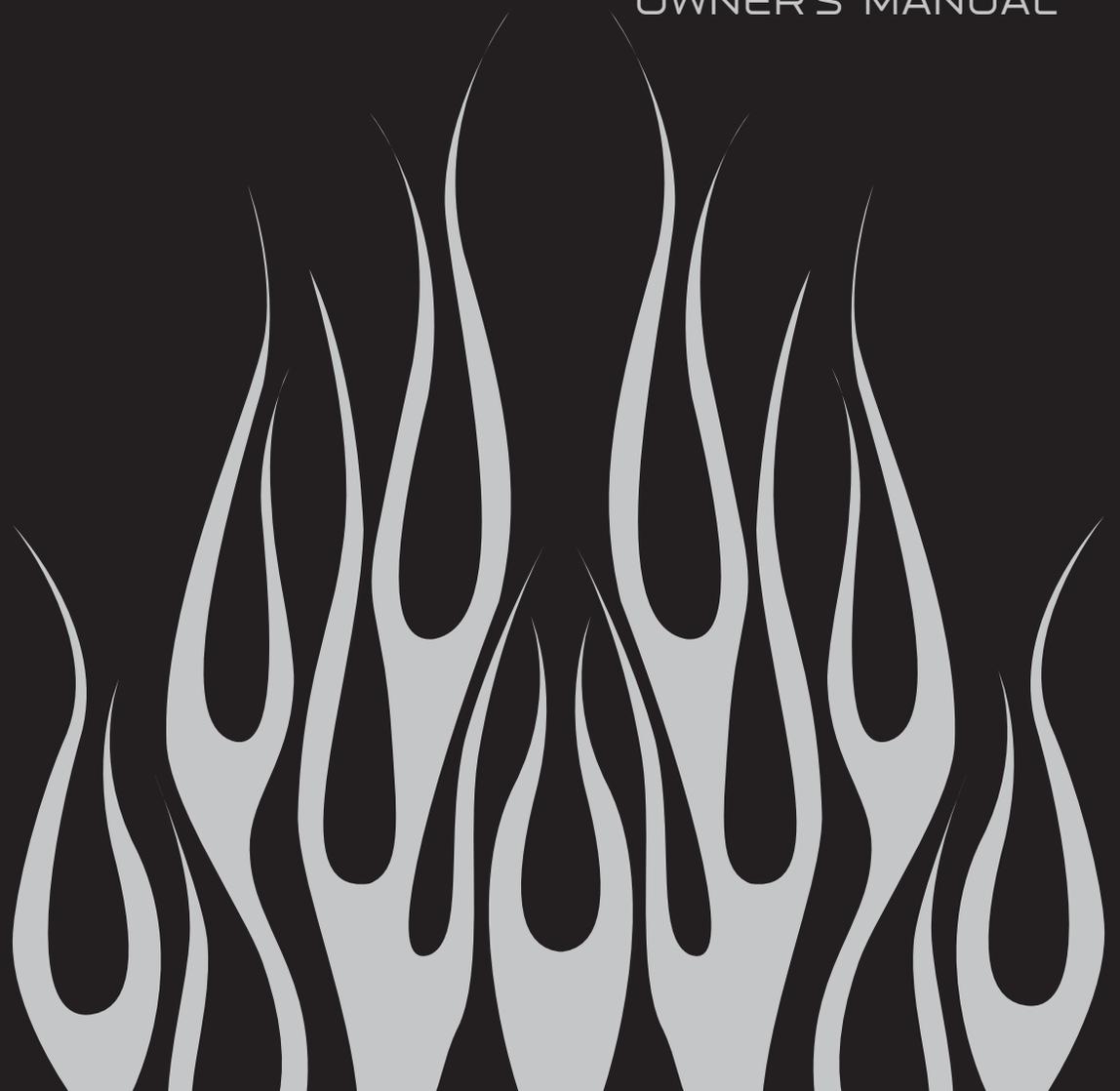




Audiobahn®

AMR60H / AMR80H
OWNER'S MANUAL



Woofers Content

Mid-Range/Bass Drivers
Audiobahn 8 Ohm Voice Coil
Audiobahn Sticker
Installation & Owner's Manual
Wipe Towel
Registration and Warranty Card

Technical Design Features

8 Ohm Voice Coil
2 Layer High-Temp TIL Voice Coil
Stamped Steel Basket
Paper Cone
Treated Cloth Accordion Surround
Aluminum Phase Plug

WIRING

Audiobahn recommends using at least 14-gauge wire with your new speaker. Thinner gauge wire may easily be severed and can cause damage to your system should any bare wires come in contact with the vehicles chassis.

Makes sure that your audio system is off while installing and connecting your new Audio-bahn Speakers. Failure to do so could result in damaging the speaker beyond repair. This is not something that would be covered under the manufacturer warranty.

Be sure to route the wires to the speakers with the insulated terminal ending at the speaker. This will insure a good contact with the speaker. If you need to shorten the speaker lead, do so on the opposite end of the insulated terminals or the bare end.

