# BOSE® SURROUND SOUND SYSTEM FOR CADILLAC ESCALADE



Each part of the Bose sound system has been carefully engineered to work with the others for better performance. Replacing the factory-installed headunit (i. e. radio-CD/navigation system) or any other sound system component can significantly reduce system performance.

### 16 HIGH-PERFORMANCE SPEAKERS

- 1 One 9-cm Twiddler® (Centrefill, mid-high-range speaker) in the instrument panel.
- 2 Two 6-cm Twiddler® (mid-high-range speakers) in the instrument panel.
- 3 Two 2.5-cm tweeters in the side-view mirror panels.
- 4 Two 6-cm Twiddler® (mid-high-range speakers) in the front doors.
- 5 Two 15 x 23-cm woofers in the front doors.
- 6 Two 13-cm wide-range speakers in the rear doors.
- 7 Two 2.5-cm tweeters in the rear doors.
- 8 Two 6-cm Twiddler® (mid-high-range speakers) in the D-pillars.
- 9 One 13-cm Richbass® woofer in a 10-litre custom-engineered bass enclosure under the front centre console.

### SYSTEM ELECTRONICS

- 10 Digital amplifier in the left side panel of the boot with Bose Digital Signal Processing:
  - 11 channels of customised equalisation
  - AudioPilot® 2 Noise Compensation Technology
  - Centerpoint® 2 signal processing circuitry
  - SurroundStage® signal processing circuitry
  - Advanced Staging Technology
- Microphone for AudioPilot® 2 in the interior.



## BOSE® SURROUND SOUND SYSTEM CADILLAC ESCALADE SYSTEM HIGHLIGHTS

### **BOSE SYSTEM DESIGN PHILOSOPHY**

Every vehicle model is different, and each has its own unique acoustic signature. Whether it's a hatchback, a convertible or an SUV, the shape and materials of the cabin interior affect the sound quality differently. And just as every vehicle model is different, so too is each Bose sound system.

The Bose approach is based on the philosophy that superior sound quality is designed in from the start. More than 50 years of Bose research and experience have produced a deep understanding of acoustics, and how they can enhance — or detract from — the music.

- Every Bose sound system is as unique as the vehicle for which it's created.
- Superior sound quality is designed into a vehicle from the start.
- This system is customised specifically for the acoustics of the vehicle cabin.

### **BOSE DIGITAL SIGNAL PROCESSING**

To raise system performance to an even higher standard, Bose engineers developed a digital sound system for the vehicle. Proprietary Bose digital signal processing and multiple channels of custom equalisation help tune the sound specifically for the vehicle. Music sounds full and detailed, speech sounds natural, and the system can approach live performance levels without sounding distorted.

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### **AUDIOPILOT® 2 NOISE COMPENSATION TECHNOLOGY**

This patented Bose innovation helps preserve the high level of performance in a Bose premium sound system. AudioPilot® 2 technology constantly monitors and adjusts the music to compensate for the effects of unwanted outside sound and vehicle speed. It reacts to sustained noise sources but not intermittent ones, such as speed bumps. A microphone built into the cabin continuously monitors the overall sound level inside the vehicle. Plus, enhanced DSP algorithms allow faster and more effective compensation for unusual situations, such as driving on a very rough road or at high speeds. It all happens automatically, so there is much less need to adjust the audio controls to preserve the listening experience.

### **CENTERPOINT® 2 SURROUND TECHNOLOGY**

Centerpoint® 2 surround technology enables listeners to enjoy a surround sound experience from almost any stereo source, including stereo CDs and MP3 devices. It has been specifically engineered to meet the unique demands of reproducing surround sound in a vehicle. For example, Centerpoint® 2 technology can analyse the stereo signal and convert it to multiple channels allowing greater precision when reproducing the sound. In addition, this proprietary Bose technology uses an enhanced algorithm to simultaneously create a wider, more spacious sound field and allow listeners to hear each instrument as if it were positioned on stage at a live performance.

## **SURROUNDSTAGE® SIGNAL PROCESSING CIRCUITRY**

In a home cinema setup, listeners generally arrange the speakers around the perimeter of the room. To get balanced sound, they sit right in the middle. But in a car, all the seats are off-centre, making it more challenging to deliver balanced surround sound to each listener. SurroundStage® circuitry delivers a balanced 360-degree sound field to each seat. This helps compensate for off-centre vehicle seating, so no matter where listeners sit they feel as though they are in the middle of the music. As a result, all listeners in the vehicle can enjoy high-quality, balanced surround sound, whether they are seated left or right, front or back.

### RICHBASS® WOOFER

Innovative design allows the Richbass® woofer to be just 13 cm in diameter, while still delivering the performance of a larger speaker. In addition, the Richbass® woofer is housed in an enclosure engineered to work acoustically with the Bose sound system in the vehicle.

- Uses innovative design to help create a compact, highly efficient speaker.
- Able to produce the low-frequency output of a larger, heavier speaker.
- Used in an enclosure that can be customised for hard-to-fit spaces.

### ADVANCED STAGING TECHNOLOGY

An acoustic innovation that simulates the experience of being front row at a live performance. Bose engineers combined proprietary digital signal processing with dedicated channels of custom equalisation for five high-performance speakers placed across the instrument panel. The signal processing algorithm helps listeners notice not only a wider soundstage, they'll also perceive particular instruments in precise locations, similar to sitting front row at a concert. Instruments and vocals are reproduced more faithfully and with exceptional clarity, further delivering the "live event" sound.

