

# **REFERENCE ONE**



**USER MANUAL** 

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#### **AVID Reference One**

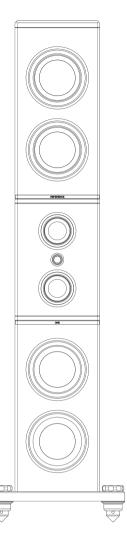
Congratulations on purchasing your AVID Reference One high performance loudspeaker system.

Using the highest quality materials during assembly and built to the highest industry standards, your Reference One 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**

- It is highly recommended that the installation of your Reference One loudspeakers should be carried out by your dealer.
- The Reference One is delivered in four flight cases. You should only attempt
  assembly if you are confident that you able to carryout the task. These units
  are very heavy, and once assembled will require at least 5 people to lift and
  position them.
- Each Reference One is shipped in two parts that need to be assembled before being placed in the vertical position—do not attempt to lift the loudspeaker until they are securely bolted together.
- The Reference One 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.
- 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.



## **KEY REFERENCE ONE FEATURES**

- AVID Tuned Mass Damping System.
- Highly stable, ultra-rigid Aluminium cabinet construction throughout.
- 4 x 10" 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.)
  - Copper sleeve Neolin Motors.
  - •Titanium voice coil formers.
  - •External Voice Coil (EVC)™ Technology.
- 7 driver, 3-way passive design.
- High quality crossover with custom designed and wound inductors.
- Bi-amp/Bi-wire connectivity using heavy-duty connectors.
- Use either heavy-duty casters or polished stainless steel spikes.

## **UNPACKING**

The Reference One is shipped in four flight cases. The loudspeaker is split into two parts, The lower part also incorporates the plinth and casters.

ASSEMBLING THE CABINETS IS DIFFICULT DUE TO THE EXTREME WEIGHT OF THE CABINETS . ONLY ATTEMPT THIS IF YOU HAVE SUFFICIENT HELP, AND CONFIDENCE IN WHAT YOU ARE DOING!

The two cabinets connecting using six M16 bolts, which protrude from the underside of the top cabinet. These mate with holes in the top of the base cabinet.

- 1. Remove the lids from the flight case—be careful to lift the lids clear of the speaker cabinets.
- 2. Remove the small grille panel on the rear of the base cabinet, which id held in place by magnets.
- 3. Manoeuvre the cabinets so that the bolts and holes align perfectly, before pushing the cabinets together (be sure to check the alignment at all points, as you push the cabinets together).



4. Once the bolts initially engage, you will need to slide the head unit towards the base unit—bear in mind that you are sliding the cabinets on the fronts, so make sure there is nothing that could damage their surfaces.



5. Once the cabinets are fully engaged, lock the two cabinets together using the 6 dome nuts and matching washers. Make sure that all 6 bolts are secure before proceeding further.





- 6. Make sure that all the casters have their brakes applied.
- 7. From the top, lift the cabinet vertically. You will need at least 4 people to do the lifting, and another 2, to stabilise the cabinet as you lift it and also to remove the flight case bases.

## **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 3 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.

1: Undo and remove the two large locking bolts above each of the casters, at the front of the plinth.	
2: With one person standing behind and one standing in front of the loudspeaker, carefully tip the speaker slightly backward, just enough for the two casters to drop out of their location.	
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.	
4: While holding the spikes in place, slowly lower the speaker back down, keeping your fingers clear.	
5: Re-fit and hand tighten the large locking bolts .	
6: Repeat steps 1-5 for the rear spikes	

**CAUTION** 

### **UMBILICAL CONNECTION**

The two enclosures that go to make up a Reference One cabinet need to be connected using the supplied umbilical cable, which is located inside the rear cavity. None of the bass drivers will function until the umbilical cable is fixed and locked in place.

- 1. Remove the small panel on the rear of the Reference One, which is held in place by four strong magnets.
- 2. Taking care not to drop the cable down the lower port tube, plug one end of the cable into the socket in the upper cabinet (push in and twist, until you hear it lock in location).
- 3. Plug the other end into the lower socket, using the same action.



#### **PLACEMENT**

- The Reference One 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.

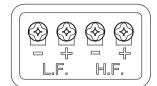


- Aim both loudspeakers slightly towards the listening position.
- The Reference One is a heavy loudspeaker. Using the spikes will place a lot of pressure on the floor; please make sure the floor is suitably resilient.
- Avoid having the speakers to close too the rear (>750mm/30") and the side walls (>1000mm/39").

#### **CONNECTIONS**

The Reference One allows for either bi-wiring or bi-amping. This means that you will need a connection from you amplifier to each of the terminals on the back of the loudspeaker. We recommend using a bi-wired configuration whenever possible.

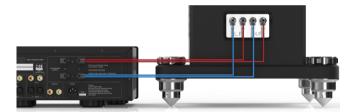
- Either Banana/4mm or Spade connectors may be used.
- If would require to use a conventional, single wired connection, you will need to create a short set of 'jumper' connections that join the L.F. negative to H.F. negative and the L.F. positive to the H.F. positive.



- 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.







Bi-wire

#### **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.

## **Specification**

**HF:** 1 x 28mm (Titanium voice coil former)

**MF:** 2 x 160mm (75mm Titanium voice coil former)

**LF:** 4 x 254mm (130mm Titanium voice coil former)

Frequency Response: 20Hz - 22kHz +/-3dB

Sensitivity: 91dB 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:** 1970 x 346 x 522 (mm)

77.6 x 13.6 x 20.6 in (in)

inc. plinth and spikes: 2055 x 550 x 540 mm (mm)

80.9 x 21.7 x 21.3 in (in)

Net weight: 340 KG

**Packaging (HxWxD):** 1500 x 700 x 840 (mm)

59 x 27.6 x 33.1 (in)

850 x 430 x 800 (mm)

33.5 x 16.9 x 31.5 (in)

Product supplied in four custom flight cases

Shipping weight: 450 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, a bused 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 WARRENTY 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





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