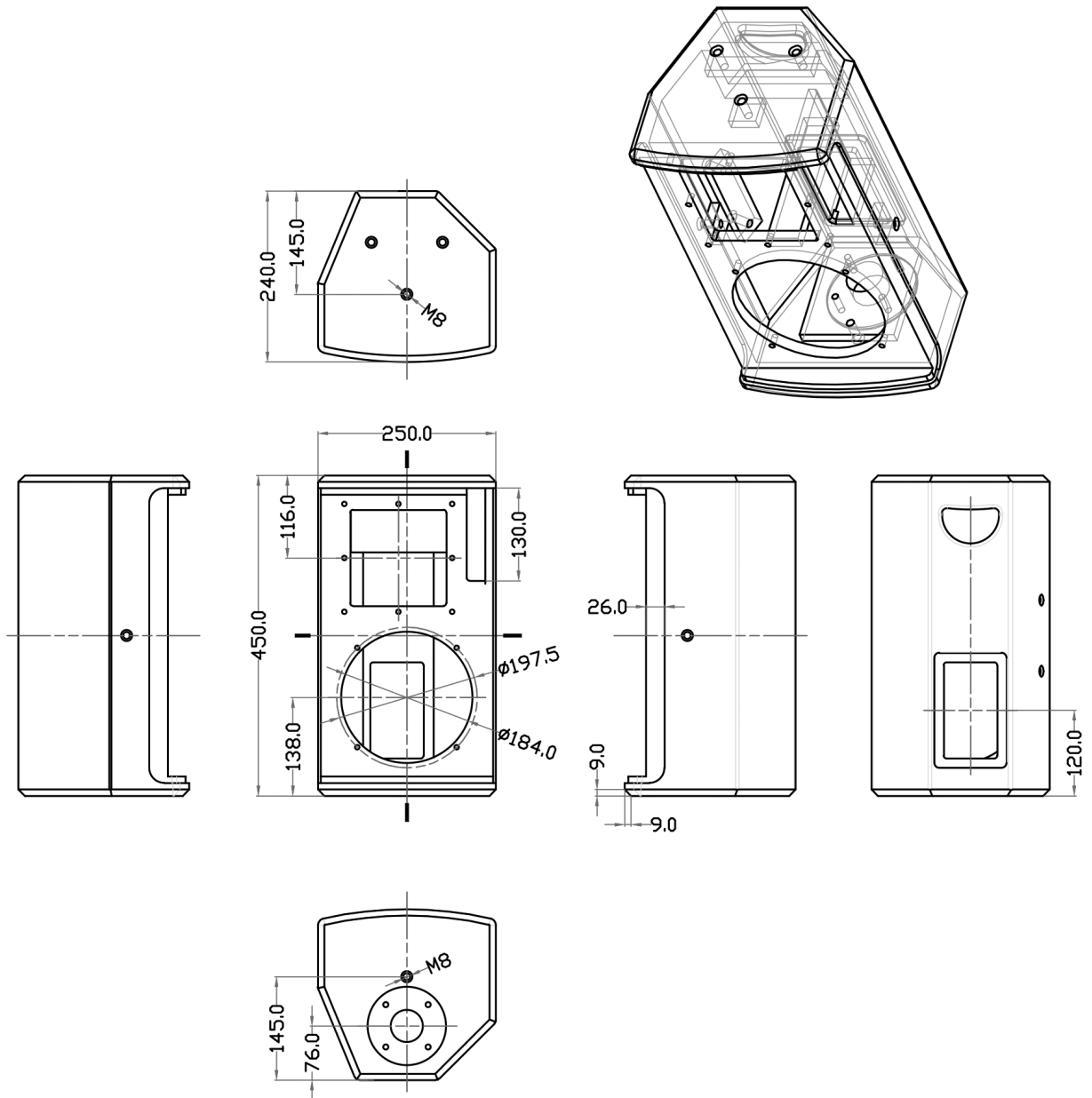
M8 x 1.25mm pitch x 40mm long (thread portion)

Note: Installers must use quality rated M8 eyebolts. Many jurisdictions also require a secondary/safety rigging option when equipment is flown at height. Please check your local regulations carefully.

