

Audio, Entertainment, Navigation, and Telematics

Audio, Navigation, and Telematics

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HandsFreeLink System

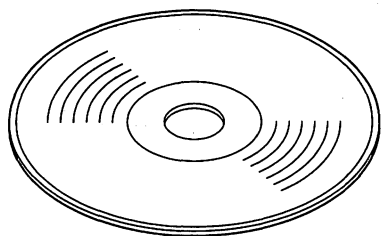
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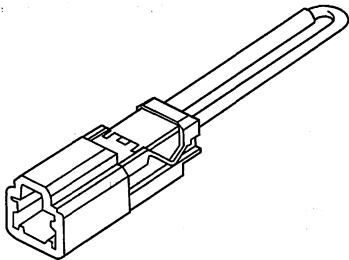
Audio, Entertainment, Navigation, and Telematics

Special Tools

Ref. No.	Tool Number	Description	Qty
①	07AAZ-SDBA100	Diagnostics CD	1
②	07AAZ-SDBA200	Skip Test CD	1
③	07AAZ-SDBA300	Skip Test CD	1
④	07PAZ-0010100	SCS Service Connector	1



①, ②, ③



④



DTC Troubleshooting Index

HandsFreeLink Control Unit

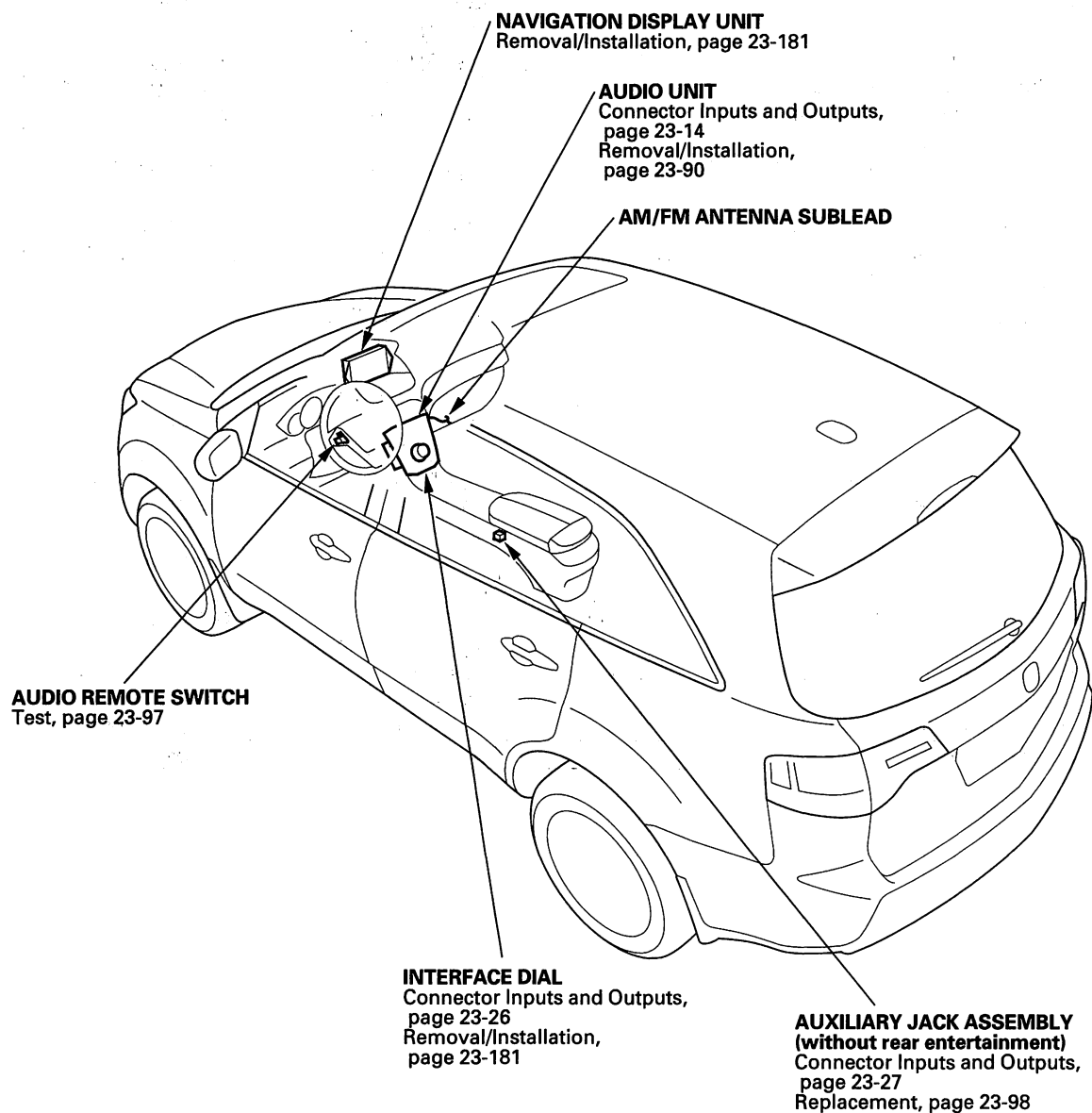
DTC	Description	DTC type	Page
B1750	Communication bus line error	Loss of communication	(see page 22-129)
B1775	Microphone input/output short to power/open	Signal error	(see page 23-262)
B1776	Microphone input/output short to ground/open	Signal error	(see page 23-263)
B1779	HFL switch or HFL-voice control switch (HFL talk/HFL back buttons) circuit open/short	Signal error	(see page 23-265)
B1780	HFL-voice control switch (HFL TALK/HFL BACK buttons) circuit short	Signal error	(see page 23-266)
B1785	Incorrect configuration (VEHINFO frame)	Signal error	(see page 23-267)
B1786	HandsFreeLink control unit lost communication with gauge control module (VEHINFO frame)	Signal error	(see page 23-268)
B1792	HandsFreeLink control unit internal error	Internal error	(see page 23-270)

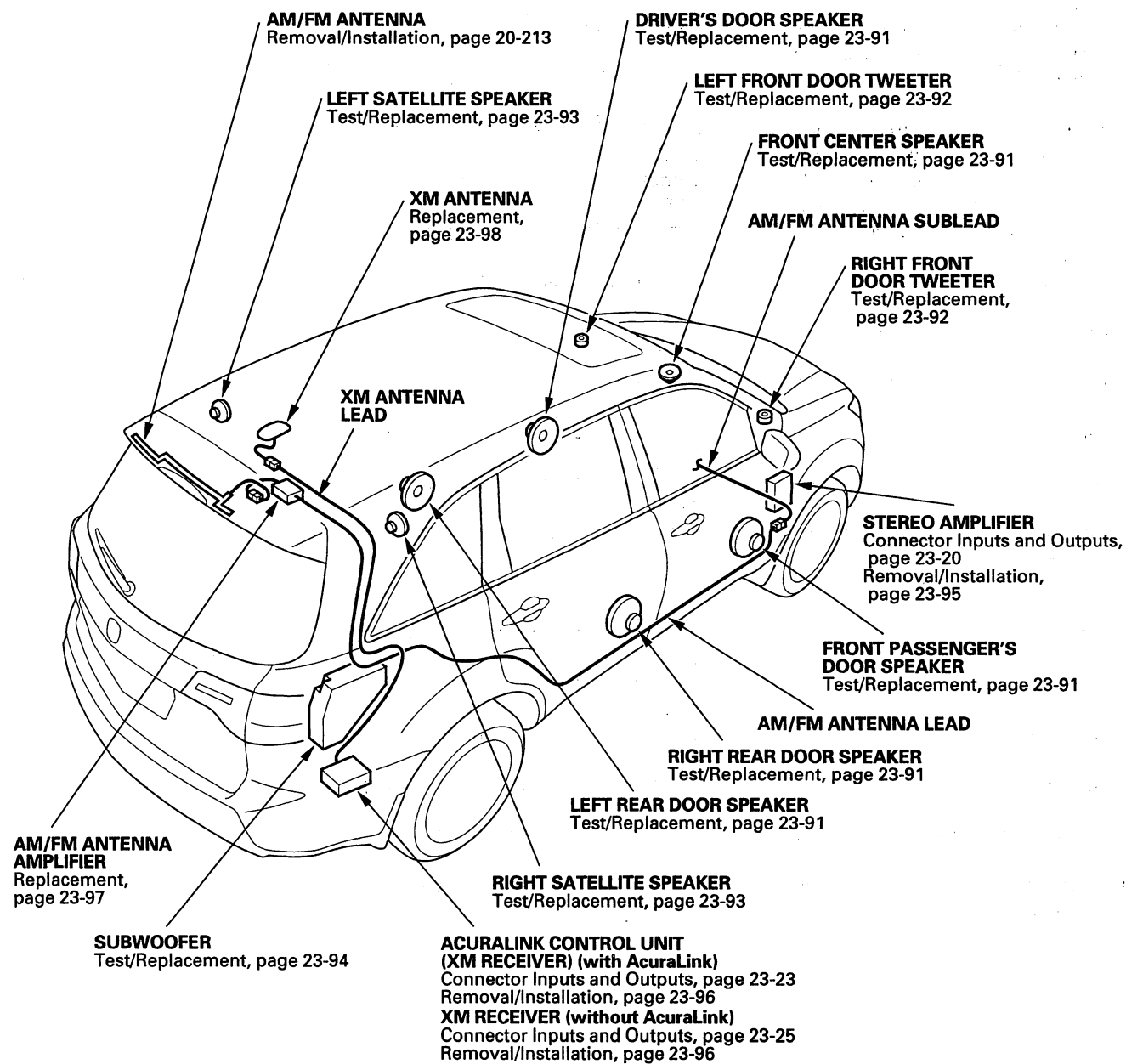
AcuraLink Control Unit

DTC	Description	DTC type	Page
B2200	Communication bus line error	Loss of communication	(see page 22-129)
B2202	AcuraLink control unit EEPROM error	Internal error	(see page 23-241)
B2204	B-CAN communication line error	Loss of communication	(see page 23-241)
B2205	F-CAN communication line error	Loss of communication	(see page 23-242)
B2207	Navigation unit lost communication with AcuraLink control unit	Loss of communication	(see page 23-243)
B2208	HandsFreeLink control unit lost communication with AcuraLink control unit	Loss of communication	(see page 23-246)
B2209	AcuraLink control unit internal error	Internal error	(see page 23-249)
B2240	XM antenna error	Signal error	(see page 23-250)

Audio System

Component Location Index





Audio System

Symptom Troubleshooting Index

Symptom	Diagnostic procedure	Also check for
Poor AM or FM radio reception or interference	Symptom Troubleshooting (see page 23-38)	Antenna lead short or open in the wire
Power switch will not turn ON (No information display and no sound)	Symptom Troubleshooting (see page 23-41)	
Power will not turn OFF	Symptom Troubleshooting (see page 23-42)	
No sound is heard from speaker(s) (display is normal) (with navigation)	Symptom Troubleshooting (see page 23-43)	
No sound is heard from speaker(s) (display is normal) (without navigation)	Symptom Troubleshooting (see page 23-50)	
Audio system sound is weak or distorted (display is normal)	Symptom Troubleshooting (see page 23-55)	
Radio preset memory is lost	Symptom Troubleshooting (see page 23-55)	
Volume does not change	Symptom Troubleshooting (see page 23-56)	
Volume does not increase with speed	Symptom Troubleshooting (see page 23-57)	
Volume is too high or too low when driving at freeway speeds	Symptom Troubleshooting (see page 23-58)	
Radio tuner does not change stations	Symptom Troubleshooting (see page 23-59)	
Display does not dim or brighten with dimmer	Symptom Troubleshooting (see page 23-59)	
Audio unit button illumination does not work	Symptom Troubleshooting (see page 23-62)	
Audio disc does not load	Symptom Troubleshooting (see page 23-62)	
Audio disc does not eject	Symptom Troubleshooting (see page 23-63)	
Audio disc does not play	Symptom Troubleshooting (see page 23-63)	
Audio disc skips	Symptom Troubleshooting (see page 23-64)	Tire pressure (over-inflated)
Audio disc changer does not load all six discs	Symptom Troubleshooting (see page 23-65)	
Audio disc changer does not move between discs	Symptom Troubleshooting (see page 23-65)	



