

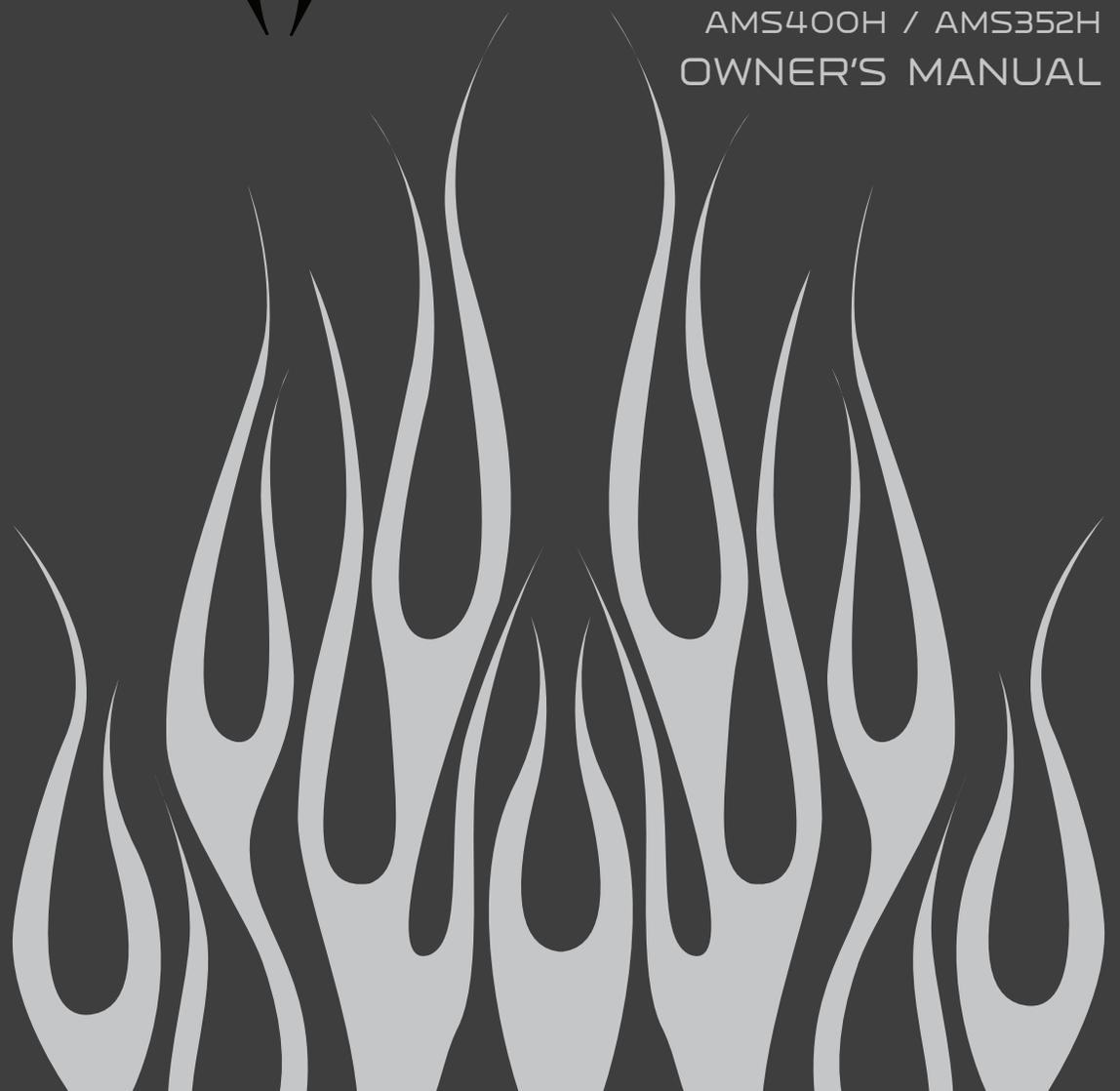


urdered Out Series

By **Audiobahn**

AMS690H / AMS680H / AMS620H /
AMS525H / AMS460H /
AMS400H / AMS352H

OWNER'S MANUAL



FEATURES

Carbon Injection Cone
 Butyl Rubber Surround
 2 Layer High-Temp ASV Voice Coil
 4 Ohm Impedance
 Polyswitch Tweeter Protection Circuit
 Standard and Custom Grilles 4" and Up
 Complete with Mounting Hardware

