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Introduction

Thank you for your purchase of Monitor Audio Silver RS W12 subwoofer, which has been designed and constructed using quality systems and materials to provide years of enjoyment, reliability and pride of ownership.

This product, as with all the Silver RS range, is hand crafted from top to bottom using traditional woodworking skills for our sumptuous cabinets, married with the state of the art technology of our renowned drive units.

Music is and should be a natural enhancement of life. It stimulates the imagination, changes your mood, helps you relax, and provides endless hours of entertainment.

At Monitor Audio we pride ourselves in attempting to make the listening experience as close as possible to the original 'music' production, or as we say at Monitor Audio our aim is to make the music experience "As close as it gets".

Please read through this manual to familiarize yourself with any safety advice and how best to set up your subwoofer to achieve the very best listening experience.

Please retain this manual for future reference.

Safety Instructions

1. Read Instructions

Please read and follow all of the instructions in this manual before enjoying your subwoofer.



Any instructions preceded by this warning triangle MUST be followed. Failure to do so may cause personal injury or damage the unit/s

2. Lifting/Moving

Due to the extreme weight of the RS W12, care must be taken at all times when handling the product and we recommend a 2-person lift.



3. Power

If the RS W12 is not likely to be used for extended periods we would advise it is switched off at the mains power supply. This is a recommended safe practice in order to reduce the risk of electrical fire.



4. Power Cord Protection

The power supply cord should be routed so that it is not likely to be stepped on or pinched by items placed upon or against it.



5. Water & Moisture

The RS W12 should not be used near water - for example, bathtub, washbowl, kitchen sink, and washing machine, in a wet basement or near a swimming pool. Under no circumstance should plants or fish bowls be placed on the product. Please ensure that no liquid is spilt on the appliance, especially on the rear panel where the power cord enters the amp.



6. Heat/Humidity

The RS W12 should not be placed near any heat source such as radiators, open fires, stoves, direct sunlight and any other appliance that produces heat.



This product is designed for use within the home environment. Exposure to extreme temperatures & humidity when placed on patios or open conditions could adversely affect the wooden cabinet.

7. Ventilation

The RS W12 should be situated so that its location or position does not interfere with its own proper ventilation. For example it should not be placed on a sofa, bed or deep pile rug or similar surface that may impair any ventilation openings. It should not be placed in any purpose built location without suitable ventilation being provided.



8. Damage requiring Service

Qualified personnel should service the appliance when:



- The power cord or plug has been damaged.
- Liquid has been spilt on the rear panel.
- The RS W12 has been dropped or the enclosure damaged.
- The RS W12 does not appear to operate normally or exhibits a marked change in its performance.

9. Servicing



The user should not attempt to service the appliance beyond that specified in this manual. Only qualified personnel should carry out all other servicing requirements.

10. Cleaning

Before cleaning it is advisable to disconnect the RS W12 from the power supply.

Avoid touching the RS W12 drive unit whilst cleaning, as any damage will impair its performance.

You will fully appreciate that great care and attention has gone into the materials chosen to produce the Silver RS W12. It is our intention that it should provide a lifetime of musical pleasure. A gentle wipe with a dry, clean cloth is all that is required to remove any dust. Treat it as you would a fine piece of furniture because that is how it has been designed.

11. Natural Wood Veneers

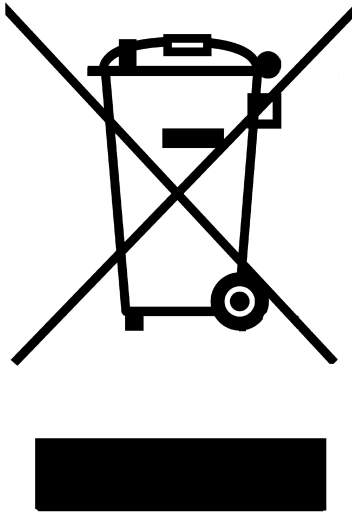
Monitor Audio takes great pride in providing a high quality product.

We use only hand selected natural wood veneers, which are carefully matched and hand finished to the highest standard possible. The unique nature of each veneer may result in natural colour variation and grain from samples you may have seen in photos or at the dealer's show room. This is what makes the product a special piece of furniture.

If your speaker is finished in a Cherry veneer please be aware that it will naturally darken with age more so than other types of wood veneer.

