

HKTS 9/16

Home Theater Speaker System

User Guide
English



harman/kardon®
Designed to Entertain.™

HKTS 9/16 Home-Theater System Owner's Manual

Table of Contents

Introduction	3
Description and Features	3
HKTS200SUB Subwoofer Rear-Panel Connections.....	4
Speaker Placement	5
Mounting Options.....	5
Speaker Connections	6
Operation.....	10
Troubleshooting.....	10
Specifications	11

Important Safety Instructions

Please read the following precautions before use:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.
16. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
17. The mains plug of the power supply cord shall remain readily operable.
18. Do not expose batteries to excessive heat such as sunshine, fire or the like.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Harman Kardon® HKTS 9/16

Typographical Conventions

We have employed certain conventions to help you use this manual:

❶ – (number in a circle) – Indicates a rear-panel control or connection on the illustration of the HKTS200SUB subwoofer

Example (bold type) – Indicates the name of a specific control or rear-panel connection on the HKTS200SUB subwoofer

E X A M P L E (OCR type) – Indicates a control or switch setting on the HKTS200SUB subwoofer

Harman Kardon® HKTS 9/16

Introduction

Thank you for purchasing the Harman Kardon® HKTS 9/16 speaker system, with which you're about to begin many years of listening enjoyment. The HKTS 9/16 has been custom designed to provide all the excitement and power of the cinema experience in your own living room.

While sophisticated electronics and state-of-the-art speaker components are hard at work within the HKTS 9/16, hookup and operation are simple. Color-keyed cables and connections, and simple controls make the HKTS 9/16 easy to use.

To obtain maximum enjoyment from your new home theater speaker system, we urge you to take a few minutes to read through this manual. This will help ensure that the connections you make to your receiver (or preamp/processor), amplifier and other devices are correct. In addition, a few minutes spent learning the functions of the various controls will enable you to take advantage of all the power and refinement the HKTS 9/16 is able to deliver.

If you have any questions about this product, its installation or its operation, please contact your dealer, the best local source of information.

Description and Features

The HKTS 9/16 is a complete six-piece home theater speaker system that includes:

- An 8-inch, 200-watt powered subwoofer
- Four identical two-way video-shielded satellite speakers (the HKTS 16 satellite speakers feature dual drivers) for the left and right front, and left and right rear (surround) speaker positions
- A dedicated, voice-matched, video-shielded, dual-driver center speaker
- Shelf stands and wall-mount brackets for the satellite speakers and a wall-mount bracket for the center speaker.
- All of the cables you need to connect all of the speakers to your receiver or preamp/processor and amplifier.

The speaker cables all use a color-coding system to conform to the Consumer Electronics Association (CEA®) standard. This color-coding system minimizes confusion when connecting the speakers, especially when the HKTS 9/16 system is used with a Harman Kardon receiver.

Shelf stands and wall-mount brackets are included for the satellite and center speakers, and shelf stands are included for the satellite speakers. Optional HTFS 2 floor stands are available separately from your Harman Kardon dealer.

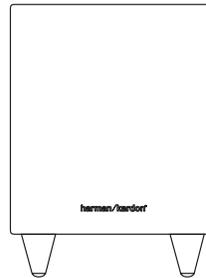
Harman Kardon invented the high-fidelity receiver fifty years ago. With state-of-the-art features and time-honored circuit designs, the HKTS 9/16 is a perfect complement to a Harman Kardon receiver, or any home theater system.

Included

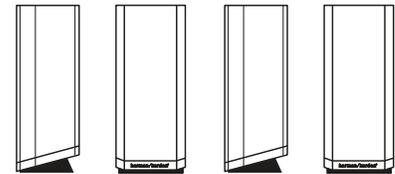
One center-channel speaker



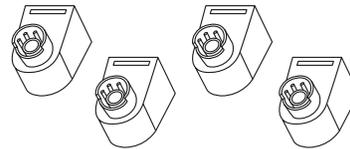
One powered subwoofer



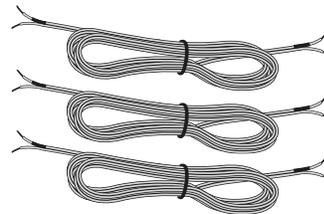
Four satellite speakers: a left front speaker, a right front speaker, and two rear surround-sound speakers, with color-keyed stickers (shown with included shelf stands attached). (HKTS9 satellites shown)



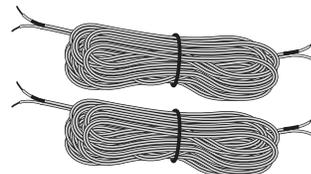
Four wall-mount brackets for satellite speakers



One combination LFE (low-frequency effects) and trigger cable for connection to the subwoofer (LFE cable has purple connectors)

