



AVIDHIFI

REFERENCE TWO

LOUDSPEAKER SYSTEM



USER MANUAL

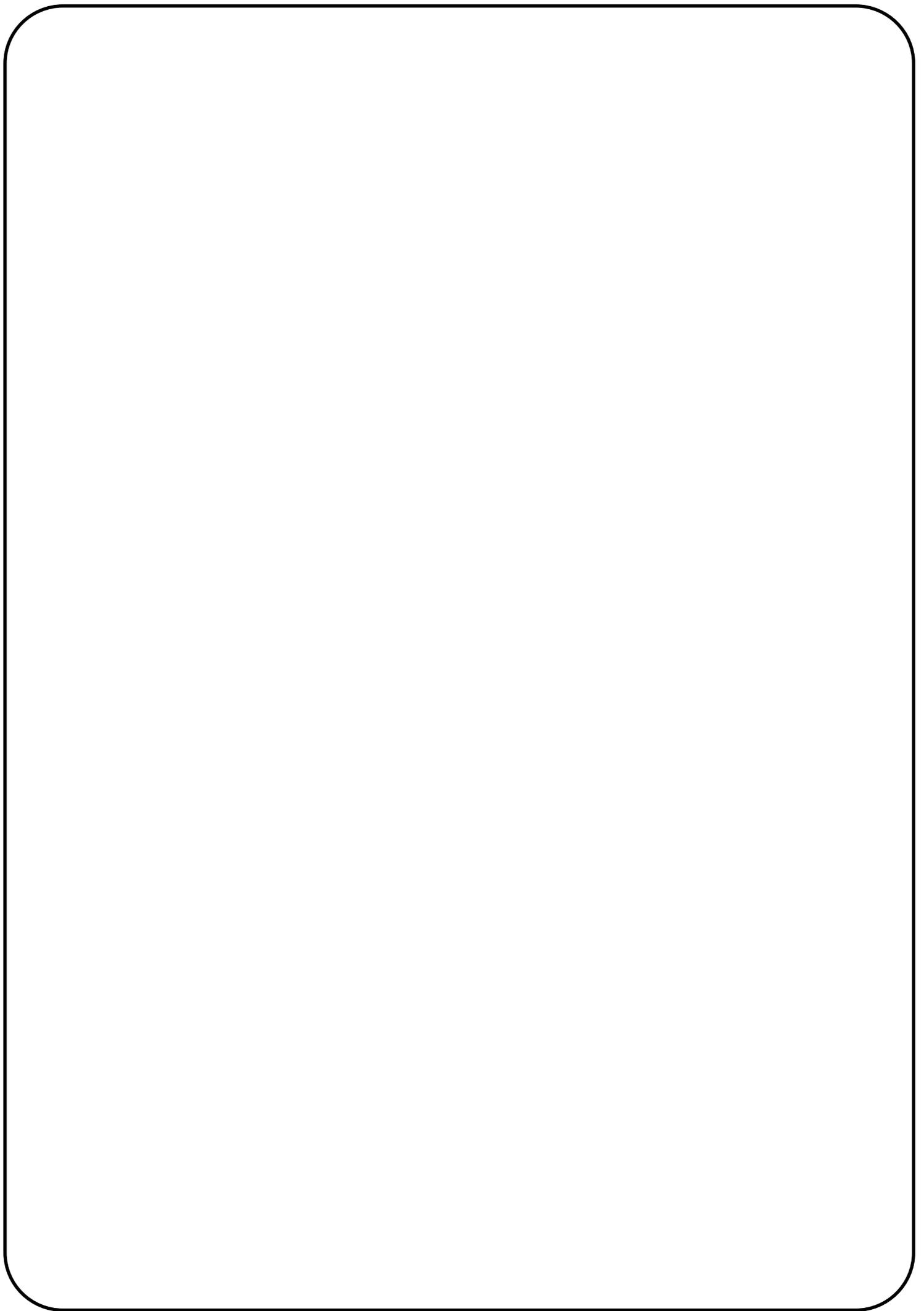


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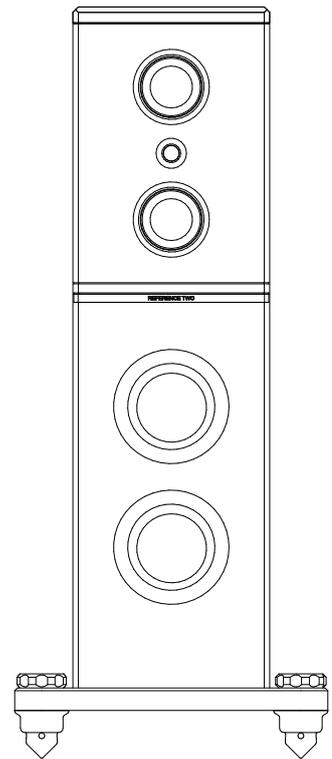
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WELCOME

Congratulations on purchasing your AVID Reference Two loudspeaker system.

Using the highest quality materials during assembly and built to the highest industry standards, your Reference Two loudspeaker should provide you with many years of trouble-free enjoyment.

Please read this manual carefully to ensure you understand all the features and operating functions available.



CAUTION

- These units are extremely heavy, and unless great care is taken when moving them, serious injury or even death may result.
- The Reference Two is supplied with lockable casters fitted. They are in the locked position in their flight cases, and must be released before attempting to move them. (see Opening and Unpacking)
- When changing the casters for the supplied spikes, please ensure that you have at least two additional people to give assistance.
- Please avoid touching any of the loudspeaker drive units—they are extremely fragile, and very easily damaged.
- Please do not attempt to disassemble your loudspeaker. The individual panels are very heavy and could potentially cause serious injury.
- Only clean your Reference loudspeaker with a dry micro-fibre cloth—the drive units do not need to be cleaned.
- Take care to ensure the loudspeaker is not exposed to water or other liquids.
- If the unit has been kept in a cold location for some time, it will take several hours to acclimatise to the new environment—during this time, condensation may form on the cabinet—simply wipe this with a soft cloth. The speakers will only perform to their optimum when they are at room temperature.

REFERENCE TWO FEATURES

- AVID Tuned Mass Damping System.
- Highly stable, ultra-rigid Aluminium cabinet construction.
