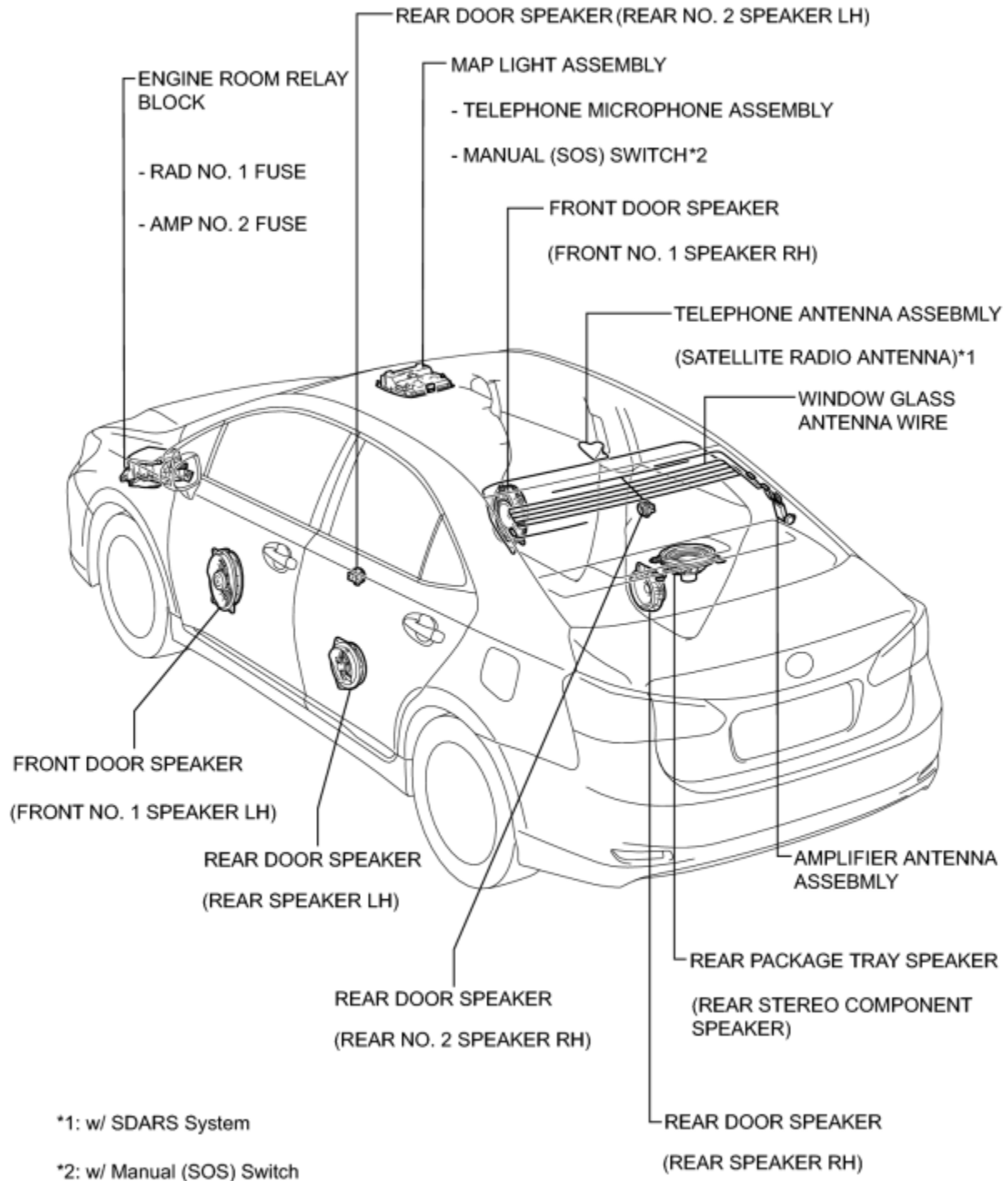


Last Modified: 10-5-2010	6.4 R	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM0000012A602SX
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM (w/o Navigation System): PARTS LOCATION (2010 HS250H)		

