polk audio
The Speaker Specialists ®

TRUE STEREO
Stereo/Dimensional Array Signature Reference System

Instruction Manual

SDA SRS 1.2, SDA SRS 2.3

Important: Please read the instructions thoroughly before attempting to use your SDA SRS Loudspeakers

Congratulations on your purchase of the Polk Audio Stereo Dimensional Array Signature Reference System. The SDA-SRS 1.2 and 2.3 employ a unique, patented technology which offers a major breakthrough in the quality of high fidelity sound reproduction. Painstaking research, frequent and critical testing, careful handcraftsmanship, and use of only the finest materials and components insure prolonged physical integrity and trouble-free operation. Please read and follow the instructions carefully. They will help you to understand the operation of the SDA-SRS 1.2 and 2.3 and to realize the full potential of these extraordinary systems.

If you have any questions or comments please do not hesitate to call us directly or contact your nearest Polk Audio dealer.

UNPACKING INSTRUCTIONS *(CONTINUED FROM CARTON)*

5. At this point, pause and look for shipping damage which may have been concealed by the carton. Inspect the cabinet and then remove the endcaps, polybag, and front grille and inspect the components on the baffle. If any damage is apparent, read the following section "In Case of Shipping Damage". Replace the front grille.

6. Carefully lift the top end of the cabinet until it is oriented upright and move it out of the work area to give room to unpack the left channel speaker. Put the interconnect cable and hardware kit in a safe place until needed and move the box parts out of the way.

7. Now, unbox the left channel unit the same way you unboxed the right channel unit, and move it into position for making amplifier connections.

NOTE: RETAIN ALL PACKING MATERIALS IF POSSIBLE; REPLACEMENT CARTONS ARE EXPENSIVE!!!

IN CASE OF SHIPPING DAMAGE:

If your speaker was damaged in shipping, it should be returned to your dealer for inspection. If you received your speakers directly from the factory, contact Polk Audio and follow the directions for returning the system to us.

CARE AND CLEANING OF THE SDA-SRS:

As with any piece of fine furniture, the finish of the SDA-SRS will maintain its appearance with reasonable care. If the wood trim finish begins to look dull after a period of time, it can be restored to its original luster by applying a light coating of furniture oil such as lemon oil, and buffing away the excess. If water is accidentally spilled on any finished wood surface, it should be wiped off immediately.

The baffle and back are finished in black vinyl and can be cleaned by wiping with a sponge or cloth dampened with water. Organic cleaning solvents should not be used, as they may damage the vinyl.

The grilles may be cleaned by brushing gently or vacuuming.

SET-UP SUGGESTIONS:

Each SDA-SRS 1.2 weighs about 180 lbs and the SRS 2.3 about 155. It is highly advisable to have another person on hand to help move the speakers and position them properly in the room. Although not necessary, a hand truck is helpful in maneuvering the speakers to their final locations.

BASS BRACE AND SPIKES

Low bass response can be enhanced in impact and definition by use of either the included Bass Brace or spikes. THESE SHOULD ONLY BE INSTALLED AFTER A PERMANENT SITE FOR YOUR SRS'S HAS BEEN CHOSEN. The purpose of these accessories is to couple the speaker to either the wall or thickly carpeted floor more securely to minimize the potential of low frequency energy being affected by cabinet movement. The Bass Brace, while more permanent, is the more effective of the two. We recommend that you do not use these together because installation of the Bass Brace necessitates some cabinet movement (which might damage the floor or carpet if spikes are installed) and because either one is sufficient to couple the cabinet.

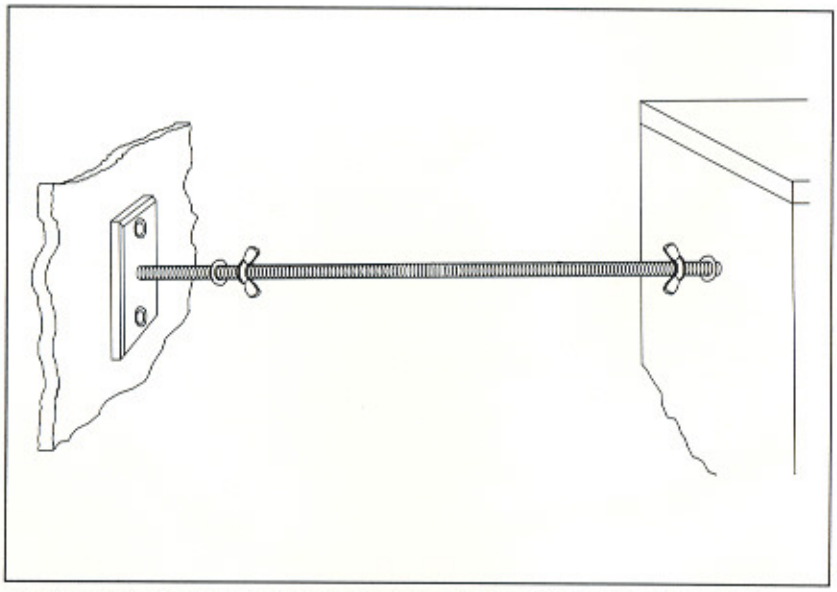

FIGURE 1. The Bass Brace will improve the sonic impact and definition of your SRSs.

To install spikes, move the speaker into position, tip the speaker carefully onto its' side, unscrew the furniture glides, and screw the spikes into the threaded holes. Carefully tilt the speaker back into position. The speaker should not be moved once the spikes are installed, as this can cause serious damage to your floor. It is suggested that you first read the following section on "Room Placement" to help you decide where the speakers will ultimately be placed in your room. Then, amplifier connections can be made, and the spikes can be installed, if desired, once the speakers have been placed in their final positions. The spike heights can be adjusted to accommodate an uneven floor.

To install the Bass Brace you will need to remove the slotted setscrew on the rear of the cabinet. Save the screw in case you eventually remove the Bass Brace - it is need to maintain proper air compliance in the cabinet. Screw the threaded rod into this hole until slightly less than the distance from the cabinet to the wall remains showing. Install the washers and wingnuts on the rod loosely (see figure 1) and screw the wall bracket onto the end of the rod. Move

the cabinet into position, move the rod out until the bracket is firm against the wall, and mark the mounting holes on the wall.