Symptom	Diagnostic procedure	Also check for
Error code: XM NO SIGNAL or XM ANTENNA is displayed	Symptom Troubleshooting (see page 23-66)	
XM radio display is blank and no station information is displayed (with AcuraLink)	Symptom Troubleshooting (see page 23-68)	
XM radio display is blank and no station information is displayed (without AcuraLink)	Symptom Troubleshooting (see page 23-72)	
XM radio preset memory is lost (with AcuraLink)	Symptom Troubleshooting (see page 23-75)	
XM radio preset memory is lost (without AcuraLink)	Symptom Troubleshooting (see page 23-76)	
Poor or no sound with XM radio (Audio unit does display XM channels)	Symptom Troubleshooting (see page 23-77)	
Audio remote switch does not work properly	Symptom Troubleshooting (see page 23-80)	
Audio unit button does not work	Symptom Troubleshooting (see page 23-82)	
Audio unit disc indicator does not work	Symptom Troubleshooting (see page 23-83)	
Security indicator does not work properly	Symptom Troubleshooting (see page 23-83)	

Audio System

System Description

Overview

The audio unit acts as the processor for all audio functions. You can select the audio functions from the audio panel, the audio remote (on steering wheel), or by using the navigation voice control system. The audio display provides the current front and rear audio status. For vehicles with the navigation option, additional audio information is available by touching the audio button. (See the owner's manual for more details.)

Each audio component passes its audio or audio signal to the audio unit. In addition, it communicates with the audio unit via the GA-Net bus. Any open connection in this circuit will cause audio and navigation functions to appear inoperative.

With the ELS and the premium sound system, an audio amplifier unit powers the speakers.

The 6 DVD-A (6 CD) changer output can be directed to the audio unit.

The XM can be output to either the front or the RES (rear entertainment system). However, if the XM is playing in the front, the CD changer cannot be used for the RES. The RES (built into the audio unit) can be used to play a CD in the rear.

A security signal is daisy-chained between the audio, RES and navigation components for integration into the vehicle's alarm system.

Speed-sensitive volume compensation (SVC)

Some audio systems are equipped with speed-sensitive volume compensation (SVC). The navigation or audio unit receives the vehicle speed pulse (VSP) from the PCM. The system processes the speed input and increases the navigation or audio system volume level as the vehicle speed increases to compensate for the various interior noise that occurs at higher speeds. When the vehicle slows down, the volume returns to its normal level. The SVC has four settings: SVC OFF, LOW MID and HIGH that can be adjusted using the navigation or audio unit. The SVC comes from the factory with the MID set as the default.

To change the audio unit SVC setting, press the "tune folder sound" knob repeatedly until the SVC is displayed, Rotate the knob to adjust the SVC to the desired setting (SVC OFF, LOW MID, or HIGH).

To change the navigation unit SVC setting, press the AUDIO button, and then select the SOUND icon on the navigation display. Press the navigation display to select the desired setting (OFF, LOW, MID, HI).



Overview

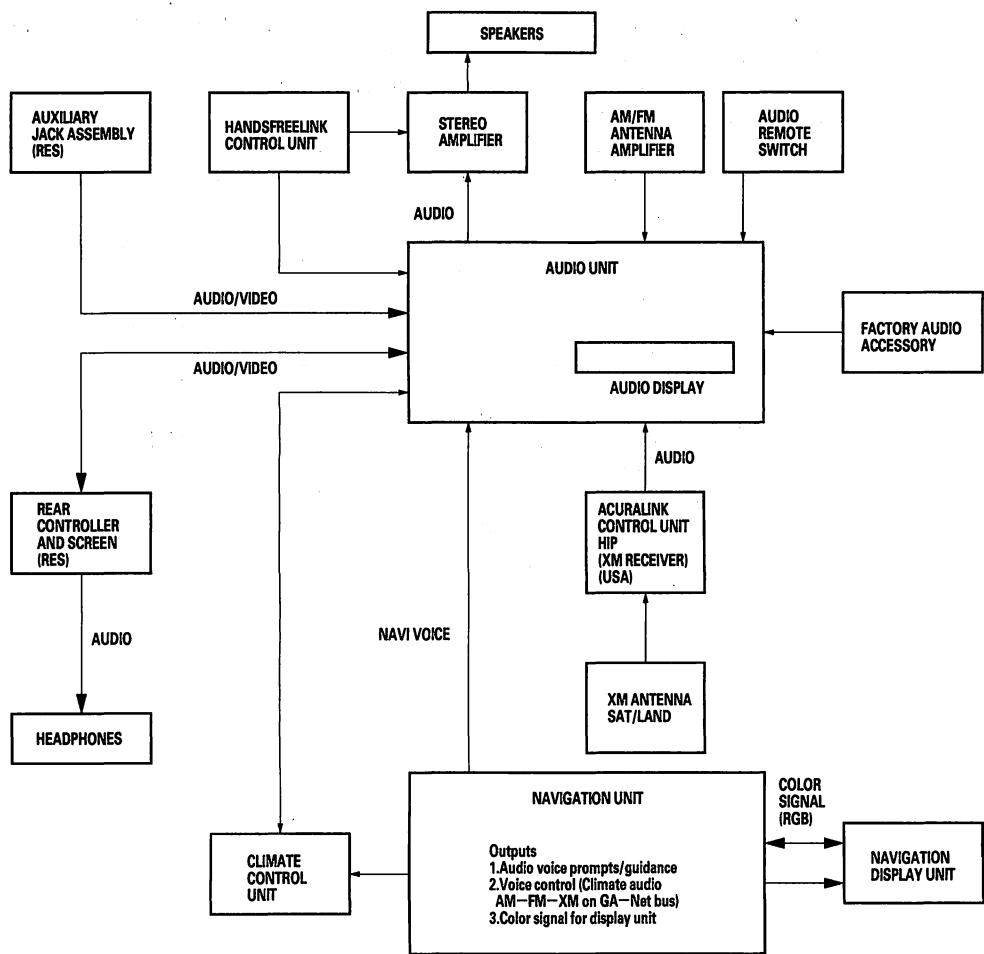
The optional navigation system provides voice control for radio, XM, CD player and RES functions. The GA-Net (audio unit) communicates the voice control commands. When using the talk back or route guidance (RG), only the center speaker is muted and the front speakers give the navigation instructions. When using HFL/AcuraLink, the center speaker, the rear speakers, and the subwoofer are muted and the front speakers give the telephone sound. When using HFL/AcuraLink and RG or talk back, the center speaker, the rear speakers, and the subwoofer are muted and the front speakers give the telephone sound and the navigation instructions, but not the RES headphones. GA-Net bus passes the muting commands. For more information, see the navigation section. The outline of the audio interruption function is shown in the following table.

Contents	Audio output					
	Center CH	Left front CH	Right front CH	Right rear CH	Left rear CH	Subwoofer CH
Talk back	MUTE	Navigation sound	Navigation sound	Audio	Audio	Audio
Route guidance	MUTE	Navigation sound	Navigation sound	Audio	Audio	Audio
OnStar/HFL/AcuraLink	MUTE	Telephone sound	Telephone sound	MUTE	MUTE	MUTE
OnStar/HFL/AcuraLink and RG or talk back	MUTE	Telephone sound and navigation sound	Telephone sound and navigation sound	MUTE	MUTE	MUTE

Audio System

System Description (cont'd)

System Diagram





NOTE: All items may not apply to this vehicle. See the Owner's Manual for more information.

Audio Glossary

Item	Definition
Active noise control	The active noise control system cancels some of the vehicle noise. This occurs in the 1,500—2,400 rpm range. Microphones detect the low frequency sound, and the system outputs a cancelling sound from the audio speaker.
AM (Amplitude Modulation)	The type of transmission used in the standard radio broadcast band from 530 to 1705 kHz.
Amplifier	A device that increases the level of a signal by increasing the current or voltage.
Antenna	A device used to send or receive electromagnetic waves through the air.
ATA (PC Card)	A type of card that has been tested for use in playing WMA, and MP3 music files in the PC Card slot. Sizes of up to 1 GB have been tested.
Audio remote switch	The switches on the steering wheel that control the audio system.
Auxiliary jack	Allows the customer to use a portable audio device to input music recordings.
Balance	A control that changes the relative volume of the left and right channels.
Band	A range of frequencies between two definite limits. Bands are assigned by the Federal Communications Commission for specific uses.
Bass	An adjustment for the low frequency sounds of around 160 Hz and below.
Byte	A unit of storage for computer files and memory. A CD holds approximately 700 million bytes.
Cassette	Audio or video magnetic tape container having two reels. Customers can insert it for recording or play back.
Compact flash	A standard for small-size (3 x 4 cm) , memory cards used in mobile computers, PDAs, digital cameras. Compact flash memory cards are available in size of 32 Mb up to 4 GB or more and can be played in the audio PC slot. Sizes above 1 GB has not been tested.
CD (Compact Disc)	A 4.5-inch plastic disc containing digital audio recording that is played optically on a laser equipped player. Never use discs with a paper label. In a hot car, labels can curl up and jam the unit.
CD (audio disc) changer	CD player that can store and play more than one CD. Two types are available. Some units accept CDs fed into the changer one at a time, and others accept a magazine (with CD's stacked in a container).
CD player	A component designed to play compact disc CD recording using a laser optical pickup. The signal from a CD player usually requires amplification.
Distortion	Inexact reproduction of an audio signal caused by playing music at levels the audio system cannot handle.
Dolby (noise reduction)	A processing system developed by Dolby Laboratories that reduce the background noise on recording media. The result is a cleaner playback from the audio system.
DVD (Digital Versatile Disc)	A 4.5-inch CD-like format used for storing movies with digital audio and video features. The DVD-A format is a DVD format designed for DVD audio systems. Some vehicles can play DVD and DVD-A formats.
Equalizer	A device that changes the relative volume of individual frequency bands to suit personal taste of the listener.
Fader	The control that adjusts the relative volume levels of front and rear speakers in a four-speaker system.
Format	To prepare a PC Card to receive files this function is performed on a PC. Always choose either FAT or FAT32 as the NTFS format is not accepted by the system. Pick the default sectors for the format method selected.
FM (Frequency Modulation)	The modulation used for radio and television sound transmission in most of the world. Less prone to interference than AM. The FM broadcast band covers roughly 87 to 108 MHz.