Re-cycling

When it is time to replace your RS W12 please help us protect the environment by disposing of it in an appropriate and responsible manner.



Further details are available from www.monitoraudio.co.uk

Unpacking



Care must be taken at all times when handling the RS W12 due to the extreme weight of the product. We recommend a two-person lift wherever appropriate.

The feet/spike assemblies and mains power cord/s are contained in separate protective cardboard sleeves and should be removed.

Please select the power cord appropriate to your Country/location. Mains voltage selection for 120 or 230 Vac operation is electronically auto selected.

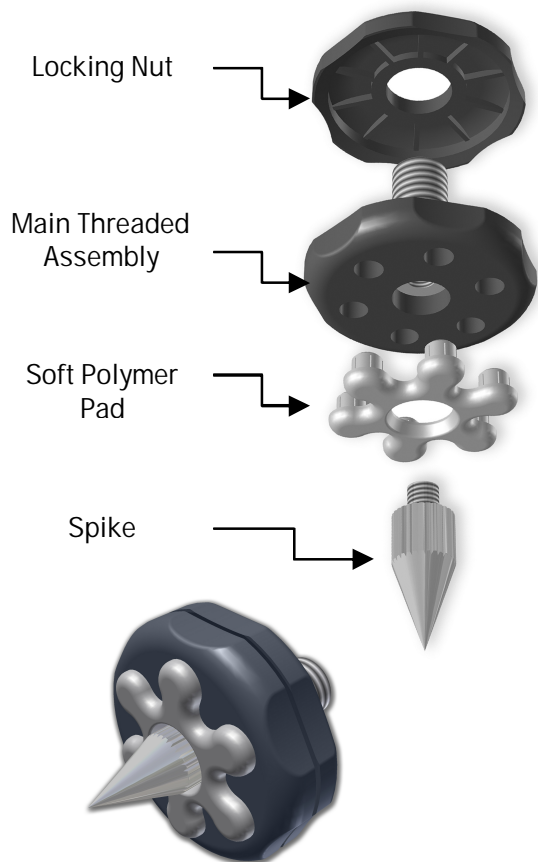
To remove the RS W12 from its carton place some protective material on the floor and having removed any items of packing from the top of the pack carefully invert the carton. (Also see icons on the carton). Gradually pull the carton upwards to expose the subwoofer, which will be presented with its base uppermost. Remove fixing tape from plastic bag and expose the base/cabinet to allow fitting of the spiked feet into the M10 threaded inserts as described on page 6

Spiked Foot Fixing For Carpeted Floors

The amazingly engineered composite Silver RS series foot incorporates a spike for use on carpeted floors and also, a soft polymer pad (for use on wooden or tiled floors).

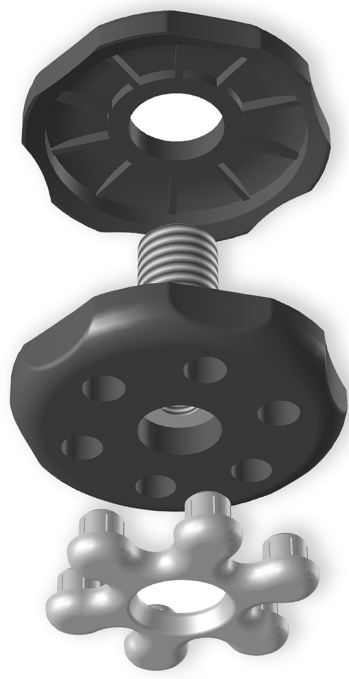


Please ensure there are no hidden wires under the carpet, or trailing mains leads that could be damaged by the spikes.



The foot comes fully assembled for use on carpeted floors. All that is required is fixing into the plinth. This is achieved by simply screwing the feet fully into the 4-threaded insert in the underside of the cabinet. If your carpet has a very thick pile, remove the soft polymer pad from the foot to ensure the spike goes right through the carpet into the floor. With great care turn your cabinet the right way up. Place the cabinet in your desired location, and check that it is level on all sides. If it is slightly off level, unscrew the spike at the lowest point and check again. Continue this process until the cabinet is fully level. Use the locking nut on the foot to fix the foot in place and to stop any unwanted vibrations.

