



Congratulations:

You are now the owner of one of the best speakers ever made by Ohm Acoustics.

Enclosed are the simple instructions for installation. It will take some experimenting with room placement to optimize their performance in your home. Do this at your leisure with a variety of music. No one setting is best for all rooms or all music.

I would personally like to thank you for choosing the Ohm 4XO and wish you many years of good listening.

Enjoy!

A handwritten signature in purple ink that reads "John Strohbeen". The signature is written in a cursive, flowing style.

John Strohbeen

President

Ohm 4XO Instruction Manual

## Assembly Instructions

Your Ohm 4XO speakers come in three cartons. Two cartons each contain identical wooden cabinet bottoms. One carton has 2 grills, the right and left drivers, eight fastening knobs, eight washers and four threaded shipping rods.

Unpack the three cartons, removing all the cardboard packing material. The identical cabinet bottoms can be used for either right or left driver.

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### Connecting the Loudspeakers

The Ohm 4XO is a floor standing loudspeaker equipped with gold plated 5-way binding posts located on the back of the cabinet.

Before connecting the loudspeakers unplug your receiver/amplifier and make sure you have the right kind of wire. We strongly recommend No. 16 gauge zip cord (also called "lamp cord") or heavier. If your Ohm dealer does not provide you with zip cord, you can pick some up at your local hardware store. Note that one side of the zip cord has a ridge (or multiple ridges) running the entire length, while the other is smooth.

The terminals of the Ohm 4XO accept bare wire or banana plugs.

Strip back no more than 1/2" of insulation at both ends of the zip cord with wire strippers, scissors or a sharp knife. Now twirl each of the exposed ends between your thumb and fore-finger in a clockwise manner. This simple procedure helps prevent stray strands of wire from shorting out the terminals.

Leave lots of slack in the loudspeaker wire until after you decide where the loudspeakers should be placed, so the components can be moved around a little without straining the connections.

To assure "in-phase" operation of your loudspeakers, so that both move up and down simultaneously, use the ribbed side of the zip cord to connect the terminals marked "+" or "POS" on the receiver to the red connection on your Ohm 4XO loudspeaker. Then connect the negative (or ground) terminal on the receiver to the black connection on the loudspeaker with the smooth side of the zip cord. Repeat this procedure identically for the other loudspeaker.

Before you plug in your amplifier (or receiver) be certain the power is turned off and the volume control is turned all the way down. After plugging in the amplifier and turning it on, slowly increase the volume until the desired volume is achieved. This will prevent any sudden power surges from damaging your new loudspeakers.

## Placing the Loudspeakers in Your Listening Room

The stereo image created by the Ohm 4XO is probably the best available from any speaker in the world, particularly if more than one person is listening at the same time. Be sure to have the speakers with top marked "right front" on the right side and the top marked "left front" on the left side. The stereo image will appear spread completely from the right speaker to the left, so place the speakers as far apart as you desire the stereo scene to be wide. Occasionally, on exceptionally well made records, the stereo image will extend beyond the speaker spacing. The optimum listening position is at least as far back as the speakers are separated and anywhere between them. See Figure 1.

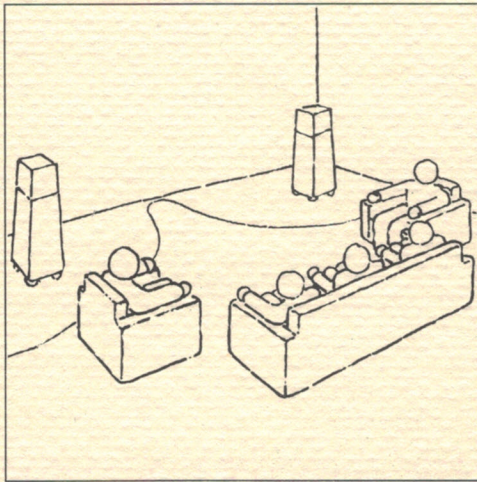


Figure 1

The Ohm 4XO has been designed to minimize problems caused by reflections from behind and beside the speakers. If there are very hard surfaces within 2 or 3 feet of the speaker it might have some effect upon the stereo image. Experiment to get the best results. The speaker can be placed flush against the wall for more listening and easily moved forward on the casters for critical listening and evaluating new records or components.