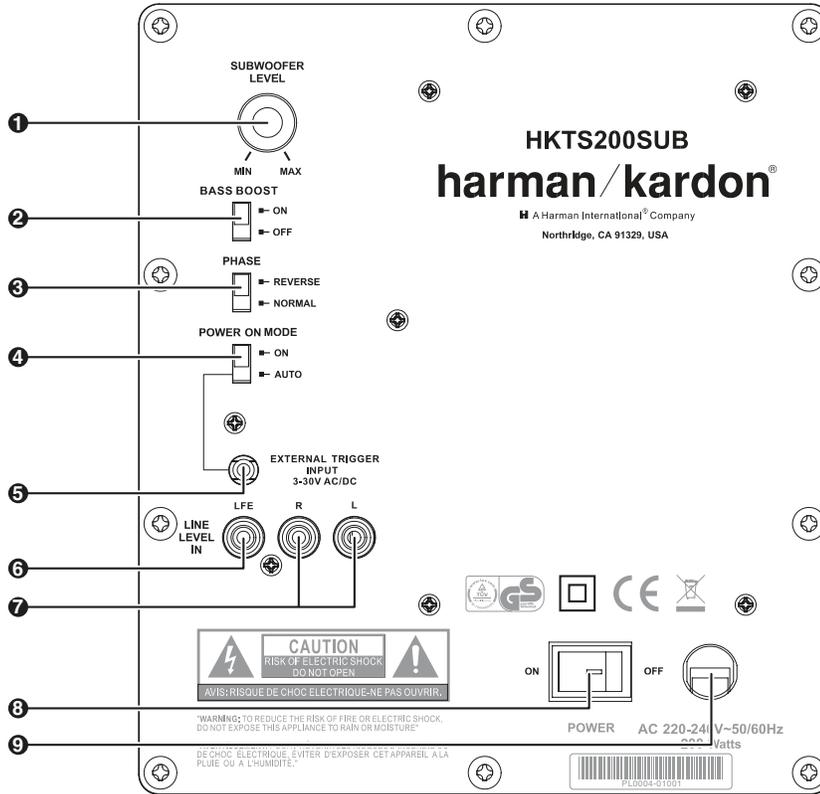


Three six-meter (19.7-foot) speaker cables for connection to front satellites (red and white) and to center speaker (green)



Two 12-meter (39.4-foot) speaker cables for connection from receiver to rear surround-sound satellites (gray and blue)

HKTS200SUB Rear-Panel Connections



- 1 Subwoofer Level Control:** Use this control to adjust the HKTS200SUB's volume. Turn clockwise to increase the volume; turn counterclockwise to decrease the volume.
- 2 Bass Boost Switch:** Set this switch to **ON** to enhance the HKTS200SUB's low-frequency performance. Set this switch to **OFF** for normal low-frequency performance.
- 3 Phase Switch:** The Phase Switch **3** determines whether the HKTS200SUB's piston-like action moves in and out in phase with the satellite speakers. If the subwoofer were to play out of phase with the satellite speakers, the sound waves produced by the subwoofer could be canceled out, reducing bass performance and sonic impact. This phenomenon depends in part on the relative placement of all the speakers in the room. In most cases the Phase Switch **3** should be left in the **NORMAL** position. However, it does no harm to experiment, and you can leave the Phase Switch **3** in the position that maximizes bass response and impact.
- 4 Power On Mode Switch:** When set in the **AUTO** position and when the Power Switch **8** is set to **ON**, the HKTS200SUB will automatically turn itself on when it receives an audio signal, and will enter the standby mode once no audio signal has been received for about 15 minutes. When this switch is set in the **ON** position, the HKTS200SUB will remain on whether or not it is receiving an audio signal. An LED on the HKTS200SUB's top panel indicates whether the subwoofer is in the on or standby state:
 - When the LED is illuminated white, the HKTS200SUB is turned on.
 - When the LED is not illuminated, the HKTS200SUB is in standby mode.
 When the Master Power Switch **8** is set to **OFF**, the LED will not be illuminated, no matter what setting the Power On Mode Switch **4** is in.
- 5 External Trigger Input:** Use the mini-plug of the supplied combination LFE and trigger cable to connect the External Trigger Input to the trigger output of another compatible component. Whenever a trigger signal between 3 and 30V (AC or DC) is detected, the HKTS200SUB's amplifier will turn on. The HKTS200SUB's amplifier will turn off after the trigger signal ceases. (This will occur even when the Power On Mode Switch **4** is in the **AUTO** position.)

- 6 Line-Level LFE In Connector:** Use the LFE (purple) connector of the supplied combination LFE and trigger cable to connect the Line-Level LFE In to the dedicated subwoofer output of a receiver or preamp/processor. This input bypasses the HKTS200SUB's internal crossover circuitry, so it should only be used with a subwoofer output that has been low-pass filtered. If your receiver or preamp/processor does not have a dedicated subwoofer output that is low-pass filtered you should use the HKTS200SUB's Line-Level L/R In Connectors **7** instead.
- 7 Line-Level L/R In Connectors:** Use these connectors if your receiver or preamp/processor does not have digital surround sound decoding or a subwoofer output that is low-pass filtered.
 - If your receiver or preamp/processor has a separate subwoofer output, use the LFE (purple) connector of the supplied combination LFE and trigger cable to connect it to either one of the HKTS200SUB's Line-Level L/R In Connectors.
 - If your receiver or preamp/processor does not have a separate subwoofer output, use two Y-adapters (not supplied). Connect an adapter's single end to the unit's preamp output for that channel. Connect one of the adapter's dual ends to the main amp input for that channel, and connect the adapter's other dual end to one of the HKTS200SUB's Line-Level L/R In Connectors. Repeat with the other Y-adapter, preamp channel, main amp input and HKTS200SUB Line-Level L/R In Connector.
- 8 Power Switch:** Set this switch in the **ON** position to turn the HKTS200SUB on. The subwoofer will then either be on or in standby mode, depending on the setting of the Power On Mode Switch **4**.
- 9 Power Cord (Non-Detachable):** After you have made and verified all subwoofer and speaker connections described in this manual, plug this cord into an active, *unswitched* electrical outlet for proper operation of the HKTS200SUB. DO NOT plug this cord into the accessory outlets found in some audio components.