Move the speaker out of the way and couple the bracket to the wall using either the screws provided or the adhesive tape provided. If using screws try to position the speakers in front of a stud or use wall anchors. Then the speaker can be pushed back into place, the rod can be screwed into the mounting plate, and the wingnuts tightened up.

ROOM PLACEMENT:

The decision on where to place the speakers is a matter of personal preference as well as acoustics. Although the SDA-SRS 1.2 and 2.3 are physically large speakers, their styling is elegant and unobtrusive and their acoustic design makes them almost entirely free of room dependent acoustic effects. However, in order to realize the full potential of the SDA-SRS it is very important to pay careful attention to the following set-up instructions.

PLACEMENT INSTRUCTIONS:

1. Place both speakers against the same wall facing straight forward. DO NOT ANGLE SPEAKERS INWARD OR OUTWARD. The design of the SDA-SRS requires that they be parallel to a common wall and each other.

2. There are several distances to consider in placing your speakers (see illustration). They are:
X = Listener distance from speakers
Y = Speaker distance from rear wall
Z = Speaker distance apart
S = Speaker distance from side wall
* By decreasing distance 'Y' you will increase mid/low bass response; by increasing that distance you will experience less bass. Your speakers will generally sound best when placed close to the back wall. Also, the front baffles should be at least 2 inches forward of any obstructing objects, such as cabinets. The included 'bass brace' will also affect bass response and should be considered in your placement selection.

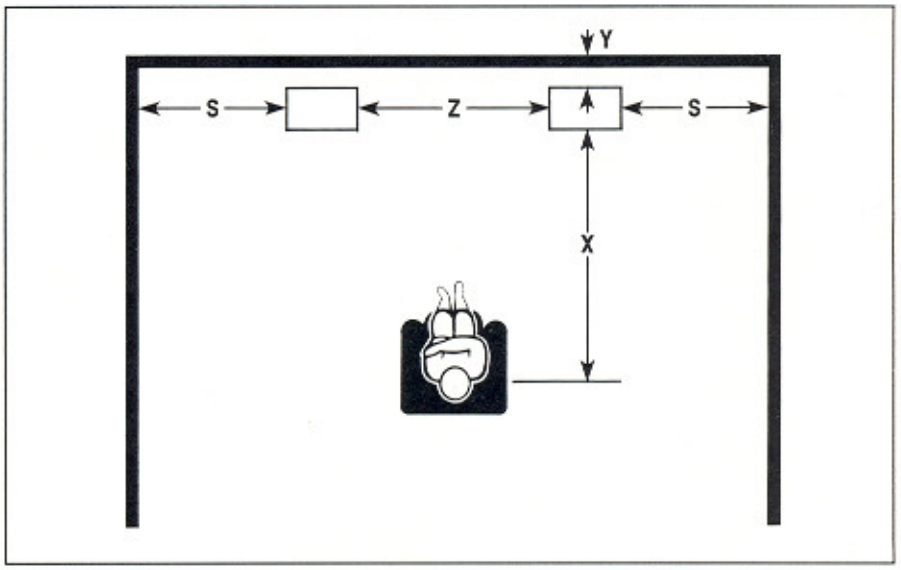

FIGURE 2. Speaker Placement

* Distance 'Z' should be at least 4 feet. 6 to 8 feet is optimum in most listening rooms. In a 'live' room (lots of hard surfaces, not too many curtains, cushions, sound absorbing materials) SRS's often sound best placed fairly close together. Experiment!

* Distance 'X' should be greater than or equal to distance 'Z'. * Distance 'S' should be at least 3 feet. Placement closer to sidewalls will interfere with 3-dimensional imaging.

3. Best Listening Area: The SDA-SRS will reproduce a dramatic 3-dimensional sound stage for listeners in nearly every part of the room. However, as the best concert halls also have their best seats, there is also a best listening area for the SDA-SRS. This is the area roughly equidistant from both speakers and about 10 feet in front of them. In this area the

SDA-SRS offers to the listener an unparalleled, often startling listening experience.

AMPLIFIER CONNECTIONS:

All electrical connections to the SDA-SRS are made via the terminal plate located on the rear of the cabinet (see figure 3).

1. Locate the interconnect cable which you unpacked with this manual, walk around to the back of either speaker, and locate the interconnect socket on the terminal plate. Note that the plugs on the ends of the cable are the same, and that the two pins are different. Align the plug properly with the socket and push it gently but firmly into place until it is fully seated against the socket. To remove the plug, grasp it by the molded body (not by the insulated cord) and pull gently outward.

2. Walk across to the other speaker and connect the other end of the interconnect cable in the same manner as described in step 1.