- 2 x 9" High Power L.F. drivers with 5" voice coils.
- 2 x 6" M.F. drivers with 3" voice coils.
- 1 x 28mm HF soft-dome driver.
- Precision Drive units utilising:
 - Uniflow™ Aluminium diecast chassis.
 - Hexatech™ Aluminium voice coil.
 - Neodymium flat pancake magnet (H.F.)
 - Hybrid™ Neodymium/Ferrite magnet system (M.F.)
 - High flux double Ferrite magnet system (L.F.)
 - Coppersleeve Neolin Motors.
 - Titanium voicecoil formers.
 - External Voice Coil (EVC)™ Technology.
- 5 driver, 3-way passive design.
- High quality crossover with custom designed inductors.
- Bi-amp/Bi-wire connectivity using heavy-duty connectors.
- Use either heavy-duty casters or polished stainless steel spikes.

OPTOMISING SOUND QUALITY

The ultimate sound quality of your sound system relies on a host of variables, though there are some key points that you should take in to consideration

- Ensure that all your audio equipment is securely positioned—not just the loudspeakers. A good quality equipment rack can dramatically impact on the performance of your complete system.
- Make sure there is a mix of hard and soft furnishings in your listening room—to much soft furniture can result in a dull, “closed-in” sound, whereas hard furnishings tend to create a very lively sound, which can sound harsh and also suffer from echoes.
- Try to remove any unnecessary electrical equipment out of the room— if powered on, they can create electrical noise that will impact on your Hi-Fi system, and in the case of televisions, the large flat screen panel causes reflections disrupting the stereo image.
- Use good quality interconnect and loudspeaker cable. With regard to loudspeaker cable, there are large currents flowing between the amplifier and speaker, so long lengths of cable should be avoided, as resistance increases directly with length. Having stated this, it is important that both left and right channels are both of the same length, even if one loudspeaker is nearer to the amplifier than the other.