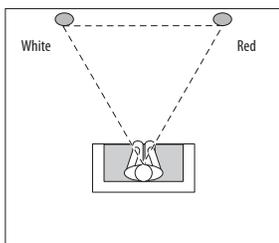
Speaker Placement

Color-Coding System

The HKTS 9/16 use the channel color-coding system established by the CEA to make setting up your home theater speaker system as easy as possible. Your system includes a set of colored stickers that may be placed near the speaker terminals of each of the four satellite speakers according to the key below. It doesn't matter which satellite speaker is used for any of the front or rear positions. (The center speaker and powered subwoofer are already color-coded for you.)

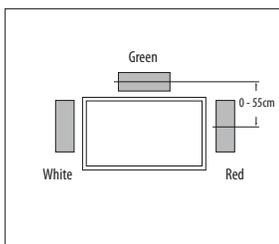
Speaker Position	Wire Color Band
Front Left	White
Front Right	Red
Center	Green
Surround Left	Blue
Surround Right	Gray
Subwoofer	Purple

Front Speakers



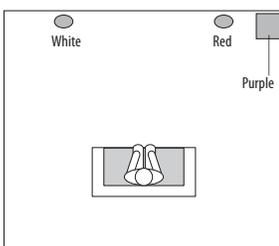
Place the front speakers the same distance from each other as they are from the listening position (the place where you'll be when you listen to the HKTS 9/16). They should be placed at about the same height from the floor as the listener's ears will be. They also can be angled toward the listener.

Center Speaker



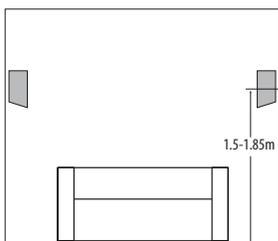
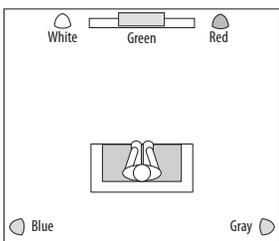
The center speaker should be placed slightly behind (farther away from the listener) the front left and right speakers. Its center should be no more than 55 cm (2 feet) above or below the tweeters of the front left and right speakers. It is often convenient to set the center speaker on top of the television set, as shown in the drawing.

Subwoofer



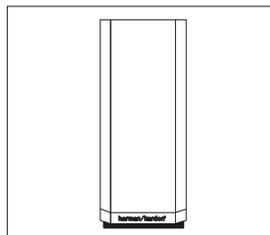
The low-frequency material reproduced by the subwoofer is mostly omnidirectional, and this speaker may be placed in a convenient location in the room. However, the best reproduction of bass will be heard when the subwoofer is placed in a corner along the same wall as the front speakers. Experiment with subwoofer placement by temporarily placing the subwoofer in the listening position and moving around the room until the bass reproduction is best. Place the subwoofer in that location.

Surround Speakers

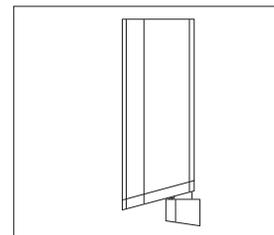


Place the two surround speakers slightly behind the listening position. Ideally, they should face each other and be at a level higher than the listeners' ears. If that is not possible, they may be placed on a wall behind the listening position, facing forward. The surround speakers should not call attention to themselves. Experiment with their placement until you hear a diffuse, ambient sound accompanying the main program material heard in the front speakers.

Satellites and Surrounds



The satellite speakers may be placed on a shelf.

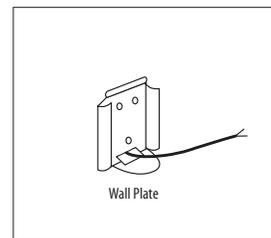
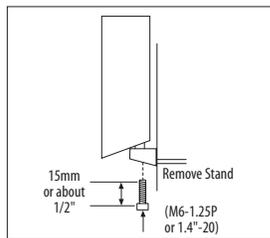


They may be wall-mounted using the supplied brackets.

Mounting Options

Wall-Mounting

Unscrew the bolt that attaches the black shelf stand to the bottom of the speaker. Store the stand and bolt in a safe place in case they are needed for a future installation.



Mount the wall-bracket attachment plate on the wall in the desired location.

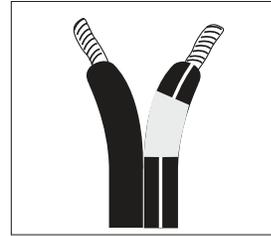
If possible, position the speakers so that the mounting screws (not included; use size #8) may be installed directly into a wooden wall stud. If that is not possible, use optional wall anchors that are rated to support at least twenty-five pounds. **The customer is responsible for proper selection and use of mounting hardware, available through hardware stores, to properly and safely wall-mount the speakers.**

Referring to the speaker connection instructions on pages 6 through 9, thread the appropriate speaker cable through the opening in the bottom of the attachment plate, and then through the back of the bracket as shown in the diagram.

Speaker Connections

IMPORTANT NOTE: Before making speaker connections, be certain that your receiver or audio power amplifier is turned off and preferably unplugged from its AC power source. Do not connect the HKTS200SUB subwoofer to an AC power source until you have made all speaker wire connections.