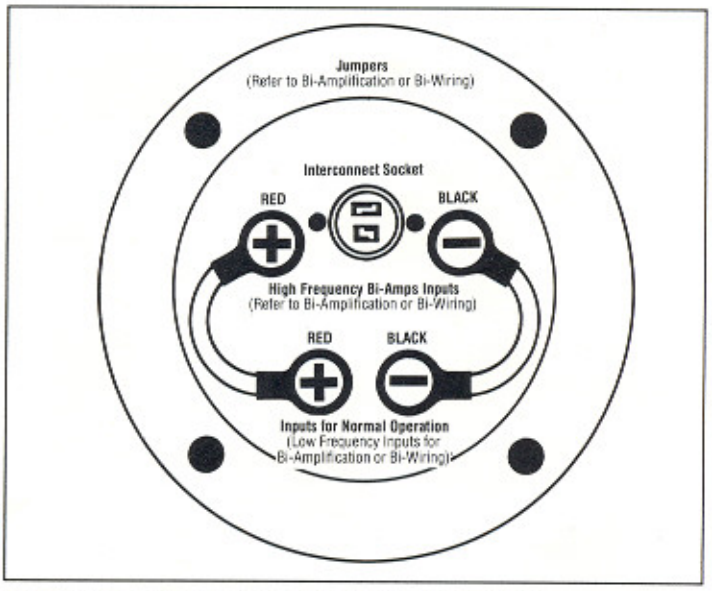

FIGURE 3. The SDA SRS 1.2 and SDA SRS 2.3 terminal plate

3. Now you are ready to connect the amplifier to the speakers. But first, there is one word of caution. The SDA-SRS 1.2 and 2.3 must be used with common-ground amplifiers or amplifiers for which the negative (-) output terminals for left and right channels can be wired together directly. If you wish to use non-common ground or floating ground amplifiers, you MUST use the AI-1 Amplifier Interface available from your Polk dealer. The only exception to this rule occurs in bi-amplified systems, described later in this manual. FAILURE TO OBSERVE THESE RULES MAY RESULT IN DAMAGE TO THE AMPLIFIER OR TO YOUR SRS SPEAKERS. Now that this warning has been stated, you will want to know if your amplifier is common-ground or not. All major brands of receivers are common-grounded and virtually all integrated and separate amplifiers are common-grounded. Very few amplifiers are not common-grounded and are usually marked with some warning near the output terminals. If you have doubts, call your local hi-fi store or call Polk Audio directly.

4. Find the amplifier outputs. They will be marked + (plus) and -(minus), or will be colored red and black. Red corresponds to + (plus) and black corresponds to - (minus). Now, refer to figure 4 to locate the terminals on the speaker labeled 'Inputs for Normal Operation'.

5. Using whatever speaker cable you have (see the section on "Speaker Hookup Wire"), connect the left channel amplifier outputs to the left speaker, making certain to connect the red or + (plus) output to the red terminal on the speaker. Connect the black or - (minus) amplifier output to the black terminal on the speaker. Using another length of speaker cable, connect the right channel amplifier outputs to the right speaker in the same way. IT IS IMPERATIVE THAT THE AMP AND SPEAKERS BE CONNECTED IN CORRECT ABSOLUTE PHASE FOR THE SDA-SRS TO FUNCTION PROPERLY. See figure 4 to check your connections.

If you intend to use the SDA-SRS in a bi-amplified system, please refer to the section "Bi-amplification and Bi-wiring".

SYSTEM CHECK-OUT:

1. Start with the speakers placed at least 4 ft. apart, facing straight forward, as close to the wall as possible and at least 3 ft. from the side walls.

2. Place a chair in front of and equidistant from the two speakers. For the purpose of this check-out verify that the chair is the same distance from the two speakers.

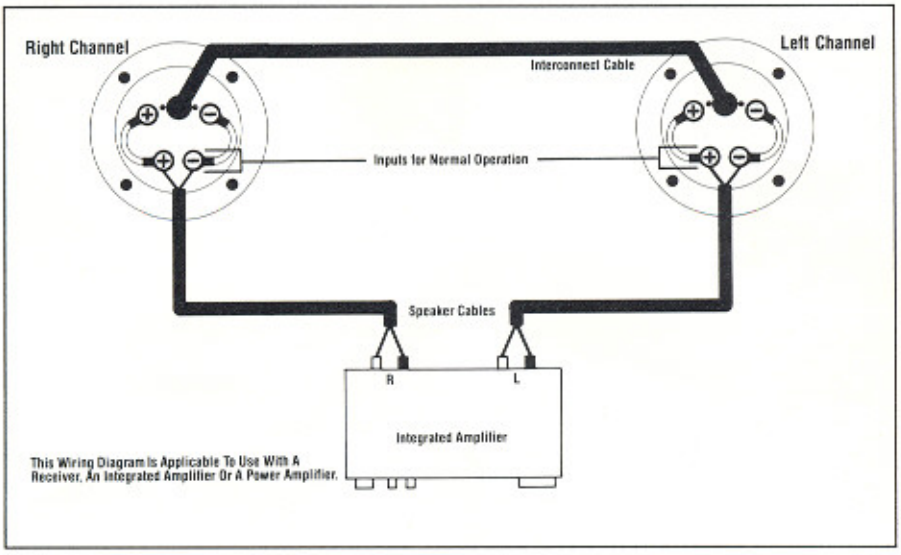

FIGURE 4. Connections for Normal Operation

3. Choose a good record, compact disc or tape with a lot of stereo separation and several instruments or vocalists performing at once. See the playlist at the end of this manual for possible suggestions.

4. Turn the mode switch on your pre-amp or receiver to MONO (Monaural). While playing the record, sit down in the chair. The sound should seem to come from directly between the speakers with full bass response. If it does not, check the phase of your amplifier connections.

5. With the mode switch still set to MONO turn the balance control all the way to the left. Walk close to each speaker in turn. The left speaker should be producing the full range of sound. The right speaker should be producing mid range frequencies only, and will not be as loud as the left speaker. When the balance control is turned to the right, this situation should be reversed with the right speaker playing louder than the left. If the system doesn't work in exactly this way, first check the interconnect cable and then check to make sure that the amplifier is connected to the speakers in the correct phase.

6. RETURN THE AMPLIFIER TO STEREO OPERATION. Make certain that your program material has good stereo separation and sit down in the chair to listen. For this test it is recommended to listen at a reasonably high volume level. You should hear that some sounds appear to come from locations outside the loudspeakers and by manipulating the balance control from side to side you should be able to move the apparent sound source from far to the left of your chair to far to the right.

If your system does not perform as explained above read the sections on Room Placement and SDA Technology and then proceed to the Trouble-shooting section.

SPEAKER HOOKUP WIRE:

We recommend that you use #16 gauge wire or larger to connect the speakers to the amplifier. This will ensure that the full power and damping capabilities of your amplifier will be available to the speakers. Heavier gauge wire will give improved performance especially where long runs are involved.

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. For use with the SDA-SRS we recommend a heavy gauge, finely stranded, oxygen-free copper type cable. In addition, when using an SDA-SRS in Bi-amped or Bi-wired configuration you can choose cable types for the high and low frequency sections which have optimal

performance for those frequency ranges. The SDA-SRS's are wired internally with #16 gauge, finely stranded, oxygen free cable for the high frequency section, and #16 gauge, multi-strand, cable for the low frequency section.

AMPLIFIERS AND THE SDA-SRS:

Although the SDA-SRS is highly efficient and compatible with most amplifiers, a few specific things should be observed to assure the best performance from your system.