Be sure the polarity is correct at all times. The speaker leads are color coded for negative and positive. Make sure that the leads connected to the positive terminal of your amplifier or source unit is correctly connected to the positive terminal of the speaker.

To insure long-term reliability all bare wires and wire-to-wire connections should be soldered and insulated with heat shrink or electricians tape. Under no circumstances should you leave any bare wires uncovered, as this can and will lead to the failure of your speakers and possibly other components.

When mounting in a door it is imperative to have the right amount of slack in the connecting wire as to not get crimped or torn when the door is opened or closed. Avoid areas of the door jam that pinch. This will cause damage to the speaker and other components over long-term use.

Once the speaker wiring is complete, you can connect the opposite end to the amplifier or source unit. Again, be sure to observe correct polarity. Solder and wrap all stripped connections.

Building an Enclosure

To work properly, the walls of the enclosure must be rigid and not flex when subjected to high pressure generated by the speaker's operation. For optimum performance, we recommend using 3/4" MDF (Medium Density Fiberboard) and internal bracing. The enclosure should be glued together along with support of screws or nails. Because MDF is porous, it is suggested that you seal the outside with polyurethane prior to painting or carpeting.

Calculating Volume

Calculating is merely a matter of measuring the dimensions in inches, and using the following formula:

Box Volume = (Height) x (Width) x (Depth) divided by 1728. This will give you the volume of the box in cubic feet.

If two facing sides are uneven length, add them together, and divide by 2 to take the average. Using this number will give you the volume without the necessity of calculating the box in sections, and adding the sections together. The thickness of the baffle material reduces the internal volume so this must be subtracted from the outside dimensions to determine the internal volume. The amount of air displaced by each model is listed on the specifications sheet in this manual and should also be subtracted from the gross volume calculation. All box parameters include displacement for ports and subs. These specs do not include the volume of the material used to build the box, so this must still be factored into the calculation.

Crossover

There are two operational types of crossovers, passive and active. Passive crossovers (coils and conductors) are placed on the speaker leads between the amplifier and the speaker. An active crossover is an electronic filter which separates the audio signal fed to different amplifiers.

Audiobahn Specifications

All ports listed are circle ports unless otherwise stated. Surface area of a circle port = (3.14) X (radius) (squared)

Remember to build your box to the total volume, not just air space, as total volume includes all displacement.

Model #	AMR60H	AMR80H		AMR60H	AMR80H
T/S Parameters			Enclosures		
Fs	155.9	94.5Hz	PORTED		
Qts	0.94	0.88			
Qes	1.08	0.93	Air Space (Cu. Ft.)	0.695	0.746
Qms	7.5	14.68	Port Size (Inches)	4 x 6.75	3 x 8
Vas (Liters)	2.6	11.6	Port Vel. (%)	13	10
Vas (Cu. Ft.)	0.0918	0.4096	-3dB (Hz)	40Hz	45Hz
Re	5.5	5.5	Tune Freq. (Hz)	44Hz	50Hz
Le	.4mH	.4mH	Port Disp.(Cu. Ft.)	0.05	0.035
Xmax	+/- 2mm	+/- 2mm	Total Vol. (Cu. Ft.)	0.75	0.8
RMS	250 Watts	325 Watts			
Freq. Resp.	100-10kHz	90-10kHz	Sealed		
Efficiency	105dB	103dB			
Dimensions			Minimum (Cu. Ft.)	0.3	0.15
			Maximum (Cu. Ft.)	0.7	0.9
			SPL (dB)	82.5dB	85.7dB
Depth	2.2"	2.6"	All sealed boxes already include the displacement for the subwoofer. NR = (Not Recommended)		
Hole	5.59"	7.1"			
Diameter	6.5"	8.2"	The larger a sealed box is, the lower the sub will play, but the less power it will handle. The smaller a sealed box is, the higher the frequency the sub will play, and the more power it will handle.		
EBP	144	101			

If you start having problems with distorted sound or loss performance after installing your subs, you can follow the instructions below to try and locate what is causing the problem.

1. If you have any distorted sound, loss of performance, or rattling from your subs, check the connections running from your amplifier or other processor to the box. You will also want to check the connections inside the box to make sure no wires have become unhooked or are loose.
2. If the above does not solve the problem, check your enclosure thoroughly to see if there are any leaks, cracks, or broken pieces. Any loss of structural integrity of your enclosure can cause significant performance loss and distortion.
3. The next step you can take is to remove the subs and look for any burned wire leads or separated components. You can normally smell something burning when a sub blows or is going bad. Sometimes when you play subs to hard for too long, they will start to heat up.
4. If none of the above steps solve the problem, you will want to start looking at the other components in the vehicle. Start by checking all connections to and from the box, amplifier, source unit, or any other processors you may be using. You will need to reference to that particular manufacturer for any setting configurations or troubleshooting.