Speakers and electronics terminals have corresponding (+) and (-) terminals. Most manufacturers of speakers and electronics, including Harman Kardon, use red to denote the (+) terminal and black for the (-) terminal.



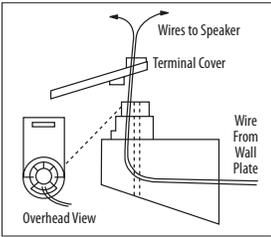
Newer Harman Kardon receivers conform to the CEA standard and therefore use a color other than red or black for the (+) terminal to indicate some speaker positions: e.g., surround left.

Although the HKTS 9/16 system has red and black collars on the individual speaker terminals to denote the positive and negative connections, your system includes a colored band on the positive lead at both ends of every speaker cable and a matching colored sticker for each of the four satellite speakers, conforming to the key on page 5. The center speaker has a green (+) terminal, and the subwoofer has a purple SUB input jack. This system is intended to help you ensure that the speaker in each location is connected to the correct terminals on your receiver or amplifier.

The (+) lead of the speaker wire is indicated with a stripe and has the colored band corresponding to the speaker's position. It is important to connect all speakers identically: (+) on the speaker to (+) on the amplifier and (-) on the speaker to (-) on the amplifier.

With the advent of multichannel surround-sound systems, connecting all of the speakers in your system with the correct polarity remains equally important in order to preserve the proper ambience and directionality of the program material.

To connect the supplied speaker wires to the satellite and center speaker terminals located on the bottom of each speaker, press the red or black tab, insert the bare end of the wire into the hole, and release the tab. Gently tug on the wire to make sure that it is fully inserted.

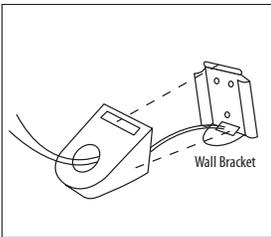


The bracket has two openings on top: a round screw hole, and an arc-shaped opening in front of it. The speaker cable should be threaded through the arc-shaped opening, not the screw hole.

Attach the bracket to the wall plate by inserting the tab at the top of the attachment plate into the slot on top of the bracket and snapping the bracket onto the attachment plate.

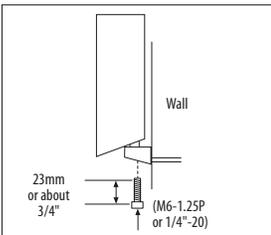
Thread the cable through the round opening in the terminal cover, and then insert the speaker wires into the terminals on the underside of the speaker, remembering to observe the correct polarity (see "Speaker Connections").

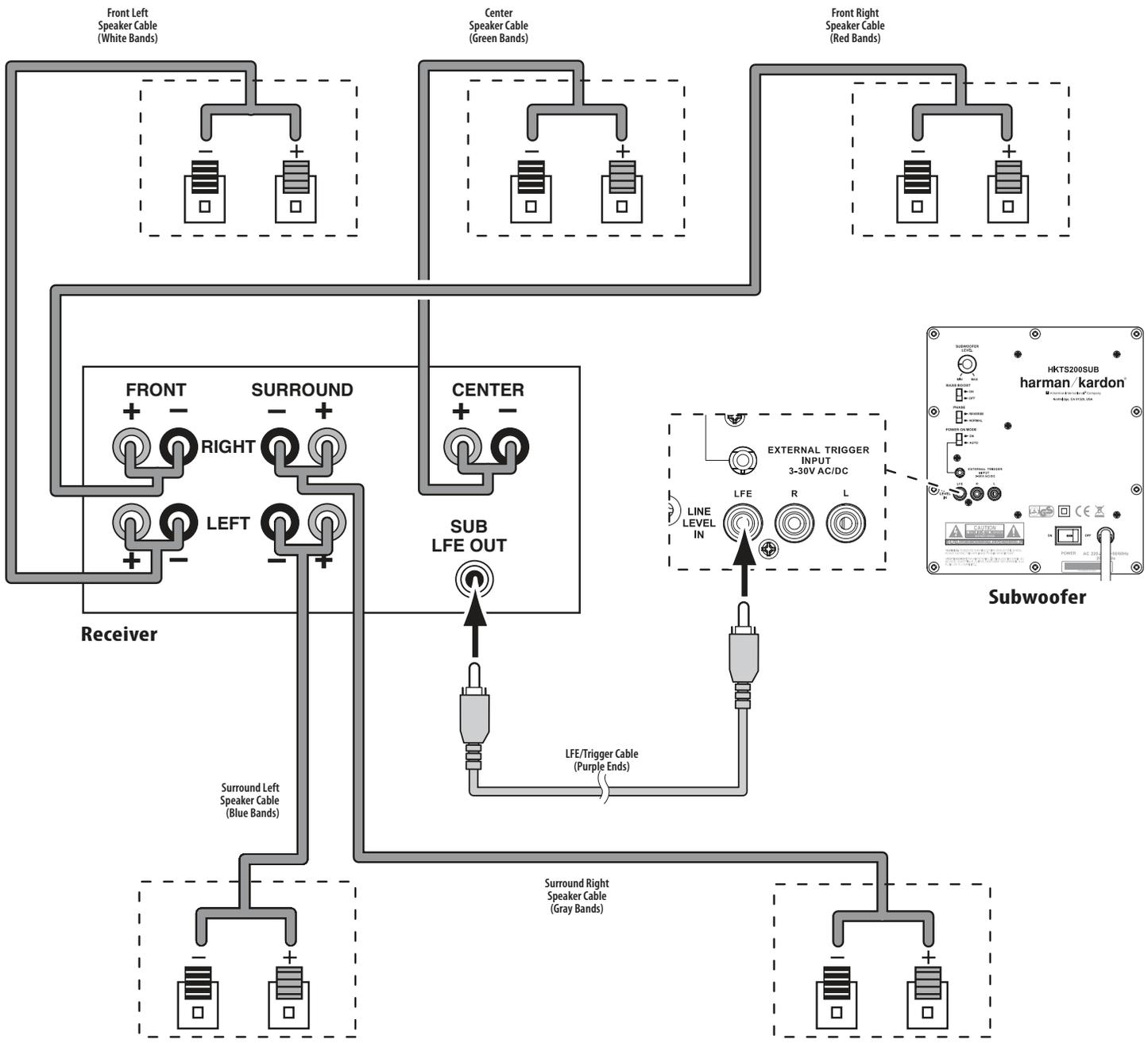
Place the terminal cover over the opening on the underside of the speaker so that it fits flush against the speaker and covers the terminals, with its round opening exposing the threaded insert. The bracket fits through the round opening in the terminal cover.