SYSTEM MATCHING

The Reference Four is a benign load, and most amplifiers will be able to drive them without difficulty. High quality amplifiers of 40W per channel or more should be more than capable of attaining sensible sound levels in a typical listening room—however there are real benefits to be enjoyed by using quality amplifiers with even greater power. Don't be too concerned about matching amplifier power to speaker power, in fact, damage is far more likely to occur when using an underpowered amplifier than a supposedly overpowered amplifier (though care is still needed in extreme cases).

CABLE CHOICE

Whilst AVID do manufacture a range of loudspeaker cables, designed to match the performance of our loudspeakers, our loudspeakers will function with most available loudspeaker cables. When choosing a cable, it is best to remember the following:

- These speakers are capable of handling very high powers. To attain these powers a low-resistance connection is necessary, therefore a cable with a large cross-sectional area is highly recommended.
- To further reduce the DC resistance of the loudspeaker cable, it is recommended that cable lengths should be as short as possible, and of equal length on both channels.
- The DC resistance of connections at either end of the cable is equally important—ensure all connections are clean and secure.

PLACEMENT

- The Reference Two is a large design, intended to be used in medium to large rooms. Sitting too close will not give optimum listening results.
- Experimentation with both the location of the loudspeakers and your seating position is recommended.
- Ideal positioning is room dependent, but typically they will perform best when placed symmetrically in a near-rectangular room playing across the shorter distance.
- Aim both loudspeakers slightly towards the listening position
- The Reference Two is a heavy loudspeaker. Using the spikes will place a lot of pressure on the floor—please make sure the floor is suitably resilient.
- Avoid having the speakers too close to the rear ($>750\text{mm}/30''$) and the side walls ($>1000\text{mm}/39''$).



LOOKING AFTER YOUR LOUDSPEAKERS

The only cleaning required should be a light dust with a lint-free cloth - no harsh cleaning fluids should be used. DO NOT touch the high frequency dome as this is extremely fragile, and any creases will affect the overall sound quality. The Low frequency driver can be gently dusted if necessary, but again, care is required.

UNPACKING

The loudspeakers have 4 casters fitted to ease the manoeuvring and positioning of the loudspeakers into their final location. The casters have their brakes applied whilst being shipped, and should be released before attempting to move them. Reference Two loudspeakers are very heavy, and a great deal of care must be exercised during the set-up process.

1. Unlock the catches on the flight case, and carefully open the cover. Note which end is the bottom of the loudspeaker
2. Close and lock the cover.
3. With three strong people lift the flight case so that it is on its end (so the loudspeaker will be standing upright with its base to the floor).
4. Carefully unlock and re-open the flight case, opening the cover past 90 degrees.
5. The two front casters should currently have their brakes applied, release them by pulling the brake levers up (be careful not to trap your fingers) .
6. Once released, you can carefully roll the speaker out of the case. Take care not to put strain on the flight case hinges and especially careful as the casters drop off the edge of the case.
7. Roll the loudspeaker to the required location.
8. Heavy-duty spikes are supplied which may be used instead of the casters. This requires careful removal of the casters and secure fitment of the spikes—please follow the instructions on the proceeding page.

FIXING SPIKES

GREAT CARE MUST BE TAKEN WHEN CARRYING OUT THIS OPERATION!

For safety reasons, it is best to fit spikes two at a time—for example, fit the two front spikes, and then fit the two rear spikes.

Preparation of spikes

The spikes are supplied in two parts—the spike and its shroud. These two parts should be assembled before going any further.



Shroud



Spike

The spike screws onto a bolt which is captive in the shroud. Simply push the foot into the shroud as far as it will go and then screw the foot into the shroud as far as it will go. The spike is a tight fit, so a hand-held wrench is supplied to help.



