

Studio Monitor Series 2 Loudspeakers



Congratulations on your purchase of a Polk Audio Studio Monitor Series 2 System. Painstaking research, frequent and critical testing, and use of only the finest materials and components insure prolonged physical integrity and trouble free operation. To realize the full potential of your loudspeaker system, please read and follow all instructions carefully. If you have any questions or comments, please do not hesitate to contact your nearest

Polk Audio dealer.

### **General Description**

The Polk Audio Monitor Series 2 is comprised of a number of sophisticated loudspeaker systems designed to provide the greatest possible listening pleasure. The design goals for all the Monitor Series 2 loudspeakers systems were 1) open, boxless, three-dimensional sound; 2) smooth, accurate frequency response; 3) consistently excellent transient response across the audio bandwidth; 4) nearly perfect hemispherical dispersion; 5) precise imaging and sonic dispersion; and 6) high efficiency to allow use with virtually any high fidelity amplifier. All the Monitor Series 2 loudspeaker systems

feature mid-bass drivers with Polk Audio's

proprietary trilaminate polymer diaphragm struc-

ture for excellent transient response and near-

absence of midrange coloration. Hemispherical soft dome high frequency tweeters provide superb definition and smooth, extended high frequency response. The Monitor 4 and 4.6 are ported designs to make the best use of their small cabinet size, while the larger Monitors feature sub-bass radiators for fast, tight bass response. All designs benefit from the use

of Polk Audio's sophisticated computer design and precise testing capabilities.

### Inspecting for Shipping Damage

Before setting up your loudspeaker system, inspect the carton for shipping damage. Each unit was thoroughly inspected before it left our facility so any visible or concealed damage would have occurred in shipping and handling. If there appears to be damage to your speakers, or to the carton, report it immediately to your Polk Audio dealer for appropriate action or make a notation on the receipt of delivery and request inspection by the transportation company within 15 days.

### Recommended Speaker Wire

We recommend that you use #16 gauge wire or larger to connect the speakers to your amplifier. To achieve the highest level of performance, we recommend the use of special speaker cables. These cables are readily available in most audio stores in a broad variety of types and price ranges. Polk Audio has chosen to use 5-way binding posts to connect your wires in the larger models. These offer superior contact for clean and accurate sound and have the added benefit of being able to accept standard banana plugs, spade lugs, O-rings, pins or bare wire depending on your preference.

### Connections to Amplifier or Receiver

Proper phasing of the speakers is essential if you are to realize the full potential of your loudspeaker system. Note that one of the terminals on the rear of your speaker is colored red (+) and one is black (-). Make certain that you connect the red (+) terminal on the speaker to the red (+) terminal on the amplifier, and the black (-) terminal on the speaker to the black (-) terminal on the amplifier (see Figure 1). If your amplifier outputs have multiple impedance taps, connect your speakers to the output terminals labeled "4 ohms" (+) and "common" (-). It is essential that both speakers be connected in the same manner, that is, in phase. If you notice a great loss of low frequency (bass) sound from your loudspeaker system, it is quite likely that your speakers are out of phase. This can be corrected simply by reversing the connections at one of the loudspeakers.

Take special care to ensure a clean, positive connection between the speaker cables and the terminals on both the speakers and your amplifier. When connecting bare wire, first twist any loose copper strands into a stiff wire, then wrap it clockwise around the terminal post or insert it into the hole in the threaded shaft, then tighten the thumbnut, making sure the opposite terminal connections are not touching one another.

# Left Channel Input Right Channel Input red black PO Speaker Cables Integrated Amplifier

FIGURE 1 - Connecting speakers to amplifier or receiver

### **Multiple Speaker Connections**

Most receivers and amplifiers will operate safely with two pair of loudspeakers in parallel at moderate listening levels. If you intend to listen at loud levels we recommend that you hook them up in series or series parallel or listen to one pair at a time. Your Polk Audio dealer can advise you on the best hook-up configuration for your listening needs.

### Speaker Placement

Speaker placement is a matter of personal preference as well as a matter of acoustics.

Although the Studio Monitor Series loudspeakers are unusually free of room dependent acoustical effects, proper positioning of the speakers will enhance their performance.

Listening position is not particularly critical. However, as with any fine loudspeaker, there will be one position that will offer the best stereo image and reproduction. With the speakers aimed directly at the listener, this position will be 8 to 14 feet from the speakers, with the speakers separated by at least 6 to 8 feet (see Figure 2). See what works best for you in your listening area (experiment).

