AC SERIES

OWNERS MANUAL

CONTENTS

INTRODUCTION

Congratulations on your purchase of the RBH AC Series loudspeaker system! Your speakers are the result of many years of research and development dedicated to producing high quality products for home audio and audio/video systems.

This manual contains features, setup recommendations and specifications for RBH AC Series loudspeaker systems. We recommend that you thoroughly read through the material contained in this manual before connecting your loudspeakers. This will ensure that you have a good understanding of how to setup your speakers for optimum performance.

BREAK IN PERIOD

Plan on giving your speakers 10-15 hours of playing time to adequately break in. As the speakers break in, the driver suspension will loosen up. The result will be an increase in low frequency response, improved definition, clarity and detail.

F E A T U R E S

At the heart of our AC Series loudspeaker system is a polygraphite cone bass/midrange driver (speaker). The polygraphite cone material combines low mass, and self damping properties in a manner that allows virtually uncolored presentation of program material. A powerful magnet and extended voice coil give the bass/midrange driver high excursion capability, which ensures accurate dynamic reproduction. The drivers are shielded by using a steel cup and an additional magnet to cancel any stray magnetic field that many cause interference with video equipment such as tube televisions.

For high frequencies, a silk dome tweeter was developed. This tweeter uses Ferro Fluid™ liquid cooling allowing the tweeter to handle greater power while retaining detail and accuracy.

Steep acoustic slope crossovers are used to integrate drivers. The use of steep crossover slopes allow high power handling, minimize driver interaction anomalies, and maximize the clarity with which each driver is able to produce its respective frequency band. A polyswitch (current limiting device) is used in the crossover to prevent damage to the tweeter if overdriven.

Cabinets are constructed of MDF. Front baffles are extra thick to prevent any excess acoustic radiation and have a narrow profile to minimize cabinet diffraction. The speakers disappear, leaving only a deep, wide sound stage with pinpoint imaging. Large, oversized binding posts ensure a good electrical contact. Sophisticated computer modeling and measurement techniques are used extensively in the RBH loudspeaker design process.

SETUP SUGGESTIONS

When attaching speaker wire to the terminals, we suggest using the hole provided in the post. To do this, loosen the binding nut which will reveal the hole in the post, slide the speaker wire in, then tighten the binding nut until the wire is secure. Remember to strip the insulation from the wire prior to inserting into the hole.

In order to extract the best possible sound from your speaker system, it is important to determine where the speakers will sound best in your listening room. Room reflections from the floor, ceiling and side walls influence the balance, imaging and overall sonic quality at the listening position. We suggest that you experiment with speaker placement to determine which location offers the best overall sound. The diagram on page 5 should be used as a general guide when setting up a home theater system and follows the descriptions in the following paragraphs. Some speakers shown in the diagram will not always be applicable to your individual system.

As a starting point, we recommend placing your left and right MAIN speakers at least 15 inches from the back wall and 7 feet apart from each other. The distance from the listening position to each speaker should be close to the distance that separates the two main speakers. Angling the speakers inward towards the listening position may give a more spacious and realistic sound stage.

