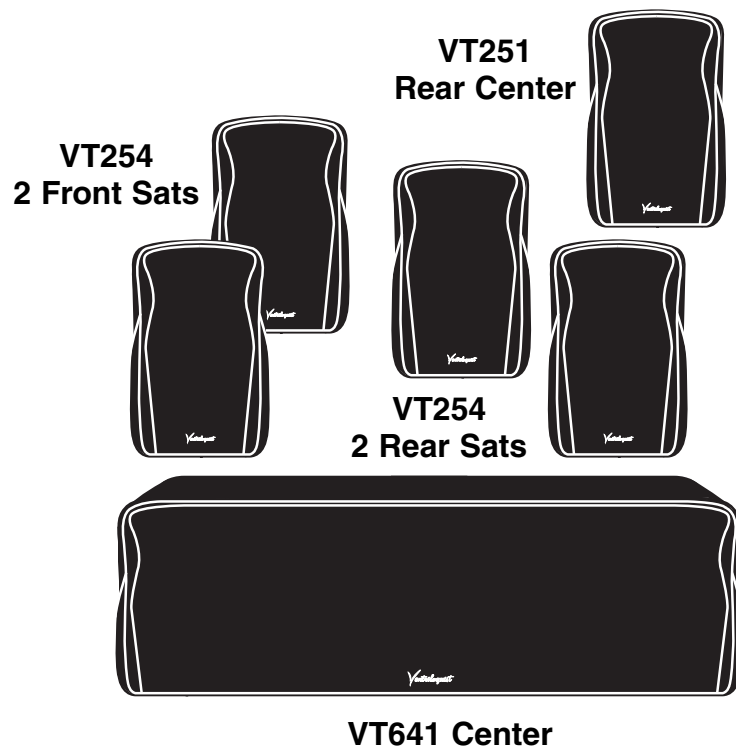


HSU RESEARCH

Ventriloquist VT-12

Owner's Manual



Features

Ventriloquist Effect.

"Small satellites that sound big." The micro satellites are easily hidden in your room's decor. Yet, you will hear full bodied mid-bass superior to other systems using tiny speakers.

Get 6 channels from 5 channel sources.

The rear center channel can create matrixed 6 channel surround sound on five channel systems, or be used as a discreet rear center in six channel systems.

Works perfectly with subwoofers.

This system was designed to work well in systems using a subwoofer.

***Video-Shielded Home Theater Speaker Systems by Hsu Research, Inc.
Designed and engineered in the U.S.A.***

A. UNPACKING

Carefully remove your new HSU speakers from their boxes, avoiding staples which can cause damage to the cabinets. Inspect each speaker for transit damage. If you discover damage, contact your dealer immediately.

Save your cartons – they are the best possible protection for your speakers should you ever have a need to move them.

B. PLACEMENT

Note: For optimum bass performance, the addition of a subwoofer is recommended.

Positioning Your Subwoofer

See the subwoofer owner's manual.

Positioning Your Satellites

Refer to Figures 1 and 2 below for satellite speaker placement. **It is very important that the center channel be placed off the floor, as close to the TV as possible.** The best position is usually directly above the set, since this is often the closest to the ear level of seated listeners. The front left and right satellites should roughly be the same distance away from the listener as the center channel, and six to nine feet apart from each other. Aim them towards a central, seated listener. Use speaker stands or wall mounts if necessary to achieve proper placement.

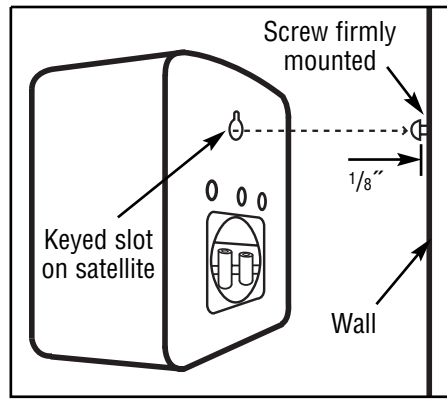


Figure 3

The rear channel surround speakers should be positioned behind and slightly to the sides of the listener. Set them several feet higher than ear level. The left and right rear speakers should face directly towards each other. The rear center should face the listener.