First, THE AMPLIFIER USED MUST BE OF THE COMMON-GROUND TYPE. Virtually all receivers and amplifiers are constructed this way with the amplifier chassis serving as the common ground between channels. When using separate monophonic amplifiers, it is a good idea to connect a wire between the two chassis to ensure a common ground. If this cannot be done safely for your amplifier(s), you must use the AI-1 Amplifier Interface, available from your Polk Dealer. If you think that your amplifier may not be common-grounded, call Polk Audio , your local hi-fi dealer, or the manufacturer of the amplifier to find out for certain.

Second, the SDA-SRS, despite its size and complexity, is a very "easy" load for amplifiers to drive. This means that amplifiers of moderate power capabilities may offer a much greater dynamic range than you would expect when used with the SDA-SRS.

The load is nearly a pure resistance in normal operation but varies dynamically with the balance of signals between the two channels. This means that amplifiers that are comfortable driving low impedances and do not have excessive current limiting will be better suited to the SDA-SRS, especially at higher listening levels.

LISTENING LEVELS AND AMPLIFIER POWER:

The SDA-SRS is a highly efficient system and will easily achieve high listening levels with moderate amounts of power. However, it will perform best with the reserve of power offered by large amplifiers so long as this power is not abused.

When properly set up, the SDA-SRS will handle the output of very large amplifiers on program material. However, the greatest chance of damage to any speaker occurs when the amplifier, regardless of size, is overdriven. Generally, this occurs only with small or moderate power amplifiers. Surprisingly, the possibility of damage is usually greater with small amplifiers than with large ones.

In most cases when distortion is heard at high levels it is caused by the overdriven amplifier and not by the speaker. It is absolutely critical to understand that regardless of amplifier size 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 amplifier.

The SDA-SRS is equipped with a thermal protective device in the tweeter circuitry to protect the tweeter array against damage which can occur when an amplifier malfunctions or is overdriven. When an overload condition is detected in this circuit, the protective device quickly reduces the current flow to a safe level until the condition is removed; the effect on the sound of the speakers is to reduce the output from the tweeter array. The device will reset itself within about thirty seconds after the volume level is turned down.

When this device trips, it is usually an indication that the amplifier is being overdriven. A larger amplifier able to deliver more clean power will enable the speakers to go louder without tripping the thermal protection.

To see how this may happen, consider that the amplifier is a device which allows a controlled amount of power to flow from the AC wall outlet to the speaker. If the volume control is advanced too far, the amp may lose control of the flow

and dump much of the power of the AC outlet into your loudspeaker. The power rating of an amplifier is a measure of how much clean power it will safely produce. However, most amplifiers are able to produce distorted power several times greater than their rated power.

A work of caution is appropriate here. The SDA-SRS is a large system capable of reproducing dangerously high sound levels. WARNING: PROLONGED EXPOSURE TO HIGH SOUND PRESSURE LEVELS MAY RESULT IN EAR DAMAGE AND LONG-TERM HEARING LOSS. This is particularly important with program material characterized by sustained high sound levels.

BI-AMPLIFICATION AND BI-WIRING:

The SDA-SRS is equipped with two sets of inputs to facilitate bi-amplification or bi-wiring. Both sets of inputs are located on the round input plate at the rear of the cabinet (figure 3). The high frequency inputs are the red and black terminals on either side of the interconnect cable socket. The low frequency inputs are the red and black terminals next to each other at the bottom of the round input plate. In normal use jumpers are used to connect the black terminals together and the red terminals together. The amplifier is then connected only to the lower set of red and black terminals.

When the system is bi-amplified, two amplifiers are used to power the system. One drives the high frequency section of the speaker only, the other drives only the low frequency section. This enables the system to achieve greater dynamic range with lower distortion. In addition, different amplifiers may be selected for the high and low frequency sections allowing you to optimize the choice of amplifier for either high or low frequency performance. The design of the SDA-SRS is such that no electronic crossover is required. See the section, "Connecting Your Bi-Amplified SDA-SRS System", for instructions.

Bi-wiring is the use of two sets of speaker cables running from a single amplifier to the speaker. One set of cables are connected only to the high frequency section of the speaker and the other set only to the low frequency section. As with bi-amplification the choice of speaker cabling, in this case, may be optimized for high or low frequency performance. Also as with bi-amplification, the supplied jumpers must be removed from the input terminals.

AMPLIFIERS SUITABLE FOR BI- AMPLIFICATION:

Any amplifier suitable for driving the SDA-SRS in a conventional single amplifier setup can be used as one of the amplifiers needed for bi-amping. Although two different amplifiers may be used, use of two identical amplifiers is the best guarantee that the final bi-amp setup will be properly balanced. If two different amplifiers are used they must have identical amounts of gain. If they do not, a level adjustment must be provided on the input of one amplifier to reduce its gain to equal that of the other amplifier. In selecting an amplifier for the high frequency section, a smaller amplifier may be used as long as it has excellent dynamic headroom. In addition, for the

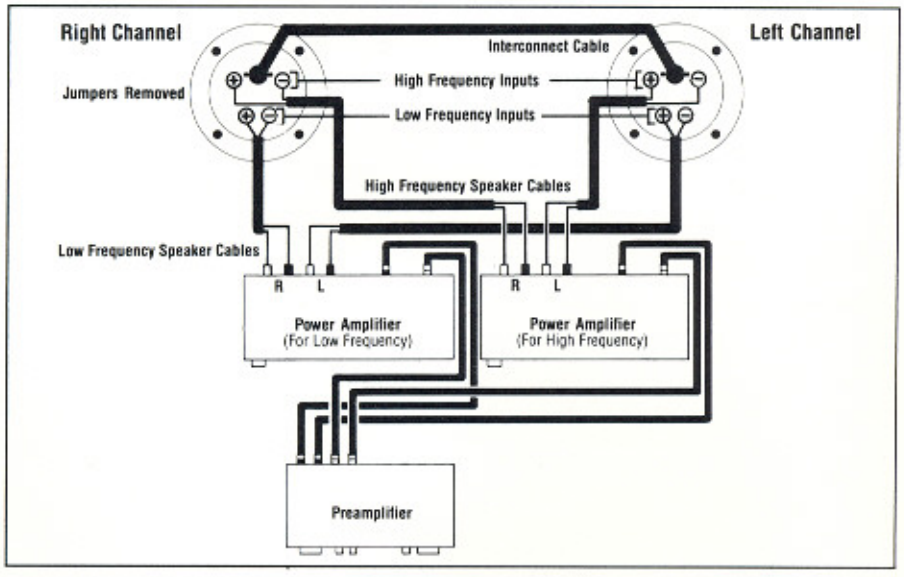

FIGURE 5. Connections for Bi-Amplification

high frequency amplifier only, it is not necessary that it be a common ground amplifier. THE LOW FREQUENCY AMPLIFIER MUST BE COMMON GROUND UNLESS THE AI-1 ADAPTER CABLE IS USED.