POWER HANDLING

AMS690H: 175 Watts RMS
 AMS680H: 85 Watts RMS
 AMS620H: 80 Watts RMS
 AMS525H: 70 Watts RMS
 AMS460H: 60 Watts RMS
 AMS400H: 60 Watts RMS
 AMS352H: 40 Watts RMS

ACHIEVABLE POWER

AMS690H: 385 Watts
 AMS680H: 190 Watts
 AMS620H: 180 Watts
 AMS525H: 155 Watts
 AMS460H: 135 Watts
 AMS400H: 135 Watts
 AMS352H: 90 Watts

FREQUENCY

AMS690H: 25Hz-20kHz
 AMS680H: 52Hz-20kHz
 AMS620H: 35Hz-20kHz
 AMS525H: 50Hz-20kHz
 AMS460H: 65Hz-20kHz
 AMS400H: 75Hz-20kHz
 AMS352H: 80Hz-20kHz

MAGNET WEIGHT

AMS690H: 35 oz.
 AMS680H: 18 oz.
 AMS620H: 18 oz.
 AMS525H: 15 oz.
 AMS460H: 15 oz.
 AMS400H: 15 oz.
 AMS352H: 10 oz.

SPEAKER SIZE

AMS690H: 6x9" 3-Way
 AMS680H: 6x8" / 5x7" 2-Way
 AMS620H: 6.5" 2-Way
 AMS525H: 5.25" 2-Way
 AMS460H: 4x6" 2-Way
 AMS400H: 4" 2-Way
 AMS352H: 3.5" 2-Way

SENSITIVITY

AMS690H: 93 dB
 AMS680H: 91 dB
 AMS620H: 93 dB
 AMS525H: 93 dB
 AMS460H: 92 dB
 AMS400H: 91 dB
 AMS352H: 91 dB

CHOOSING A LOCATION

It is always best to plan the complete installation prior to attempting to install any product. The routing of wires, power connections and mounting locations should be planned first. As with any car stereo installation, and all work performed should be checked thoroughly and carefully prior to the operation of the system.

The placement of your Audiobahn speakers within your vehicle will greatly affect the overall performance of your audio system. Every vehicle is different, so installation into particular locations of the vehicle may not be possible without modifications. Factory provided locations are generally preferable due to ease of installation. In all cases speakers should be placed in a location free of obstruction by body panels, window cranks, storage compartments or anything that may hinder the speakers performance. Avoid areas that do not provide a flat, sturdy mounting surface.

Audiobahn speakers are designed to fit into almost any factory location. Again, if at all possible it is recommended that you use a factory location. This applies mostly to later model vehicles. For those earlier models that do not have factory locations or are limited to front locations, it is recommended that you choose an area with sufficient airspace.

If you allow an insufficient amount of airspace, the speaker may not reproduce low frequencies very well. It is recommended to mount the speakers in door panels, kick panels, rear decks, etc. Ideally the speaker should be mounted where it will be in an enclosed airspace allowing for extended bass response.

Installation

NOTE: Audiobahn strongly recommends that you operate your system at low volumes prior to the completed installation of your Audiobahn speakers. This will allow a test of the speaker before securing it to its permanent location.

Caution: Make sure that all speaker wiring is fully protected from cuts, tears and possible wear. All short circuits developing as a result could severely damage the source unit or possibly the amplifier as well as the speakers themselves. Make sure all speaker wires are placed easily within reach of the speaker terminal with no stress on the wire connectors.