Each satellite is supplied with a keyhole to allow hanging the speaker system on the wall. All that is needed is a good solid mount in the wall (into a wood stud if possible) to securely hold the weight of the speaker. Leave approximately $\frac{1}{8}$ " of a screw head exposed from the wall and the keyhole slot in the satellite will slide down over the head of the screw to hang the speaker on the wall (Figure 3).

If you plan to use an aftermarket swivel type bracket, the satellites have molded-in threaded inserts to attach the unit to this type mount. The satellites will work with both the "Omnimount 10" series and the "Sound Gear SATP" series.

C. SPEAKER WIRE TIPS

Speaker wire is not included with your system but can be purchased at audio, electronics, or home improvement stores. For runs under 10 feet long, use 18 gauge AWG wire or thicker. For 10-25 feet, use 16 gauge wire or thicker. For over 25 feet, use 14 gauge wire or thicker.

You will need to strip $\frac{1}{2}$ " of insulation from each end of the wire to expose the bare metal. If your speaker wires are fraying, tightly twist them. If you prefer to terminate your cables, we recommend springy banana plugs for a reliable connection. They are available from electronic and audio stores.

Most speaker wire is polarity coded. This means that each conductor is labeled either (+) positive or (-) negative. The (+) positive side may be a different color or texture than the (-) negative side. On the back of your amplifier, each channel is probably labeled (+) and (-) as well as color coded red for (+) positive and black for (-) negative. HSU speaker terminals are color coded red for (+) positive and black for (-) negative. Be sure to hook (+) to (+), (red to red), and (-) to (-), (black to black).

All connections should be tight and close fitting. Inspect connections for frays and stray strands of wire touching both (+) and (-) terminals. (This will cause a short and, perhaps, damage your equipment.)

The Optimum Listening Position (6 Speaker Surround)

