EQUIPMENT

Audio System

- The large and varied original LCD panels and large switched have been provided for each audio head unit, improving visibility and ease of use.
- By implementing new DSP (Digital Signal Processor) technology with psychoacoustic theory, less distorted, clear, powerful sound quality has been achieved.

— REFERENCE —

Psychoacoustic Theory:

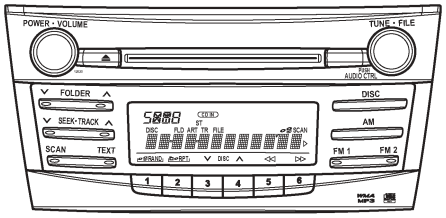
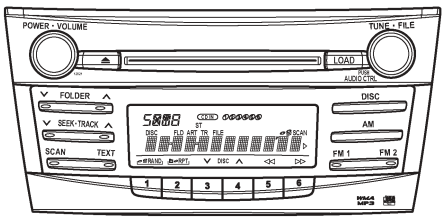
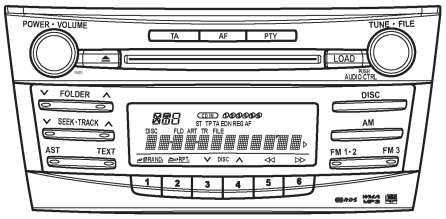
Psychoacoustic theory is technology that exploits human perceptions (sensory illusions). Through the implementation of this technology, without changing the speaker sizes or locations, listeners can sense deeper bass sound (1) and feel as if the speakers were located at eye level, despite them being located in low positions like door speakers (2).

(1) Bass Sound Reproduction Principle: Since olden times, when pipe organs are built in churches, due to the difficulty of housing long resonating pipes for very low tones, a technique has been used which reproduces low tones through the utilization of two short pipes.
When two pipes, of which the frequencies are 100 Hz and 150 Hz, are sounded simultaneously to reproduce a note at 50 Hz, human brains discern four different notes at 100 Hz, 150 Hz, 250 Hz (100 Hz + 150 Hz) and 50 Hz (150 Hz – 100 Hz). Among these, human brains perceive the frequency difference of 50 Hz most strongly.
By electrically generating differential components from fundamental notes for very low tones and emitting them through speakers, the human brains sense the deep bass sound despite it being not emanated from the speakers.

(2) Virtual Sound Source Layout: When the theory of HRTFs (Head Related Transfer Functions) is employed in the vertical direction, human brains perceive the source of sounds emitted from the speakers in the lower positions as if it was at windshield level.
HRTFs are acoustic transfer functions from the sound source to the ears.
It is said that humans detect the location of sound sources through time differences and physical reflective interference; the horizontal direction is recognized through the time difference between the sound reception of the left and right ears, and the vertical direction is discerned through the reflective interference caused by the head and earlobes.
Sound sources can be virtually reproduced by incorporating the HRTFs into amplifiers and emitting the sound through speakers.

Audio Head Unit

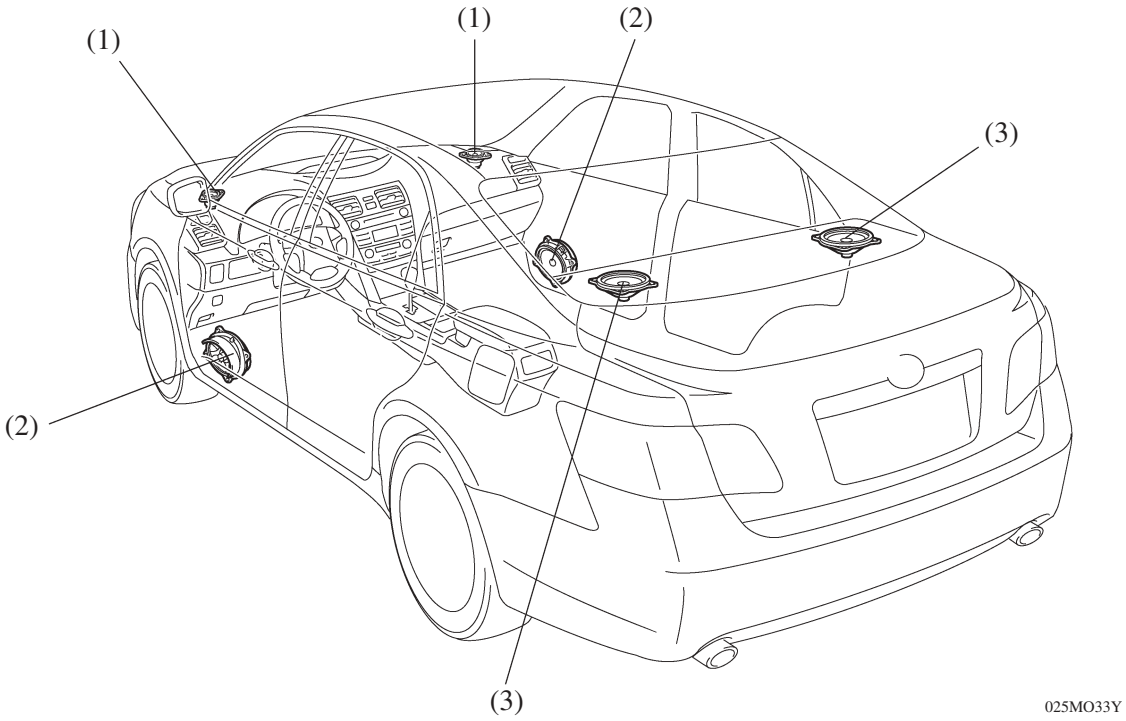
The three types of audio head unit are available.

Application	Design	Specifications
Option	 026MO12Y	● AM/FM Tuner ● CD (MP3, WMA Compatible*1) ● DSP*2/ASL*3 ● 6-Speaker System ● Maker: Fujitsu Ten
Option	 026MO13Y	● AM/FM Tuner ● In-Dash 6-CD Changer (MP3, WMA Compatible*1) ● DSP*2/ASL*3 ● 6-Speaker System ● Maker: Fujitsu Ten
Option	 026MO14Y	● AM/FM Tuner ● In-Dash 6-CD Changer (MP3, WMA Compatible*1) ● DSP*2/ASL*3/RDS*4 Function ● 6-Speaker System ● Maker: Fujitsu Ten

*1: Compatible with the compressed sound and music files complying with MP3 (MPEG Audio Layer-3) standard and WMA (Windows Media Audio)
*2: Digital Sound Processor
*3: Automatic Sound Levelizer
*4: Radio Broadcast Data System

Speaker

▶ **Speaker Location** ◀



▶ **Speaker Specifications** ◀

Location	Speaker Type	Caliber	Impedance	Input Rated (Max)
(1)	Front Tweeter x 2	65 mm (2.6 in.)	4 Ω	17.5 W
(2)	Front Midrange x 2	150 x 225 mm (6.0 x 9.0 in.)	4 Ω	20 W
(3)	Rear Full range x 2	150 x 225 mm (6.0 x 9.0 in.)	4 Ω	20 W