(cont'd)

Audio System

System Description (cont'd)

Audio Glossary

Item	Definition
GA-Net	The GA-Net allows the audio unit to communicate with all the audio and navigation components in a vehicle. If there is an open in the GA-Net, components or the entire audio and navigation system may appear inoperative.
GB (Gigabyte)	A unit of memory or disk storage equal to billion bytes (1000 million bytes).
HDD	Abbreviation for hard disc drive. They are sensitive to heat and it is not recommended that they be used in the PC card slot for playing audio files.
Hertz (HZ)	The unit of frequency equal to one cycle per second (cps). One kilohertz (kHz) equals 1,000 cps; one megahertz (MHz) equals 1 million cps.
Integrated amplifier	A component that combines a pre amp and a power amp into a single unit. A receiver combines an integrated amp and a tuner into a single unit.
Jewel case	The hard plastic case that contains a compact disc or DVD. Always use a jewel case to prevent scratches on the underside of a CD or DVD.
LCD (Liquid Crystal Display)	A type of digital display that changes reflectance or transmittance when an electrical field is applied to it.
MB (Megabyte)	A unit of memory or disc storage equal to 1 million bytes.
Memory	Circuitry or devices that hold information in electrical or magnetic form, such as the AM/FM radio presets.
Megabyte (M byte)	One million bytes. Written as 1 MB. Megabytes are used as a measure of digital storage space. For example, a CD can hold 650 MB.
Mic	An abbreviation for microphone. For vehicles with navigation, the microphone accepts navigation voice commands to control audio and navigation functions.
MP3 music files	MP3 is an audio coding format. MP3 is a popular audio compression format on the Internet and computers. CDs, and PC Card with these files can be played on some vehicle's audio system.
Mute	When the navigation gives guidance, the front speakers are muted (no music). When you use the voice control system, all of the speakers are muted.
Noise	Unwanted random sounds like buzzing, hiss, pops, static, whine, etc.
PC card	The slot used for playing MP3 and WMA music files. The PC Card is usually a combination of a small flash card in a PCMCIA adaptor that slides into the slot. The ATA, SD, and compact flash types of cards have been tested up to 1 GB.
PCMCIA	A computer standard for the slot that the PC card slides into. Another term for the PC card slot.
Processor	The part of an audio device that performs task/calculations. In the audio unit the processor handles muting to allow the navi to speak voice commands, and the decoding/playback of the sound files etc.
Radio	A head unit that combines a tuner, a preamplifier, and often a power-amplifier.
SCF (Cold Start Fix) screens	These screens are displayed if the system requires a GPS initialization. The vehicle should be moved outside into an open area away from buildings/power lines.
Stereo	A recording of at least two channels where you can hear sound or music from the left or right side.
SD (Secure Digital) card	This compact type of memory card allows for fast data transfer and has built-in security functions. SD cards have a small write-protection switch on the side.
Shield	A metallic foil or braided wire layer surrounding conductors which are designed to prevent electrostatic or electromagnetic interference (noise) from external sources such as buzzing, or popping sounds heard on the speakers.
Speaker (Loudspeaker)	A device that converts electrical energy into acoustical energy (sound).
Speed-sensitive volume compensation (SVC)	The SVC increases the audio volume to compensate for increased interior noise when the vehicle drivers at freeway speeds.
Subwoofer	A loudspeaker made to reproduce the lowest audio frequencies, approx 25 Hz to 125 Hz.

cardiagn.com



Audio Glossary

Item	Definition
Track	A sound recording on a CD, tape, or PC Card.
Treble	An adjustment to control the "volume" of the high frequency sounds.
Tuner	A component (or part of a component) that receives radio signals and selects one broadcast from many.
Tweeter	A speaker designed to reproduce the higher frequencies (treble) only.
Voice coil	A coil of wire wrapped around a tube and then attached to the speaker cone or diaphragm. When an audio signal is applied, the coil becomes an electromagnet and interacts with the permanent magnet causing the cone or diaphragm to vibrate. We interpret these vibrations as sound.
Volume control	Allows you to control the loudness of the music.
WMA music file	Windows Media Audio File. This is an accepted format for music files to be played on either a CD or a PC Card.
Woofer	A speaker that is designed to reproduce bass frequencies only.
XM radio	Satellite based radio transmission, which also uses a ground based repeater network to ensure seamless reception. The channels originate from XM's broadcast center, in Washington, DC, and uplink to two satellites. These satellites transmit the signal across the entire continental United States.
XM receiver	The external component that receives and processes the XM signals from the XM satellites, and terrestrial (land) stations. The audio unit communicates to the XM receiver over the GA-Net bus.

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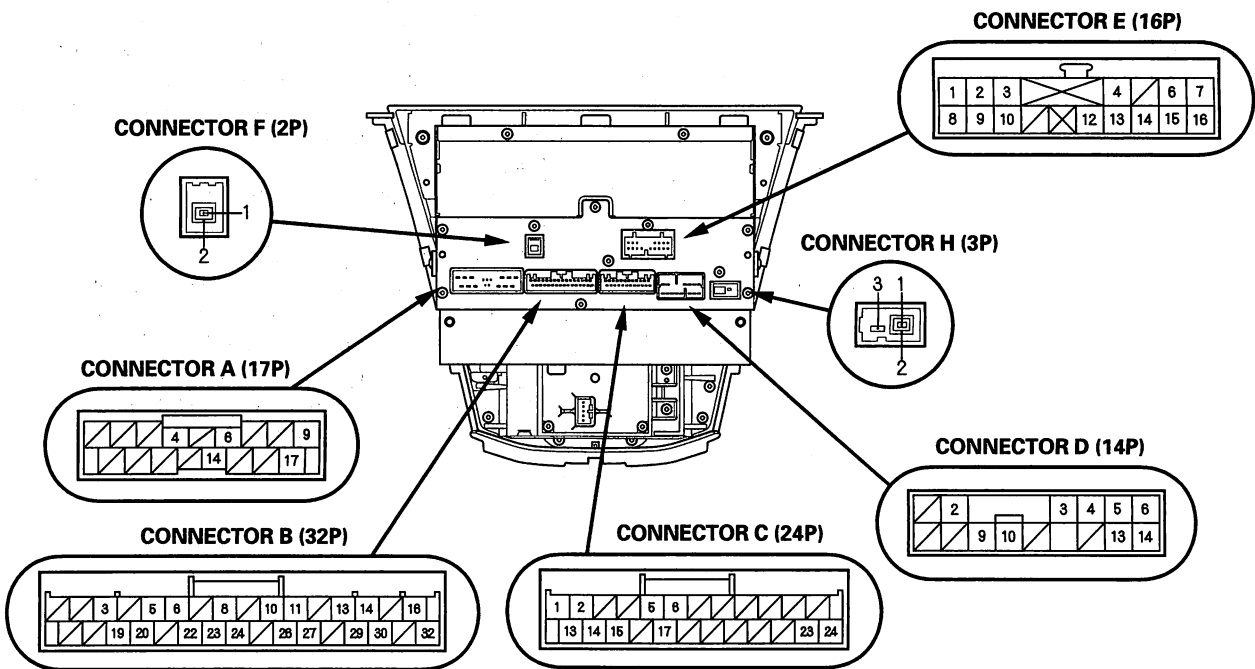
Audio System

System Description (cont'd)

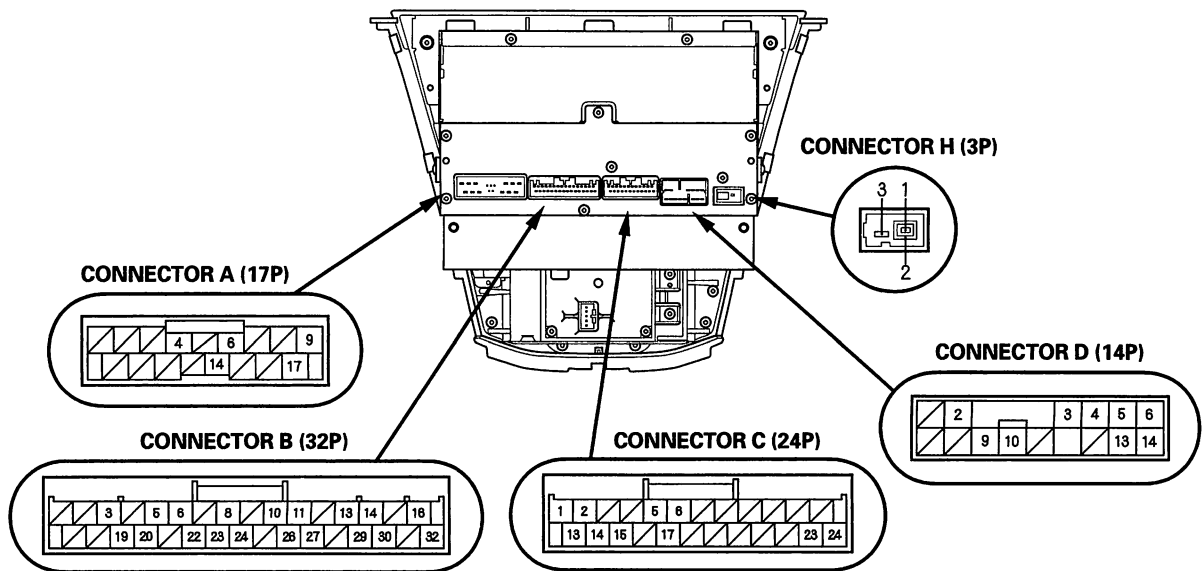
Audio Unit Connector for Inputs and Outputs

When replacing an audio unit connector, match the wires to the cavities listed in the following tables.

With navigation/With rear entertainment system



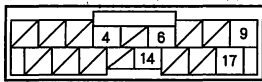
With navigation/Without rear entertainment system



Audio System

System Description (cont'd)

CONNECTOR A (17P)

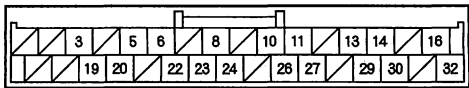


Terminal side of male terminals

Cavity	Wire	Connects to
A4	LT GRN ^{*1}	Rear controller and screen (SCTY4)
	RED ^{*2}	MICU (SCTY1)
A6	LT BLU	MICU (K-LINE)
A9	BLK	Ground (G504)
A14	PUR	ACC (audio power supply)
A17	WHT	Constant power

- * 1: With navigation
- * 2: Without navigation

CONNECTOR B (32P)



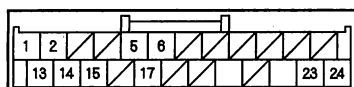
Terminal side of male terminals

Cavity	Wire	Connects to
B3	BRN	Audio remote ground
B5	GRN [*]	Stereo amplifier (RS485+)
B6	BLU [*]	Stereo amplifier (RS485-)
B8	RED	Stereo amplifier (FL PRE IN-)
B10	PNK	Stereo amplifier (FR PRE IN-)
B11	PUR	Stereo amplifier (RL PRE IN-)
B13	YEL	Stereo amplifier (RR PRE IN-)
B14	RED	Stereo amplifier (SW PRE IN-)
B16	PNK	Stereo amplifier (CTR PRE IN-)
B19	ORN	Audio remote
B20	PNK [*]	Stereo amplifier (RS 485 GND)
B22	BRN [*]	Stereo amplifier (RS 485 SH)
B23	LT GRN	Stereo amplifier (+B)
B24	GRN	Stereo amplifier (FL PRE IN+)
B26	BLU	Stereo amplifier (FR PRE IN+)
B27	LT BLU	Stereo amplifier (RL PRE IN+)
B29	BRN	Stereo amplifier (RR PRE IN+)
B30	GRN	Stereo amplifier (SW PRE IN+)
B32	BLU	Stereo amplifier (CTR PRE IN+)

- * : With navigation



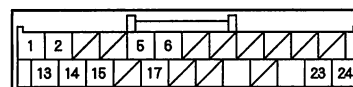
CONNECTOR C (24P) (With rear entertainment)



Terminal side of male terminals

Cavity	Wire	Connects to
C1	PNK	Auxiliary jack assembly (AUX AUDIO R/L GND)
C2	BRN	Auxiliary jack assembly (AUX AUDIO R/L SH)
C5	PUR	XM receiver, HandsFreeLink control unit (LINE OUT—)
C6	BRN	XM receiver, HandsFreeLink control unit (LINE OUT+)
C13	BLU	Auxiliary jack assembly (AUX AUDIO R)
C14	GRN	Auxiliary jack assembly (AUX AUDIO L)
C15	WHT	Auxiliary jack assembly (CONN CHK)
C17	LT BLU	XM receiver, HandsFreeLink control unit (LINE OUT+)
C23	LT GRN	XM receiver (B-CAN)
C24	BLU	Climate control unit (HVAC BUS)