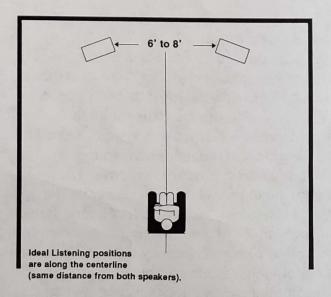


FIGURE 2 - Speaker placement and best listening position

### Listening Levels and Amplifier Power

Your Monitor loudspeakers are highly efficient systems and will easily achieve normal listening levels with moderate amounts of power. Remember that the greatest chance of damage to any speaker occurs when the amplifier, regardless of power output, is driven into distortion. Surprisingly, the possibility is usually greater with less powerful amplifiers than with the larger ones.

If the sound becomes harsh and steely in character, then you are pushing your amplifier into distortion. This raspy sound is known as "clipping." Amplifier clipping creates undesirable high frequency energy and increases the risk of tweeter damage. It is absolutely critical to understand that regardless of amplifier output, power or speaker power rating, when you turn the volume control past the point where distortion becomes audible you are risking damage to both the speaker and the amplifier.

### Care and Cleaning of Studio Monitor

The finish of your speakers will maintain their appearance with reasonable care. The cabinets are finished in vinyl and can be cleaned by wiping with a sponge or cloth dampened with water. Household cleaning solvents should not be used as they may damage the vinyl. The grilles may be cleaned by brushing gently or vacuuming.

## Trouble Shooting No sound from speakers

Check all amplifier connections and connections to both speakers.

Make sure amp is connected to AC outlet and proper mode is selected.

Make sure speaker selector switch is engaged on the amplifier.

### Unnatural bass emphasis.

Turn off loudness contour control.

Place speakers farther from walls or corners.

Reduce bass control on amplifier.

# Distortion at very bigh listening levels (see section on "Listening Levels and Amplifier Power.")

Amplifier is clipping. Listen at lower levels. Purchase larger amplifier.

### Not enough bass.

Check bass control on amplifier.

Make sure speakers are in phase.

Move speakers closer to or up against rear wall.

Move speakers closer to a corner.

### **Technical Assistance**

If you have any questions or problems with your loudspeaker system, please do not hesitate to contact your authorized Polk Audio dealer from whom you purchased your loudspeakers. Your Polk Audio dealer has the experience needed to pinpoint any problems that may exist and has easy access to technical information from the Polk Audio factory.

**Limited Five Year Warranty** 

Polk Audio, Inc. warrants to the original purchaser only that this Polk Audio Loudspeaker Product (the "Product") will be free from defects in materials and workmanship for a period of five (5) years from the date of original retail purchase from a Polk Audio Authorized Dealer. However, this Warranty will automatically terminate prior to the expiration of the five (5) years if the original retail purchaser sells or otherwise transfers the Product to any other party. The original retail purchaser shall hereinafter be referred to as "you." To allow Polk Audio to offer the best possible warranty service, please fill out the Warranty Registration Card(s) and send them to the Factory, at the address provided on the Registration Cards(s) within ten (10) days of the date of purchase.

Defective Products must be shipped, together with proof of purchase, prepaid insured to the Polk Audio Authorized Dealer from whom you purchased the Product, or to the Factory at the address given on this manual. Products must be shipped in the original shipping container or its equivalent; in any case the risk of loss or damage in transit is to be borne by you. If upon examination at the Factory or Polk Audio Authorized Dealer it is determined that the unit was defective in materials or workmanship at any time during this Warranty period, Polk Audio or the Polk Audio Authorized Dealer will, at its option, repair or replace this Product at no additional charge, except as set forth below. All replaced parts and Products become the property of Polk Audio. Products replaced or repaired under this warranty will be returned to you, within a reasonable time, freight collect. This warranty does not include service or parts to repair damage caused by accident, disaster, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage inputs in excess of the rated maximum of the unit, cosmetic appearance of cabinetry not directly attributable to defect in materials or workmanship, or service, repair, or modification of the Product which has not been authorized or approved by Polk Audio. This warranty shall terminate if the Serial number on the Product has been removed, tempered with or defaced. This warranty is in lieu of all other expressed Warranties. If this Product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above. In no event will Polk Audio, Inc. be liable to you for any incidental or consequential damages arising out of the use or inability to use the Product, even it Polk Audio, Inc. or a Polk Audio Authorized Dealer has been advised of the possibility of such damages, or for any claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply to you. All implied warranties on this Product are limited to the duration of this expressed Warranty. Some states do not allow limitation on how long an implied Warranty lasts, so the above limitations may not apply to you. This Warranty gives you specific legal rights, and you also may have other rights which vary from state to state. This Warranty applies only to Products purchased in the United States of America, its possessions, and U.S. and NATO armed forces exchanges and audio clubs. The Warranty terms and conditions applicable to Products purchased in other countries are available from the Polk Audio Authorized Distributors in such countries.