Spiked Foot Fixing For Wooden/Hard Floors

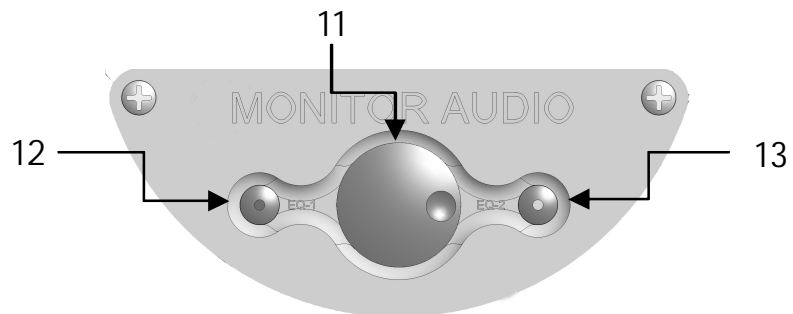
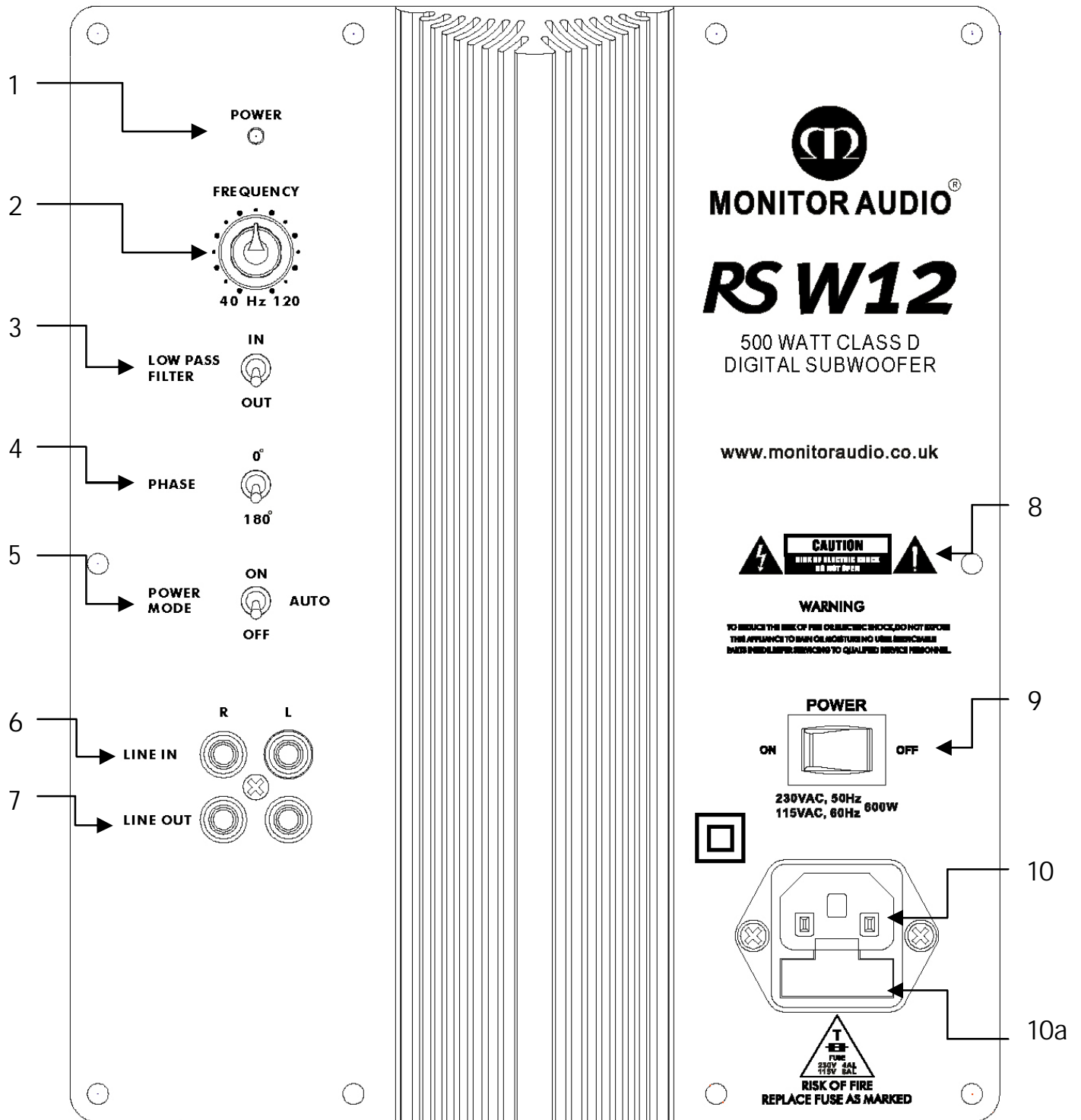


For use on solid floors or where spikes are inappropriate, it is possible to use the foot without the spike insert. To use the foot in this manner carefully grip the knurled portion of the spike and rotate anti clockwise to unscrew the spike fully.