CONNECTOR C (24P) (Without rear entertainment)



Terminal side of male terminals

Cavity	Wire	Connects to
C1	RED	Auxiliary jack assembly (AUX SIG GND)
C2	BRN	Auxiliary jack assembly (SH AUX)
C5	PUR	XM receiver, HandsFreeLink control unit (LINE OUT—)
C6	BRN	XM receiver, HandsFreeLink control unit (LINE OUT+)
C13	BLK	Auxiliary jack assembly (AUX RCH)
C14	WHT	Auxiliary jack assembly (AUX LCH)
C15	LT BLU	Auxiliary jack assembly (AUX DET)
C17	LT BLU	XM receiver, HandsFreeLink control unit (LINE OUT+)
C23	LT GRN	XM receiver (B-CAN)
C24	BLU	Climate control unit (HVAC BUS)

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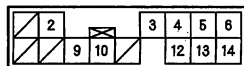
BACK

23-17

Audio System

System Description (cont'd)

CONNECTOR D (14P)

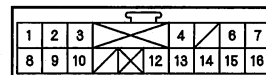


Terminal side of male terminals

Cavity	Wire	Connects to
D2*	RED	XM receiver (ACC)
D3	BRN	XM receiver, Navigation unit, Navigation display unit (GANET BUS SH)
D4	BRN	XM receiver (GANET AUDIO SH)
D5	RED	XM receiver (GANET AUDIO R+)
D6	BLK	XM receiver (GANET AUDIO L+)
D9	GRN	XM receiver, Navigation unit, Navigation display unit (GANET BUS +)
D10	RED	XM receiver, Navigation unit, Navigation display unit (GANET BUS -)
D13	WHT	XM receiver (GANET AUDIO R-)
D14	GRN	XM receiver (GANET AUDIO L-)

*: Without AcuraLink

CONNECTOR E (16P)



Terminal side of male terminals

Cavity	Wire	Connects to
E1	BRN	Auxiliary jack assembly (AUX VIDEO IN SH)
E2	LT BLU	Auxiliary jack assembly (AUX VIDEO IN GND)
E3	BRN	Rear controller and screen (RR NTSC SH)
E4	YEL	Rear controller and screen (SYSTEM ACC)
E6	BRN	Rear controller and screen (RR BUS SH)
E7	PUR	Rear controller and screen (RR BUS-)
E8	PUR	Auxiliary jack assembly (AUX VIDEO IN)
E9	PNK	Rear controller and screen (RR NTSC GND)
E10	BLU	Rear controller and screen (RR NTSC)
E12	BLK	Rear controller and screen (RES AUDIO OUT R)
E13	BRN	Rear controller and screen (RES AUDIO OUT SH)
E14	RED	Rear controller and screen (RES AUDIO OUT L)
E15	WHT	Rear controller and screen (RES AUDIO OUT GND)
E16	LT BLU	Rear controller and screen (RR BUS+)



CONNECTOR F (2P)



Terminal side of male terminals

Cavity	Wire	Connects to
F1	—	Rear controller and screen (DIG AUDIO SIG)
F2	—	Rear controller and screen (DIG AUDIO SH)

CONNECTOR H (3P)



Terminal side of male terminals

Cavity	Wire	Connects to
H1	—	Antenna module unit (SIG)
H2	—	Antenna module unit (SH (AM/FM))
H3	—	Antenna module unit (ANT+B)

(cont'd)

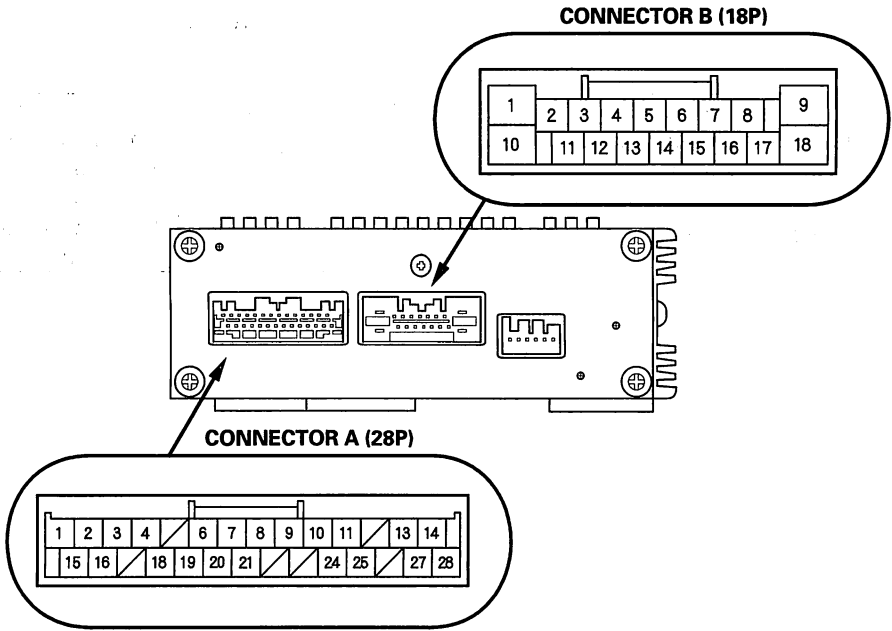
Audio System

System Description (cont'd)

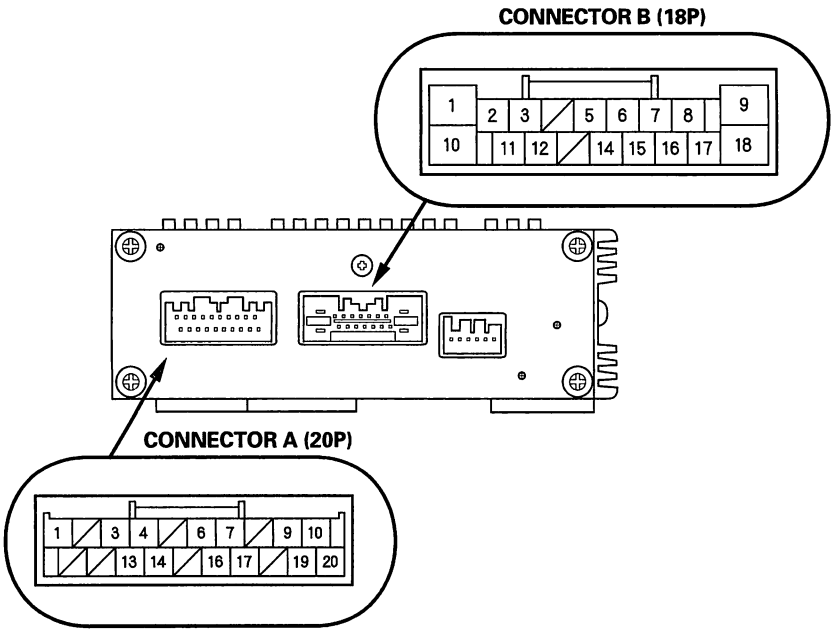
Stereo Amplifier Connector for Inputs and Outputs

When replacing a stereo amplifier connector, match the wires to the cavities listed in the following tables.

With navigation

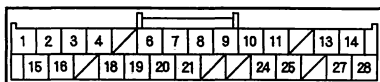


Without navigation





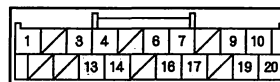
CONNECTOR A (28P) (With navigation)



Terminal side of male terminals

Cavity	Wire	Connects to
A1	BLU	Audio unit (RS 485—)
A2	PNK	Audio unit (RS 485 GND)
A3	LT GRN	Audio unit (+B)
A4	BLU	Audio unit (CTR PRE IN+)
A6	GRN	Audio unit (SW PRE IN+)
A8	BRN	Navigation unit (RG SH)
A9	LT BLU	Navigation unit (RG GND)
A10	GRN	Audio unit (FL PRE IN+)
A11	BLU	Audio unit (FL PRE IN+)
A13	LT BLU	Audio unit (RL PRE IN+)
A14	BRN	Audio unit (RR PRE IN+)
A15	GRN	Audio unit (RS 485+)
A16	BRN	Audio unit (RS 485 SH)
A18	PNK	Audio unit (CTR PRE IN—)
A19	RED	Audio unit (SW PRE IN—)
A20	WHT	Audio unit (GANET AUDIO R—)
A21	PUR	Navigation unit (RG L+)
A24	RED	Audio unit (FL PRE IN—)
A25	PNK	Audio unit (FR PRE IN—)
A27	PUR	Audio unit (RL PRE IN—)
A28	YEL	Audio unit (RR PRE IN—)

CONNECTOR A (20P) (Without navigation)



Terminal side of male terminals

Cavity	Wire	Connects to
A1	LT GRN	Audio unit (+B)
A3	BLU	Audio unit (CTR PRE IN+)
A4	GRN	Audio unit (SW PRE IN+)
A6	GRN	Audio unit (FL PRE IN+)
A7	BLU	Audio unit (FR PRE IN+)
A9	LT BLU	Audio unit (RL PRE IN+)
A10	BRN	Audio unit (RR PRE IN+)
A13	PNK	Audio unit (CTR PRE IN—)
A14	RED	Audio unit (SW PRE IN—)
A16	RED	Audio unit (FL PRE IN—)
A17	PNK	Audio unit (FR PRE IN—)
A19	PUR	Audio unit (RL PRE IN—)
A20	YEL	Audio unit (RR PRE IN—)

(cont'd)

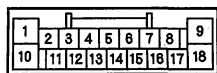
BACK

23-21

Audio System

System Description (cont'd)

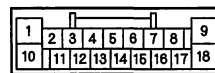
CONNECTOR B (18P) (With navigation)



Terminal side of male terminals

Cavity	Wire	Connects to
B1	PNK	Subwoofer (WOOFER PRE—)
B2	PNK	Front center speaker (CTR SPKR—)
B3	ORN	Right rear door speaker (RR R SPKR—)
B4	PUR	Left rear door speaker (RR L SPKR—)
B5	BLK	Right satellite speaker (R D-PLR SPKR—)
B6	BRN	Front passenger's door speaker (FR R SPKR—)
B7	GRN	Driver's door speaker (FR L DR SPKR—)
B8	GRY	Left satellite speaker (D-PLR SPKR—)
B9	BLK	Ground (G504)
B10	BLU	Subwoofer (WOOFER PRE+)
B11	BLK	Front center speaker (CTR SPKR+)
B12	BLU	Right rear door speaker (RR R SPKR+)
B13	PNK	Left rear door speaker (RR L SPKR+)
B14	RED	Right satellite speaker (R D-PLR SPKR+)
B15	RED	Front passenger's door speaker (FR R SPKR+)
B16	WHT	Driver's door speaker (FR L DR SPKR+)
B17	BLU	Left satellite speaker (L D-PLR SPKR+)
B18	PUR	Stereo amplifier (+B)

CONNECTOR B (18P) (Without navigation)