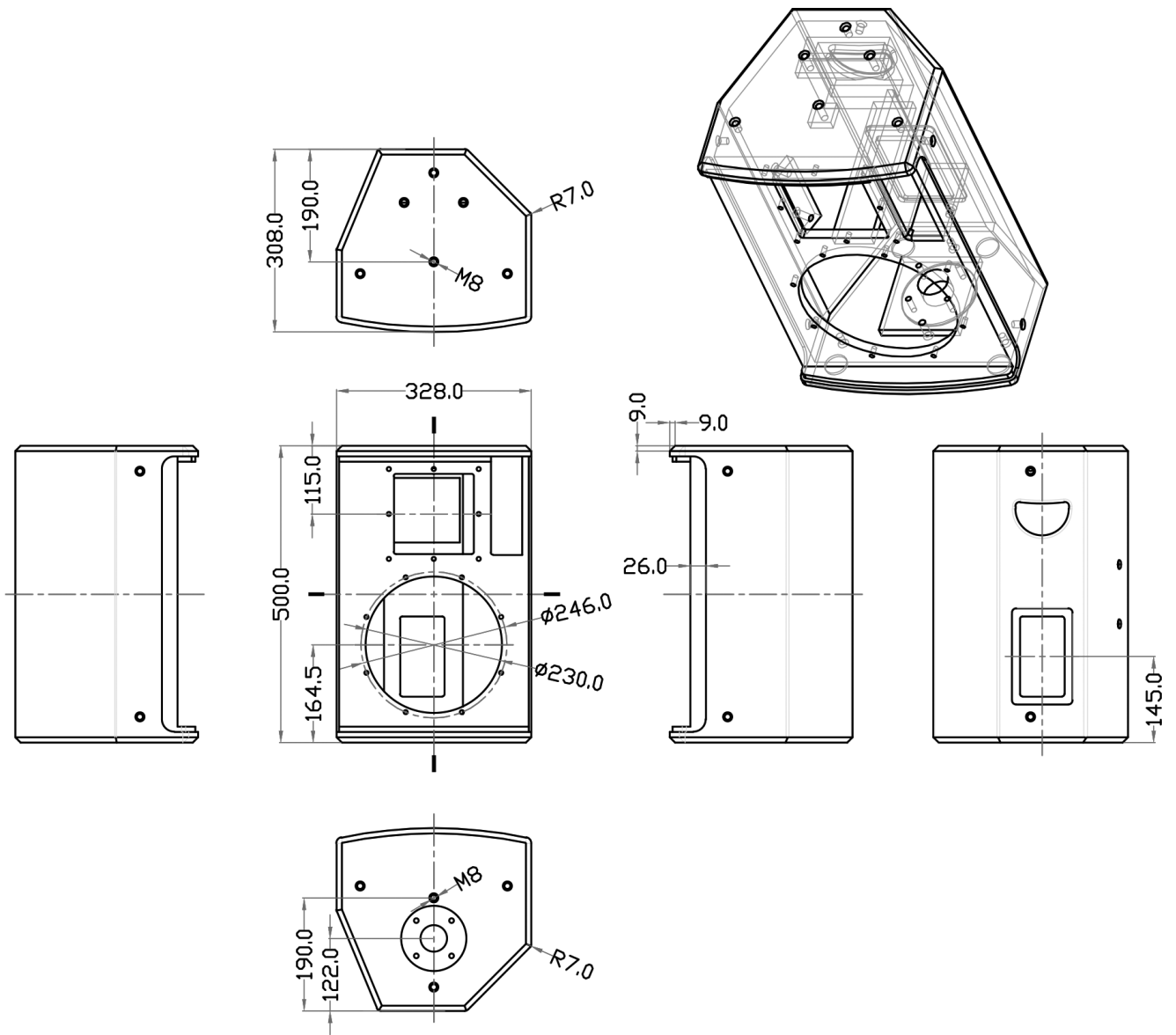
Please refer to product technical drawings on pages 11-13 for eyebolt locations.