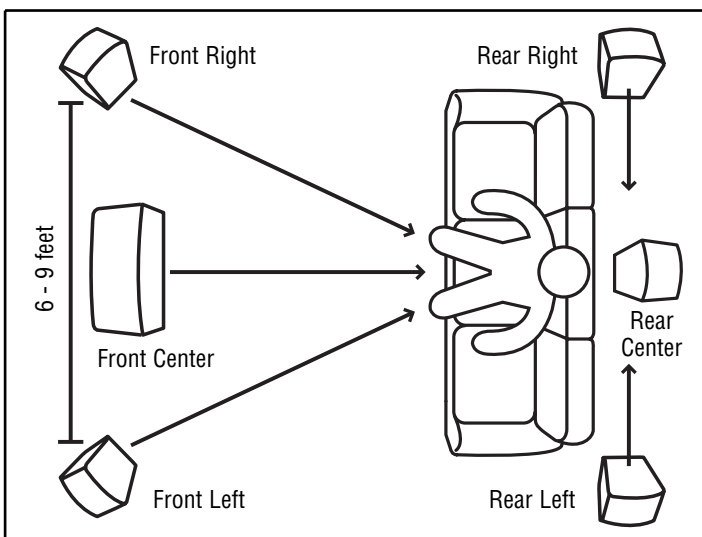


Figure 1

The Optimum Speaker Height

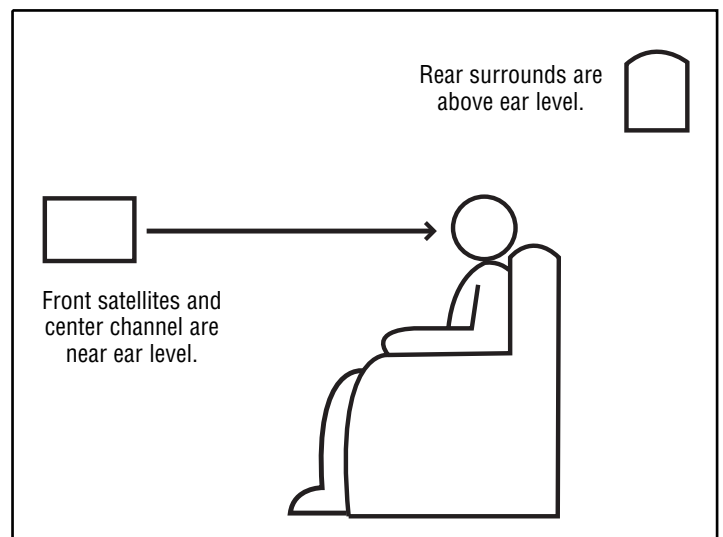


Figure 2

D. HOOKING UP YOUR SYSTEM SPEAKERS

IMPORTANT: wiring is different than with other surround sound systems. You will run the left and right speaker wires to the center channel. This will enable the Ventriloquist effect to work. Additional wire will then run from the center to the front satellites. Your amplifier should be turned off throughout this procedure.

For 5-Channel A/V receivers:

If you have a 5-channel A/V receiver, refer to Figure 3 (right) for proper connection.

For 6.1 A/V receivers:

If you have a 6.1 A/V receiver, refer to Figure 4 (below) for proper connection.