Wrench



Insert wrench into spike



Screw spike into shroud



Completed assembly

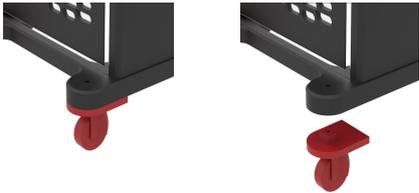
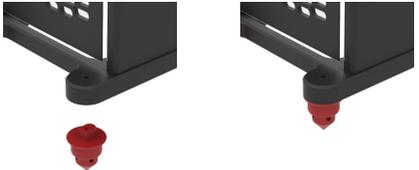
FIXING SPIKES (cont'd)

EXTREME CAUTION MUST BE TAKEN WHILST ATTEMPTING THIS PROCEDURE. THIS PROCESS REQUIRES AT LEAST THREE PEOPLE

Before proceeding, ensure that the brakes are applied on all 4 wheels.

If you are unsure how to proceed, please seek advice from your dealer.

Use the following procedure to exchange the casters for the spike assemblies.

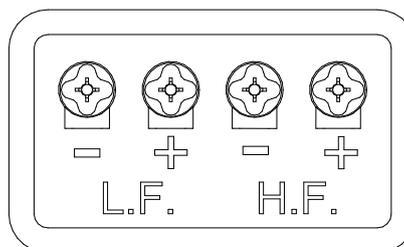
<p>1: Remove the two large locking bolts above each of the casters, at the front of the plinth.</p>	
<p>2: With one person standing behind and one standing in front of the loudspeaker, carefully tip the speaker <u>slightly</u> backward, just enough for the two casters to drop out of their location.</p>	
<p>3: The third person should remove the casters, and place the spike assemblies in their place being careful to orientate the foot so that it engages with the irregularly-shaped hole in the underside of the plinth.</p>	
<p>4: While holding the spikes in place, slowly lower the speaker back down, keeping your fingers clear.</p>	
<p>5: Re-fit and hand tighten the large locking bolts.</p>	
<p>6: Repeat steps 1-5 for the rear spikes</p>	

CAUTION

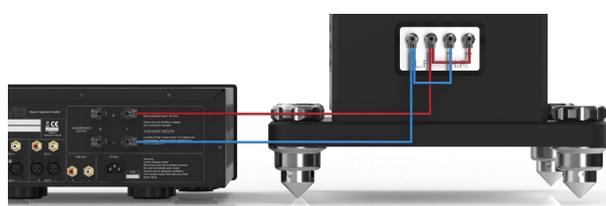
CONNECTIONS

The Reference Two allows for either bi-wiring or bi-amping. This means that you will need a connection from your amplifier to each of the terminals on the back of the loudspeaker.

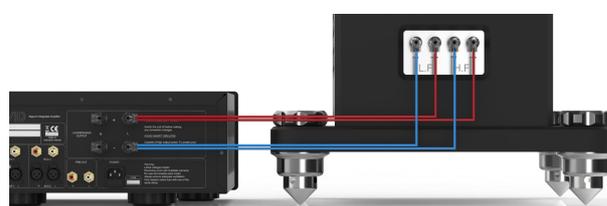
We recommend using a bi-wired configuration whenever possible.



- Either Banana/4mm or Spade connectors may be used.
- If you would require to use a conventional, single-wired connection, you will need to create a short set of 'jumper' connections that join the L.F. negative to H.F. negative and the L.F. positive to the H.F. positive.
- The banana/4mm connectors from the amplifier simply need to be pushed into the central hole of each connector.
- To connect a spade connector, simply loosen each connector, by rotating the clear cap anti-clockwise, then insert the spade in the slot, from below—no more than hand-tightening is required. Excess force could damage the connector.