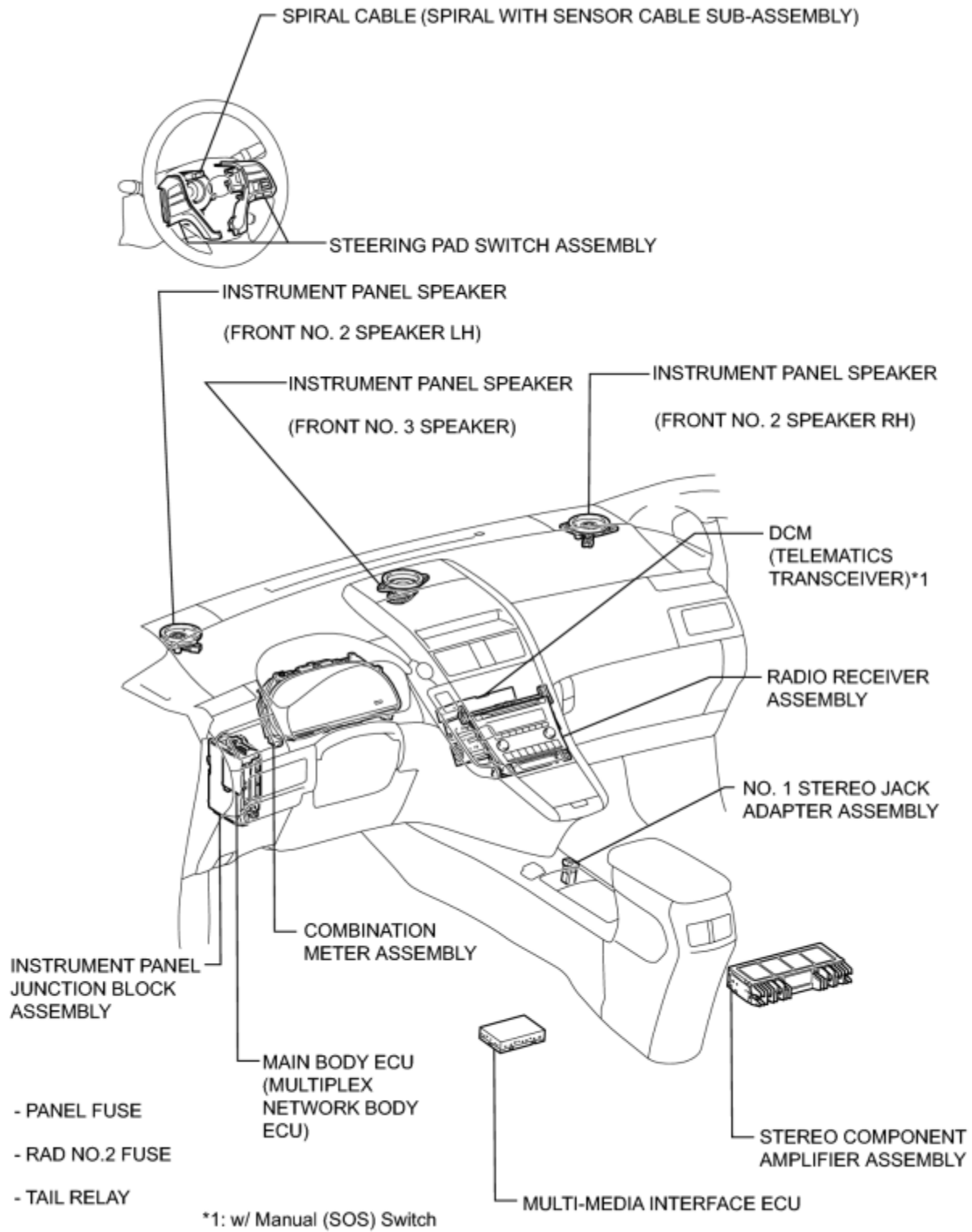
PARTS LOCATION

ILLUSTRATION

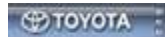


H

ILLUSTRATION

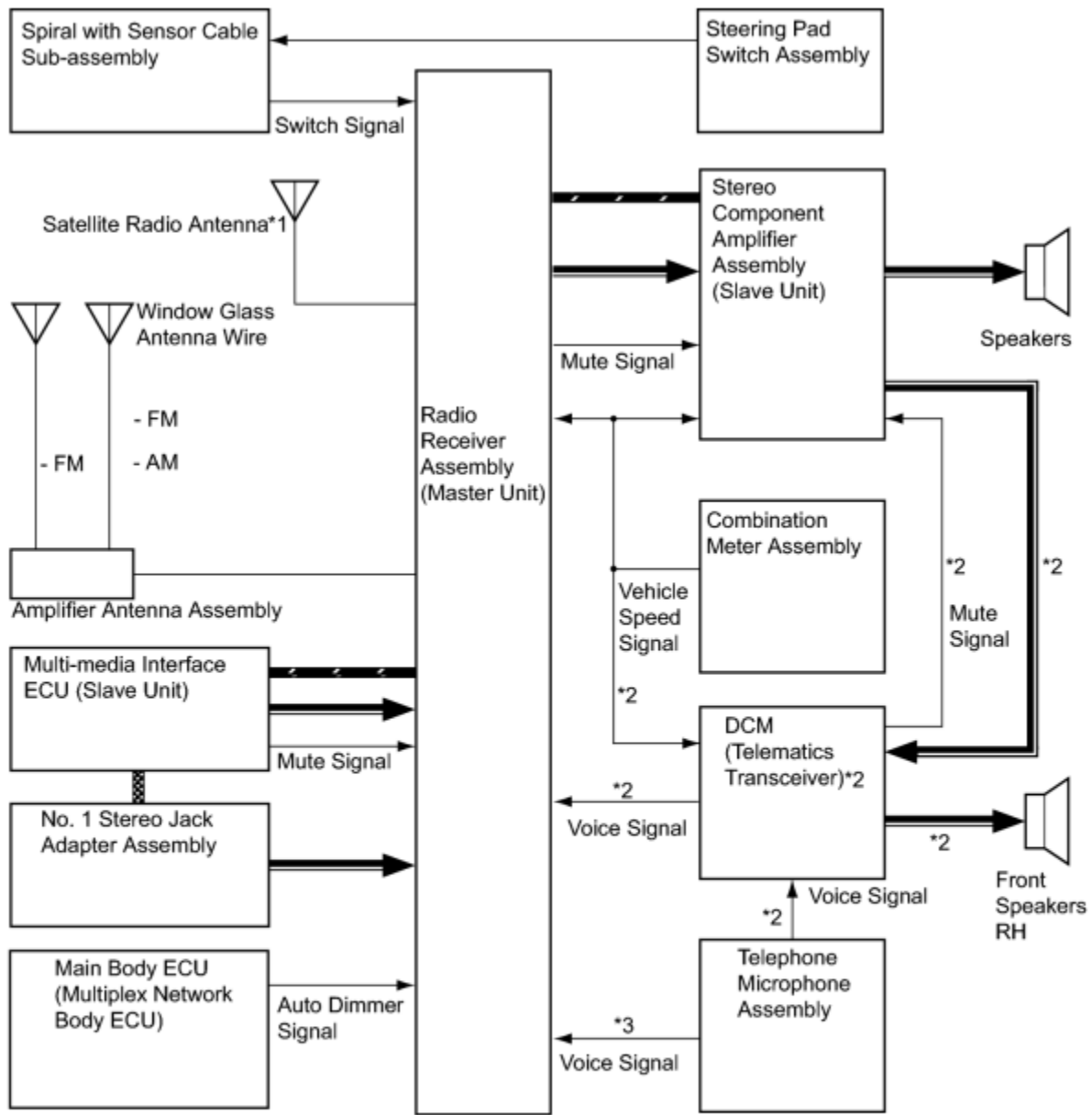


H



Last Modified: 10-5-2010	6.4 U	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM0000012AB03YX
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM (w/o Navigation System): SYSTEM DIAGRAM (2010 HS250H)		

SYSTEM DIAGRAM



▬▬▬▬▬▬ : AVC-LAN

▬▬▬▬▬▬ : Sound Signal

▬▬▬▬▬▬ : Sound Data Signal (USB Communication Line)

*1: w/ SDARS System

*2: w/ Manual (SOS) Switch

*3: w/o Manual (SOS) Switch



Last Modified: 10-5-2010	6.4 D	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM000000NKZ05PX
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM (w/o Navigation System): SYSTEM DESCRIPTION (2010 HS250H)		

SYSTEM DESCRIPTION

1. DISC PLAYER OUTLINE

(a) A CD player uses a laser pickup to read digital signals recorded on CDs. By converting the digital signals to analog, music and other content can be played.

CAUTION:

Do not look directly at the laser pickup because the CD player uses an invisible laser beam. Be sure to operate the player only as instructed.

NOTICE:

- Do not disassemble any part of the CD player.
- Do not apply oil to the CD player.
- Do not insert anything but a CD into the CD player.

(b) Usable discs

(1) The CD player can only play audio CDs, CD-Rs (CD-Recordable) and CD-RWs (CD-ReWritable) that have any of the following marks:



H

(c) Precautions for use of discs

NOTICE:

- Copy-protected CDs cannot be played.
- CD-Rs and CD-RWs may not be played depending on the recording conditions or characteristics of the discs, or due to damage, dirt or deterioration caused by leaving the discs in the cabin for a long time.
- Unfinalized CD-Rs and CD-RWs cannot be played.
- Keep the discs away from dirt. Be careful not to damage the discs or leave your fingerprints on them.
- Hold discs by the outer edge and center hole with the label side up.
- Leaving the disc exposed halfway out of the slot for a long time after pressing the disc eject button may cause deformation of the disc, making the disc unusable.
- If discs have adhesive tape, stickers, CD-R labels or any traces of such labels attached, the discs may not be ejected or player malfunctions may result.
- Keep the discs away from direct sunlight. (Exposure to direct sunlight may cause deformation of the disc, making the disc unusable.)
- Do not use odd-shaped CDs because these may cause player malfunctions.
- Do not use discs whose recording portion is transparent or translucent because they may not be inserted, ejected or played normally.
- Use only 4.7 in. (12 cm) CDs.
- Do not use 3 in. (8 cm) CDs, either with or without adapters.

HINT:

- When it is cold or it is raining, if the windows mist up, mist and condensation may form in the player. In such cases, the CD sound may skip or stop in the middle of play. Ventilate or dehumidify the cabin for a while before using the player.
- The CD sound may skip if the player experiences strong vibrations when the vehicle is driven on rough road or similar uneven surface(s).

(d) Cleaning

NOTICE:

Do not use a lens cleaner because it may cause a malfunction in the pickup portion of the player.



(1) If dirt is on the disc surface, wipe it clean with a soft dry cloth such as an eyeglass cleaner for plastic lenses from the inside to the outside in a radial direction.

NOTICE:

- Pressing on the disc by hand or rubbing the disc with a hard cloth may scratch the disc surface.
- Use of solvent such as a record spray, antistatic agent, alcohol, benzine and thinner, or a chemical cloth may

cause damage to the disc, making the disc unusable.

2. MP3/WMA OUTLINE

(a) Playable MP3 file standards

Compatible standard	MP3 (MPEG1 LAYER3, MPEG2 LSF LAYER3)
Compatible sampling frequency	<ul style="list-style-type: none">• MPEG1 LAYER3: 32, 44.1, 48 (kHz)• MPEG2 LSF LAYER3: 16, 22.05, 24 (kHz)
Compatible bit rate	<ul style="list-style-type: none">• MPEG1 LAYER3: 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 (kbps)• MPEG2 LSF LAYER3: 64, 80, 96, 112, 128, 144, 160 (kbps)• Compatible with VBR
Compatible channel mode	Stereo, joint stereo, dual channel, monaural

(b) Playable WMA file standards

Compatible standard	WMA Ver. 7, 8, 9
Compatible sampling frequency	32, 44.1, 48 (kHz)
Compatible bit rate (Only compatible with 2-channel playback)	<ul style="list-style-type: none">• Ver. 7, 8: CBR48, 64, 80, 96, 128, 160, 192 (kbps)• Ver. 9: CBR48, 64, 80, 96, 128, 160, 192, 256, 320 (kbps)

(c) ID3 tag and WMA tag

(1) Additional textual information called ID3 tag can be input to MP3 files. Information such as song titles and artist names can be stored.

HINT:

This player is compatible with the ID3 tags of ID3 Ver. 1.0 and 1.1, and ID3 Ver. 2.2 and 2.3. (Number of characters complies with ID3 Ver. 1.0 and 1.1.)

(2) Additional textual information called WMA tag can be input to WMA files. Information such as song titles and artist names can be stored.

(d) Usable media

(1) Only CD-ROMs, CD-Rs (CD-Recordable) and CD-RWs (CD-ReWritable) can be used to play MP3/WMA files.

NOTICE:

- CD-Rs and CD-RWs are more easily affected by a hot and humid environment than discs used for normal audio CDs. For this reason, some CD-Rs and CD-RWs do not play.
- If there are fingerprints or scratches on a disc, the disc may not play or the CD sound may skip.
- Some CD-Rs and CD-RWs may deteriorate if they are left in the cabin for a long time.
- Keep CD-Rs and CD-RWs in an opaque case.

(e) Usable media format

(1) Usable media format

Disc format	CD-ROM Mode 1, CD-ROM XA Mode 2 Form1
File format	ISO9660 Level 1 and Level 2 (Joliet, Romeo)

HINT:

- As for MP3/WMA files written in any unlisted format, the contents of the files may not play normally or the file names or folder names may not display correctly.
- This player is compatible with multi-session discs and can play CD-Rs and CD-RWs on which MP3/WMA files are added. However, only the first session can be played.
- Discs whose first session includes both music data and MP3 or WMA format data cannot be played.

(2) Standard and restrictions

Maximum directory levels	8 levels
Maximum number of characters for a folder name/file name	32 characters
Maximum number of folders	192 (Including empty folders, route folders, and folders that do not contain MP3/WMA files)
Maximum number of files in a disc	255 (Including non-MP3/WMA files)

(f) File names

(1) Only files with an extension of ".mp3" or ".wma" can be recognized and played as MP3 or WMA files.

(2) Save MP3 or WMA files with an extension of ".mp3" or ".wma".

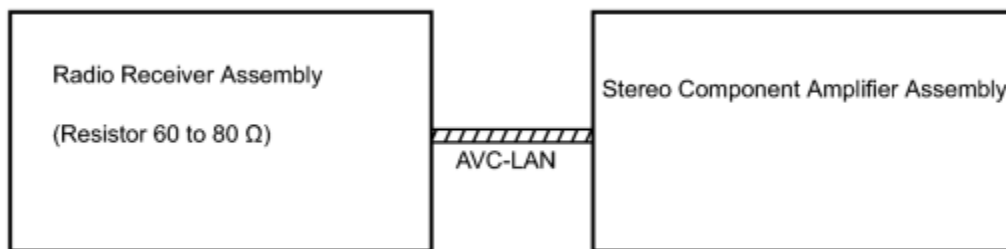
NOTICE:

If non-MP3 or non-WMA files are saved with an extension of ".mp3" or ".wma", those files may be wrongly recognized as MP3 or WMA files and played. A loud noise may occur and damage to the speakers may result.

3. AVC-LAN DESCRIPTION

(a) What is AVC-LAN?

Example



AVC-LAN, an abbreviation for Audio Visual Communication Local Area Network, is a united standard developed by the manufacturers in affiliation with Toyota Motor Corporation. This standard pertains to audio and visual signals as well as switch and communication signals.

(b) Purpose

Recently, car audio systems have rapidly developed and the functions have vastly changed. The conventional car audio system is being integrated with multi-media interfaces similar to those in navigation systems. At the same time, customers are demanding higher quality from their audio systems. This is merely an overview of the standardization background. The specific purposes are as follows:

- (1) To solve sound problems etc. caused by using components of different manufacturers through signal standardization.
- (2) To allow each manufacturer to concentrate on developing products they do best. From this, reasonably priced products can be produced.