Parallel wires (+) to (+) and (-) to (-) for connection to VT251 rear center

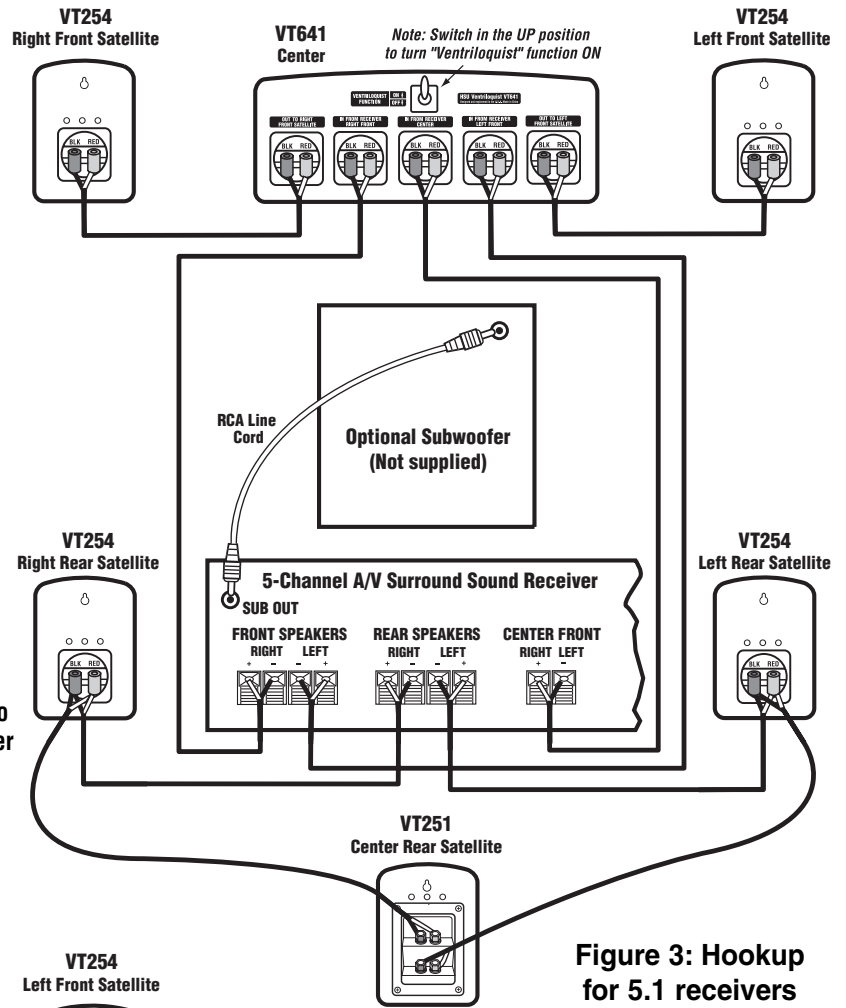
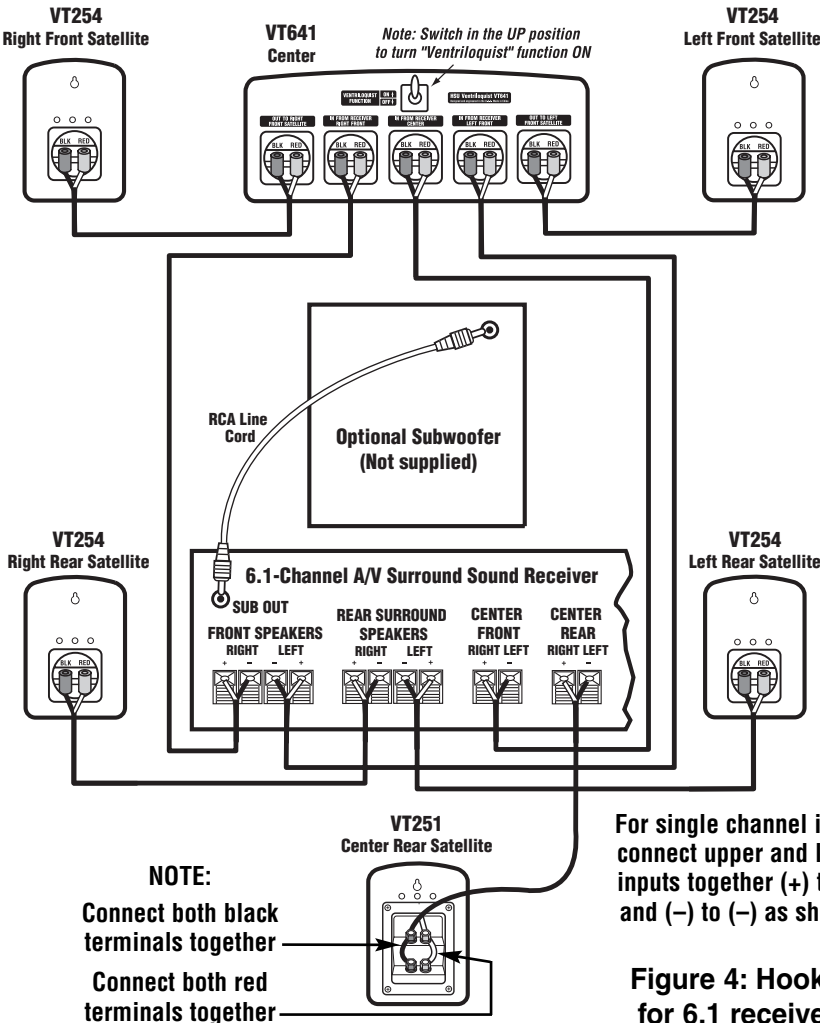


Figure 3: Hookup for 5.1 receivers



For single channel input, connect upper and lower inputs together (+) to (+) and (-) to (-) as shown.

Figure 4: Hookup for 6.1 receivers

Ventriloquist Operation

When wired as shown and the Ventriloquist switch on the center channel speaker is in the UP position, you will experience the “Ventriloquist” effect. This causes the small front satellites to effectively sound like much larger bookshelf speakers. When the switch is in the DOWN position, the “Ventriloquist” function will be turned off and the front satellites perform as standard 2 1/2” speakers. You can safely flip the Ventriloquist switch ON and OFF while the system is playing, demonstrating the sonic advantages over conventional micro satellites.

An optional Ventriloquist rear center channel may be purchased through select dealers or factory direct, and will provide better mid-bass for the rear channels. We recommend such a setup for serious listening.

A Word About Power Handling

Usually when you hear distortion, it is the amplifier clipping rather than the speaker distorting. Remember, most amplifiers put out their full rated power well before the volume control is turned all the way up! If your speakers distort when you play them loud, turn down the amplifier or get a bigger one. HSU Speaker Systems are designed to the highest possible value and performance standards. Our confidence in their quality is such that HSU offers customers a transferable limited warranty as explained later on this page.