Single-



Bi-wire

Specification

HF: 1 x 28mm (Titanium voice coil former)
MF: 2 x 160mm (75mm Titanium voice coil former)
LF: 2 x 228mm (130mm Titanium voice coil former)

Frequency Response: 24Hz - 22kHz +/-3dB

Sensitivity: 90dB 1W@1m

Recommended Power: 80 - 1200W

Impedance: 4 Ohm

Crossover Topology: 3-way, 2nd Order

Cabinet Construction: Aluminium Plate. All internal volumes sealed with O-Ring gaskets

Dimensions (HxWxD)

cabinet: 1250 x 346 x 522 (mm)
49.2 x 13.6 x 20.6 in (in)

inc. plinth and spikes: 1335 x 550 x 540 mm (mm)
52.6 x 21.7 x 21.3 in (in)

Net weight: 200 KG

Finishes: Black with chrome/aluminium trim,
stainless steel feet

Specifications are subject to change

Warranty Statement UK Residents

AVID HIFI Limited products are warranted against defects in materials and workmanship for a period of two years from the original date of purchase, or no later than three years from the date of shipment to an authorized **AVID** agent, which ever comes first, extending to five years subject to the product owner having submitted the Registration form (www.avidhifi.com/register.htm). Also the following conditions being observed.

- The product must have been purchased through an authorized **AVID** dealer
- By default, the warranty is in favour of the original purchaser only, however warranties are transferable providing the new owner completes the online product registration form. In this case, warranty obligation will pass from dealer to manufacturer.
- During the warranty period, **AVID** will repair, or replace any defects due to material or workmanship, without charge for parts or labour.
- Should product need to be returned, a written description of the defect and a photocopy of the original purchase receipt must accompany it. Receipts must show the model, serial number, date of purchase, name and address of purchaser and authorized dealer and the price paid.
- Returned product must be packed in the original packing and returned to **AVID** or original dealer by the customer at his/her expense. **AVID** will pay return freight of its choice.
- The warranty is void if the product has been used or handled other than in accordance with the instruction manual supplied, abused or misused, damage by accident or neglect or in being transported, or the defect is due to the product being repaired or tampered with by anyone other than **AVID** or an dealer with prior authorization.
- The warranty is void if the product serial number has been removed, altered or made illegible.
- The warranty is void if the product has been taken out of the country of purchase.
- **AVID** shall not be held liable for incidental or consequential damages of any kind arising from the sale or use of its products.
- The warranty applies to ex-demonstration product, using manufacture date as purchase date.
- Where the product is sold under a consumer transaction (as defined by the Sale of Goods Act 1979) the statutory rights of the purchaser are not affected by this warranty.
- Products are sold on the basis of specifications applicable at the time of sale. **AVID** shall have no obligation to modify or to update products once sold.

Outside UK

AVID has formal distribution in many countries throughout the world. In each country the **AVID** importer has contractually accepted the responsibility for the product warranty. Warranty should normally be obtained from the importing agent or distributor from whom you obtained your product. In the unlikely event of service required beyond the capability of the importer, **AVID** will, of course, back up the warranty.

- Where product has been either supplied directly or there is no current distributor, **AVID** accepts responsibility for the warranty period. Returned product must be packed in the original packing and returned to **AVID** by the customer at his/her expense. **AVID** will pay return freight of its choice. The warranty is only valid in the country of purchase.
- Products outside their original destination requires that units with remaining warranty be returned to the country of purchase for the warranty to be valid. Customer is responsible for freight both ways and all associated import and export charges.
- Foreign distributors are not required to provide warranty service, repair or change AC mains voltage on units that they did not originally import and sell.
- Foreign distributors may at their discretion offer service for a fee.

MISCELLANEOUS. ANY IMPLIED WARRANTIES RELATING TO THE ABOVE PRODUCT SHALL BE LIMITED TO THE DURATION OF THIS WARRANTY. THE WARRANTY DOES NOT EXTEND TO ANY INCIDENTAL OR CONSEQUENTIAL COSTS OR DAMAGES TO THE PURCHASER.

WARRANTOR. Inquiries regarding the Limited Warranty may be sent to the following address:
AVID HIFI Limited. Bicton Industrial Park, Kimbolton, Huntingdon. PE28 0LW ENGLAND



AVIDHIFI



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