HINT:

- If a short to +B or short to ground is detected in the AVC-LAN circuit, communication is interrupted and the audio system will stop functioning.

- If the audio system has a navigation system installed, the multi-display unit acts as the master unit. If the navigation system is not installed, the audio head unit acts as the master unit instead. If the navigation receiver assembly is installed, it is the master unit.
- The radio receiver assembly contains a resistor that is necessary to enable communication on the different AVC-LAN circuits.
- The car audio system with an AVC-LAN circuit has a diagnostic function.
- Each component has a specified number (3-digit) called a physical address. Each function has a number (2-digit) called a logical address.

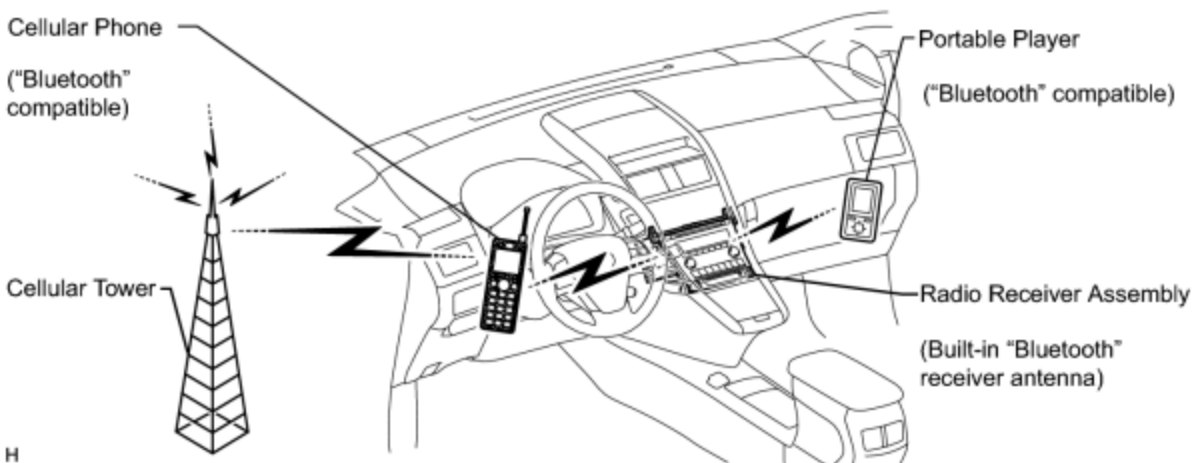
4. COMMUNICATION SYSTEM OUTLINE

- (a) Components of the audio system communicate with each other via the AVC-LAN.
- (b) The master component of the AVC-LAN is a radio receiver assembly with a 60 to 80 Ω resistor. This is essential for communication.
- (c) If a short circuit or open circuit occurs in the AVC-LAN circuit, communication is interrupted and the audio system will stop functioning.

5. DIAGNOSTIC FUNCTION OUTLINE

- (a) The audio system has a diagnostic function (the result is indicated on the master unit).
- (b) A 3-digit hexadecimal component code (physical address) is allocated to each component on the AVC-LAN. Using this code, the component in the diagnostic function can be displayed.

6. "BLUETOOTH" OUTLINE



- (a) "Bluetooth" is a trademark owned by Bluetooth SIG. Inc.

(b) "Bluetooth" is a wireless connection technology that uses the 2.4 GHz frequency band.

HINT:

The communication performance of "Bluetooth" may vary depending on obstructions or radio wave conditions between communication devices, electromagnetic radiation, communication device sensitivity or antenna capacity.

(c) Hands-free function

(1) The "Bluetooth" built-in radio receiver and a "Bluetooth" compatible cellular phone*1 can be connected using a "Bluetooth" wireless connection. This enables use of the hands-free function on the cellular phone even if the phone is in a pocket or bag. For this reason, it is not necessary to use a connector or cable to connect the cellular phone.

*1: Some versions of "Bluetooth" compatible cellular phones may not function.

(d) "Bluetooth" audio function

(1) The "Bluetooth" built-in radio receiver assembly and a "Bluetooth" compatible portable audio player*2 can be connected using a "Bluetooth" wireless connection. This enables files stored in the portable audio player to be heard from the vehicle speakers. In addition, operations such as play/stop can be performed directly from the radio receiver assembly.

*2: Some versions of "Bluetooth" compatible audio players may not be able to operate the "Bluetooth" function, or music may play, but functions available using the radio receiver assembly may be limited.

(2) Compatible "Bluetooth" audio devices

"Bluetooth" specifications	Ver. 1.1 or higher (Recommended: Ver. 2.0+EDR or higher)
Following profiles	<ul style="list-style-type: none">• A2DP (Advanced Audio Distribution Profile) Ver. 1.0 or higher• AVRCP (Audio/Video Remote Control Profile) Ver. 1.0 or higher (Recommended: Ver. 1.3 or higher)
Maximum number of audio devices that can be registered	2

7. USB AUDIO SYSTEM FUNCTION OUTLINE

(a) The No. 1 stereo jack adapter assembly is equipped with a USB terminal. Connecting a USB device or "iPod" to the No. 1 stereo jack adapter assembly allows music files to be played. Not only is it possible to play music from a USB device with audio functions, is also possible to play

MP3 or WMA music files that are stored on a USB device. In addition, "iPod" control software is installed, allowing file selection from playlists and operation using shuffle mode.

HINT:

- Visual contents of an "iPod" cannot be played.
- Operation through the controls of a USB device or "iPod" cannot be performed while it is connected.

(b) USB audio system compatible model

(1) USB Device

The following device formats can be used:

Compatible USB device formats	<ul style="list-style-type: none"> • USB communication format: USB 2.0 FS (12MBPS) • File format: FAT16/32 (Windows) • Class: Mass storage class
-------------------------------	---

MP3 and WMA files written in any format other than those listed above may not play correctly, and their file and folder names may not be displayed correctly.

Items related to standards and limitations are as follows:

- Maximum directory hierarchy: 8 levels
- Maximum number of folders in device: 999 (including the root folder)
- Maximum number of files in device: 65025
- Maximum number of files per folder: 255

(2) "iPod"

"iPod" is a trademark of Apple Inc., registered in the U.S. and other countries.

Supported "iPod" Models and Firmware Versions

Supported "iPod" Model	Supported Firmware Version
"iPod" 5G	Ver. 1.2 or higher
"iPod Nano" 1G	Ver. 1.3 or higher
"iPod Nano" 2G	Ver. 1.1.2 or higher
"iPod Nano" 3G	Ver. 1.0 or higher
"iPod touch"	Ver. 1.1 or higher
"iPod classic"	Ver. 1.0 or higher

Unsupported "iPod" Models

Unsupported Models	"iPod shuffle"
	"iPhone"
	"iPod" 1G, 2G, 3G, 4G
	"iPod mini"

Items related to standards and limitations are as follows:

- Maximum number of lists in device: 9999
- Maximum number of songs in device: 65535
- Maximum number of songs per list: 65535

HINT:

- "iPod" models and firmware versions that are not listed in "Supported "iPod" Models and Firmware Versions" may not function, or may not function correctly.
- Depending on the generation of "iPod" used, response to commands from the vehicle may be delayed.

8. ASL (Automatic Sound Levelizer) FUNCTION OUTLINE

(a) The Automatic Sound Levelizer (ASL) function automatically adjusts the audio system volume level in order to compensate for increased vehicle noise (vehicle noise tends to increase as vehicle speed increases). The ASL adjusts the volume level based upon vehicle speed signals that it receives from the combination meter.

9. RBDS FUNCTION OUTLINE (BROADCAST IN NORTH AMERICA ONLY)

The Radio Broadcast Data System (RBDS) is broadcast through conventional FM radio broadcasts. Even if a vehicle changes locations, the same information can be received from several FM stations without breaks. Information such as song names, traffic information, broadcast station names, etc. can be received.

10. SDARS SYSTEM FUNCTION OUTLINE (BROADCAST IN NORTH AMERICA ONLY)

Satellite Digital Audio Radio Service (SDARS) is a satellite digital radio broadcast provided by Sirius XM Radio Inc. The broadcast (pay-type) is performed through satellites and terrestrial repeater networks. Several unique channels are available, and even if a vehicle changes locations, the same information can be received without breaks. Information such as song names, broadcast station names, etc. can be received.

NOTICE:

To receive an audio-visual pay-type broadcasts, the customer must enter into a pay-type contract

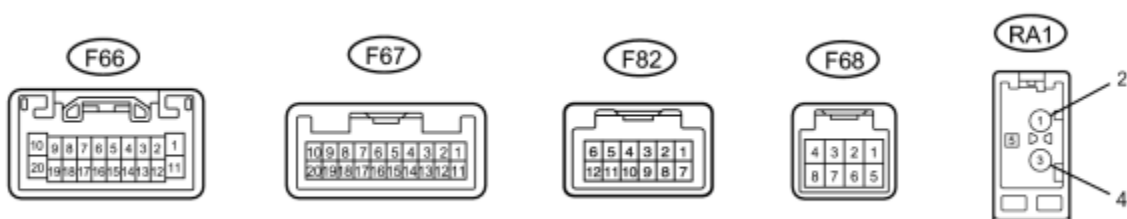
with XM Satellite Radio Inc. After entering into a contract, registration of an 8-digit XM Radio ID is required. Also, if parts are replaced, the XM Radio ID must be reregistered.