You may find it easier to first remove the polymer pad to gain more purchase on the spike.

The pad should be replaced before carrying out the levelling operation previously described.

Amp Panel and Controls



1. Stand-by / On Indicator

The LED indicates whether the unit is in stand-by mode or operational.

2. Crossover Frequency Control

The crossover frequency control only operates when the low pass filter switch (refer to section 3.) is in the 'In' position. The crossover frequency control is used to set the upper frequency limit (low pass) of the RS W12. The crossover control should be set in accordance with the size or bass output of the main/satellite speakers. Refer to the chart below as a guide to setting the crossover frequency control to the optimum position. Much will depend on the correct low frequency response of the main speakers and their position in your room. Experimentation is advisable.

Type of main speaker	Crossover control setting
Large floor-standing speaker	40-60 Hz
Small floor-standing speaker	50-70Hz
Large stand-mount/ bookshelf speaker	50-80 Hz
Small stand-mount/ bookshelf speaker	60-90 Hz
Small satellite speaker	80-160 Hz

3. Low Pass Filter Switch.

When set to the 'In' position the crossover frequency control (section 2) is activated and can be adjusted from 40Hz to 120Hz using the crossover frequency control. When set to the 'In' position it can be used with an amplifier that does not have a dedicated sub-woofer or LFE output, such as a stereo 2-channel amplifier. If the amplifier or A/V processor has a dedicated LFE or sub-woofer output, the Low pass filter switch should be set to the 'Out' position. The low pass filter will then be set by the amplifier internal filter. This should be set in accordance with the amplifier or A/V processor user guide.

4. Phase Control Switch

The Phase Control is used to synchronise any delay between the RS W12 and main/satellite speakers. When the RS W12 is in phase with the main/satellite speakers the sound should be full bodied. Sit in a normal listening position whilst adjusting the phase switch. Help from another person may be required in order to do this easily. When set correctly the location of the subwoofer should be almost undetectable. Experimentation is advisable in order to achieve optimum results. However it should be noted that in most cases the phase control switch should be set to 0 degrees, especially when using a digital A/V processor or A/V receiver amplifier.

5. Power Mode Switch with On-Auto-Off Facility

The Power Mode Switch has three positions: 'On'-'Auto'-'Off'. When the switch is in the 'Off' position the subwoofer will not function. In the 'Auto' position the subwoofer will automatically switch on when an input signal is received. It will remain on. If no signal is received for around 15-20 minutes, the RS W12 will then switch into standby mode until a signal is received once more. With the switch in the 'On' position, the subwoofer is permanently switched on under all conditions.

6. RCA Line Level Inputs (Left & Right)

This is the only method of signal input connection to the RS W12. When using a stereo amplifier system, connection can be provided by a pair of high-quality signal cables from the pre-out section of an amplifier. If a digital A/V processor or A/V receiver/amplifier is to be used, a single cable can be connected from the 'sub out' or LFE connection on the amplifier to the RCA input connection on the RS W12 labelled 'R'. The RCA input marked 'L' in this case will remain unused. Note: - cable lengths should not exceed 10 metres to avoid interference from other electrical appliances.

7. RCA Line Level Outputs (Left & Right)

RCA line level outputs are provided in order to use other sub-woofers in conjunction with the RS W12 by 'daisy chain' type connection. The outputs are link out only connections and do not provide any form of filtering.

8. Warning Information

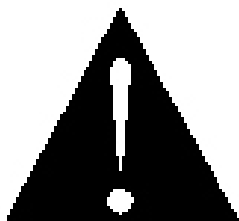
The following warning symbols are found on the amp panel. The meanings are:



This lightning flash with an arrow head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to the 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



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

9. Mains Power Switch

The Mains Power Switch should be switched to the 'Off' position when the RS W12 will not be used for extended periods. The switch must be in the 'On' position for the sub-woofer to function.

