

# **OPTIMUS®**

Cat. No. 40-4052

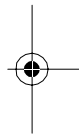
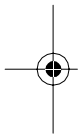


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## **PRO SWS-502 Satellite Subwoofer Speaker System**

Your Optimus PRO SWS-502 Satellite Subwoofer Speaker System is designed to add the dramatic realism of solid bass (below 200 Hz) to your sound system. While the satellite speakers reproduce the high, midrange, and upper-bass frequencies, the subwoofer's bass reflex design provides a clean response in the crucial bottom octave of the audible range. This results in heightened presence and clarity for the entire audio range.

The subwoofer's low-bass sounds are produced by a down-firing 10-inch driver with a 1<sup>1</sup>/<sub>2</sub>-inch dual-voice coil. Each satellite speaker has a 3<sup>1</sup>/<sub>2</sub>-inch woofer with a 1<sup>1</sup>/<sub>2</sub>-inch liquid cooled soft-dome tweeter in a separate enclosure that swivels so you can adjust it for the best stereo imaging.



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### **SPEAKER PLACEMENT**

#### **Choosing a Location for the Satellites**

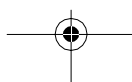
Location and position are vital for the best sound performance of your satellite speakers. For the best stereo image, the distance between the speakers should be about the same as the distance from the main listening area to a point halfway between the speakers.

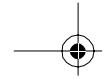
If you place the speakers too far apart, you might hear a "hole" in the center of the sound. Compensate for this by angling the speakers slightly in toward the listening area.

If you place the speakers too close together, you will cancel out the stereo image. Compensate for this by angling the speakers slightly away from the listening area.

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Tables or shelves near a corner are ideal locations — for example, a decorator shelf attached to a wooden wall (or other acoustically hard surface). If possible, place the front edge of the speakers flush with the front edge of the shelf. Avoid floor locations, since floor coverings can absorb many of the higher frequency sounds.

**Note:** We recommend you play a wide-range recording and experiment with speaker placement until you find the speaker locations that provide the best sound for your needs.

### Choosing a Location for the Subwoofer

Because low frequencies are much less directional than other sounds, you can use the single subwoofer and place it almost anywhere in your listening area. However, to simplify connections, you can place the subwoofer between the left and right satellite speakers.

## CONNECTIONS

With the speakers positioned as desired, measure the distance from the subwoofer to each satellite speaker, and from the subwoofer to your amplifier. Cut speaker wire to the needed lengths, including about a foot of extra wire at each end for preparing the wires (see "Preparing the Wires") and occasionally moving the speakers.

### Notes:

- Use 18-gauge speaker wire for distances up to 25 feet. Use 16-gauge (or larger) wire for distances greater than 25 feet.
- Your local Radio Shack store sells a wide selection of speaker wire.

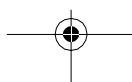
### Preparing the Wires

1. Split each speaker wire's two conductors about 4 inches from each end.
2. Remove  $\frac{1}{2}$ -inch of insulation from each conductor's end and twist the strands at each end.

3. Route the speaker wires from the amplifier to the subwoofer. Then route the satellite speaker wires to the subwoofer.

### Connecting the Wires

For minimum signal loss, maximum bass response, and best overall performance, connect your subwoofer's positive (red) and negative (black) terminals to the matching terminals on your satellite speakers and amplifier that have the same polarity.



To help you make the proper connections, one side of each pair of speaker wire conductors is marked with a stripe or groove, normally considered the positive (+) polarity wire.

**Note:** The insulation in some speaker wires is clear, and the separate conductors are brass and silver. Use the brass wire as the positive (+) polarity wire.

**Note:** You can use the **H/L** (high/low) switch on the back of each satellite to adjust the tone of the satellites' tweeters. Set **H/L** to **H** for a "bright" sound, or **L** for a "flat" sound.

## CARE AND MAINTENANCE

Your Optimus PRO SWS-502 Satellite Subwoofer Speaker System is an example of superior design and craftsmanship. The following suggestions will help you care for the system, so you can enjoy it for years.

- Handle the system gently and carefully. Dropping it can damage it and cause it to work improperly.
- Keep the system dry. If it gets wet, wipe it dry immediately. Liquids contain minerals that can corrode electronic circuits.
- Wipe the system occasionally with a cloth dampened with furniture polish. This helps to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the speaker cabinet.

**Caution:** You might permanently damage your system by cleaning it with a vacuum cleaner. Use a feather duster or a very soft loose cloth instead.

1. Connect your amplifier's left and right **OUTPUT** speaker terminals to the subwoofer's **INPUT** terminals.
2. Connect the left satellite speaker's wires to the subwoofer's **LEFT OUTPUT** terminals.
3. Connect the right satellite speaker's wires to the subwoofer's **RIGHT OUTPUT** terminals.

**Caution:** Do not exceed this system's power handling capacity (see "Specifications"). To avoid damage to the speaker system, set the amplifier's volume to its lowest setting before operating the stereo system's controls.

Modifying or tampering with the speaker system's internal components can cause a malfunction and might invalidate the warranty. If the system is not performing as it should, take it to your local Radio Shack store for assistance.

## SPECIFICATIONS

Frequency Response .....	(Subwoofer) 30-220 Hz (Satellite) 155-20,000 Hz
Power Handling .....	(Subwoofer) 80 Watts RMS (Satellite) 40 Watts RMS Each
Maximum Power .....	(Subwoofer) 160 Watts (Satellite) 80 Watts Each
Sensitivity .....	89 dB (SPL 1W/1M)
Impedance .....	8 Ohms
Speaker Complement .....	(Subwoofer) 10 Inch, 1 <sup>1</sup> / <sub>2</sub> Inch Dual-Voice Coil (Satellite) 3 <sup>1</sup> / <sub>2</sub> Inch, 1 <sup>1</sup> / <sub>2</sub> Inch Dome
Connections .....	Push-In Terminal
Enclosure Finish .....	(Subwoofer) Ported Bass Reflex (Satellite) Acoustic Suspension
Enclosure Finish .....	(Subwoofer) Black Vinyl (Satellite) Plastic
Dimensions (HWD) .....	(Subwoofer) 7 <sup>1</sup> / <sub>2</sub> x 18 <sup>1</sup> / <sub>2</sub> x 24 <sup>15</sup> / <sub>16</sub> Inches (190 x 470 x 380 mm) (Satellite) 7 <sup>3</sup> / <sub>16</sub> x 4 x 4 <sup>7</sup> / <sub>16</sub> Inches (183 x 100 x 113 mm)
Weight .....	(Subwoofer) 19.84 lbs (9 kg) (Satellite) 2.65 lbs (1.2 kg)

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

### RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 5 years from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

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This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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