Insert the supplied bracket bolt up through the bottom of the bracket and terminal cover, and screw it into the threaded insert on the underside of the speaker. The bolt should be snug, but not so tight as to prevent the bracket from pivoting.

The wall-mounted speaker may be pivoted from side to side; however, the bracket is not designed to tilt up or down, and attempting to tilt it will damage the bracket and possibly the wall, which would not be covered by your warranty.





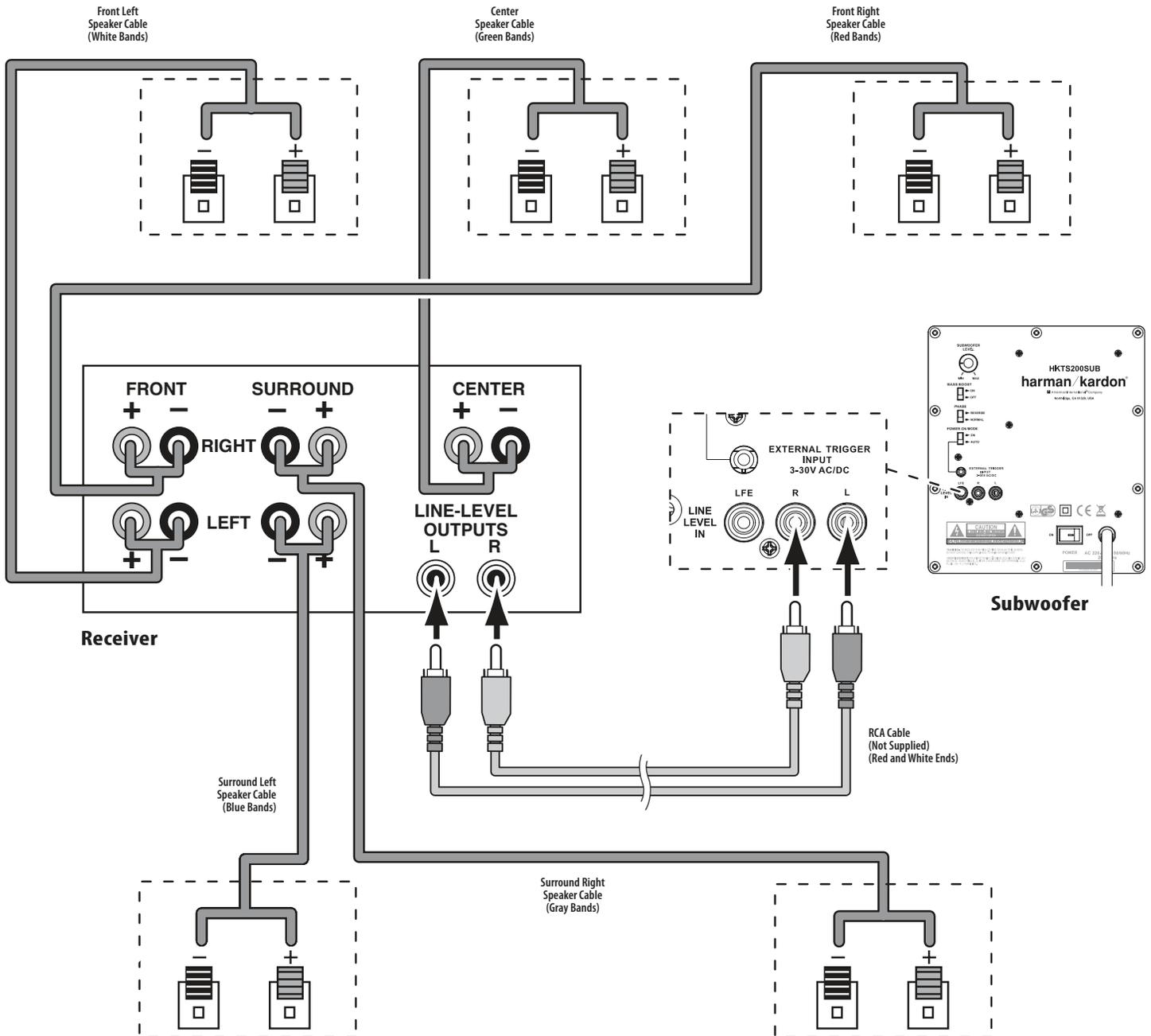
Connecting the Subwoofer to a Receiver or Preamp/Processor With a Dedicated Subwoofer Output

Use this installation method for receivers and preamp/processors that have a dedicated subwoofer output with low-pass filtering (also called bass management). If the dedicated subwoofer output does not have low-pass filtering, follow the instructions in *Connecting the Subwoofer to a Receiver or Preamp/Processor With Line Outputs*, on page 8.