10. IEC Mains Power Connector/ Fuse Location

The RS W12 is supplied with a two-pin mains input socket for connection to the mains supply. Use ONLY the appropriate IEC mains lead provided with the product. Also fitted is an external mains fuse. If a fuse blows during operation a spare fuse is provided within the fuse holder for replacement. If you wish to change the fuse, you can do this by removing the IEC mains lead and carefully levering out the original fuse from its holder below the IEC mains input socket (9a). If the fuse blows again it is advisable to seek help from an authorised service agent. DO NOT attempt to re-fit a further fuse as this could result in serious damage to the amplifier unit.

11. Volume Control

This control allows the level or volume to be adjusted in order to achieve a balanced overall sound. To use this facility you will need to play a selection of familiar music or film excerpts. Start with the volume at minimum and increase the level control until a balanced sound is established. If using an A/V processor or A/V receiver amplifier, the system can be adjusted by the test tone function within the set-up features. (refer to the set up section in the A/V processor or A/V receiver amplifier user guide.) When the RS W12 is correctly set-up, you should not be able to identify its location easily in the room.

12. EQ 1 setting

The EQ 1 setting should be set as a default option. This will provide the best overall transient response and power output. This setting will provide a maximally flat response suitable for music or Music video. Note: Frequency roll off starts at 27Hz

13. EQ 2 setting

The EQ 2 setting should be used when an emphasis in the low frequency is required. An additional boost of 4dB will be provided at 21Hz to give impact essential for action movies.

The EQ1 and EQ2 settings can also be adjusted to suit personal taste. This is done by pressing the buttons located on the control panel.

Positioning/Initial Set Up

The RS W12 should now be sited in the most suitable position, preferably not directly in the corner of a room as this may cause excessive bass boom. Once a desirable position is achieved it is important to check if the cables are long enough to reach comfortably without being under tension. Leave the RS W12 unplugged until the installation procedure is completed. The optimal control settings will depend entirely on your system configuration. For initial trials set the controls as follows:

Volume control	Should be set to minimum
Frequency control	Should be set to the minimum position (40Hz)
Phase control	Should be set to zero degrees
Power switch	Should be set to 'Auto'
EQ 1 setting	Should be selected
Low pass filter switch	Should be set to the 'Out' position

Input connections can be made at this stage before the power is connected to the RS W12. Please refer to page 7 for set up and fine-tuning.



Never connect or disconnect the RCA input lead connection with the RS W12 switched on.

Set Up

Once the input cables are connected and the controls are set in accordance with the initial set-up procedure above, the RS W12 can be connected to the mains power supply and switched on. Do not play any music at this stage. With the Power Mode Switch in the 'Auto' position, the unit should remain in standby until a signal is received.

Play a variety of music/ film excerpts starting at a very low volume level, increasing to an average listening level once you are sure everything is working correctly. Check the back of the RS W12, the LED indicator should now indicate it is 'ON'. Please now follow the bulleted instructions below: -

- ❑ For use with an AV amp/receiver (product with Subwoofer output) please select the low pass filter switch to the 'Out' position. Otherwise select low pass filter switch to the 'On' position, to engage the crossover frequency control, ref. Page 8.
- ❑ If using the crossover frequency control please adjust in accordance with the table on page 9 further fine-tuning may be required.
- ❑ Adjust the Volume Control to desired level for initial trials, ref. page 10
- ❑ The Phase Control can now be set ref. Page 8

The volume control can now be set to finish the set-up procedure. It is important to try a variety of music and film excerpts with which you are familiar in order to obtain the optimum overall settings.

Specification

Low frequency limit:-	21Hz (EQ1) 27Hz (EQ2)
Upper frequency limit:-	40 – 120 Hz Variable
Low pass filter alignment:-	Active 4 th order 24db/octave (two-stage filter)
Cabinet Specification: -	Sealed Cabinet with 25mm M.D.F construction with internal bracing
Amplifier Output:-	500 Watts (R.M.S) 1000 Watts (Peak)
Amplifier classification:-	Class- D Digital amplifier
Driver compliment:-	1 x 12" C-CAM [®] sub-woofer driver featuring triple suspension and 3" long throw voice coil
Dimensions:-	Millimetres:- 340 H x 340 W x 370 D Inches:- 13 3/8 x 13 3/8 x 14 1/2 All dimensions excluding grille
Weight (unpacked)	25.5 Kg (77lbs)
Input Impedance: -	20K Ohms
Mains input voltage:- (Electronically Auto selected)	115 Vac / 230 Vac

C-CAM[®] is a registered trade mark of Monitor Audio Ltd

Guarantee and Service

Valid upon completion of the incorporated warranty card and its return within 30 days of purchase.