Last Modified: 10-5-2010	6.4 U	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM0000012A704JX
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM (w/o Navigation System): TERMINALS OF ECU (2010 HS250H)		

TERMINALS OF ECU

1. RADIO RECEIVER ASSEMBLY



Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specification
F66-1 (B) - F66-20 (GND)	R - W-B	Battery	Power switch off	11 to 14 V
F66-2 (ILL+) - F66-20 (GND)	L - W-B	Illumination signal	Light control switch off	Below 1 V
F66-2 (ILL+) - F66-20 (GND)	L - W-B	Illumination signal	Light control switch tail	11 to 14 V
F66-5 (ATX+)	R	AVC-LAN communication signal	-	-
F66-7 (MUTE) - F66-20 (GND)	Y - W-B	MUTE signal	Audio system playing mode	Above 2.5 V
F66-7 (MUTE) - F66-20 (GND)	Y - W-B	MUTE signal	Audio system changing mode	Below 0.5 V

F66-8 (R+) - F66-20 (GND)	B - W-B	Sound signal (Right)	Audio system playing mode	A waveform synchronized with sounds is output
F66-9 (L+) - F66-20 (GND)	G - W-B	Sound signal (Left)	Audio system playing mode	A waveform synchronized with sounds is output
F66-10 (SLD) - Body ground	Shield - Body ground	Shield ground	Always	Below 1 V
F66-11 (ACC) - F66-20 (GND)	G - W-B	Accessory (ON)	Power switch off	Below 1 V
F66-11 (ACC) - F66-20 (GND)	G - W-B	Accessory (ON)	Power switch on (ACC)	11 to 14 V
F66-12 (ILL-) - F66-20 (GND)	L - W-B	Illumination (rheostat) signal	Light control switch off	Below 1 V
F66-12 (ILL-) - F66-20 (GND)	L - W-B	Illumination (rheostat) signal	Light control switch tail	Pulse generation
F66-15 (ATX-)	W	AVC-LAN communication signal	-	-
F66-18 (R-) - F66-20 (GND)	R - W-B	Sound signal (Right)	Audio system playing mode	A waveform synchronized with sounds is output
F66-19 (L-) - F66-20 (GND)	W - W-B	Sound signal (Left)	Audio system playing mode	A waveform synchronized with sounds is output
F66-20 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
F67-3 (SPD) - F66-20 (GND)	G - W-B	Speed signal from combination meter assembly	Power switch on (IG) Drive wheels turned slowly	Pulse generation
F67-6 (SWG) - F66-20 (GND)	Y - W-B	Steering pad switch ground	Always	Below 1 V
F67-7 (SW1)	P - W-B	Steering pad switch	Steering pad switch not	3.28 to 3.5 V

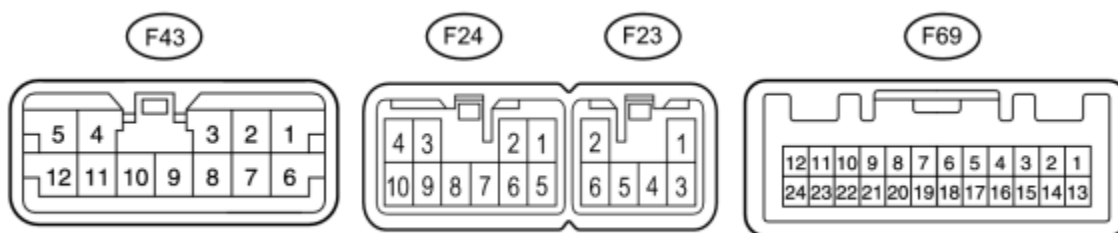
- F66-20 (GND)		signal	operated	
F67-7 (SW1) - F66-20 (GND)	P - W-B	Steering pad switch signal	Seek+ switch pushed	Below 0.8 V
F67-7 (SW1) - F66-20 (GND)	P - W-B	Steering pad switch signal	Seek- switch pushed	0.9 to 1.3 V
F67-7 (SW1) - F66-20 (GND)	P - W-B	Steering pad switch signal	Volume+ switch pushed	1.65 to 1.9 V
F67-7 (SW1) - F66-20 (GND)	P - W-B	Steering pad switch signal	Volume- switch pushed	2.45 to 2.6 V
F67-8 (SW2) - F66-20 (GND)	R - W-B	Steering pad switch signal	Steering pad switch not operated	3.28 to 3.5 V
F67-8 (SW2) - F66-20 (GND)	R - W-B	Steering pad switch signal	MODE switch pushed	Below 0.8 V
F67-8 (SW2) - F66-20 (GND)	R - W-B	Steering pad switch signal	On hook switch pushed	0.9 to 1.3 V
F67-8 (SW2) - F66-20 (GND)	R - W-B	Steering pad switch signal	Off hook switch pushed	1.65 to 1.9 V
F67-8 (SW2) - F66-20 (GND)	R - W-B	Steering pad switch signal	Voice switch pushed	2.45 to 2.6 V
F67-11 (IVO+) - F66-20 (GND)	R - W-B	Voice signal	"Bluetooth" hands-free voice signal received	A waveform synchronized with sounds is output
F67-12 (IVO-) - F66-20 (GND)	G - W-B	Voice signal	"Bluetooth" hands-free voice signal received	A waveform synchronized with sounds is output
F67-13 (SLD1) - Body ground	Shield - Body ground	Shield ground	Always	Below 1 V
F67-15 (ARI) - F66-	R - W-B	Sound signal (Right)	External device playing (When stereo jack used)	A waveform synchronized with

20 (GND)				sounds is output
F67-16 (ASGN) - F66-20 (GND)	B - W-B	Shield ground	Always	Below 1 V
F67-17 (ALI) - F66-20 (GND)	W - W-B	Sound signal (Left)	External device playing (When stereo jack used)	A waveform synchronized with sounds is output
F67-18 (AGND) - Body ground	Shield - Body ground	Shield ground	Always	Below 1 V
F67-19 (AUXI) - F66-20 (GND)	G - W-B	External device connection detection signal	External device connected	Below 1 V
F67-20 (ADIM) - F66-20 (GND)	L - W-B	Illumination (auto dimmer) signal	Power switch on (IG) Headlight dimmer switch in tail or head and automatic light control sensor covered by hand	Above 9 V
F68-1 (SNS2) - F66-20 (GND)	V - W-B	Microphone connection detection signal	Always	Below 1 V
F68-2 (MIN+) - F66-20 (GND)	W - W-B	Microphone voice signal	"Bluetooth" hands-free function on	A waveform synchronized with sounds is output
F68-3 (MACC) - F66-20 (GND)	R - W-B	Microphone amplifier power supply	Power switch off	Below 1 V
F68-3 (MACC) - F66-20 (GND)	R - W-B	Microphone amplifier power supply	Power switch on (IG)	4 to 6 V
F68-5 (MIN-) - F66-20 (GND)	B - W-B	Microphone voice signal	"Bluetooth" hands-free function on	A waveform synchronized with sounds is output
F68-6 (SGND) - Body ground	Shield - Body ground	Shield ground	Always	Below 1 V

F82-1 (CSLD) - Body ground	Shield - Body ground	Shield ground	Always	Below 1 V
F82-2 (CDR+) - F66-20 (GND)	R - W-B	USB audio system sound signal	USB audio system playing	A Waveform synchronized with sounds is output
F82-3 (CDR-) - F66-20 (GND)	W - W-B	USB audio system sound signal	USB audio system playing	A Waveform synchronized with sounds is output
F82-4 (CDL+) - F66-20 (GND)	G - W-B	USB audio system sound signal	USB audio system playing	A Waveform synchronized with sounds is output
F82-5 (CDL-) - F66-20 (GND)	B - W-B	USB audio system sound signal	USB audio system playing	A Waveform synchronized with sounds is output
F82-6 (MUTE) - F66-20 (GND)	GR - W- B	Mute signal	USB audio system playing	Above 2.5 V
F82-6 (MUTE) - F66-20 (GND)	GR - W- B	Mute signal	USB audio system changing mode	Below 0.5 V
F82-7 (GND) - F66-20 (GND)	BR - W- B	Ground	Always	Below 1 V
F82-9 (TXM+)	Y	AVC-LAN communication signal	-	-
F82-10 (TXM-)	V	AVC-LAN communication signal	-	-
F82-11 (ACC) - F66- 20 (GND)	Y - W-B	Accessory (ON)	Power switch off	Below 1 V
F82-11 (ACC) - F66- 20 (GND)	Y - W-B	Accessory (ON)	Power switch on (ACC)	11 to 14 V
F82-12 (+B) - F66-20	P - W-B	Battery	Always	11 to 14 V

(GND)				
RA1-5 (ANT+) - F66-20 (GND)	B - W-B	Power source of antenna	Power switch on (ACC) Radio switch on and AM or FM	11 to 14 V

2. STEREO COMPONENT AMPLIFIER ASSEMBLY



Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specification
F23-2 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
F23-3 (+B2) - F23-2 (GND)	Y - W-B	Battery	Power switch off	11 to 14 V
F23-6 (GND2) - Body ground	W-B - Body ground	Ground	Always	Below 1 V
F69-1 (MUTE) - F23-2 (GND)	Y - W-B	Mute signal from radio receiver assembly	Audio system playing	Above 2.5 V
F69-1 (MUTE) - F23-2 (GND)	Y - W-B	Mute signal from radio receiver assembly	Audio system changing sources	Below 0.5 V
F69-2 (L-) - F23-2 (GND)	W - W-B	Sound signal (Left)	Audio system playing	A waveform synchronized with sounds is output
F69-3 (L+) - F23-2 (GND)	G - W-B	Sound signal (Left)	Audio system playing	A waveform synchronized with sounds is output
F69-4 (R-) - F23-2 (GND)	R - W-B	Sound signal (Right)	Audio system playing	A waveform synchronized with sounds is output