Use the LFE (purple) connector of the supplied combination LFE and trigger cable to connect the HKTS200SUB's **Line-Level LFE In Jack** to the dedicated subwoofer output (or LFE output) of your receiver or preamp/processor.

Connect each satellite speaker and the center speaker to the corresponding speaker terminals on your receiver or amplifier.

In your receiver or preamp/processor's setup menu, configure it for *Subwoofer ON*, and set the front left, front right, center, and surround speakers to *Small*. After you have made and verified all connections, plug the HKTS200SUB's **AC Power Cord** into an active AC outlet.



Connecting the Subwoofer to a Receiver or Preamp/Processor With Line Outputs

Use this installation method for receivers and preamp/processors that do not have a dedicated subwoofer output, but do have preamp-level (volume-controlled) line outputs. If the receiver or preamp/processor has a dedicated subwoofer output with low-pass filtering, see *Connecting the Subwoofer to a Receiver or Preamp/Processor With a Dedicated Subwoofer Output*, on page 7.

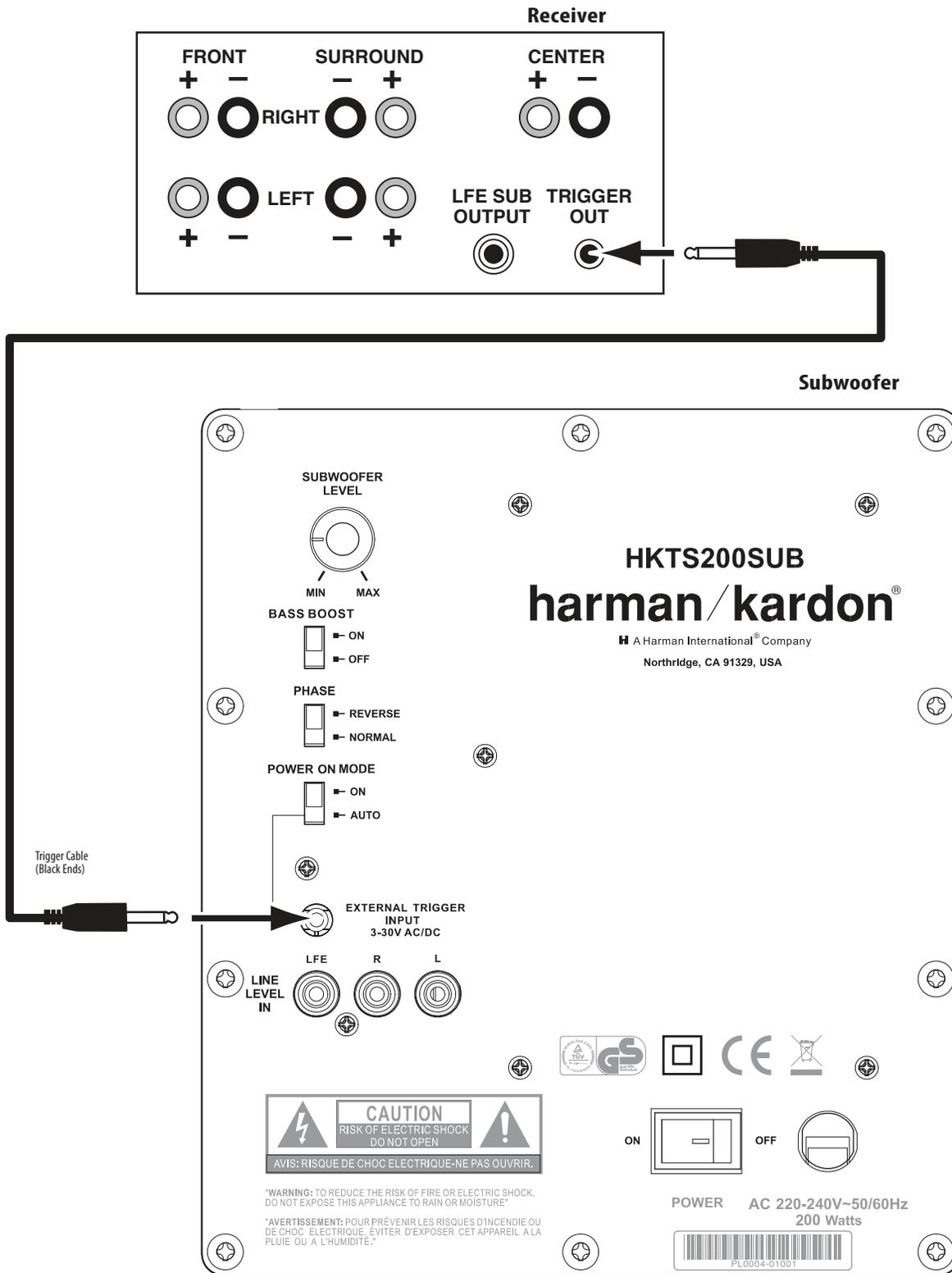
If you're connecting to a receiver with left and right line outputs that are not connected to amplifier inputs, connect the LFE (purple) connector of the supplied combination LFE and trigger cable to one of those outputs and to either of the HKTS200SUB's **Line-Level L/R In Connectors** ⑦. Use a second RCA cable (not supplied) to connect the other receiver or preamp line output to the other of the HKTS200SUB's **Line-Level L/R In Connectors** ⑦.