Terminal side of male terminals

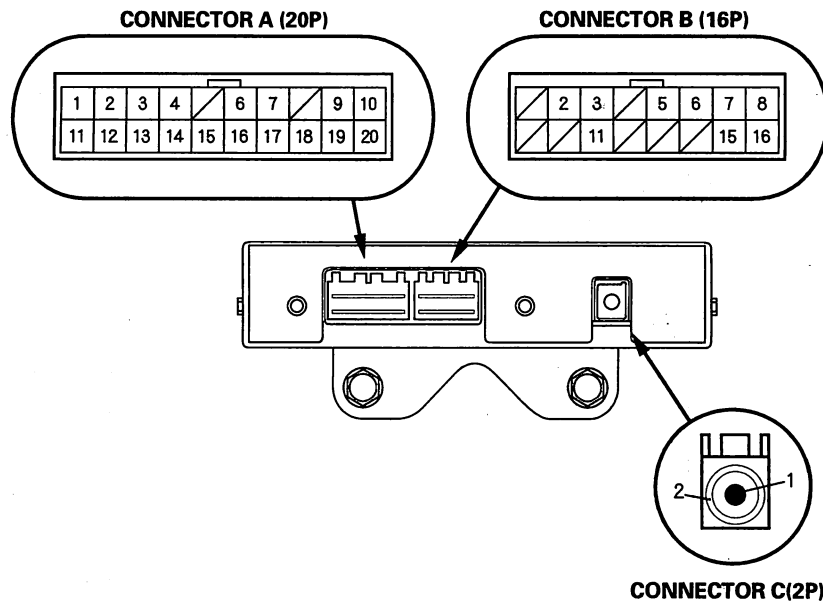
Cavity	Wire	Connects to
B1	PUR	Left rear door speaker (RR L SPKR—)
B2	GRN	Driver's door speaker, Left tweeter (FR L DR SPKR—)
B3	GRY	Subwoofer (L D-PLR SPKR—)
B5	ORN	Right rear door speaker (RR R SPKR—)
B6	BRN	Front passenger's door speaker, Right tweeter (FR R SPKR—)
B7	PNK	Front center speaker (CTR SPKR—)
B8	BLK	Subwoofer (R D-PLR SPKR—)
B9	BLK	Ground (G504)
B10	PNK	Left rear door speaker (RR L SPKR+)
B11	WHT	Driver's door speaker, Left tweeter (FR L DR SPKR+)
B12	BLU	Subwoofer (L D-PLR SPKR+)
B14	BLU	Right rear door speaker (RR R SPKR+)
B15	RED	Front passenger's door speaker, Right tweeter (FR R SPKR+)
B16	BLK	Front center speaker (CTR SPKR+)
B17	RED	Subwoofer (R D-PLR SPKR+)
B18	PUR	Stereo amplifier (+B)



AcuraLink Control Unit (XM Receiver) Connector for Inputs and Outputs (With AcuraLink)

When replacing an AcuraLink Control Unit (XM receiver) connector, match the wires to the cavities listed in the following tables.

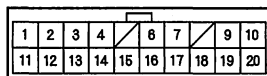
With AcuraLink



Audio System

System Description (cont'd)

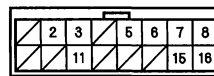
CONNECTOR A (20P) (With navigation)



Terminal side of male terminals

Cavity	Wire	Connects to
A1	WHT	XM receiver (+B)
A2	PUR	XM receiver (ACC)
A3	WHT	Navigation unit (NV RX+)
A4	GRN	Navigation unit (NV TX+)
A6	WHT	Gauge control module (CAN HI)
A7	GRN	Audio unit, Navigation unit, Navigation display unit (GANET BUS+)
A9	BLK	Audio unit (GANET AUDIO L+)
A10	RED	Audio unit (GANET AUDIO R+)
A11	BLK	Ground (G606)
A12	YEL	XM receiver (IG1)
A13	RED	Navigation unit (NV RX-)
A14	BLK	Navigation unit (NV TX-)
A15	BRN	Navigation unit (NV SH)
A16	RED	Gauge control module (CAN LO)
A17	RED	Audio unit, Navigation unit, Navigation display unit (GANET BUS-)
A18	BRN	Audio unit, Navigation unit, Navigation display unit (GANET BUS SH)
A19	GRN	Audio unit (GANET AUDIO L-)
A20	WHT	Audio unit (GANET AUDIO R+)

CONNECTOR B (16P) (With navigation)



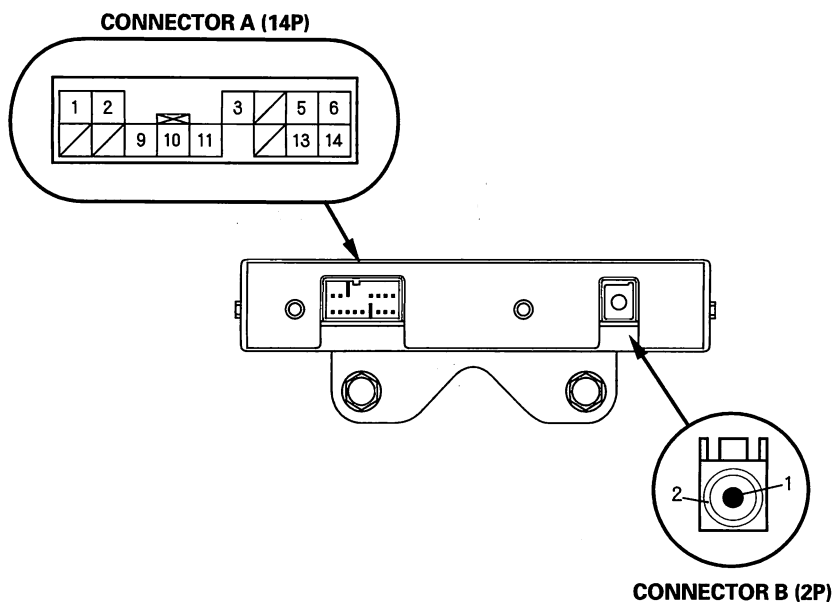
Terminal side of male terminals

Cavity	Wire	Connects to
B2	BRN	Audio unit, HandsFreeLink control unit (LINE OUT SH)
B3	LT BLU	Audio unit, HandsFreeLink control unit (LINE OUT+)
B5	LT GRN	Audio unit, HandsFreeLink control unit, Multiplex integrated control unit (B-CAN)
B6	BRN	HandsFreeLink control unit, Navigation unit (HFT COMM SH)
B7	GRN	HandsFreeLink control unit, Navigation unit (HFT COMM 3)
B8	RED	HandsFreeLink control unit, Navigation unit (HFT COMM 1)
B11	PUR	Audio unit, HandsFreeLink control unit (LINE OUT-)
B15	BLK	HandsFreeLink control unit, Navigation unit (HFT COMM 4)
B16	WHT	HandsFreeLink control unit, Navigation unit (HFT COMM 2)



XM Receiver Connector for Inputs and Outputs (With out AcuraLink)

When replacing an XM receiver connector, match the wires to the cavities listed in the following tables.



Cavity	Wire	Connects to
A1	WHT	XM receiver (+B)
A2	RED	XM receiver (ACC)
A3	BRN	Audio unit, Navigation unit, Navigation display unit (GANET BUS SH)
A5	RED	Audio unit (GANET AUDIO R+)
A6	BLK	Audio unit (GANET AUDIO L+)
A9	GRN	Audio unit, Navigation unit, Navigation display unit (GANET BUS+)
A10	RED	Audio unit, Navigation unit, Navigation display unit (GANET BUS-)
A11	BLK	Ground (G606)
A13	WHT	Audio unit (GANET AUDIO R-)
A14	GRN	Audio unit (GANET AUDIO L-)

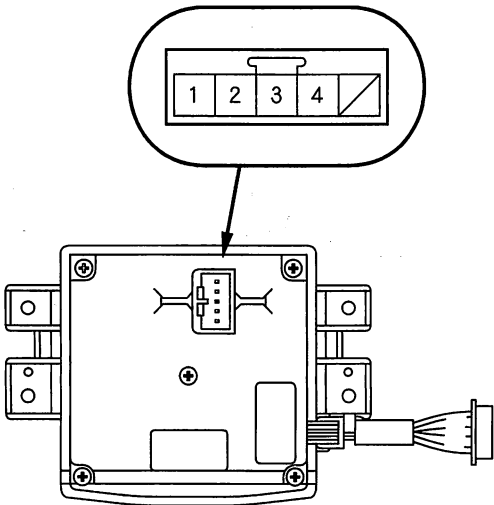
(cont'd)

Audio System

System Description (cont'd)

Interface Dial Connector for Inputs and Outputs

When replacing an interface dial connector, match the wires to the cavities listed in the following table.

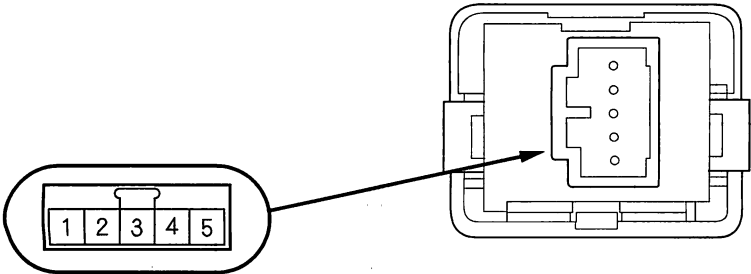


Cavity	Wire	Connects to
1	WHT	Navigation unit (JOG)
2	BRN	Navigation unit (Shield)
3	BLK	Ground (G506)
4	PUR	ACC (interface dial power supply)



Auxiliary Jack Assembly Connector for Inputs and Outputs (Without rear entertainment)

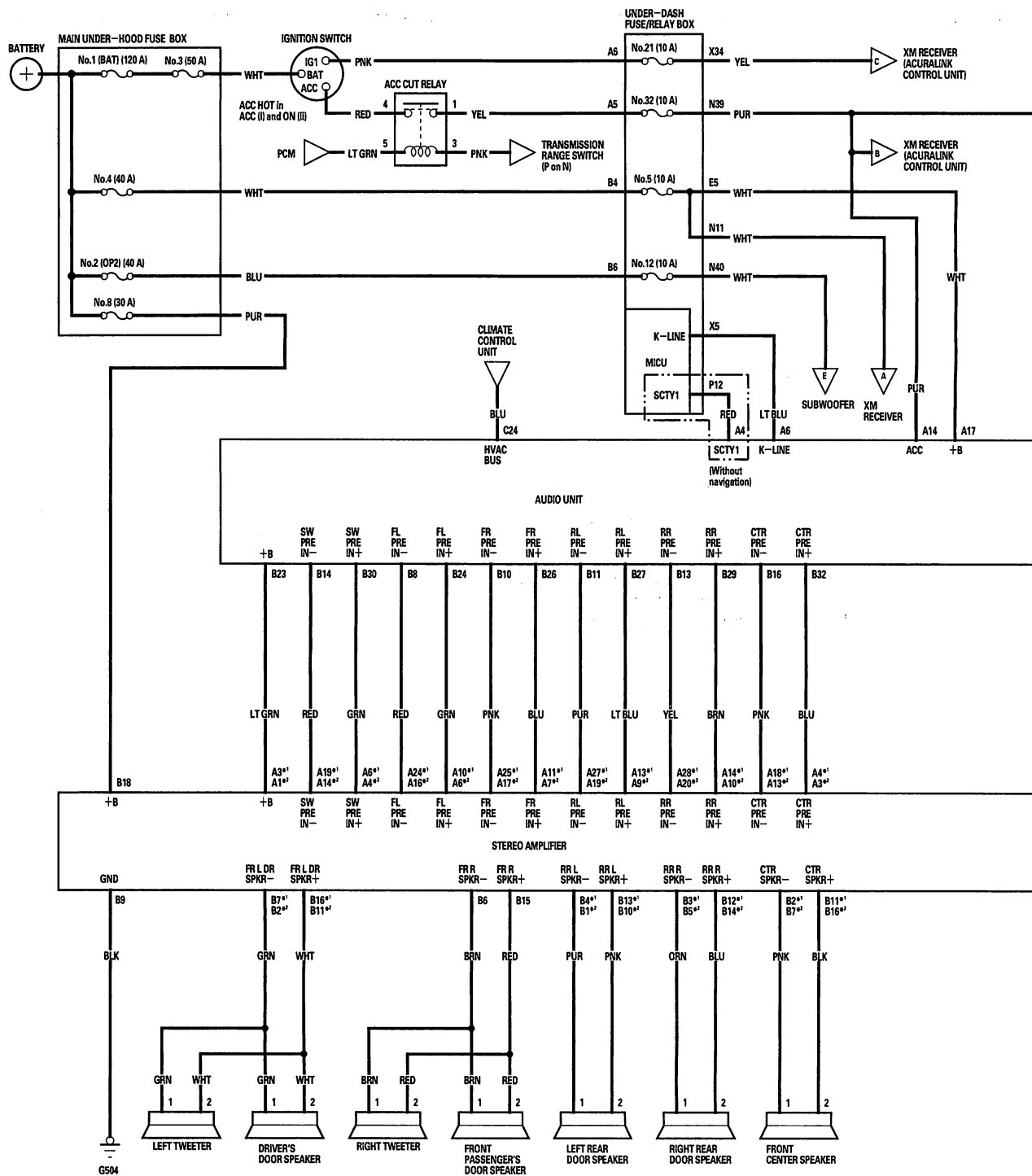
When replacing an auxiliary jack assembly connector, match the wires to the cavities listed in the following table.

