5.2 Front Channel Speaker Owner's Manual

CITATION

harman/kardon

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Introduction

Thank you for selecting the Citation 5.2 Front Channel Speaker as part of your audio system. It has been carefully designed to deliver the best possible sonic performance for both home theater and critical audio applications. In order to obtain the maximum enjoyment from your new speaker, please take a few minutes to read the information contained in this manual. This brief investment of time will yield major dividends by making certain that your new speaker is properly installed and optimized for the specifics of your system.

Welcome to the Citation family. We wish you many years of listening pleasure!



Description

The Citation 5.2 is an audiophile-quality, two driver, two-way loudspeaker, intended primarily for front channel (left, center, right) placement in a home theater system or critical listening environment. Additional pairs may be used for surround channel reproduction (right side, right back, left back, left side) in installations where customer preference is to achieve a highly localized surround field.

A major goal of the Citation 5.2's design is to provide wide, flat response characteristics with low distortion and high output capability. The use of a midbass/midrange driver with a large voice coil permits greater power handling capability, while a carefully tuned precision crossover system and detailed attention to the interplay of the drivers and cabinet deliver exceptional performance.

Unpacking

The carton and shipping materials used in protecting your new speaker were specially designed to cushion it from the shocks and vibration of shipping. We suggest that you save the carton and packing materials for use in shipping if you move or should the unit ever need repair.

To minimize the size of the carton while in storage, you may wish to flatten it. This may be done by carefully slitting the tape seams on the bottom and collapsing the carton down to a more two-dimensional appearance. Other cardboard packaging and protective materials may be stored in the same manner. Packing materials that cannot be collapsed should be saved along with the carton in a plastic bag.

Speaker Placement

The Citation 5.2 is specifically designed to be used in a vertically-oriented operating position. Operating the speaker in a horizontal position will compromise system performance.

To assure optimal performance of the Citation 5.2, careful placement of the speakers in a system is of great importance. If you are in doubt as to the proper speaker locations in your specific installation, please consult your dealer or installer. They know your installation best, and will be able to advise you on speaker placement.

Ideally, the speakers should be placed so that they are located at a height equivalent to the seated listener's ear level. This may require the speakers to be placed on stands to elevate them to the proper height. If the speakers must be placed near the floor, underneath a projection screen, they should be angled up slightly towards the listener's ears. (Figure 1)

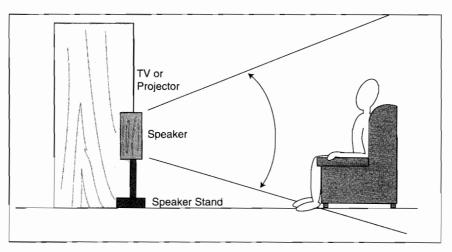


Figure 1 Speaker Placement

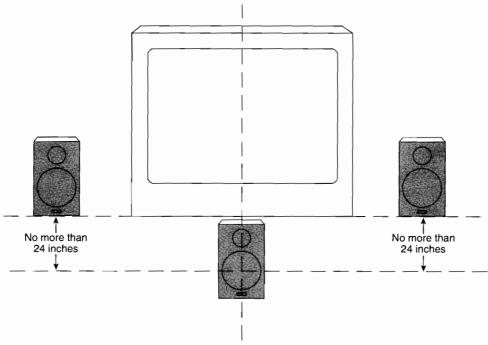


Figure 2 Speaker Positioning

Left and right channel speakers should be placed so that they are just at the sides of the projection screen or television set. Since the Citation 5.2 speakers are magnetically shielded, there will be no interference with the video picture.