Caring for Your HSU Speakers

The satellite cabinets are finished with a very high quality finish that is both attractive and serves as an excellent protection for the cabinet. The system can be cleaned with a damp, soft cloth.

E. TROUBLE-SHOOTING AND SERVICE

We use components and designs of the highest caliber as an effective method of ensuring the long life of your speaker. However, no amount of protection will prevent damage caused by defective associated equipment or extreme abuse.

If you have a problem, first try to determine if it is indeed a speaker problem. Determine whether the problem exists in more than one speaker. If it does, the problem likely originates in some other component in the system. If the problem is in one speaker only, reverse your speaker connections (left to right, right to left). If the problem moves to the other channel, your problem is not in the speakers. Once you have determined that you have a speaker problem, contact your dealer for authorized factory service information. If you are unable to contact your dealer, if your dealer is unable to solve your problem, or if you have any questions or comments regarding your speaker system, please contact us at the location shown at the bottom of this page. Please describe the problem in detail. We will decide on the most appropriate course of action.

F. SPECIFICATIONS

Satellites (VT251, VT254)

- Video-shielded, 2 1/2" full range driver
- Enclosure: Molded ABS, Black and Silver
- Dimensions: 6 1/8" H x 4 1/16" W x 3 1/8" D

Center-Channel (VT641)

- Video-shielded, two 4" x 6" woofers, one 2 1/2" mid-high driver
- Enclosure: Black painted MDF and Silver laminated MDF
- Dimensions: 5" H (6 1/4" H w/base) x 16 7/8" W x 8 5/8" D (+3/4" for rear switch)

System Specifications

- System Frequency Response: 80Hz - 20kHz
- Characteristic Sensitivity: 90 dB @ 1 watt, 1 meter
- Nominal Impedance: 8 ohms
- Recommended Amplifier Power: 10 - 125 watts

G. HSU SPEAKER SYSTEM SEVEN YEAR LIMITED WARRANTY

If the speaker system proves to be defective in materials or workmanship within seven years from the date of the original customer's purchase, we will, at our option, repair or replace the defective product. If for any reason, we are unable to repair or replace a defective product within a reasonable time, we will refund your purchase price.

***DISCLAIMER**

THE WARRANTY STATED HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE AND ALL OTHER LIABILITIES AND OBLIGATIONS OF HSU, ALL OF WHICH ARE EXPRESSLY DISCLAIMED. HSU HAS NOT MADE AND DOES NOT HEREBY MAKE ANY OTHER REPRESENTATION, WARRANTY OR COVENANT WITH RESPECT TO THE CONDITION, QUALITY, DURABILITY, DESIGN, OPERATION, CAPACITY, FITNESS FOR USE OR SUITABILITY OF THE SPEAKER SYSTEMS.

Exclusion of Certain Damages

HSU's liability for any defective product is limited to repair or replacement of the product at our option. HSU shall not be liable for incidental or consequential damages of any kind or character because of product defects. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply.

This Warranty Does Not Cover:

Damage caused by abuse, accident, misuse, negligence, or improper operation.

Products that have been altered or modified.

Any product whose serial number has been altered, defaced, or removed.

Normal wear and maintenance.

Damages caused by shipping. (All claims for shipping damage must be made with the carrier.)

Warranty Service

Warranty service must be performed by an authorized service center, usually a HSU Speaker Systems dealer or its authorized agent. You may obtain a list of authorized service centers by writing to the address below.

All warranty repairs must be accompanied by the original bill of sales. No other document is acceptable or is required. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Due to our continual efforts to improve product quality as new technology and techniques become available, HSU reserves the right to revise its Speaker Systems specifications without notice.

HSU
RESEARCH

HSU Research
3160 E. La Palma Avenue #D
Anaheim, CA 92806
800-554-0150
HSURESEARCH.COM