CONNECTING YOUR BI-AMPLIFIED SDA-SRS SYSTEM:

The design of the SDA-SRS makes the use of an electronic crossover unnecessary. The two sets of inputs are designated "high frequency bi-amp inputs" and "low frequency bi-amp inputs", and are supplied with factory-installed jumpers for use in conventional single-amplifier high fidelity systems. THESE JUMPERS MUST BE REMOVED BEFORE MAKING ANY OTHER CONNECTIONS TO THE INPUTS IN A BI-AMPLIFIED SYSTEM. SERIOUS DAMAGE TO THE AMPLIFIERS OR TO THE SDA-SRS MAY RESULT IF THIS IS NOT DONE. The jumpers are removed by unscrewing the colored plastic caps from the binding posts and removing the ring terminals. Be certain to re-install the colored plastic caps on the correct binding posts so as not to mislabel the phasing of the inputs (refer to figure 3).

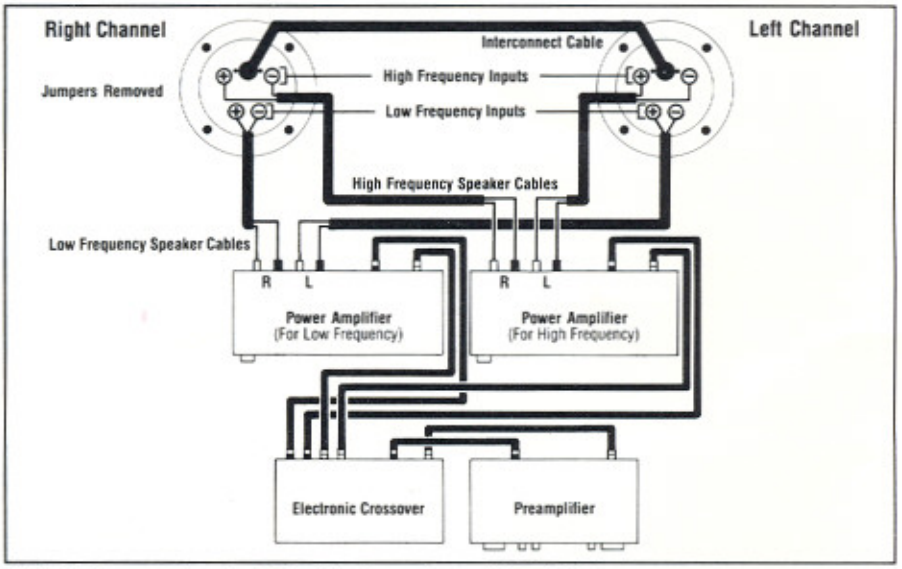

FIGURE 6. Connections for Bi-Amplification using an Electronic Crossover

First, connect the speaker cables from the low frequency amplifier to the low frequency speaker inputs. Observe the correct absolute phasing of the connections -- the conductor from the amplifier's black or -(minus) output terminal must be connected to the black binding post on the SDA-SRS, and the amplifier's red or + (plus) output terminal must be connected to the red binding post on the speaker. Then, connect the speaker cables from the other amplifier to the high frequency speaker inputs, again observing correct absolute phase. This completes the connections to the speaker system. See figure 5 to check your connections.

BI-AMPLIFYING WITH AN ELECTRONIC CROSSOVER:

Although an electronic crossover is not necessary to bi-amp the SRS's, some small improvements in performance may be achieved by using one although only if set-up correctly. If you decide you would like to try this PLEASE READ THIS PARAGRAPH CAREFULLY. Use of an improperly set-up electronic crossover with your SDA-SRS will result in much worse performance. The high frequency and low frequency inputs to the SDA-SRS cause the signal to pass through the high and low frequency sections, respectively, of the SRS crossover system. The SRS crossover system cannot be by-passed since to do so would be to remove an essential part of the overall system. To correctly use an electronic crossover with the SDA-SRS it is necessary to choose the crossover frequency settings so that they will not interfere with the operation of the SRS crossover system. The primary crossovers of both the SDA-SRS 1.2 and 2.3 operate in the range from 800Hz to 2.5kHz. Correct settings for the electronic crossover will allow the operation of both high and low frequency amplifiers to overlap comfortably over this entire range. Suggested settings for the electronic crossover are: High-pass -300Hz, Low-pass - 4kHz. This means that the electronic crossover will be doing little more than keeping the extreme high frequencies out of the low frequency amplifier and the extreme low frequencies out of the high frequency amplifier.

Refer to figure 6 for proper setup of a bi-amplified system using an electronic crossover.

SDA, TRUE STEREO TECHNOLOGY: HOW DOES IT WORK?

SDA Technology is a means of reproducing a much larger and more realistic sound stage than can be achieved by conventional speakers. The way that this is accomplished is by making sure that only the original recorded signal reaches the listener's ears. Normally when a person listens to a conventional pair of stereo speakers sound from each speaker reaches each of the person's ears (figure 7). The original recorded signal is entirely contained in the direct sound of the left speaker reaching the left ear and the direct sound of the right speaker reaching the right ear. The extra signals, crossing the listener's head to reach the ear on the opposite side, can be thought of as a distortion which causes the sound field to be constricted and shallow (figure 8). SDA Technology uses the acoustically inverted dimensional signal to cancel the extra signals without affecting the original recorded signal reaching the listener's ears directly (see figure 9). The result is that only the correct original recorded signal reaches the listener's ears and the full width and depth of the sound stage are accurately reproduced (see figure 10). If you are interested in additional technical information contact Polk Audio for a copy of "Polk's SDA Speakers: Designed in Stereo" by Matthew Polk.