The **center channel speaker** should ideally be placed in line with the left and right speakers. If you are using a front screen projector, a specialized perforated screen will enable you to place the speakers directly behind the screen, emulating the way sound systems are installed in a movie theater. With other video displays, such as rear screen projectors or direct view TV sets, the speaker should be placed at the center of the screen, with the top of the speaker as close to the bottom of the screen as possible. Once the center speaker is positioned, adjust the height of the left and right speakers so that the point between their two tweeters is no more than 24" off center from the same spot on the center channel speaker. (Figure 2)

Important Installation Note: Although not THX® certified, the Citation 5.2 is designed to match the Citation 7.2 in many critical respects. The 5.2 incorporates high performance drivers which are similar or identical to those used in the 7.2. The 5.2 is designed to be used with a Home THX Controller such as the Citation 7.0 which contains an internal electronic crossover and a complementary subwoofer such as the Citation 5.4.

When setting up your system, prior to the first use of the speakers, be certain that the electronic crossover is engaged or "on". If you are using these speakers with a conventional receiver or surround processor, an external low-pass filter or electronic crossover must be used to remove low frequencies from the speaker's signal feed.

Please consult your dealer or installer with any questions about the use of this speaker. Operation of the Citation 5.2 at high sound levels without proper installation may result in damage to the speaker that is not covered by the warranty.

System Connections

Note: When making connections between speakers and amplifier, always make sure that the amplifier is turned off. To assure that there will be no unwanted signal transients that can damage equipment or speakers, it is always best to unplug all equipment before making any connections. Modern electronic products often have a "standby" mode that may be activated even though the product appears to be turned off.

As a general rule, avoid running any input signal or speaker wire connections in parallel with each other, or with AC power cords. This can result in undesired hum or other interference that will greatly degrade system performance.

Cables or Connecting Wire

To assure that the high quality signals produced by your Citation system are carried to your speakers without loss of clarity or resolution, we recommend the use of high quality speaker cable. Many brands of cable are available, and the choice of cable may be influenced by the distance between your speakers and the amplifier, the type of speakers in use, personal preferences, and other factors. Your dealer or installer is a valuable resource to consult in selecting the proper cable for connections between your amplifier and speakers.

Regardless of the brand or type of cable selected, we recommend that you use cable constructed of fine, multi-strand copper with a gauge of 14 or larger. Remember, that when specifying cable, the lower the number, the thicker the cable.

Cable with a gauge of 16 may be used for short runs of less than ten feet. We do not recommend that you use any cables with an AWG equivalent of 18 or higher due to the power loss and performance degradation that may occur.

One way to insure that cables will deliver a predictable level of performance is to use cables that are Home THX certified. This certification assures that the cables have met a rigorous set of specifications designed for home theater applications.

Cables that are run inside walls should have the appropriate markings to indicate listing with UL, CSA or other approved testing agency standards for that application. Questions about running cables inside walls should be referred to your installer or a licensed electrical contractor who is familiar with the NEC and/or the applicable local building codes in your area.

Connections to Speakers

Connections to the speakers from the system's amplifier may be made using bare wire, banana plugs or spade lugs.

If bare wire is used for the connections, strip approximately 1/2 inch to 3/4 inch (20mm) of insulation from the end of each wire and carefully twist the strands of each conductor together. Be careful not to cut the individual strands or twist them off; for optimal performance, all strands should be used.

Before connecting the wires to the speaker, note that the binding post connections have black and red-colored rings on the gold-plated terminals. These are your keys to maintaining correct phasing with the amplifier and processor.

Loosen the speaker binding posts far enough so that the pass-through hole is revealed. Note that one conductor of the speaker cable will have no markings, and the other will have a red line, brand name markings, a colored thread, or some other positive indication. Place the wire with the "+" sign, thread or markings through the hole in the terminal with the red-colored ring. This is the "positive" conductor. Place the wire with no markings, or a "-" sign through the terminal with the black colored ring. This will be the "negative" conductor. Twist the binding posts back so that a positive connection is made, but do not overtighten or use tools, as this may break the delicate wire strands and decrease system performance. (Figure 3)

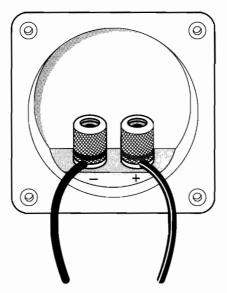


Figure 3 Terminal Cup

If you are using spade lugs, connect them to the wire using the manufacturer's instructions, and then loosen the caps on the speaker terminals. Place lugs between the screw terminal and the back of the binding post, as if it were a horseshoe on the game's post. Be sure to observe proper polarity, by placing the "-" or blank wire to the black post, and the "+" or marked conductor to the red post. Tighten with your fingers to obtain a positive contact.