F69-5 (R+) - F23-2 (GND)	B - W-B	Sound signal (Right)	Audio system playing	A waveform synchronized with sounds is output
F69-7 (TX-)	W	AVC-LAN communication signal	-	-
F69-8 (TX+)	R	AVC-LAN communication signal	-	-
F69-11 (SPD) - F23-2 (GND)	L - W-B	Speed signal from combination meter assembly	Power switch on (IG) Drive wheels turned slowly	Pulse generation
F69-12 (ACC) - F23-2 (GND)	L - W-B	Accessory (ON)	Power switch off	Below 1 V
F69-12 (ACC) - F23-2 (GND)	L - W-B	Accessory (ON)	Power switch on (ACC)	11 to 14 V
F69-14 (III-) - F23-2(GND)	G - W-B	Voice signal	"Bluetooth" hands-free voice signal transmitted	A waveform synchronized with sounds is output
F69-15 (III+) - F23-2 (GND)	R - W-B	Voice signal	"Bluetooth" hands-free voice signal transmitted	A waveform synchronized with sounds is output
F69-24 (TMUT) - F23-2 (GND)*1	GR - W-B	Mute signal	Audio system playing	Above 3.5 V
F69-24 (TMUT) - F23-2 (GND)*1	GR - W-B	Mute signal	Emergency call mode	Below 1 V
F24-1 (WF1+) - F23-2 (GND)	V - W-B	Sound signal (Woofers)	Audio system playing	A waveform synchronized with sounds is output
F24-2 (WF2+) - F23-2 (GND)	R - W-B	Sound signal (Woofers)	Audio system playing	A waveform synchronized with sounds is output
F24-5 (WF1-) - F23-2 (GND)	Y - W-B	Sound signal (Woofers)	Audio system playing	A waveform synchronized with sounds is output
F24-6 (WF2-) - F23-2 (GND)	W - W-B	Sound signal (Woofers)	Audio system playing	A waveform synchronized with sounds is output
F24-7 (CTR-) -	W - W-B	Sound signal (Front	Audio system	A waveform

F23-2 (GND)		Center)	playing	synchronized with sounds is output
F24-8 (CTR+) - F23-2 (GND)	R - W-B	Sound signal (Front Center)	Audio system playing	A waveform synchronized with sounds is output
F43-3 (FL+) - F23-2 (GND)	P - W-B	Sound signal (Front Left)	Audio system playing	A waveform synchronized with sounds is output
F43-4 (RL+) - F23-2 (GND)	G - W-B	Sound signal (Rear Left)	Audio system playing	A waveform synchronized with sounds is output
F43-5 (RR+) - F23-2 (GND)	R - W-B	Sound signal (Rear Right)	Audio system playing	A waveform synchronized with sounds is output
F43-8 (FL-) - F23-2 (GND)	V - W-B	Sound signal (Front Left)	Audio system playing	A waveform synchronized with sounds is output
F43-9 (FR-) - F23-2 (GND)	L - W-B	Sound signal (Front Right)	Audio system playing	A waveform synchronized with sounds is output
F43-10 (FR+) - F23-2 (GND)	LG - W-B	Sound signal (Front Right)	Audio system playing	A waveform synchronized with sounds is output
F43-11 (RL-) - F23-2 (GND)	BR - W-B	Sound signal (Rear Left)	Audio system playing	A waveform synchronized with sounds is output
F43-12 (RR-) - F23-2 (GND)	W - W-B	Sound signal (Rear Right)	Audio system playing	A waveform synchronized with sounds is output

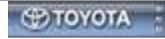
- *1: w/ Manual (SOS) Switch

3. MULTI-MEDIA INTERFACE ECU



Terminal No. (Symbol)	Wiring Color	Terminal Description	Condition	Specification
F79-1 (USD1) - Body ground	Shield - Body ground	Shield ground	Always	Below 1 V
F79-2 (URO+) - F79-7 (GND)	W - BR	USB audio system sound signal	USB audio system playing	A waveform synchronized with sounds is output
F79-3 (URO-) - F79-7 (GND)	R - BR	USB audio system sound signal	USB audio system playing	A waveform synchronized with sounds is output
F79-4 (ULO+) - F79-7 (GND)	G - BR	USB audio system sound signal	USB audio system playing	A waveform synchronized with sounds is output
F79-5 (ULO-) - F79-7 (GND)	B - BR	USB audio system sound signal	USB audio system playing	A waveform synchronized with sounds is output
F79-6 (MUT1) - F79-7 (GND)	GR - BR	Mute signal from multi-media interface ECU	USB audio system playing	Above 2.5 V
F79-6 (MUT1) - F79-7 (GND)	GR - BR	Mute signal from multi-media interface ECU	USB audio system changing mode	Below 0.5 V
F79-7 (GND) - Body ground	BR - Body ground	Ground	Always	Below 1 V
F79-9 (TX1+)	Y	AVC-LAN communication signal	-	-
F79-10 (TX1-)	V	AVC-LAN communication signal	-	-
F79-11 (ACC) - F79-7 (GND)	Y - BR	Accessory (ON)	Power switch off	Below 1 V
F79-11 (ACC) - F79-7 (GND)	Y - BR	Accessory (ON)	Power switch on (ACC)	11 to 14 V
F79-12 (+B) - F79-7 (GND)	P - BR	Battery	Power switch off	11 to 14 V
F133-1 (UESG) - Body ground	-	Ground	Always	Below 1 V
F133-2 (UDI+)	-	Data signal	USB device or "iPod" connected	-

F133-3 (UDI-)	-	Data signal	USB device or "iPod" connected	-
F133-4 (UPO) - F133-1 (UESG)	-	Battery	Always	5 V
F133-5 (UESS) - Body ground	Shield - Body ground	Shield ground	Always	Below 1 V



Last Modified: 10-5-2010	6.4 D	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM0000014CZ04CX
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM (w/o Navigation System): DTC CHECK / CLEAR (2010 HS250H)		

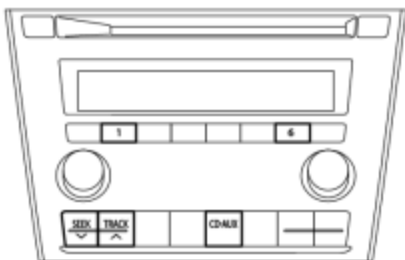
DTC CHECK / CLEAR

HINT:

If the system cannot enter diagnostic mode, inspect the AVC-LAN and all the components that are connected to the AVC-LAN for short circuits and repair or replace the malfunctioning part

INFO

1. STARTING DIAGNOSTIC MODE



(a) Turn the power switch on (ACC).

H

(b) Turn off the audio system.

(c) While pressing preset switches "1" and "6" at the same time, press the "CD AUX" switch 3 times.

HINT:

A beep is emitted 3 times and the diagnostic function is activated. The system enters the all element illumination mode and the switch check mode.

2. ALL ELEMENT ILLUMINATION MODE AND SWITCH CHECK MODE

HINT:

Illumination status of all switches and operations of the panel switches can be checked.

(a) Check that all elements are on.

*1



Text in Illustration

*1	Example	-	-
----	---------	---	---

(b) When pressing each panel switch, check that a beep is emitted.

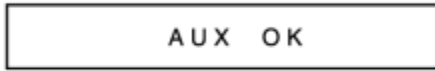
HINT:

Pressing the "SEEK TRACK UP" switch transfers the screen to the stereo jack adapter connection check screen. Check the operation of this switch by confirming the transfer of the screen.

3. STEREO JACK ADAPTER CONNECTION CHECK MODE

(a) Press the "SEEK TRACK UP" switch.

When a stereo jack adapter is connected



When a stereo jack adapter is not connected



N

(b) Check if the stereo jack adapter is recognized.

HINT:

- The integration control and panel assembly displays "AUX OK" or "AUX ON" when it recognizes a connection to the stereo jack adapter.
- Vehicles that do not have a stereo jack adapter also have this function.
- This function is not to check connection status to an external device, but to check recognition of the stereo jack adapter.

4. SERVICE CHECK MODE

(a) Press the "SEEK TRACK UP" switch.

HINT:

For details of the service check mode, refer to following "6. Check DTC" and "7. DTC Clear/Recheck".

5. FINISHING DIAGNOSTIC MODE

(a) Press the "CD AUX" switch for 2 seconds or more, or turn the power switch off.

6. CHECK DTC

HINT:

Illustrations may differ from the actual vehicle depending on the device settings and options. Therefore, some detailed areas may not be shown exactly the same as on the actual vehicle.

(a) Reference

In the system check mode, the system check and diagnostic memory check are performed, and the check results are displayed in ascending order of the component codes (physical address).

Term	Meaning
Component code (Physical address)	Three-digit code (in hexadecimal) is given to each device comprising AVC-LAN. Corresponding to its function, individual symbol is provided.
Logical address	Two-digit code (in hexadecimal) is given to each function and device unit in each device comprising AVC-LAN.

(b) Service check result display

Display	Previous Term	Meaning	Action to be Taken
good	Good (normal)	No DTCs are detected in both "System Check Mode" and "Diagnostic Memory Mode".	-
nCon	No connection	The system recognized the component when it was registered, but the component gives no response to "Diagnostic Mode ON Request".	Check the power source circuit and the communication circuit of the component indicated by the component code (physical address).
ECHn	Exchange	One or more DTCs for "Exchange" are detected in either "System Check Mode" or "Diagnostic Memory Mode".	Go to the detailed information mode to check the trouble area referring to the DTC chart.
CHEC	Check	When no DTCs are detected for "Exchange", one or more DTCs for "Check" are detected in either "System Check Mode" or "Diagnostic Memory Mode".	Go to the detailed information mode to check the trouble area referring to the DTC chart.
OLd	Old version	Old DTC application is identified and DTC is detected in either "System Check Mode" or "Diagnostic Memory Mode".	-
nrES	No response	The device gives no response to any one of "System Check Mode ON Request", "System Check Result Request" and "Diagnostic Memory	Check the power source circuit and the communication circuit of the component indicated by the component code (physical address).