### Studio Monitor Series 2 Physical Specifications



Monitor 4.6 Series 2

Monitor 5jr+ Series 2

Monitor 4 Series 2

### Monitor 12 Series 2

Driver Complement
1 x 1" dome tweeter

4 x 6.5" drivers 1 x 12" sub bass radiator Size

37-5/8"H x 15-3/4" Wx 12"D (95.5cm x 40cm x 30.5cm)

**Overall Frequency Response** 

25Hz - 25kHz -3dB Limits

35Hz - 23kHz Recommended Amplification

20 - 400 watts / channel Impedance

Compatible with 8 ohm outputs

Efficiency 91dB

Shipping Weight 60 lbs (27kg)

### Monitor 10 Series 2

**Driver Complement** 

1 x 1" dome tweeter 2 x 6.5" drivers 1 x 10" sub bass radiator

28"H x 15"W x 12"D (71.1cm x 38.1cm x 30.5cm)

Overall Frequency Response

25Hz - 25kHz -3dB Limits

37Hz - 23kHz

Recommended Amplification

20 - 250 watts / channel

Impedance

Compatible with 8 ohm outputs

Efficiency 89dB

Shipping Weight 46 lbs (20.7kg)

### Monitor 7 Series 2

Driver Complement

1 x 1" dome tweeter 1 x 6.5" driver

1 x 10" sub bass radiator

Size

24"H x 13"W x 10"D (61cm x 33cm x 25.4cm)

Overall Frequency Response

25Hz - 25kHz -3dB Limits

40Hz - 23kHz

Recommended Amplification

20 - 150 watts / channel

Impedance

Compatible with 8 ohm outputs

Efficiency

89dB

Shipping Weight 33 lbs (14.9 kg)

### Monitor 5 Series 2

**Driver Complement** 

1 x 1" dome tweeter 1 x 6.5" driver

1 x 8" sub bass radiator Size

22"H x 10"W x 10"D (55.9cm x 25.4cm x 25.4cm)

Overall Frequency Response 30Hz - 25kHz

-3dB Limits 43Hz - 23kHz

Recommended Amplification

20 - 125 watts / channel Impedance

Compatible with 8 ohm outputs

Efficiency

90dB

Shipping Weight 48 lbs / pair (21.6 kg / pair)

### Monitor 5ir+ Series 2

**Driver Complement** 

1 x 1" dome tweeter 1 x 6.5" driver 1 x 6.5" sub bass radiator

**Size** 19-1/2"H x 9"W x 10"D

(49.5cm x 22.9cm x 25.4cm) Overall Frequency Response

30Hz - 25kHz -3dB Limits 46Hz - 23kHz

**Recommended Amplification** 

20 - 125 watts / channel Impedance

Compatible with 8 ohm outputs

Efficiency

90dB

Shipping Weight 40 lbs / pair (18kg / pair)

### Monitor 4.6 Series 2

Driver Complement

1 x 1" dome tweeter 1 x 6.5" driver

Size

17"H x 8-1/2"W x 10"D (43.2cm x 21.6cm x 25.4cm)

Overall Frequency Response

30Hz - 25kHz

-3dB Limits 48Hz - 23kHz

Recommended Amplification

20 - 100 watts / channel

Impedance

Compatible with 8 ohm outputs Efficiency

90dB Shipping Weight

34 lbs / pair (14.3 kg / pair)

### Monitor 4 Series 2

Driver Complement 1 x 3/4" dome tweeter

1 x 6.5" driver

Size

14-1/4"H x 8-1/2"W x 7-1/2"D

(36.8cm x 21.6cm x 19.2cm)

**Overall Frequency Response** 

35Hz - 25kHz

-3dB Limits 53Hz - 20kHz

Recommended Amplification

20 - 100 watts / channel

Impedance

Compatible with 8 ohm outputs

Efficiency

91dB **Shipping Weight** 

24 lbs / pair (10.8 kg / pair)