If you're connecting to a receiver or preamp/processor with left and right line outputs that are connected to amplifier front left and right inputs, connect the single ends of Y-adapters (not supplied) to the receiver's or processor's left and right line outputs. Connect one of the Y-adapter's double ends to the HKTS200SUB's **Line-Level L/R In Connectors** ⑦, and connect the other double end to your amplifier's front left and right inputs.

Connect each satellite speaker and the center speaker to the corresponding speaker terminals on your receiver or amplifier.

In your receiver or preamp/processor's setup menu, configure it for *Subwoofer ON*, and set the front left, front right, center, and surround speakers to *Small*.

After you have made and verified all connections, plug the HKTS200SUB's **AC Power Cord** ⑨ into an active AC outlet.



Connecting to a Trigger Voltage Source

If your preamp/processor or another audio/video component has a trigger voltage connection that supplies between 3 and 30V (AC or DC), connect it to the HKTS200SUB's **External Trigger Input Connector** . If the component's trigger voltage connection has a 3.5mm mini jack you can use the supplied combination LFE/trigger cable to make the connection.

NOTE: Please do not connect the subwoofer ON/OFF trigger cable to the Remote Control Output (IR Out) of your home cinema system or surround receiver. This could lead to malfunction.

Operation

Turning the Subwoofer On and Off

Set the HKTS200SUB's Power Switch ③ to the **ON** position.

- If the **Power On Mode Switch ④** is set to **AUTO**, the HKTS200SUB will automatically turn itself on when it receives an audio signal, and it will go into standby mode when it has received no audio signal for 15 minutes. The HKTS 90 SUB's LED will illuminate white when the subwoofer is on, and will not be illuminated when the subwoofer is in standby.
- If the **Power On Mode Switch ④** is set to **ON**, the HKTS200SUB will remain on at all times. The HKTS200SUB's LED will illuminate white.
- If the **External Trigger Input Connector ⑤** is connected to a trigger voltage source, the HKTS200SUB will turn on whenever a trigger voltage is present, and will turn off after the trigger voltage ceases, regardless of the position of the **Power On Mode Switch ④**.

If you will be away from home for an extended period of time, or if you will not be using the subwoofer for an extended period, switch the **Power Switch ③** to the **OFF** Position.

Subwoofer Adjustments: Volume

Use the **Subwoofer Level Control ①** to set the HKTS200SUB's volume. Turn the knob clockwise to increase the subwoofer's volume; turn the knob counterclockwise to decrease the subwoofer's volume.

Subwoofer Adjustments: Phase

The **Phase Switch ②** determines whether the HKTS200SUB's piston-like action moves in and out in phase with the satellite speakers. If the subwoofer were to play out of phase with the satellite speakers, the sound waves produced by the subwoofer could be canceled out, reducing bass performance and sonic impact. This phenomenon depends in part on the relative placement of all the speakers in the room.

Although in most cases the **Phase Switch ②** should be left in the **NORMAL** position, there is no absolute correct setting for the **Phase Switch ②**. When the HKTS200SUB is properly in phase with the satellite speakers, the sound will be clearer and have maximum impact. This will make percussive sounds like drums, piano and plucked strings sound more lifelike. The best way to set the **Phase Switch ②** is to listen to music that you are familiar with and set the switch in the position that gives drums and other percussive sounds maximum impact.

Subwoofer Adjustments: Bass Boost

When set to the **ON** position, the **Bass Boost Switch ②** enhances low-frequency performance, resulting in bass with more impact, which you may prefer while watching movies or listening to music. There is no harm in experimenting with this control – setting the switch to the **OFF** position will return normal low-frequency performance.

Troubleshooting

If there is no sound from *any* of the speakers:

- Check that the receiver/amplifier is on and a source is playing.
- Make sure that all wires and connections between the receiver/amplifier and the speakers are connected properly.
- Make sure none of the speaker wires is frayed, cut or punctured.
- Review the proper operation of your receiver/amplifier.

If there is no sound coming from *one* speaker:

- Check that the balance control on your receiver/amplifier is not set all the way to one channel.
- Check your receiver/amplifier's speaker setup procedure to make sure that the speaker in question has been enabled and its volume level has not been turned all the way down.
- Make sure that all wires and connections between the receiver/amplifier and the speaker are connected properly.
- Make sure the speaker wires are not frayed, cut or punctured.

If there is no sound coming from the *center* speaker:

- Check your receiver/amplifier's speaker setup procedure to make sure that the center speaker has been enabled and its volume level has not been turned all the way down.
- Make sure that all wires and connections between the receiver/amplifier and the center speaker are connected properly.
- Make sure the speaker wires are not frayed, cut or punctured.
- If your receiver is operating in Dolby® Pro Logic® mode, make sure that the center speaker is not set to Phantom.