		Request".	
--	--	-----------	--

(c) Device name and physical address

Physical Address No.	Name
190	Radio receiver assembly
440	Stereo component amplifier assembly
1F1	Satellite radio tuner
388	Multi-media interface ECU

(d) Service check mode

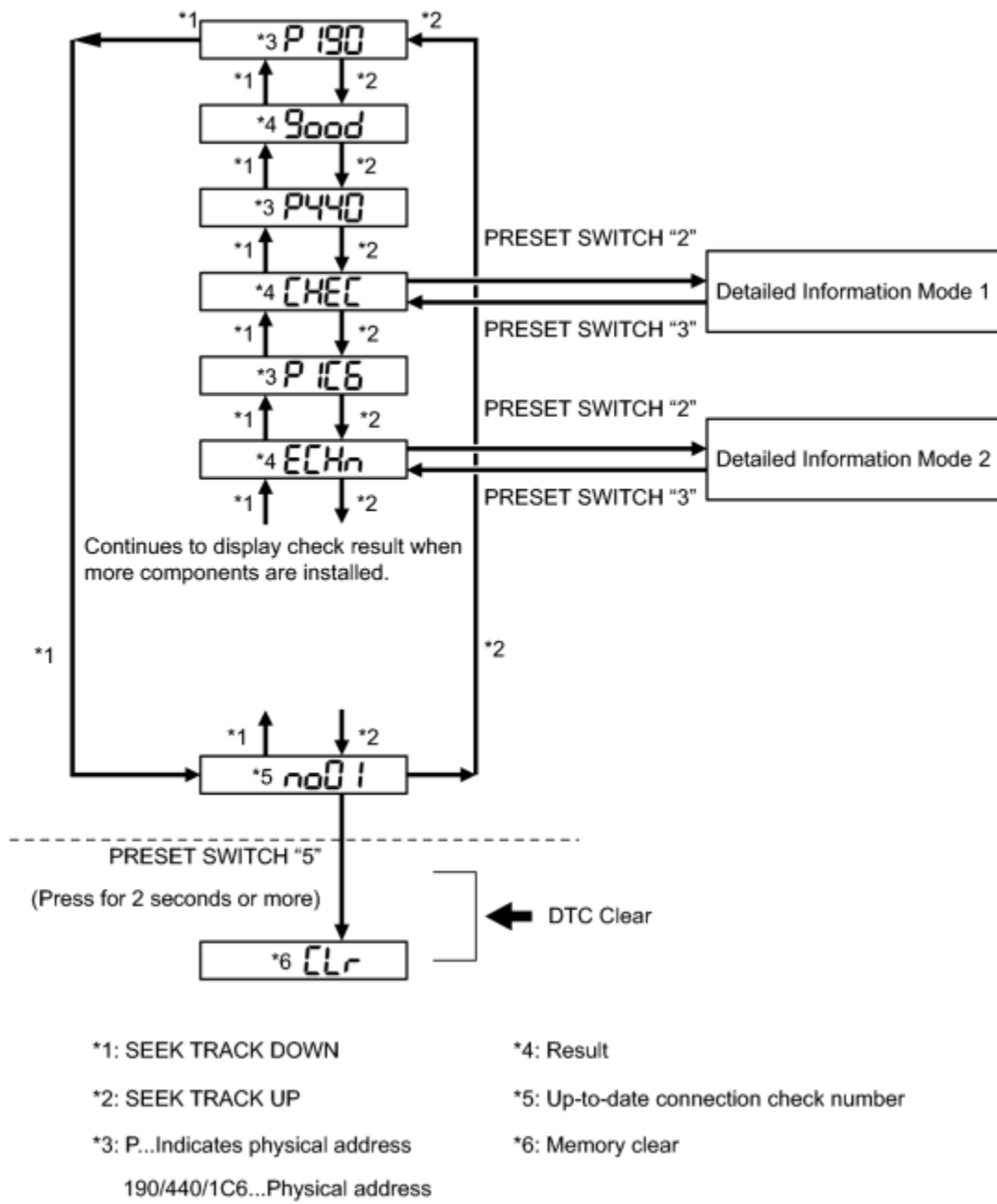
(1) Press the "SEEK TRACK" switch to see the check result of each component.

(2) The component code (physical address) is displayed first, and then the check result follows.

HINT:

- If all check results are "good", the system judges that no DTC exists.
- If preset switch "1" is pressed in service check mode, service check is performed again.
- This illustration is only an example and may differ for each optional part and output DTCs.

Service Check Mode



(e) Detailed information mode 1

HINT:

- "Detailed Information Mode 1" is displayed when there is no response to "System Check Result Request" and DTC is stored only in "Diagnostic Memory Request".
- The component device code (physical address) is displayed first, and then the check result follows.
- This illustration is only an example and may differ in cases such as for each optional part and output DTCs.

(1) Press preset switch "2" to go to "Detailed Information Mode 1".

(2) Press the "SEEK TRACK" switch to display the physical address and DTC of the component.

(3) Press the preset switch "3" to go to "Service Check Mode".

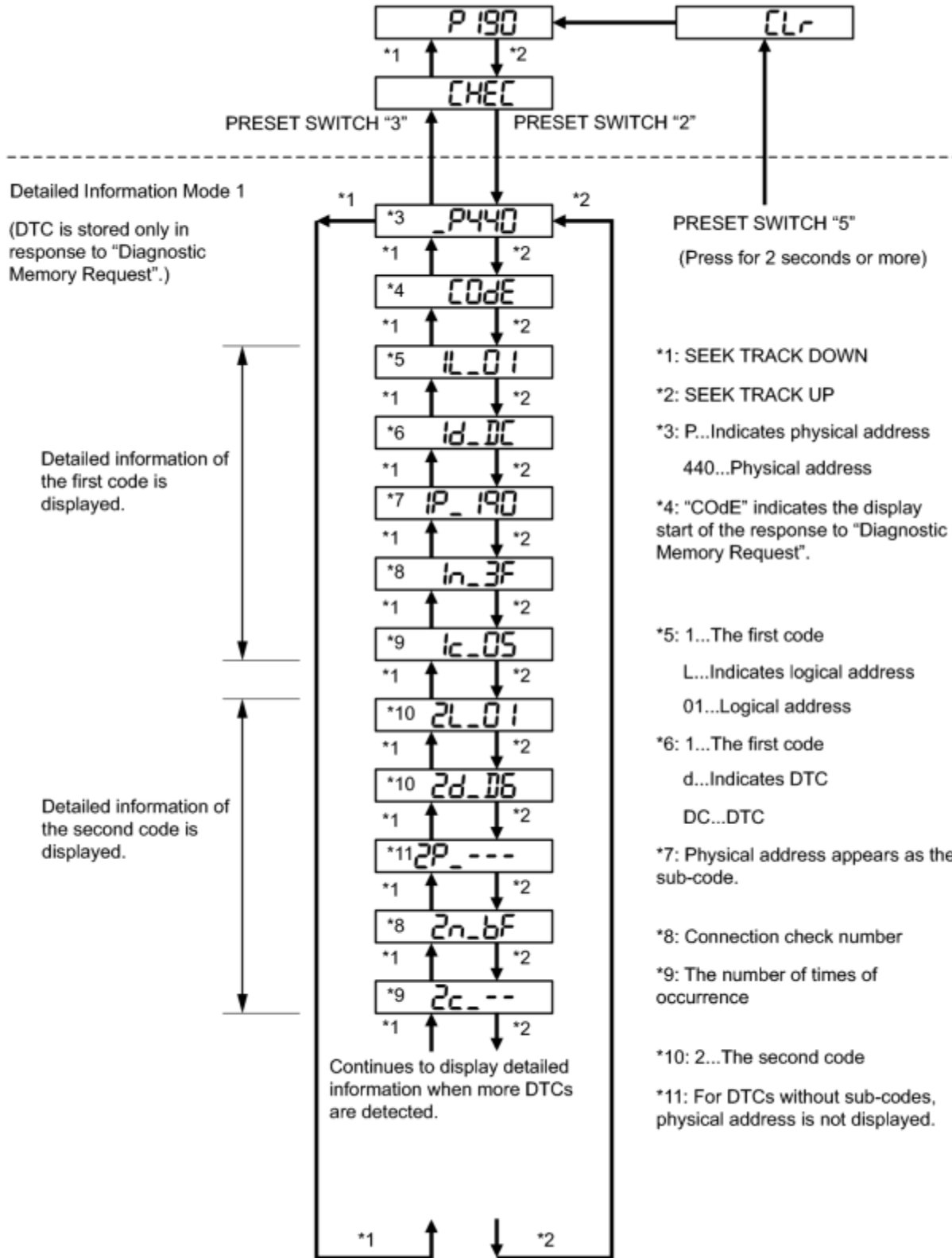
(4) Select between the displays of the responses to "System Check Result Request" and "Diagnostic Memory Request". In order to distinguish the information detected in "System Check Mode" and "Diagnostic Memory Mode" in "ECHn", "CHEC", and "OLd" in "Detailed Information Mode 1", refer to the following:

- "SyS" is displayed before the detailed codes detected as a result of "System Check Result Request" are displayed.
- "COdE" is displayed before the detailed codes detected as a result of "Diagnostic Memory Request" are displayed.

HINT:

- The response to "System Check Result Request" is the current information given from each ECU as a result of the system check.
- The response to "Diagnostic Memory Request" contains the information received from each ECU or stored in each ECU in the past.
- The response to "Diagnostic Memory Request" is the output DTCs as a result of the diagnostic memory check or the DTCs received from each ECU.
- "System Check Result Request (SyS)" is displayed first, and then the logical address and DTC appear in order.
- "Diagnostic Memory Request (COdE)" is displayed first, and then the logical address, DTC, sub-code, connection check number, and the number of occurrence appear in order.

Service Check Mode



(f) Detailed information mode 2

HINT:

- "Detailed Information Mode 2" is displayed when DTCs are stored in responses to both "System Check Result Request" and "Diagnostic Memory Request".
- The component device code (physical address) is displayed first, and then the check result follows.
- This illustration is only an example and may differ in cases such as for each option part and output DTCs.

(1) Press preset switch "2" to go to "Detailed Information Mode 2".

(2) Press the "SEEK TRACK" switch to display the physical address and DTC of the component.

(3) Press preset switch "3" to go to "Service Check Mode".