PRODUCT TECHNICAL DRAWINGS

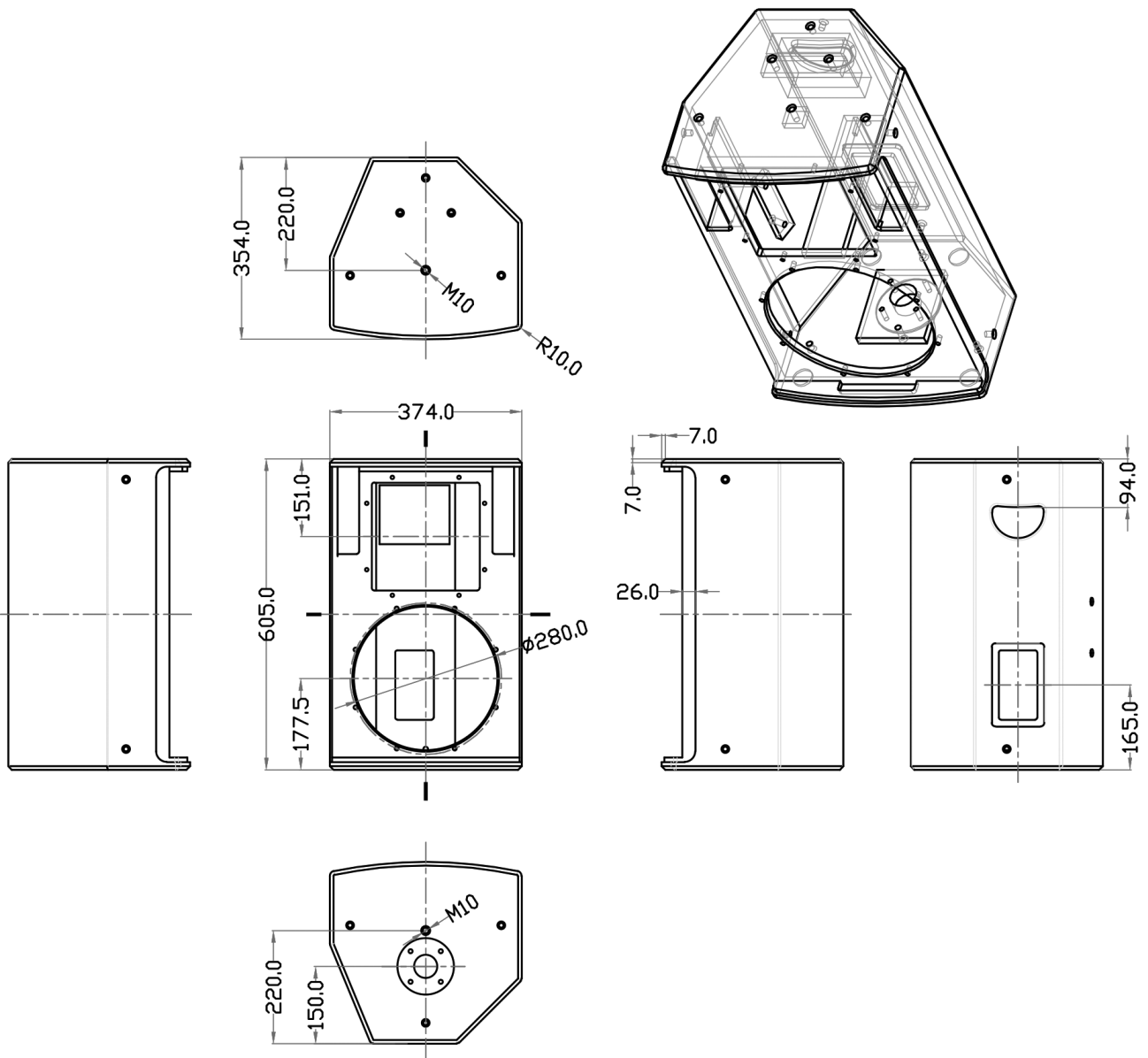
iD-HP108



iD-HP110



iD-HP112



Note: M10 fasteners are used for U-bracket mounting. M8 eye bolts are required for flying the iD-HP112.

SPECIFICATIONS

	iD-HP108 / iD-HP108 W	iD-HP110 / iD-HP110 W	iD-HP112 / iD-HP112 W
Design	2-way passive		
Frequency response -3dB	60Hz - 18kHz	55Hz - 18kHz	50Hz - 18kHz
Frequency response -10dB	55Hz - 20kHz	50Hz - 20kHz	45Hz - 20kHz
LF driver woofer	1x 8" (200mm) 2" voice coil	1x 10" (250mm) 2.5" voice coil	1x 12" (300mm) 3" voice coil
HF driver compression driver	1x 1" (25mm) 1" voice coil	1x 1" (25mm) 1.7" voice coil	
Rated power watts	150W RMS, 600W peak	250W RMS, 1000W peak	300W RMS, 1200W peak
Sensitivity	93dB 1W/1m	95dB 1W/1m	97dB 1W/1m
Max SPL	115dB continuous, 121dB peak	119dB continuous, 125dB peak	122dB continuous, 128dB peak
Impedance	8Ω nominal		
Dispersion -6dB	90 x 50 (Rotatable Horn)		90 x 40 (Rotatable Horn)
Crossover frequency	2.8kHz passive	2.0kHz passive	
Input connectors	2x NL4 Speakon		
Cabinet construction	Plywood		
Top hat	Yes (35mm)		
Eye bolt mounting	Yes – refer to manual. M8 (1.25) x 40mm		
Black colour	Yes (iD-HPxxx)		
White colour	Yes (iD-HPxxx W)		
Shipping dimensions	330 x 310 x 520 mm	388 x 398 x 570 mm	454 x 454 x 715mm
Shipping weight	12kg	18kg	25kg
Included accessories	U-mount bracket		

*** Disclaimer:** Instructions and specifications are correct at time of printing.
Information within may be subject to change without notice.