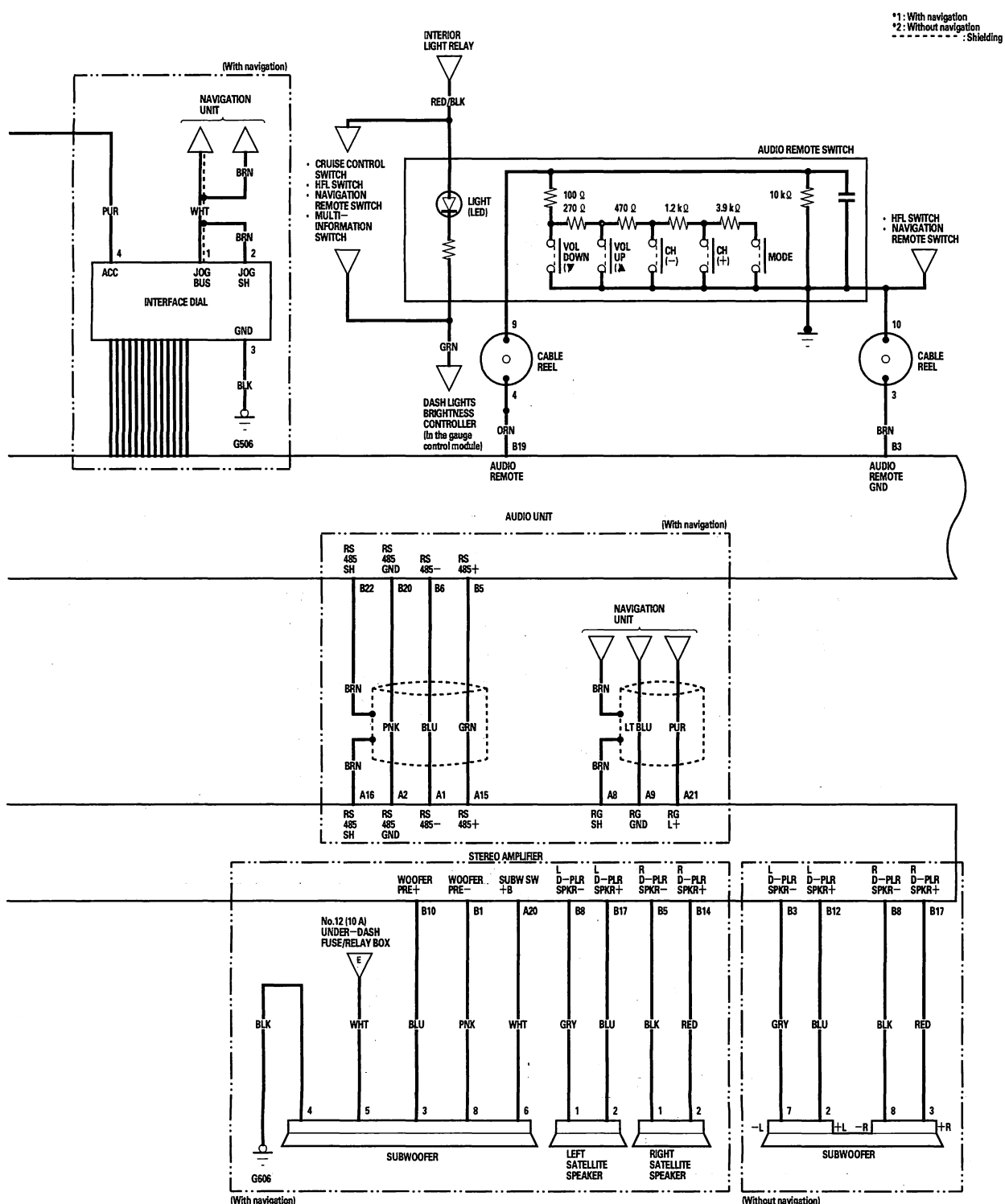


Cavity	Wire	Connects to
1	LT BLU	Audio unit (AUX DET)
2	GRY	Audio unit (SH AUX)
3	RED	Audio unit (AUX SIG GND)
4	WHT	Audio unit (AUX LCH)
5	BLK	Audio unit (AUX RCH)

Audio System

Circuit Diagram



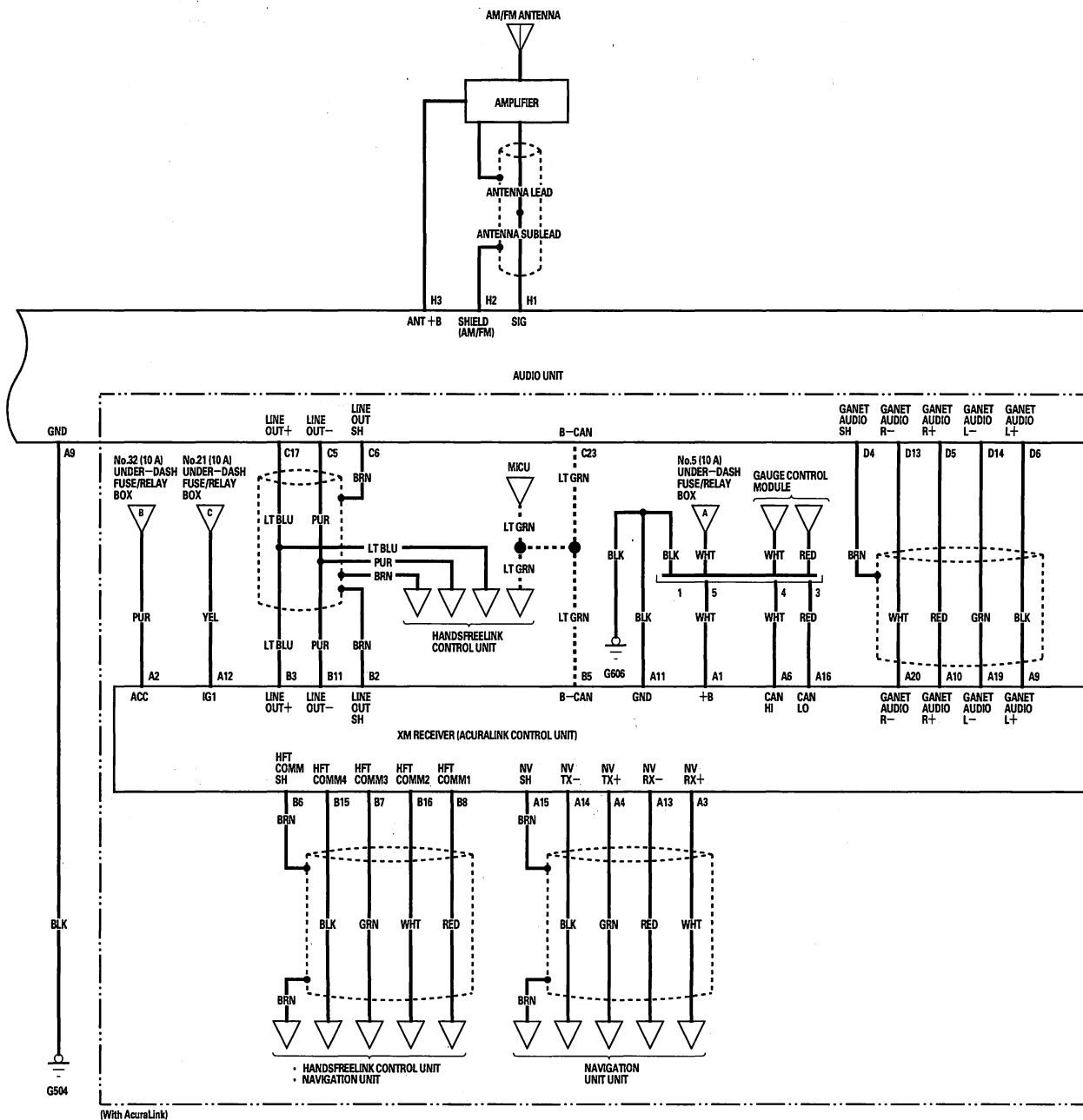


(cont'd)