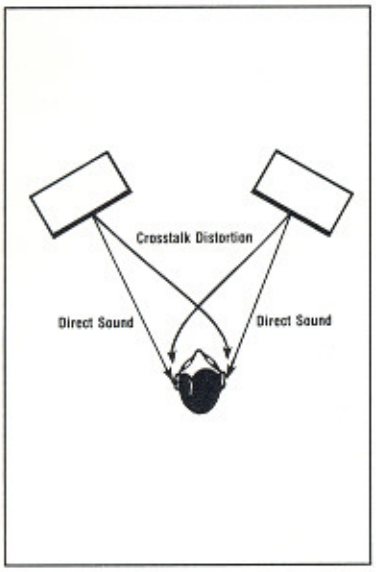

FIGURE 7. Conventional Speakers

FIGURE 8. Compressed sound stage due to Undesired Signals

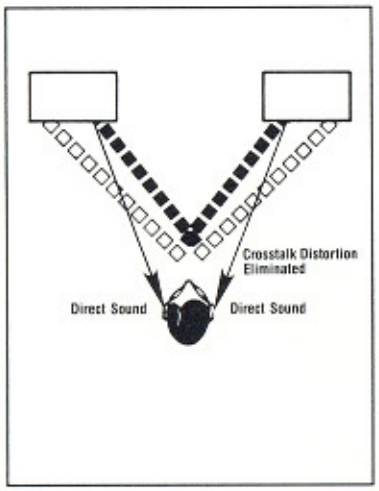

FIGURE 9. Polk TRUE STEREO SDA

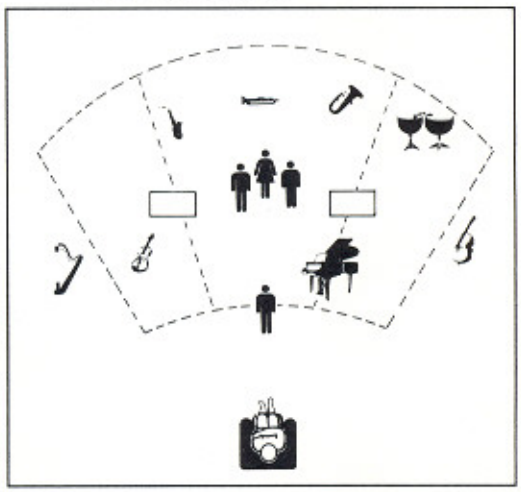

FIGURE 10. Accurate reproduction of the full sound stage by the SDAs

LINE SOURCE TECHNOLOGY AND THE PROGRESSIVE POINT SOURCE:

The SDA-SRS uses a combination of Line Source Technology and the Progressive Point Source to virtually eliminate interference due to room reflections. Normally reflections from the floor and ceiling cause the most serious interference. By arranging the drivers and tweeters of the SDA-SRS in vertical arrays called line sources the vertical directivity of the system is controlled in such a way that very little sound energy reaches either the floor or ceiling (see figure 11). As a result there is very little reflected energy to interfere with the original recorded signal. The Progressive Point Source is used to maintain constant vertical directivity and prevent beaming at high frequencies, but without sacrificing dynamic range. A sequential set of filters attached to each tweeter progressively tailors the high frequency response of the tweeters so that the overall output of the tweeter line source approximates a constant directivity point source up to the highest

audible frequencies. The combined output of all the tweeters is available in the lower part of the tweeter range for maximum dynamic range. At the highest frequencies a single tweeter operates to preserve dispersion and accurate transient response.

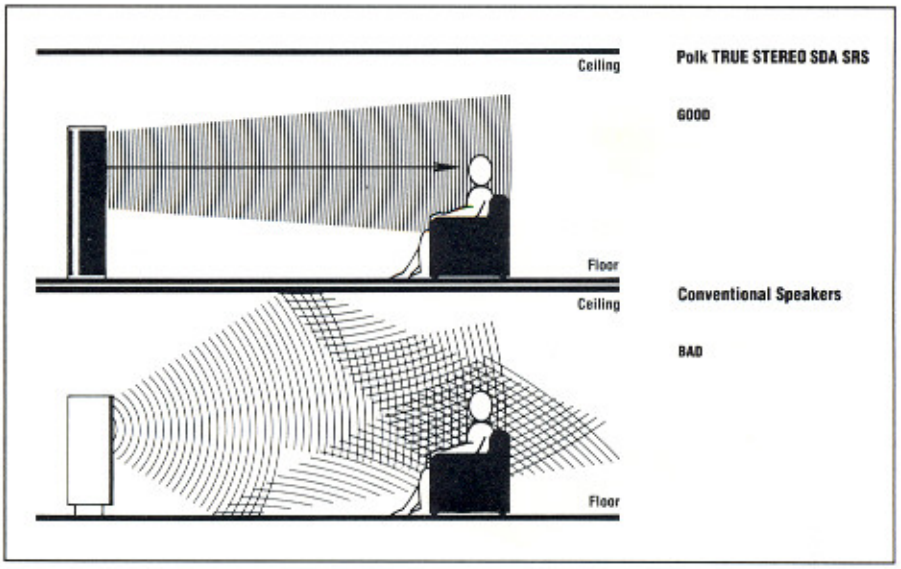

FIGURE 11. Line Source Technology and Progressive Point Source eliminates interference from room reflections with Constant Vertical Directivity

TROUBLE SHOOTING:

The SDA-SRS 1.2 and 2.3 are very unusual systems and some understanding of their physical layouts will be helpful in determining whether a problem lies with the speaker system or with the associated equipment. Looking at the speakers from the front with the grilles off they will appear as shown in the illustrations. Note that the functions of the driver line sources are mirror-imaged between the two cabinets.

Follow the system check-out procedure described earlier in the manual to determine whether there is a problem specific to the Stereo/Dimensional function. If so, follow Part II of the troubleshooting chart. If the problem seems to be generalized to the entire system, use Part I. If you are using your SDA-SRS in a bi-amplified system, refer also to Part III.