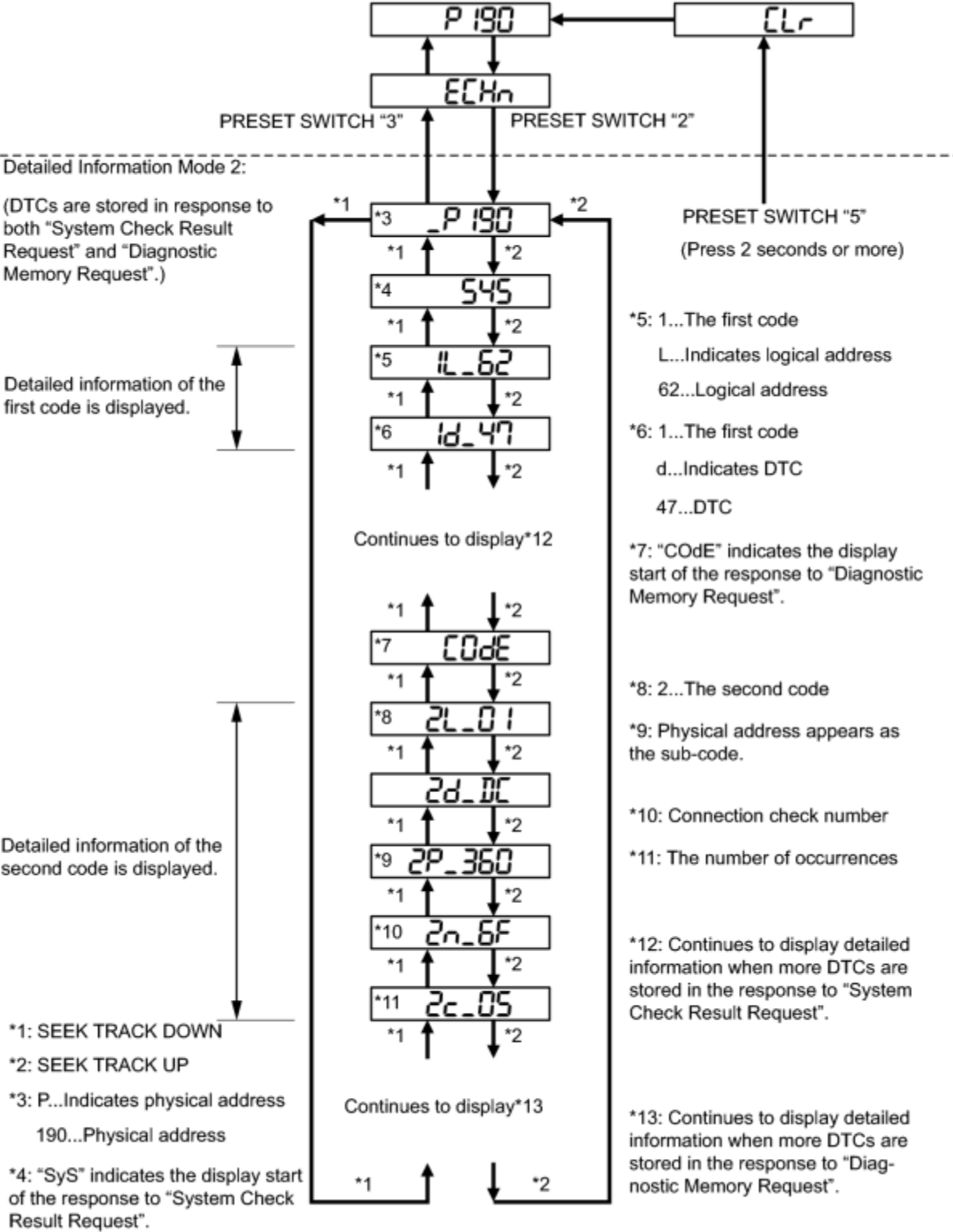
(4) Select between the displays of the responses to "System Check Result Request" and "Diagnostic Memory Request". In order to distinguish the information detected in "System Check Mode" and "Diagnostic Memory Mode" in "EChn", "CHEC", and "OLd" in "Detailed Information Mode 2", refer to the following:

- "SyS" is displayed before the detailed codes detected as a result of "System Check Result Request" are displayed.
- "COdE" is displayed before the detailed codes detected as a result of "Diagnostic Memory Request" are displayed.

HINT:

- The response to "System Check Result Request" is the current information given from each ECU as a result of the system check.
- The response to "Diagnostic Memory Request" contains the information received from each ECU or stored in each ECU in the past.
- The response to "Diagnostic Memory Request" is the output DTCs as a result of the diagnostic memory check or the DTCs received from each ECU.
- "System Check Result Request (SyS)" is displayed first, and then the logical address and DTC appear in order.
- "Diagnostic Memory Request (COdE)" is displayed first, and then the logical address, DTC, sub-code, connection check number, and the number of occurrence appear in order.

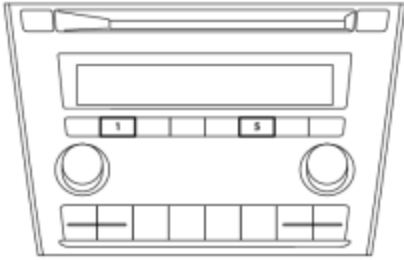
System Check Mode:



7. DTC CLEAR/RECHECK

(a) Clearing All DTC Memory (when clearing all the memory of the previously detected DTCs)

(1) When preset switch "5" is pressed for 2 seconds or more during "Service Check Mode", the DTCs for all components are cleared. ("CLr" is displayed at this time.)



H

HINT:

- A beep sound is emitted once when the DTC memory is completely cleared.
- When the DTC memory for all the components is cleared, only the component codes (physical address) are displayed.
- After the DTC memory is cleared, "Service Check Mode" is restored.

(b) Clearing the specified DTC Memory (when clearing the specified memory of the previously detected DTC)

(1) When preset switch "5" is pressed for 2 seconds or more during "Detailed Information Mode 1" or "Detailed Information Mode 2", the DTCs for the target component are cleared.

HINT:

- A beep sound is emitted once when the DTC memory is completely cleared.
- When the DTC memory is cleared, only the component code (physical address) is displayed for the target component.
- After the DTC memory is cleared, the "Service Check Mode" is restored.
- To check DTCs, press preset switch "1" and perform the system check again.

(c) Press preset switch "1" to perform the service check again, and check that no DTCs are displayed for all the component codes (physical address).



Last Modified: 10-5-2010	6.4 D	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM000000NL007FX
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM (w/o Navigation System): IDENTIFICATION OF NOISE SOURCE (2010 HS250H)		

IDENTIFICATION OF NOISE SOURCE

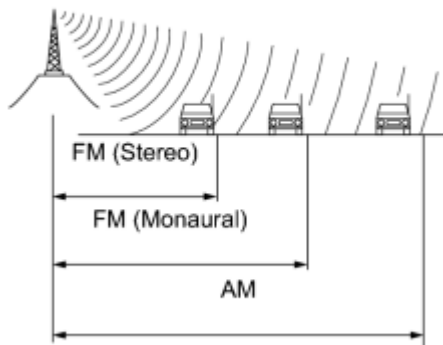
1. RADIO DESCRIPTION

(a) Radio frequency band

(1) Radio broadcasts use the radio frequency bands shown in the table below.

Frequency	30 kHz	300 kHz	3 MHz	30 MHz	300 MHz
Designation	LF	MF	HF	VHF	
Radio Wave		AM		FM	
Modulation	Amplitude Modulation			Frequency Modulation	

LF: Low Frequency MF: Medium Frequency HF: High Frequency VHF: Very High Frequency



T

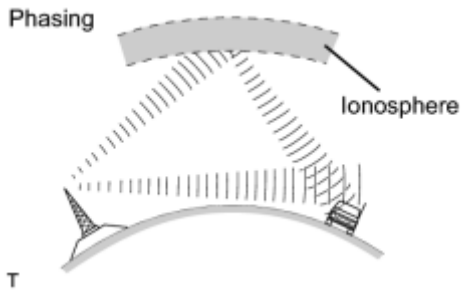
(b) Service area

(1) The service areas of AM and FM broadcasts are vastly different. Sometimes an AM broadcast can be received very clearly but an FM stereo cannot. FM stereo has the smallest service area, and is prone to pick up static and other types of interference such as noise.

(c) Radio reception problems

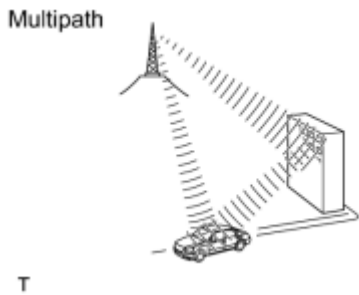
HINT:

In addition to static, other problems such as "phasing", "multipath" and "fade out" exist. These problems are not caused by electrical noise, but by the radio signal propagation method itself.



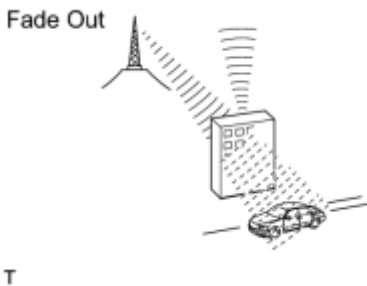
(1) Phasing

AM broadcasts are susceptible to electrical interference and another kind of interference called phasing. Occurring only at night, phasing is the interference created when a vehicle receives 2 radio wave signals from the same transmitter. One signal is reflected off the ionosphere and the other signal is received directly from the transmitter.



(2) Multipath

Multipath is a type of interference created when a vehicle receives 2 radio wave signals from the same transmitter. One signal is reflected off buildings or mountains and the other signal is received directly from the transmitter.



(3) Fade out

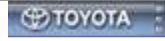
Fade out is caused by objects (buildings, mountains and other such large obstacles) that deflect away part of a signal, resulting in a weaker signal when the object is between the transmitter and vehicle. High frequency radio waves, such as FM broadcasts, are easily deflected by obstructions. Low frequency radio waves, such as AM broadcasts, are less likely to deflect.

(d) Noise problem

Technicians must have a clear understanding about each customer's noise complaint. Use the following table to diagnose noise problems.