This equipment has been fully tested prior to dispatch from the factory. Both the craftsmanship and the performance of this product is guaranteed against manufacturing defects for the period of one year from the date of purchase (see conditions below), provided that the product was supplied by an authorised Monitor Audio retailer under the consumer sale agreement. (The words 'consumer sale' shall be construed in accordance with section 15 of the supply of goods act 1973). Monitor Audio accepts no responsibility for defects arising from accident, misuse, abuse, wear and tear, modification or operation outside of that specified within this instruction manual. Neither will responsibility be accepted for damage or loss occurring during transit to or from the parties claiming under this guarantee.

This guarantee covers both labour and parts. The liability of Monitor Audio is limited to the cost of repair or replacement of the defective parts (at the discretion of Monitor Audio) and under no circumstances extends to consequential losses or damage.

Claims under this Guarantee

The equipment should be returned in its original packaging to the original supplier where possible, or to any other authorised Monitor Audio dealer. If it is not possible to return the equipment by hand, then it should be sent carriage prepaid via a reputable carrier. If the original packing is not available replacement packaging can be purchased from Monitor Audio. If you have any difficulties complying with these requirements please contact us at the following address:

Customer Service
Monitor Audio Ltd.
Unit 2, 24 Brook Road
Rayleigh
Essex
SS6 7XL
England

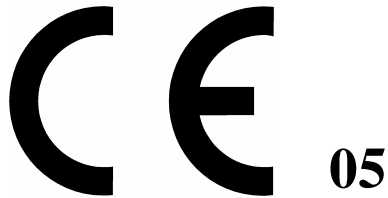
Tel: 44 (0) 1268 740580
Fax: 44 (0) 1268 740589
Internet: www.monitoraudio.co.uk
Email: info@monitoraudio.co.uk

This guarantee does not affect the statutory rights of the consumer under UK law.

EC Declaration of Conformity

EC Declaration of Conformity

We, Monitor Audio Ltd.
Unit 2,24 Brook Road
Rayleigh
Essex
SS6 7XL
England



Declare in own responsibility, that the RS W12 product described in this manual is in compliance with Technical Standards/Council Directives:

(LVD) 73/23/EEC Low Voltage Directive

EN60065: 09.93+ A11:09.97 Safety requirements for mains operated electronic and related apparatus for household and similar use.

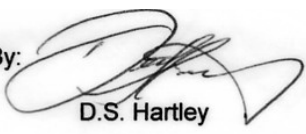
(EMC) 89/336/EEC Electro Magnetic Compatibility

EN55013: 08.90+A12:08.94+A13:12.96 Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment.

EN55020: 12.94+A11:12.96 Electro magnetic immunity of broadcast receivers and associated equipment.

EN61000-3-2: 04.95+A1:1998+A2:1998 Electro magnetic compatibility (EMC) – Part 3: Limits – Section 2: Limits for harmonic current emissions(equipment input current up to and including 16 Ampere per phase).

EN6100-3-3: 01.95 Electro magnetic compatibility (EMC) – Part 3: Limits – Section 3 : Limits of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current up and including 16 Ampere per phase.

Signed By: 
Name: D.S. Hartley
Position: Technical Director

Dean Hartley (Technical Director)
14 January 2005
Monitor Audio Ltd
England

Data Protection

We at Monitor Audio are committed to respecting the wishes and privacy of our customers. Any information you provide will be held in the strictest confidence and only used within the Monitor Audio organisation for the provision of services such as warranty claims or spare parts.

We may wish to contact you in the future to ensure you are happy with the products and standards of service we provide and to keep you up-to-date with the latest products and promotions we have to offer.

Should you wish not to be contacted by us either by post, e-mail or phone, please tick the box on the warranty card. Alternatively you can request not to be contacted in future by writing to Customer Service, at the address on the previous page.

Owner Information

Product Details

Model RSW 12

Product Serial No

Amp panel Serial No

Date of Purchase

Dealer Details

Dealer Name

Address

Town, Post code, Country

e-mail address

Monitor Audio reserves the right to alter specifications without notice.