BACK

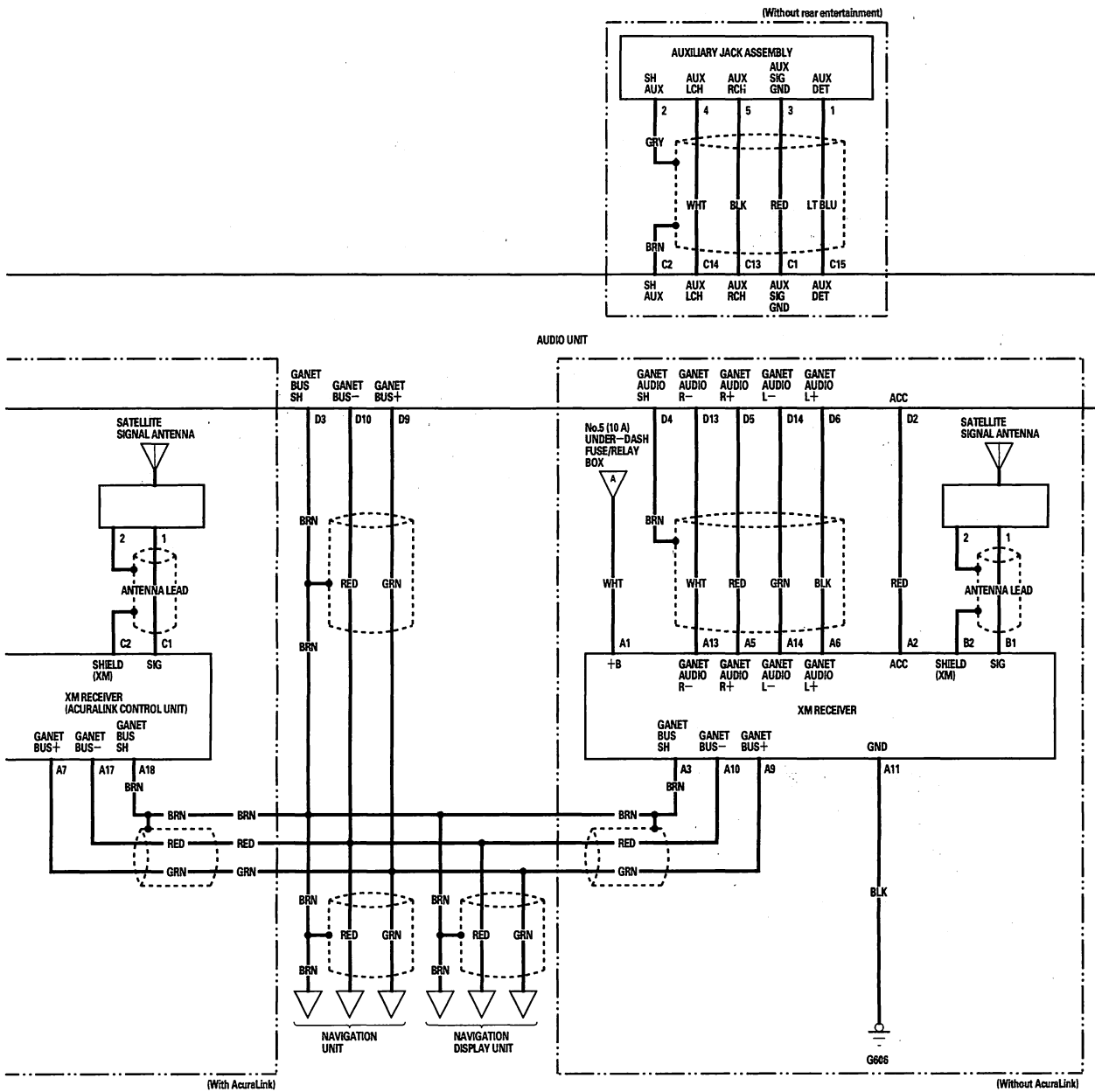
Audio System

Circuit Diagram (cont'd)





----- : CAN line
----- : Shielding



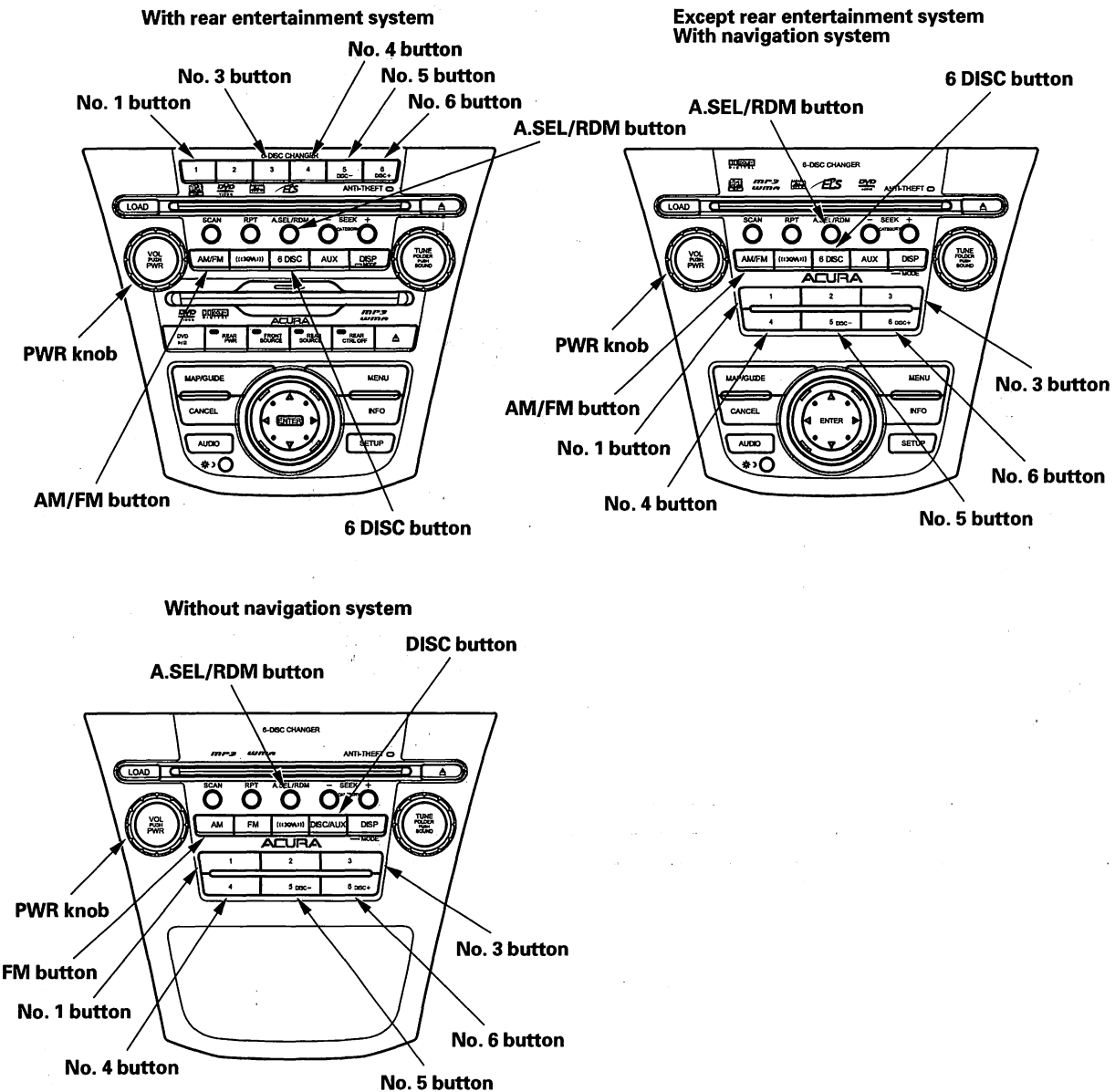
Audio System

Self-diagnostic Function

The audio system has a self-diagnostic function. To run the self-diagnostic function, do the following:

How to check for audio system condition

1. Turn the ignition switch to the ACC (I) or ON (II) position.
2. Turn on the audio unit.
3. Push and hold the "No. 1" and "No. 6" buttons. While holding the buttons, push the "VOL push PWR" knob to ON. Release the buttons and the self-diagnostic function will begin.





4. By pressing a preset button, the input will trigger the diagnostic mode that is assigned to that preset switch.

"No. 3" button

Entire LCD lighting/light-out mode: Turns on/off the entire LCD to show the presence or absence of an LCD failure.

"No. 4" button

Duty (for the Illumination dim) indication mode: Indicates the duty for the Illumination dim.

"No. 5" button

Vehicle speed pulse indication mode: Indicates the vehicle speed pulse.

"6 Disc" or "DVD" button (Push and hold 5 sec.)

DRAM residual quantity indication mode: Indicates the DRAM residual quantity.

"AM" or "FM" button (Push and hold 5 sec.)

Reception level check mode: Indicates the reception level. When entering the reception level check mode, the AM/FM or FM button is used to change the S-METER, OFFSET, MP and USN (A/I).

"A.SEL/ROM" button

Bus line check mode: The audio communication line is checked between the DSP, EEPROM, and TUNER.

(cont'd)

Audio System

Self-diagnostic Function (cont'd)

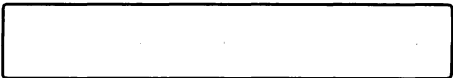
Display Specifications

NOTE: Any other diagnostic screens shown are for audio manufactures purpose only.

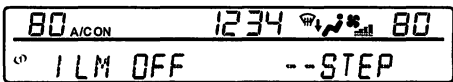
Entry LCD Lighting (No. 3 button)



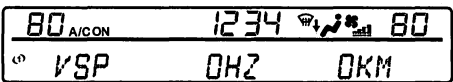
Entry LCD Light-outs (No. 3 button)



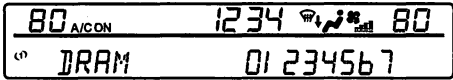
Duty (for the illumination) indication (No. 4 button)



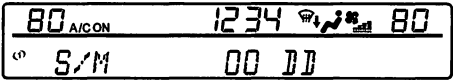
Vehicle speed pulse indication (No. 5 button)



DRAM residual quantity indication (6 DISC or DVD button)

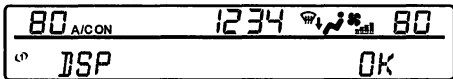


Reception level indication (AM/FM or FM button)

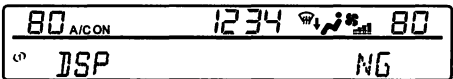


Bus line indication (A.SEL/ROM button)

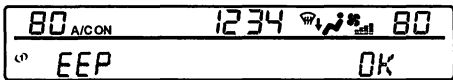
DSP communication OK



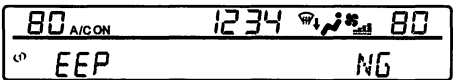
DSP communication NG



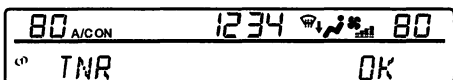
EEPROM communication OK



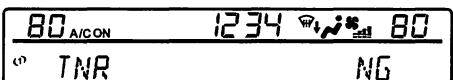
EEPROM communication NG



TUNNER communication OK



TUNNER communication NG

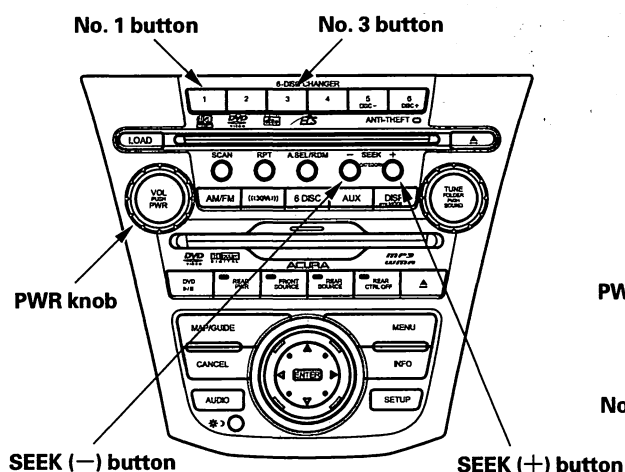




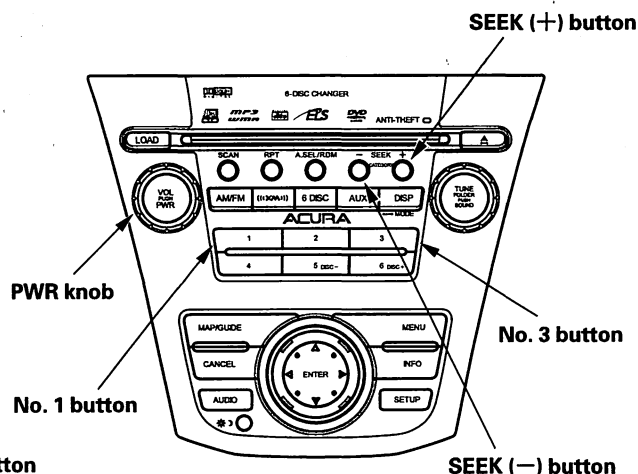
Speaker check mode

1. Turn the ignition switch to the ACC (I) or ON (II) position.
2. Push and hold the "No. 1" and "No. 3" buttons. While holding the buttons, push the "VOL push PWR" knob to ON. Release the buttons and the speaker check mode will begin. A tone or low-frequency hum should sound from one speaker.
3. Each time you press the "SEEK" or "CH" button, the speaker outputs a beep sound in the listed order.