Mounting

1. Confirm the mounting location and depth requirements by inspecting the area where the speaker will be mounted. Most speakers will fit into stock locations on the vehicle. In this case only depth consideration is important.
2. If the location you have picked does require cutting, you may use the supplied template to help you locate and mark the mounting location and cuts to be made. Be careful when cutting out the template. If you cut the template properly, the speaker will be a perfect fit.
3. If there is a cosmetic panel where the speaker will be mounted, we recommend using a utility knife to carefully cut a hole in it. Confirm the cut by placing the speaker in the hole. You may need to modify the hole cut as necessary.
4. If it is necessary to cut steel, reinstall the cosmetic panel in place and use the hole you have previously cut as a template. This will help to insure proper cutting and a good fit. Mark the locations for the speaker mounting screws. Then remove the panel and drill the screw holes. When finished you can replace the panel.
5. After cutting and drilling all holes, inspect the mounting areas for any metal burrs or rough edges. File any area that may interfere with the mounting of the speaker.
6. Clean any metal shavings from the mounting area and check for areas in which water may enter the speaker cavity. Treat the area for water protection when necessary.

Make sure your source unit (Cassette, CD, DAT, DVD etc.) is turned off while connecting the speaker terminals. Turn on the various components and slowly advance the volume. Remember to check and recheck all connections to insure you have a secure fitting.

Wiring

Audiobahn recommends using at least 18-gauge wire with your new speaker system. 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.

Make sure that your audio system is off while installing and connecting your new Audiobahn speaker. 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.

Securing the Speaker

Once you have tested your system and confirmed that it is operating properly, turn off your system and prepare for the mounting of the speaker.

1. Position the speaker into the mounting hole and confirm the correct mounting location and hole placement. Screw clips are provided to insure a snug fit. Place screw clips over the metal surface and line up the hole with the hole you have previously drilled. Place the speaker into the hole. Align the mounting holes and proceed to insert the screws. Be sure to tighten the screws evenly as not to warp the speaker frame.
2. Turn your system back on to confirm the speaker's proper operation. First test at low volume and then you may steadily increase the volume as desired.
3. The next steps will aid in the proper mounting of the speaker grills. Follow these steps carefully and be patient. First, locate the special bonding rubber which is located between the wax paper in the hardware package.
4. Carefully inspect the mounting ring where the grill will be inserted. You will notice 4 to 6 channeled areas. This is the area where the bonding rubber will secure the grill to the speaker.
5. Break off pieces of the bonding rubber that correspond to the size of the channels and insert it snugly in place. Once all of the channels have been filled, carefully insert the grill and press firmly into place.

Warning

It is extremely important that the mounting ring is correctly installed around the speaker. You may notice differences in the inner shape of the grill. These cutouts are so the bridges holding the tweeters and or mids do not touch. You should be able to see the bridge unobstructed when the ring is mounted.

In the event that your Audiobahn speakers appear to require service we ask that you first do a little troubleshooting to determine if the problem is actually the speaker, or a problem located in a different part of the vehicle such as the amplifier, wiring, fusing or possibly the source unit.

If your Audiobahn speakers have been installed professionally by an authorized Audiobahn Dealer, we recommend that you return to the dealer and demonstrate the problem to a qualified installer or repair technician. If you installed the speaker yourself, use the following guidelines to help find the problem.

1) No Sound

- *Check the source or amplifier for power and be sure they are operating properly
- *Check all signal connections
- *Check for any wiring that may be shorting together or touching the metal chassis
- *Check all ground connections

2) Distorted Sound at All Volumes

- *Check for bad speaker connections
- *Check wiring for correct polarity

3) Distorted Sound at High Volumes Only

- *Check for loose mounting of the speaker
- *Check the woofer cone for any damage or defects
- *Inspect the speaker for debris in the cone or other obstructions

4) Poor Bass Response

- *Check wiring for correct polarity
- *Check for unstable or loose mounting surface
- *Check bass & treble controls at the source unit or amplifier

5) Poor High Frequency Response

- *Check wiring for correct polarity