WARRANTY INFORMATION – Terms of Warranty – 5 Years

Consumer Guarantees

When you purchase a NAS Solutions distributed product, you have the peace of mind in knowing that your product is covered by the NAS warranty. The NAS warranty is provided by NAS Solutions (ABN 50 085 679 894), 127 Merrindale Drive, Croydon, Victoria 3136. ['NAS']

The Australian Consumer Law protects consumers by giving them certain guaranteed rights when they buy goods and services. Rights guaranteed under the Australian Consumer Law include;

- The goods are of acceptable quality;
- The goods match their description or any sample or demonstration model;
- The goods are fit for any represented purpose or purpose which the consumer has made known;
- Repairs and spare parts are reasonably available (unless notice has been provided that repairs or spare parts would not be available); and
- The services are carried out with reasonable care and skill and are completed within a reasonable time

These rights are called 'Consumer Guarantees' and apply automatically whenever goods or services are supplied to a consumer. These Consumer Guarantees cannot be refused, changed or limited.

Consumer Guarantees have no set time limit and depending on the price and quality of goods a Consumer may be entitled to a remedy after any manufacturers' or NAS's extended warranty has expired.

The Specific Warranty Table Information outlines the warranty period, warranty type and any specific exclusions for your NAS product. NAS considers the warranty period specified in the Specific Warranty Table to be a reasonable warranty period having regard to the price, design, manufacture and expected use of the product.

General Warranty ('Warranty')

NAS products come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure or if the goods fail to be of acceptable quality. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure. What constitutes a major failure is set out in the Australian Consumer Law.

Subject to the terms and conditions set out below, and unless otherwise specified in the Specific Warranty Information for your NAS product, NAS agrees to repair or replace, at NAS's cost, the NAS product purchased by you in Australia or New Zealand from NAS or a NAS authorised reseller when the product does not perform substantially in accordance with the specifications during the warranty period specified in the Specific Warranty Table for your NAS product. NAS makes no other express warranties in respect of your NAS product. To make a claim under this Warranty, valid proof of purchase must be presented when the warranty claim is made, along with any other required information. The Warranty offered by NAS is not transferable.

The Warranty will only apply if your NAS product has been installed and used in accordance with NAS's recommendations as noted in the operating instructions.

Warranty Exclusions

The Warranty does not cover damage caused by;

- Misuse or abuse of the product by You;
- Incorrect operation or not following the operation instructions (as noted in the operating instructions);
- Improper installation;
- Incorrect or improper maintenance or failure to maintain the product;
- Failure to clean or improper cleaning of the product;
- Incorrect voltage or non-authorized electrical connections;
- Adverse external conditions such as incorrect or fluctuations in electrical voltage, thunderstorm activity, acts of God, acts of terrorism, damage caused by vermin, or any other circumstance beyond NAS's control;
- Exposure to excessive heat, moisture or dampness;
- Exposure to abnormally corrosive conditions;
- Alterations or modifications to the product made by You or a third party; or
- Damage as a result of accident, liquid, grit, impact or lack of proper care as indicated in the operating instructions;
- Damage resulting from the use of cleaning solvents such as acetone

The Warranty does not apply if any serial number or appliance plate on the product has been tampered with, removed or defaced.

The Warranty does not apply if the product has been repossessed under any financial agreement.

The Warranty excludes accessories and consumable goods which have ceased working through normal wear and tear such as, but not limited to, batteries, lamps and other parts classifiable as a consumable part.

This includes the CD mechanism and laser fitted to the inDESIGN iDCDP-110.

These parts carry a 3 month warranty.

The Warranty does not cover the loss of any data howsoever caused. You shall be responsible for backing up and protecting data against loss, damage or destruction.

Products presented for repair may be replaced by refurbished products of the same type rather than being repaired. Refurbished parts may be used to repair the products. Replacement of the product or a part does not extend or restart the Warranty Term.

The product will be at the owner's risk whilst in transit to and from all NAS authorised service centres, unless transported by NAS or its authorised representatives.

NAS and its authorised service centres may seek reimbursement of any costs incurred by them when the product is found to be in good working order.

The cost of claiming under this warranty, including return of any product to NAS is to be borne by the consumer.

The Warranty excludes removal or reinstallation costs.

*** All inDESIGN products come with a 5 year warranty term.**

For further information and warranty claims, refer to our **Support** page at www.nas.solutions