Banana plugs may simply be inserted into the jack provided on the speaker terminal connection. Before inserting the plugs, make certain that the binding post's screw cap is tightened down by turning it in a clockwise direction. This makes certain that the maximum contact area is available. Also, be certain that the plugs are firmly inserted so that a proper connection is made.

Finally, run the cables to the amplifier, and connect the cables using the instructions provided by the manufacturer. When making connections at the amplifier end, be certain to observe proper polarity, connecting the "black" wire to the negative terminal and the "red" wire to the positive terminal.

It is highly recommended that the length of cable connecting any set of speakers be identical. For example, make certain that the cable length connecting left, center and right front speakers, or the left and right rear (surround) speakers are identical, even though one speaker may be physically closer to the amplifier than the other. If one speaker has excess wire in its lead to maintain equal length, make certain the extra cable is NOT coiled in a circle, as this may form an inductor that will negatively impact the performance of your speakers.

System Verification

Before using your speakers with program material for the first time, it is always a good idea to verify that the speakers are connected to the proper amplifier and processor output channels with regard to their location. An easy way to do this is to use the test signal generator built into all Dolby Pro LogicTM and Home THX processors.

First, turn down the volume level on your processor, to avoid any damage to the speakers at turn on. Then, turn on your system and place it in the "test" mode as indicated in the processor's instructions. This will cause a pink noise signal to circulate around the room, starting with the left, then moving to the center, right and rear speakers. Take a minute to listen and note if the speakers are producing sound in the proper sequence.

This process may also be done with the "WOW!" laser disc offered with many Home THX processors, such as the Citation 7.0. Chapter 7 on Side 2 of the disc contains circulating test signals, with an on-screen indication to assist you in making certain that the sound is emanating from the proper speaker.

Operation

Operation of the Citation 5.2 is simple, and there are no controls to adjust. Audio levels are set and adjusted using the appropriate controls on your controller, processor, preamp or electronic crossover.

Service Information

If your installation followed the suggestions in this manual you should enjoy many years of trouble-free operation and high-quality listening enjoyment. If you suspect that there is a problem that requires assistance, contact your dealer, installer or the Citation Center at 800-787-6766. The Citation 5.2 does not contain any user-serviceable parts.

It is important that any repairs be carried out only by an authorized Citation service agent to assure proper service and to preserve the protection of your Limited Warranty. It is a good idea to keep your sales slip or receipt in a safe place with this manual so that it will be available to verify the purchase date for warranty claims.

Use & Care

The high-quality wood veneer finish of your Citation 5.2 may be cleaned with any furniture-grade wood polish. Do not use petroleum-based cleaners or polishes, and do not use any abrasives. Any dust that accumulates on the grille cloth may be lightly brushed away by hand, taking care not to put too much pressure on the grille.

Specifications

Frequency Response:	90 Hz – 23 kHz ±3 dB
Driver Complement:	Midbass/Midrange, One 5" Driver with 3" Voice Coil HF, One 1" Soft Dome Tweeter
High Frequency:	One (1) 1" Soft Dome Tweeters
Nominal Impedance:	8 Ohms
Sensitivity:	88 dB SPL/1 watt @ 1 meter
Power Handling Capability:	Over 200 watts Midband with Electronic Crossover
Dimensions (HxWxD):	12 x 7-1/2 x 6 inches 305 x 191 x 152 mm
Weight:	15 lbs/6.8 kg