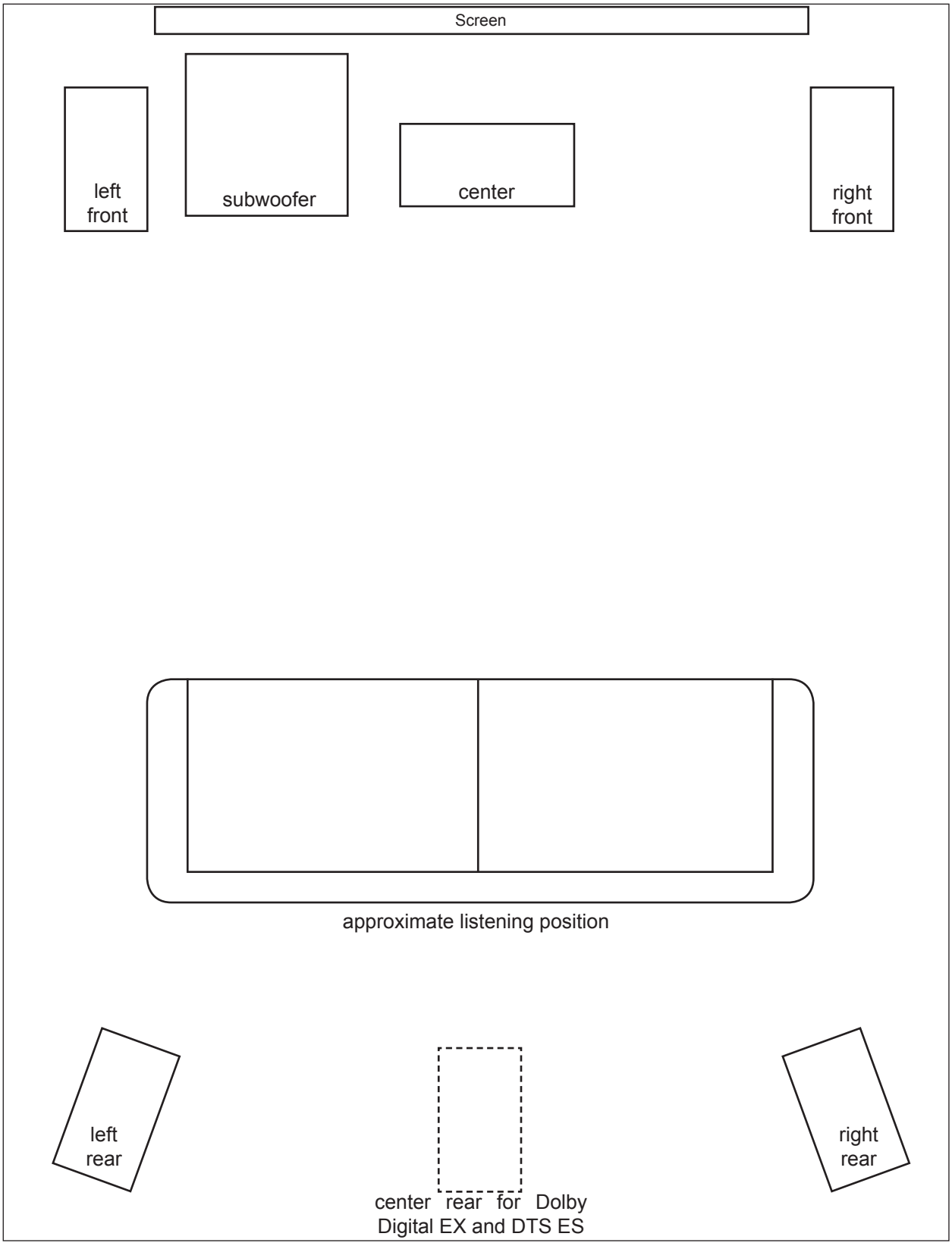
SETUP SUGGESTIONS CONTINUED

The CENTER channel speaker should be placed in the center between both left and right main speakers. Often this positioning dictates placing the speaker either directly above or below a television monitor. Since all AC Series products are video shielded, the center speaker may be placed close to a television without cause for concern. If using a AC-525, the speaker may be placed in a vertical or horizontal (lying down) position by using the base supplied with the speaker.

SURROUND speakers may be placed either above, behind or to the sides of the listening position. The listening position should be close to the center of both surround speakers. For best performance, you may want to experiment with angling the surround speakers either towards or away from the listening position.

Placement of the SUBWOOFER will largely determine quality, quantity, and extension of the bass frequencies within your listening room. Bass frequencies are reinforced by close room boundaries. Placing the subwoofer in a corner will make the subwoofer sound louder and boost the very lowest frequencies. Placing the subwoofer away from walls will provide the least reinforcement, making the bass sound subjectively thinner than if the woofer were close to a wall. Good results can usually be obtained by placing a subwoofer along a wall 1-3 feet from a corner. We recommend that you experiment with subwoofer placement and the sub-amplifier controls to achieve the proper bass balance.

*There are several different surround formats available. Dolby Pro-Logic, Pro-Logic II, Dolby Digital and DTS generally have a 5 speaker plus subwoofer requirement. Dolby Digital EX and DTS ES add a center rear speaker. Please consult with your audio/video professional to help determine which system is best for you and how many speakers you will require.


Screen
left front
subwoofer
center
right front
approximate listening position
left rear
center rear for Dolby Digital EX and DTS ES
right rear

AMPLIFIER FEATURES

1. **Level Control:** For an initial setting, adjust the level control to the 9 O'clock position. The level control may be adjusted while playing to match the subwoofer level with the rest of the system.

2. **Crossover Frequency Control:** The variable crossover frequency control allows you to set the low-pass crossover point of the subwoofer anywhere from 40-180Hz; try an initial setting of 180Hz. Increasing the crossover will allow more mid-bass output from the subwoofer; decreasing the frequency will allow tighter and deeper bass from the subwoofer.