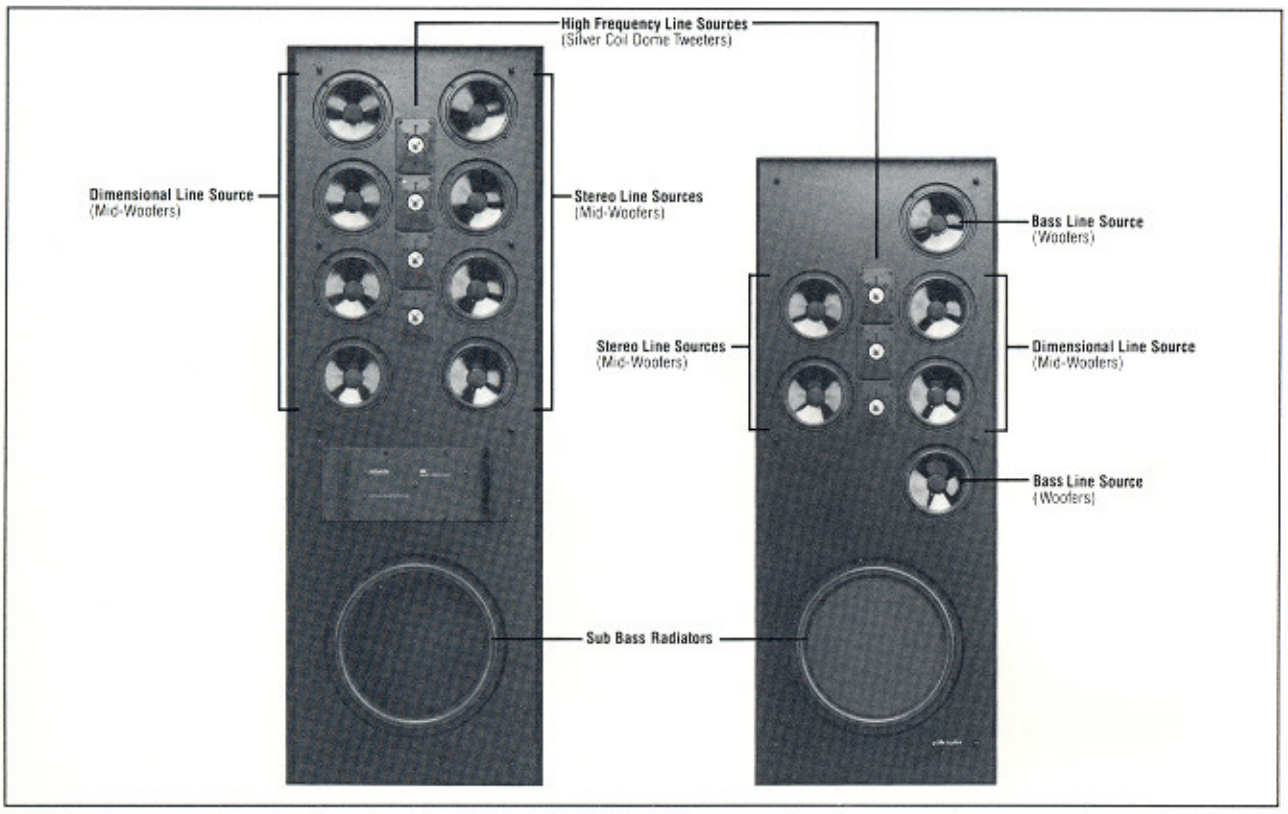

FIGURE 12. The front of the SDA SRS 1.2 and the SDA SRS 2.3 with the grilles removed

TROUBLESHOOTING CHART PART I

Problem	*Solution*
1. No sound from speakers	1a. Check connections to both speakers and all amplifier connections. 1b. Make sure amp is plugged in.
2. No high frequency output	2a. Thermal protective device has not yet reset: turn down amplifier level for thirty seconds. 2b. Make sure the jumpers are installed on the binding posts on the back of the speaker (Normal operation only! Not for bi-amplified or bi-wired systems).
3. Bottoming of low frequency drivers or excessive cone motion	3a. Turn off loudness contour control. 3b. Check for warped record. 3c. Use subsonic filter on amp or pre-amp. 3d. Increase tracking force or effective mass of tonearm. 3e. Use sturdier mounting for turntable. 3f. Reduce bass control on amplifier.
4. Unnatural bass emphasis	4a. Turn off loudness contour control. 4b. Place speakers farther from walls or corners. 4c. Reduce bass control on amplifier.
5. Howling occurs at high volumes (acoustic feedback)	5a. Place turntable farther from speakers. 5b. Use sturdier mounting for turntable (see also 4a, b, c).
6. Breakup or distortion on forceful recordings (especially horns, female vocals, piano, etc.)	6a. If this occurs at all listening levels on a record, check the stylus carefully for dirt. 6b. Increase tracking force on record. Tracking force should be set at the maximum recommended for that cartridge. Use several records to check this. 6c. Possible amplifier breakup (especially with CDs). Reduce listening level.
7. Distortion at moderate listening levels	7a. Check amplifier connections and all rear panel connections on speakers. 7b. Amplifier current limiting protection circuitry may be malfunctioning. Have amplifier checked.
8. Distortion at high listening levels (see section on "Listening Levels and Amplifier Power")	8a. Listen at lower levels. 8b. Purchase larger amplifier.
9. Tweeter protective circuitry trips repeatedly	9a. Amplifier too small for listening level. Reduce volume setting. 9b. Thermal protection device is overheated. Turn volume down for thirty seconds, then listen at a lower volume than before. 9c. Have amplifier checked for proper operation.

10. Not enough bass	10a. Make sure speakers are in correct phase. 10b. Move speakers closer to rear wall and/or install Bass Braces. 10c. Adjust leveling feet to better couple speaker to the floor, or use optional spikes provided.