Radio Frequency	Noise Occurrence Condition	Presumable Cause
AM	Noise occurs in a specified area	Foreign noise
AM	Noise occurs when listening to	An identical program transmitted from multiple

	an intermittent broadcast	towers can cause noise where the signals overlap
AM	Noise occurs only at night	Signal phasing
FM	Noise occurs while driving in a specified area	Multipath resulting from a change in FM frequency



Last Modified: 10-5-2010	6.4 T	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM0000012A804OX
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM (w/o Navigation System): PROBLEM SYMPTOMS TABLE (2010 HS250H)		

PROBLEM SYMPTOMS TABLE

NOTICE:

After replacing the radio receiver assembly of vehicles subscribed to pay-type satellite radio broadcasts, the XM radio ID registration is necessary. (w/ SDARS System)

HINT:

- Use the table below to help determine the cause of problem symptoms. If multiple suspected areas are listed, the potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to this system before inspecting the suspected areas below.

Audio Function

Symptom	Suspected Area	See page
Pressing power switch does not turn on system.	Proceed to "Pressing Power Switch does not Turn on System"	INFO
	Radio receiver power source circuit	INFO
	AVC-LAN circuit	INFO
	Radio receiver assembly	INFO
Panel switch does not function.	Steering pad switch circuit	INFO
	AVC-LAN circuit	INFO
	Radio receiver assembly	INFO
No sound can be heard from speakers. (Audio is mute.)	AVC-LAN circuit	INFO
	Radio receiver power source circuit	INFO
	Proceed to "No Sound can be Heard from Speakers"	INFO
	Stereo component amplifier power source circuit	INFO

	Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier"	INFO
	Speaker circuit	INFO
	Proceed to "Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier"	INFO
	Proceed to "Mute Signal Circuit between Stereo Component Amplifier and Telematics Transceiver"*1	INFO
	DCM (Telematics transceiver)*1	INFO
	Stereo component amplifier assembly	INFO
	Radio receiver assembly	INFO
Sound quality is bad in all modes. (Volume is too low.)	Proceed to "Sound Quality in All Modes (Low Volume)"	INFO
	Speaker circuit	INFO
	Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Component Amplifier"	INFO
	Proceed to "Mute Signal Circuit between Radio Receiver and Stereo Component Amplifier"	INFO
	Proceed to "Mute Signal Circuit between Stereo Component Amplifier and Telematics Transceiver"*1	INFO
	DCM (Telematics transceiver)*1	INFO
	Stereo component amplifier assembly	INFO
	Radio receiver assembly	INFO
ASL does not function.	Proceed to "Vehicle Speed Signal Circuit between Stereo Component Amplifier and Combination Meter"	INFO
External device sound cannot be heard or sound quality is bad. (Stereo jack is used.)	Radio receiver power source circuit	INFO
	Proceed to "Sound Signal Circuit between Radio Receiver and Stereo Jack Adapter"	INFO
	No. 1 stereo jack adapter assembly	INFO
	Radio receiver assembly	INFO
Abnormal noise occurs.	Proceed to "Noise occurs"	INFO
	Stereo component amplifier assembly	INFO

	Radio receiver assembly	INFO
Radio broadcast cannot be received or poor reception.	Proceed to "Radio Broadcast cannot be Received or Poor Reception"	INFO
CD cannot be inserted/played or CD is ejected right after insertion.	Radio receiver power source circuit	INFO
	Proceed to "CD cannot be Inserted / Played or CD is Ejected Right After Insertion"	INFO
CD cannot be ejected.	Radio receiver power source circuit	INFO
	Proceed to "CD cannot be Ejected"	INFO
Sound quality is bad only when CD is played. (Volume is too low.)	Proceed to "Sound Quality is Bad Only when CD is Played (Volume is Too Low)"	INFO
CD sound skips.	Proceed to "CD Sound Skips"	INFO
Radio receiver cannot be illuminated at night.	Illumination circuit	INFO
	Radio receiver assembly	INFO
Radio receiver cannot be dimmed at night.	Dimmer signal circuit	INFO
	Radio receiver assembly	INFO
Sound can be heard continuously from audio system even after changing to emergency call mode.*1	Proceed to "Mute Signal Circuit between Stereo Component Amplifier and Telematics Transceiver"*1	INFO
	DCM (Telematics transceiver)*1	INFO

Steering Pad Switch Function

Symptom	Suspected Area	See page
Audio system cannot be operated with steering pad switch.	Steering pad switch circuit	INFO
	Radio receiver assembly	INFO
Steering pad switch cannot be illuminated at night.	Illumination circuit	INFO
	Radio receiver assembly	INFO

"Bluetooth" Function

Symptom	Suspected Area	See page
Bluetooth inoperative.	Proceed to "Microphone Circuit between Microphone and Radio Receiver"	INFO
	Telephone microphone assembly	INFO
	Radio receiver assembly	INFO
Cellular phone registration failure, phone directory transfer failure.	Proceed to "Cellular Phone Registration Failure, Phone Directory Transfer Failure"	INFO

Cellular phone cannot send/receive.	Proceed to "Cellular Phone cannot Send/Receive"	INFO
	Steering pad switch circuit	INFO
	Radio receiver assembly	INFO
Cannot call in a certain place.	Proceed to "Cannot Call in a Certain Place"	INFO
Other caller's voice cannot be heard, is too quiet, or distorted.	Proceed to "The Other Callers Voice cannot be Heard, is too Quiet, or Distorted"	INFO
	Proceed to "Cellular Phone Voice Circuit between Radio Receiver and Stereo Component Amplifier"	INFO
	Telephone microphone assembly	INFO
	Radio receiver assembly	INFO
Other caller cannot hear your voice, or your voice is too quiet or distorted.	Proceed to "The Other Caller cannot Hear Your Voice, or Your Voice is too Quiet or Distorted"	INFO
	Proceed to "Microphone Circuit between Microphone and Radio Receiver"	INFO
	Telephone microphone assembly	INFO
	Radio receiver assembly	INFO
"Bluetooth" can be connected while driving.	Proceed to "Vehicle Speed Signal Circuit between Radio Receiver and Combination Meter"	INFO

"Bluetooth" Audio Function

Symptom	Suspected Area	See page
Portable player cannot be registered.	Proceed to "Portable Player cannot be Registered"	INFO
	Radio receiver assembly	INFO
Portable player cannot be connected manually/automatically.	Proceed to "Portable Player cannot be Registered"	INFO
	Proceed to "Portable Player cannot be Connected Manually / Automatically"	INFO
	Radio receiver assembly	INFO
Cellular phone with portable audio function cannot be recognized as "Bluetooth" audio device even when connected using "Bluetooth".	Proceed to "Portable Player cannot be Registered"	INFO
	Proceed to "Portable Player cannot be Connected Manually / Automatically"	INFO
	Radio receiver assembly	INFO

Sound of portable player cannot be heard from speakers, or sound is low.	Proceed to "Sound of Portable Player cannot be Heard from Speakers or Sound is Low"	INFO
	Radio receiver assembly	INFO
Portable player does not play even after "Bluetooth" audio mode is selected.	Proceed to "Does not Play even after Bluetooth Audio Mode is Selected"	INFO
	Radio receiver assembly	INFO
Portable player does not play.	Proceed to "Does not Play even after Bluetooth Audio Mode is Selected"	INFO
	Radio receiver assembly	INFO
Track information such as track number, track name and elapsed play time is not displayed.	Proceed to "Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device"	INFO
	Radio receiver assembly	INFO
"Bluetooth" signal condition is not displayed.	Proceed to "Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device"	INFO
	Radio receiver assembly	INFO
Portable player cannot pause, select file, fast forward, fast rewind, random play or scan.	Proceed to "Portable Player cannot be Operated Using In-vehicle Device or Track Information is not Displayed on In-vehicle Device"	INFO
	Radio receiver assembly	INFO
Noise occurs or sound skips when portable players plays.	Proceed to "Noise Occurs or Sound Skips when Portable Player Plays"	INFO
	Radio receiver assembly	INFO
Registered device cannot be deleted.	Proceed to "Registered Device cannot be Deleted"	INFO
	Radio receiver assembly	INFO

SDARS System Function*2

Symptom	Suspected Area	See page
Satellite radio broadcast cannot be received or reception is bad.	Proceed to "Satellite Radio Broadcast cannot be Received"	INFO
	Radio receiver assembly	INFO
Pay-type satellite radio broadcast cannot	Proceed to "Satellite Radio Broadcast cannot	INFO

be received.	be Received"	
	Radio receiver assembly	INFO
Satellite radio broadcast cannot be selected or after selecting broadcast, broadcast cannot be added into memory.	Proceed to "Satellite Radio Broadcast cannot be Received"	INFO
	Proceed to "Satellite Radio Broadcast cannot be Selected or After Selecting Broadcast, Broadcast cannot be Added into Memory"	INFO
	Radio receiver assembly	INFO

USB Audio System Function

Symptom	Suspected Area	See page
USB audio system sound cannot be heard or sound quality is bad. (Stereo jack is used.)	Multi-media Interface ECU power source circuit	INFO
	Proceed to "Sound Signal Circuit between Radio Receiver and Multi-media interface ECU"	INFO
	Proceed to "Mute Signal Circuit between Radio Receiver and Multi-media interface ECU"	INFO
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	INFO
	No. 1 stereo jack adapter assembly	INFO
	Multi-media interface ECU	INFO
	Radio receiver assembly	INFO
USB Device or "iPod" is not recognized.	Proceed to "USB Audio System Recognition / Play Error"	INFO
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	INFO
	No. 1 stereo jack adapter assembly	INFO
	Multi-media interface ECU	INFO
Track information such as track, artist and album names are not displayed.	Proceed to "USB Audio System Recognition / Play Error"	INFO
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	INFO
	No. 1 stereo jack adapter assembly	INFO

	Multi-media interface ECU	INFO
USB device or "iPod" is recognized but cannot play nor play in a sorted order.	Proceed to "USB Audio System Recognition / Play Error"	INFO
	Proceed to "Sound Signal Circuit between Multi-media Interface ECU and Stereo Jack Adapter"	INFO
	No. 1 stereo jack adapter assembly	INFO
	Multi-media interface ECU	INFO
USB device or "iPod" cannot charge.	Multi-media Interface ECU power source circuit	INFO
	Proceed to "USB Device or "iPod" cannot Charge"	INFO
	Multi-media interface ECU	INFO

- *1: w/ Manual (SOS) Switch
- *2: w/ SDARS System