3. **Auto Signal Tracking:** The subwoofer amplifier uses 'smart' signal tracking circuitry. Once the power cord is plugged in and the switch set to 'Auto', the amplifier automatically turns on when a signal is detected at either the Pre Amp or High Level inputs. ***Important!*** *The level control should be at a minimum setting (all the way counterclockwise) before plugging the subwoofer into an AC outlet.*

4. **Phase Switch:** This switch changes the phase of the subwoofer. Changing the phase will change the way the subwoofer and main speakers interact with each other near the crossover frequency. Switching to the 180° position may result in more or less mid-bass depending on the phasing between the main speakers and the subwoofer. Generally, the phase switch is left at the 0° position.

5. **Pre Amp Output:** These terminals are for "daisy chaining" to another subwoofer or amplifier. A full-range signal is sent through these terminals.

6. **Pre Amp Input:** These terminals are for the line-level input signal or 'Subwoofer' output coming from a processor or preamplifier. For best performance, disable the processor or preamplifier's internal low-pass filter to prevent the signal from being 'filtered' twice. ***DO NOT*** *connect power amplifier/speaker level signal to these inputs.*

7. **High Level Input:** These terminals are for the amplifier/speaker level input coming from a processor or preamplifier. ***Important!*** *Use either the Pre Amp Inputs OR the High Level Inputs.* ***DO NOT*** *use them both simultaneously.*

8. **Speaker Level Output:** This is a 100Hz high-pass crossover for your satellite/main speakers. The crossover limits the low frequency information below 100Hz from being sent to your satellite/main speakers. You may use this crossover only when using the High Level Input terminals.

TROUBLESHOOTING

Problem	Possible Cause	Remedy
No sound from speakers	Speaker wire not connected	Make sure wire is connected at both the speaker and the amplifier observing polarity
	Speaker selector on amplifier is not on	Activate proper selector on amplifier
No sound from one speaker	Balance control not completely centered	Place balance control in the center
	Speaker wire not connected	Check all connections at the amplifier and speakers
Very little bass and/or imaging	Speakers are wired out of phase	Check entire system for proper polarity and make adjustments as necessary

CARE & CLEANING

To maintain speaker appearance, use a damp cloth on the surface of the cabinet. To clean dust from the grille cloth, use a vacuum with a brush attachment.

SPECIFICATIONS

	AC-51	AC-525
Frequency Response:	60Hz-20kHz ± 3dB	55Hz-20kHz ± 3dB
Sensitivity:	86 dB 1w/1m	89 dB 1w/1m
Recommended Amplifier Power:	50-100 Watts	50-150 Watts
Drive Units:	1- 1” silk dome tweeter 1- 5¼” poly woofer	2- 1” silk dome tweeter 2- 5¼” poly woofers
Crossover Frequency:	3500 Hz	2000 Hz
Impedance:	8 Ohms	6 Ohms
Finish:	Black or Silver	Black or Silver
Dimensions:	11¼"H x 8"W x 10¼"D	18½"W x 8"H x 10½"D with optional base: 18½"W x 9¼"H x 10½"D
Weight:	11 Lbs.	20 Lbs.

	AC-5T	A-10S
Frequency Response:	50Hz-20kHz ± 3dB	30Hz-180Hz ± 3dB
Sensitivity:	87 dB 1w/1m	N/A
Recommended Amplifier Power:	50-150 Watts	150 Watts internal
Drive Units:	1- 1” silk dome tweeter 3- 5¼” poly woofers	1- 10" kraft pulp woofer
Crossover Frequency:	200 Hz, 3500 Hz	40-180 Variable
Impedance:	6 Ohms	N/A
Finish:	Black or Silver	Black or Silver
Dimensions:	39¾"H x 10"W x 12"D	17"H x 15"W x 18"D
Weight:	35 Lbs.	42 Lbs.

It is the policy of RBH Sound to continuously incorporate improvements into products.
All specifications are subject to change without notice.

W A R R A N T Y

Your RBH Sound AC Series loudspeaker, excluding the A-10S power amplifier, is covered by a limited warranty against defects in materials and workmanship for a period of 5 years from the original date of purchase. The A-10S amplifier is covered by a limited warranty against defects in materials and workmanship for a period of 1 year from the original date of purchase. This warranty is provided by the authorized RBH Sound dealer where the loudspeaker was purchased. Warranty repair will be performed only when your purchase receipt is presented as proof of ownership and date of purchase. Defective parts will be repaired or replaced without charge by your dealer's store or the location designated by your dealer that is authorized to service RBH products. Charges for unauthorized service and transportation cost are not reimbursable under this warranty. This warranty becomes void if the product has been damaged by alteration, misuse or neglect. The warrantor assumes no liability for property damage or any other incidental or consequential damage whatsoever which may result from the failure of this product. Any and all warranties of merchantability and fitness implied by law are limited to the duration of this express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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