The Ohm 4XO's wide dispersion and special method of sound reproduction produce excellent results when the speakers are placed from 6 to 11 feet apart. As a general rule, the distance between the two loudspeakers will determine the apparent width of the sound stage. Individual experimentation will determine just how wide you would like the spread of stereo images in your listening room.

Placement of the loudspeakers in relation to wall surfaces affects bass performance. The closer the loudspeaker is to a wall corner, the louder the output will be in the range below 150 cycles.

## The Real Wood of Your Ohm 4XO

Your Ohm 4XO has been beautifully finished in real wood veneer. Unlike imitation wood, the natural appearance of real wood has a grain and color which vary from unit to unit. Your Ohm 4XO's handrubbed real wood veneer should be polished or oiled every so often to prevent the finish from drying out. If white streaks or opaque white spots appear on the finish, it's a sure sign that the veneer is dry and the cabinets should be polished or oiled immediately. Any good furniture polish is fine. Several coats of clear mineral oil provide excellent results as well. For optimum furniture care, Ohm offers a special Lemon Grass Oil. Ohm Lemon Grass Oil is available by writing Ohm Acoustics.

If the doubleknit grill covers become dusty or linty you should remove them and vacuum them carefully with an ordinary household vacuum cleaner.

## CAUTION:

Following these simple rules will ensure you of many years of enjoyment from your Ohm 4XO loudspeakers.

The power handling capacity of your loudspeaker has been conservatively rated. Ferro Fluid cooling as well as thermal overload devices are built into the drivers to absorb momentary overloads.

In addition, the Ohm 4XO's inverted conical surface has a special mechanical lockgate which protects its coil from mechanical overloads. This device makes a popping noise. To prevent damage, the volume should be reduced until the popping noise goes away.

Although your Ohm 4XO is rated to be used with amplifiers of up to 400 watts per channel, it is possible to damage your loudspeakers

with smaller units. Disco, heavy rock, crescendos in classical music, accidental dropping of the tonearm on your record or rapid changing of FM stations can drive an amplifier to produce an inordinate amount of distorted power (as much as 10 times the rated amount) which is fed to the loudspeaker—possibly damaging it.

Also please be aware that bass and treble controls, as well as equalizers, are simply frequency localized volume controls and should not be boosted when the volume control is in the 1/2 to 2/3 danger zone. We call this the danger zone because amplifiers reach their rated power with a volume control setting considerably below the maximum rotation of the knob. If the music begins to sound harsh or raspy it is a clear indication that the amplifier is being overdriven. The harshness is a characteristic result of "clipping." This clipping is the most damaging kind of signal an amplifier can deliver to a loudspeaker.

## WARNING:

Do not remove the circular metal grill. The Ohm 4XO incorporates several critically placed tufflex transmission blocks. This acoustically transparent metal grill has been permanently bonded to its housing in order to protect precise alignment and performance by these blocks. Removal of or damage to the grill will seriously impair performance and void warranty.

## ATTENTION:

This speaker has been equipped with an extra Thermo-Gaurd™ protection device, at no extra cost. If the speaker approaches thermal overload (usually the result of clipping a low-power amplifier) its output will be drastically reduced. Turn the amplifier power down, and the circuit will reset in two minutes or less. Your speaker will again play at normal volume levels.

## SPECIFICATIONS

Frequency Response	32 Hz to 22 kHz (Minimum Specs)
Efficiency	1 watt (2.83 volts) input will produce 90 dB SPL at 1 meter
Amplifier Recommended Power on Music	Min 30 watts (rms), Max 400 watts (rms)
Peaks on CD's	600 watts
Impedance (IEEE)	Nominal 8 ohms
Connection to Amp	Press terminals accept banana plugs or bare wire up to 12 gauge
Enclosure	Optimally vented (4th Order Butterworth)
Grillcloth	Doubleknit
Size	36"H×13½"×13½" at bottom tapering to 10½"×10½" at top
Weight	40 lbs



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*We make loudspeakers correctly*

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