If there is no sound coming from the *surround* speakers:

- Check your receiver/amplifier's speaker setup procedure to make sure that the surround speakers have been enabled and their volume levels have not been turned all the way down.
- Make sure that all wires and connections between the receiver/amplifier and the surround speakers are connected properly.
- Make sure the speaker wires are not frayed, cut or punctured.
- Review proper operation of your receiver/processor and its surroundsound features.
- Make sure the movie or TV show you're watching has been recorded in a surroundsound mode. If it is not, check to see if your receiver/amplifier has a different surround-sound mode that you can use.
- Review the operation of your DVD player and the DVD jacket to make sure the DVD features the desired Dolby Digital or DTS® surround-sound mode, and that you have properly selected that mode using both the DVD player's menu and the disc's menu.

If there is no sound coming from the *subwoofer*:

- Check that the subwoofer's **Power Cord ③** is plugged into a working AC outlet.
- Check that the subwoofer's **Power Switch ③** is in the **ON** position.
- Check that the **Subwoofer Level Control ①** is not turned all the way down (fully counterclockwise).
- Check the audio connection between your receiver/processor and the subwoofer.
- Check your receiver/amplifier's speaker setup procedure to make sure that the subwoofer has been enabled and its volume level has not been turned all the way down.

If the system plays at low volumes but shuts off as volume is increased:

- Make sure that all wires and connections between the receiver/amplifier and the speakers are connected properly.
- Make sure none of the speaker wires is frayed, cut or punctured.
- If you're using more than one pair of main speakers, check to be sure that you're not operating the system below the receiver/amplifier's minimum impedance requirements.

Specifications

HKTS 9 System

Frequency Response
45Hz – 20kHz (-6dB)

SAT-TS7 Satellites

Recommended Power
10 ~ 80 watts

Impedance
8 ohms nominal

Sensitivity
86dB @ 1 watt/1 meter

Tweeter
One 1/2" (12mm) dome, video-shielded

Midrange
One 3" (75mm) driver, video-shielded

Dimensions (H x W x D)
167mm x 100mm x 92mm
(6-5/8" x 3-5/16" x 3-5/8")

Weight
0.6 kg (13.2 lb)

Cen-TS7 Center

Recommended Power
10 ~ 80 watts

Impedance
8 ohms nominal

Sensitivity
86dB @ 1 watt/1 meter

Tweeter
One 3/4" (19mm) dome, video-shielded

Midrange
Dual 3" (75mm) drivers, video-shielded

Dimensions (H x W x D)
102mm x 241mm x 92mm
(4" x 9-1/2" x 3-5/8")

Weight
1.0 kg (2.2 lb)

HKTS200SUB Subwoofer

Input rating
AC 100–120V, 50/60 Hz, 200W or
AC 220–240V, 50/60 Hz, 200W

Amplifier Power
200 watts RMS

Bass
8" (200mm) woofer, sealed enclosure

External Trigger Input Voltage
3 ~ 30 volts AC/DC

Dimensions (H x W x D)
353mm x 267mm x 267mm
(13-29/32" x 10-1/2" x 10-1/2")

Weight
9.0 kg (19.8 lb)

HKTS 16 System

Frequency Response
45Hz – 20kHz (-6dB)

SAT-TS11 Satellites

Recommended Power
10 ~ 120 watts

Impedance
8 ohms nominal

Sensitivity
86dB @ 2.83V/1 meter

Tweeter
One 1/2" (12mm) dome, video-shielded

Midrange
Dual 3" (75mm) drivers, video-shielded

Dimensions (H x W x D)
243mm x 100mm x 92mm
(9-9/16" x 3-15/16" x 3-5/8")

Weight
1.0 kg (2.2 lb)

Cen-TS11 Center

Recommended Power
10 ~ 120 watts

Impedance
8 ohms nominal

Sensitivity
86dB @ 1 watt/1 meter

Tweeter
One 3/4" (19mm) dome, video-shielded

Midrange
Dual 3" (75mm) drivers, video-shielded

Dimensions (H x W x D)
102mm x 241mm x 92mm
(4" x 9-1/2" x 3-5/8")

Weight
1.0 kg (2.2 lb)

HKTS200SUB Subwoofer

Input rating
AC 100–120V, 50/60 Hz, 200W or
AC 220–240V, 50/60 Hz, 200W

Amplifier Power
200 watts RMS

Bass
8" (200mm) woofer, sealed enclosure

External Trigger Input Voltage
3 ~ 30 volts AC/DC

Dimensions (H x W x D)
353mm x 267mm x 267mm
(13-29/32" x 10-1/2" x 10-1/2")

Weight
9.0 kg (19.8 lb)

H Harman International

© 2009 Harman International Industries, Incorporated. All rights reserved.

Features, specifications and appearance are subject to change without notice.

Harman Kardon is a trademark of Harman International Industries, Incorporated, registered in the United States and/or other countries. Designed to Entertain is a trademark of Harman International Industries, Incorporated.

CEA is a registered trademark of the Consumer Electronics Association.

Dolby and Pro Logic are registered trademarks of Dolby Laboratories.

DTS is a registered trademark of Digital Theater Systems, Inc.

H Harman International

Harman Consumer Group, Inc.
8500 Balboa Boulevard, Northridge, CA 91329 USA
516.255.4545 (USA only)

www.harmanardon.com

Made in P.R.C.

Part No. 444541-001