2.3.2 Meridian™ Audio features

- Digital Signal Process (DSP) software All elements of the system are optimized
- Dynamic Volume Control Uses a front-mounted microphone to detect variations in cabin noise and compensates for changes in ambient sound levels to provide consistent sound quality.
- Meridian™ Cabin Correction
 - Employs advanced DSP to complement the acoustics of the vehicle, improving clarity and authenticity of sound
 - Meridian™ Audio's room correction algorithms have been incorporated to overcome problem of acoustic resonances within the cabin.
 - Digital filtering technology is used to 'smooth' these resonances ensuring that the crucial pitch and timing of transient details is accurately reproduced.
- Meridian[™] Digital Dither Shaping Digital signal conversions and processes are executed
 accurately and smoothly throughout the system, maintaining maximum detail ensuring highest
 quality from all sources.
- Meridian™ Trifield System Delivers a perfect stereo sound to all occupants in the vehicle. It enhances the performance of stereo material by using three front channels to increase localization accuracy and rendering a more stable, natural soundstage.

2.3.3 Audio System Power Output

Traditionally, the performance of automotive audio systems has been measured in terms of power output in Watts. Meridian™ adopts a different view, designing the speakers to work harmoniously with the amplifier as an integrated, active audio system. This approach provides a superior system without requiring the high power required by many audio systems.

Total Harmonic Distortion (THD) of an audio signal is a measure of the harmonic distortion. Harmonic Distortion occurs when a signal is "clipped" or altered due to a part of the sound system not being capable of reproducing the signal. If the system runs out of headroom the signal distorts, producing undesirable sound due to limitations in the amplifier design. A lower level of THD will allow the components in a loudspeaker & amplifier to produce a more accurate audio reproduction by reducing the distortion added by electronics and audio media. A THD rating less than 1% is considered to be high-fidelity and inaudible to the human ear. The audio systems used before 13MY have a THD of 10% where the new Meridian™ audio systems have a THD of only 0.2%. This reduction in harmonic distortion means a lower power output is required to achieve the high levels of audio clarity within the vehicle.

2.3.4 Two levels of Meridian™ audio system are available on the XJ

Meridian™ Premium Audio System	Meridian™ Premium 7.1 Surround Audio System
380W premium Sound System	825W premium Sound System
12 Amplifier Channels	• 15 amplifier Channels
• 12 Speakers + 2 subwoofers	• 18 Speakers + 2 subwoofers
Separate DSP	Separate DSP
 Audyssey MultEQ sound equalization 	Audyssey MultEQ sound equalization
 Meridian[™] Cabin noise correction 	 Meridian™ Cabin noise correction
Dynamic volume control	Dynamic volume control
	 Meridian™ Trifield System
Standard on: XJ and XJL Portfolio	Standard on: XJ/XJL Supercharged
	XJ/XJL Supersport
	XJL Ultimate
	Optional on: XJ & XJL Portfolio