TROUBLESHOOTING CHART PART II

Problem	*Solution*
1. Sound from only one speaker when balance control is turned to one side (When balance control is turned all the way to one side or the other, the image should shift far to one side or the other. However, some sound should still come from both speakers.)	1a. Check interconnect cable for proper connection. 1b. Check to make certain that both speakers are connected in proper phase.
2. Image does not spread outside speakers	2a. Check interconnect cable. 2b. Speakers should face straight forward, NOT angled inward. For best results, listener should be equidistant from the two speakers. 2c. Make sure amp is set to stereo and recording is in stereo. 2d. Check phase of speaker connections. 2e. Make sure speakers are at least 3 feet from side walls.
3. Image is balanced to one side or the other	3a. Check amplifier balance control for center. 3b. Check phase of speaker connections. 3c. Check program material.
4. No center image	4a. Check phase of speaker connections. 4b. Make sure jumpers are properly installed on the binding posts on the rear of the cabinet.

TROUBLESHOOTING CHART PART III BI-AMPLIFIED OR BI-WIRED SYSTEMS

Problem	*Solution*
1. No high frequency (low frequency) output	1a. Check connections to high frequency (low frequency) amplifier and speaker. 1b. Check level controls on high frequency (low frequency) amplifier or electronic crossover. 1c. Make sure high frequency (low frequency) amplifier is plugged in. 1d. Make sure jumpers on rear terminals have been removed.
2. Unnatural bass emphasis	2a. Reduce level on bass amplifier or on the low-pass section of the electronic crossover. 2b. See item 4 in Troubleshooting Chart Part I.
3. Voices sound "hollow" or recessed	3a. Check crossover frequency settings on the electronic crossover (see section on "Bi-amplifying with an Electronic Crossover"). 3b. Check phasing of both sets of amplifier connections.
4. Image is balanced to on side or the other	4a. Check balance of amplifier input level controls. 4b. See item 3 in Part II of Troubleshooting Chart.

PHYSICAL SPECIFICATIONS:

	SRS 1.2	SRS 2.3
Dimensions		
Depth	13 1/8"	13 1/8"
Width	21 3/4"	20 5/8"
Height	63 1/2"	55"
Shipping Weight per Cabinet	180 lbs.	155 lbs.
Driver Complement		
Mid L.F.	4 X MW6511	2 X MW6510
	4 X MW6503	2 X MW6511
		2 X MW6513
H.F.	4 X SL2000T	3 X SL2000T
P.R.	1 X SW150	1 X SW155
D.C. Resistance	6 ohms nominal	
Tweeter Protection	Semiconductor, thermal, self resetting	
Enclosure Type	Passive radiator, left-right mirror imaged cabinets	

Crossover Type (each cabinet)

High-pass	(One per cabinet) 2nd order Gaussian, resonance and inductance compensated; 2kHz
Progressive Point Source	(One per cabinet) Sequential first-order low-pass and high-pass resistance coupled filters set at frequencies corresponding to a geometric progression beginning at 2kHz
Low-Pass #1	(Two per cabinet) 2nd order Butterworth, impedance compensated; 2kHz
Low-Pass #2	(One per cabinet) Fully complementary sub-bass operation of all drivers below 150 Hz

Dimensional Matrix One per system

Separate external inputs available for H.F. and L.F.sections

TECHNICAL ASSISTANCE:

It is our pleasure to offer the assistance of our technical staff any time you have a question or observation. Even if your question has nothing to do with loudspeakers, we will be happy to help you with any aspect of your system set-up. Call your local Polk Audio dealer or call us directly.

SERVICE:

If for any reason you wish to have service work performed on your speaker, you may either contact your nearest authorized Polk Audio dealer or return your speaker to the factory.

If you wish to return your SDA-SRS to the factory for servicing, please write first, describing your problem and requesting permission to return your speaker. You will receive a prompt reply by mail instructing you fully as to how this is to be done. Our address is: Polk Audio, Inc. Warranty Service 5601 Metro Drive Baltimore, MD 21215

LIMITED 5-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 Franchised 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 obtain Warranty protection for your Polk Audio Product(s), you must fill out the Warranty Registration Card(s) and send them to the Factory, at the address provided on the Registration Card (s), within ten (10) days of the date of purchase.

Defective Products must be shipped, together with proof of date of purchase, prepaid insured to the Polk Audio Franchised Dealer from whom you purchased the Product, or to the Factory at the address given in this booklet. 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 Facrtory or Polk Audio Franchised 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 Franchised 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 defects 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, tampered with or defaced.

Polk Audio makes no Warranty with respect to its Products purchased from dealers or outlets other than Polk Audio franchised dealers.

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 if Polk Audio, Inc. or a Polk Audio Franchised 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 no apply to you.

All implied warranties on the 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 apple 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.

SOME RECOMMENDED MUSIC TO REALLY SHOW OFF SPECTACULAR 'TRUE STEREO'

ARTIST	DISC	TRACK(S)
Andreas Vollenweider	Caverna Magica	Caverna Magica
Herbie Hancock	Headhunters	Chameleon
Paul Young	No Parlez	Love of the Common People
Jean Michael Jarre	Oxygene	2nd track
Supertramp	Crime of the Century	School, Dreamer
Pink Floyd	Dark Side of the Moon	Many tracks
Quincy Jones	The Dude	Ai No Corrida
Linda Ronstadt	What's New	What's New
Pachelbel (Paillard) Paillard Chamber Orch.	RCD 1-5468	Kanon in D
Holst (Andre Previn) London Symphony Orch.	The Planets (EMI CDC 7 47160 2)	Jupiter
Billy Ocean	Suddenly	Caribbean Queen, Lover Boy
Dire Straits	Brothers in Arms	Many tracks
Alan Parsons Project	I Robot	I Robot
Dave Brubeck Quartet	Time Out	Time Out
Flim and the BB's	Tricycle (DMP CD-443)	Many tracks
Time Warp	(Telarc)	Ascent
Bob James	Obsession	Rain
Kenny Rogers	The Gambler	Many tracks
Willie Nelson	Stardust	Many tracks
Wolfgang Amadeus Mozart	Eine Kleine Nachtmusik Posthorn (Telarc CD 80108)	Seranade
Paul Simon	Graceland	Many tracks

–This, of course, is just a beginning. Listen to some of your favorite recordings that were great in stereo before you heard Polk SDA's. And enjoy.

polk audio
The Speaker Specialists ®
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