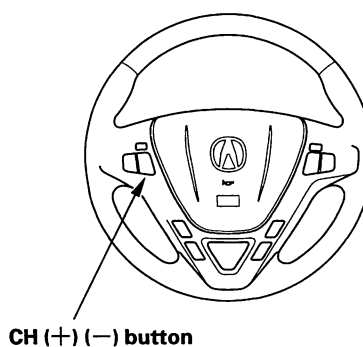
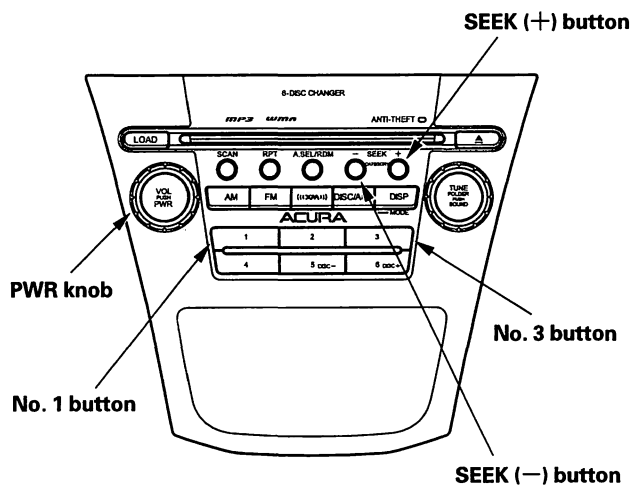
With rear entertainment system



Except rear entertainment system
With navigation system



Without navigation system



(cont'd)

Audio System

Self-diagnostic Function (cont'd)

Display Specifications

(+) is pressed: ①→②→③→④→⑤→⑥→⑦→⑧→⑨

(-) is pressed: ①→⑨→⑧→⑦→⑥→⑤→④→③→②

	Speaker	Displayed Segments	Remarks
①	Driver's door speaker and left tweeter	LEFT FRONT	
②	Center speaker	CENTER	
③	Front Passenger's door speaker and left tweeter	RIGHT FRONT	
④	Right rear door speaker	RIGHT REAR	
⑤	Right satellite speaker	RIGHT SURROUND	
⑥	Subwoofer	SUBWOOFER	
⑦	Left rear door speaker	LEFT SURROUND	
⑧	Left satellite speaker	LEFT REAR	
⑨	All Speakers	ALL SPEAKERS	

NOTE: Any other diagnostic screens shown are for the audio manufactures purpose only.

4. The speaker check mode will ends when you turn the audio unit off, or turn the ignition switch off.



Error Codes

The audio system displays error codes when a problem is detected with the CD disc changer, the audio disc, the XM radio, or the anti-theft code.

CD Error Codes

Error Code Displayed	Possible Cause	Solution
DISC READ	Cannot read disc.	Eject the disc and try another one, or the disc is installed up side down.
DISC ERROR	There is a problem with the disc player. A common problem is disc labels coming off the disc while in the player.	Try to eject the disc and try another one. If there is still a problem, replace the navigation unit or audio unit.
HEAT ERROR	Disc player is hot. This can happen if the vehicle is parked out in the hot sun all day.	Park the vehicle in a cooler place for a while and try the disc player again. If the error code is still present, try another disc. If the error code is still present, replace the navigation unit or audio unit.
Focus Error	Possibly DVD inserted in unit, or CD installed up side down.	Eject CD and try a known-good CD.
File Error	Audio unit cannot read the files on the CD or CD-R.	• Verify that CD/CD-R file names end in "CDA" or "WMA." • Verify that CD-R discs with compressed music formats end in "MP3" or "WMA." • Other file formats like I-tunes or "Ogg" are not recognized. • WMA files may have (DRM) copy protection and cannot be read.
Mech Error	• CD label jammed in the mechanism. • CD eject mechanism or motor is inoperative. • CD spindle motor won't spin up the CD.	Press the EJECT button and hold it for 5 seconds. If the CD does not eject, try again. If the CD still won't eject, replace the unit.

XM Error Codes

Error Code Displayed	Possible Cause	Solution
LOADING	XM radio is acquiring audio or program information.	Wait until the radio receives the information.
OFF AIR	XM channel not in service.	Try another XM channel.
NO SIGNAL	Loss of signal.	Both terrestrial and satellite antennas have lost signal. Park the vehicle outside with a clear view of the southern horizon.
UPDATING	XM radio is receiving information update from the network.	This message will disappear once the update finishes.
CHECK ANTENNA ANTENNA ERROR	XM antenna error.	Repair open or short in the satellite antenna. Substitute the XM antenna with a known-good one, and recheck. If the error is gone, replace the original XM antenna. If the error is still present, replace the antenna lead.
---	No signal from XM.	Check a known-good vehicle with XM radio. If the known-good vehicle has the same symptoms, contact XM satellite radio at (800) 852-9696.

Audio Unit Error Codes

Error Code Displayed	Possible Cause	Solution
CODE ERROR E	Anti-theft code mismatch (1 st try).	Enter the correct anti-theft code.
CODE ERROR 1	Anti-theft code mismatch (10 th try).	Remove fuse No. 5 (10 A) in the under-dash fuse/relay box, then reinsert it. You will have 10 more tries to enter the correct anti-theft code.

Audio System

Symptom Troubleshooting

Poor AM or FM radio reception or interference

NOTE: Check the radio reception in an open area. Poor reception/interference can be caused by the following:

- The radio station is far away.
- Tall buildings, mountains, or high-voltage power lines are nearby.

1. Do the seek stop test (see page 23-88).

Is the test vehicle within 10 % of the known-good vehicle?

YES—Multipath interference or weak station.
Operation is normal. ■

NO—Go to step 2.

2. Check if the radio reception/interference is the same in several locations.

Is the reception/interference the same?

YES—Go to step 3.

NO—Multipath interference or weak station.
Operation is normal. ■

3. Check the reception/interference while the engine is running.

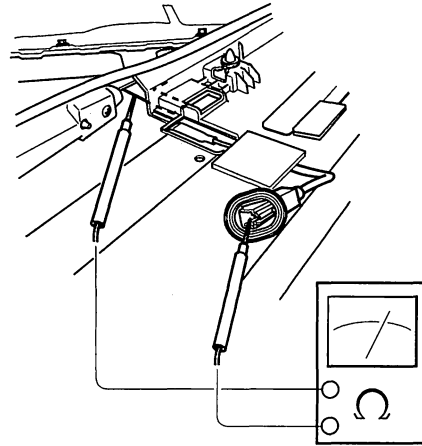
Is there noise (static or whine) only with the engine running?

YES—Check the antenna and radio grounds. If OK, check the charging system and the ignition system. ■

NO—Go to step 4.

4. Remove the tailgate spoiler trim (see page 20-213).

5. Touch one tester probe to the antenna element 1P connector No. 1 terminal, and the other tester probe at the antenna element to check for continuity. Repair if there is continuity.



6. Go into the self-diagnostic mode and use the "Tuner communication check mode" (see page 23-32).

Is the tuner communication OK?

YES—Go to step 7.

NO—Audio unit is faulty, replace the audio unit. ■

7. Remove the audio unit (see page 23-90). Check that the AM/FM antenna lead and sub-lead are properly connected.

Are they connected properly?

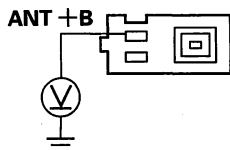
YES—Go to step 8.

NO—Reconnect the connector, and recheck the function. ■



8. Disconnect the AM/FM antenna amplifier 3P connector.
9. With the radio turned ON, measure the voltage between AM/FM antenna amplifier 3P connector No. 3 terminal and body ground.

AM/FM ANTENNA AMPLIFIER 3P CONNECTOR



Terminal side of female terminals

Is there battery voltage?

YES—Go to step 14.

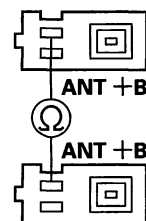
NO—Go to step 10.

10. Remove the audio unit (see page 23-90).
11. Disconnect audio unit connector H (3P).

12. Check for continuity between the audio unit connector H (3P) No. 3 terminal and AM/FM antenna amplifier 3P connector No. 3 terminal.

AUDIO UNIT CONNECTOR H (3P)

Terminal side of female terminals



AM/FM ANTENNA AMPLIFIER 3P CONNECTOR

Terminal side of female terminals

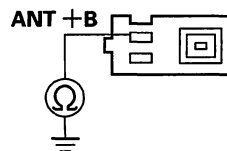
Is there continuity?

YES—Go to step 13.

NO—Repair open in the wire between audio unit and the AM/FM antenna amplifier. Also check the antenna lead/sublead connector. ■

13. Check for continuity between the audio unit connector H (3P) No. 3 terminal and body ground.

AUDIO UNIT CONNECTOR H (3P)



Terminal side of female terminals

Is there continuity?

YES—Repair short to body ground in the wire between audio unit and the AM/FM antenna amplifier. ■

NO—Audio unit is faulty, replace the audio unit. ■

(cont'd)

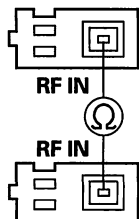
Audio System

Symptom Troubleshooting (cont'd)

14. Remove the audio unit (see page 23-90).
15. Disconnect audio unit connector H (3P).
16. Check for continuity between the audio unit connector H (3P) No. 1 terminal and AM/FM antenna amplifier 3P connector No. 1 terminal.

AUDIO UNIT CONNECTOR H (3P)

Terminal side of female terminals



AM/FM ANTENNA AMPLIFIER 3P CONNECTOR

Terminal side of female terminals

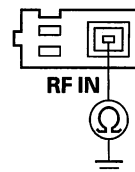
Is there continuity?

YES—Go to step 17.

NO—AM/FM antenna lead and/or sublead is faulty, replace the AM/FM antenna lead and/or sublead. ■

17. Check for continuity between the audio unit connector H (3P) No. 1 terminal and body ground.

AUDIO UNIT CONNECTOR H (3P)



Terminal side of female terminals

Is there continuity?

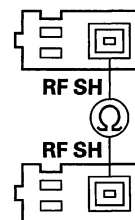
YES—AM/FM antenna lead and/or sublead is faulty, replace the AM/FM antenna lead and/or sublead. ■

NO—Go to step 18.

18. Check for continuity between the audio unit connector H (3P) No. 2 terminal and AM/FM antenna amplifier 3P connector No. 2 terminal.

AUDIO UNIT CONNECTOR H (3P)

Terminal side of female terminals



AM/FM ANTENNA AMPLIFIER 3P CONNECTOR

Terminal side of female terminals

Is there continuity?

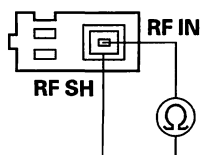
YES—Go to step 19.

NO—AM/FM antenna lead and/or sublead is faulty, replace the AM/FM antenna lead and/or sublead. ■



19. Check for continuity between the audio unit connector H (3P) terminal No. 1 and No.2.

AUDIO UNIT CONNECTOR H (3P)



Terminal side of female terminals

Is there continuity?

YES—Replace the AM/FM antenna and recheck. If the reception is still poor, replace the audio unit. ■

NO—AM/FM antenna lead and/or sublead is faulty, replace the AM/FM antenna lead and/or sublead. ■

**Power switch will not turn ON
(No information display and no sound)**

NOTE: Always check the connectors for poor connections or loose terminals.

1. With the ignition switch ON (II), push the power switch ON to see if audio unit turns ON.

Does the audio unit display operate properly, and the audio unit sound normal?

YES—Intermittent failure, the system is OK at this time. ■

NO—Go to step 2.

2. Turn the ignition switch OFF.

3. Check the No. 5 (10 A) fuse and No. 32 (10 A) fuse in the under-dash fuse/relay box.

Are the fuses OK?

YES—Go to step 4.

NO—Replace the fuse, and recheck. ■

4. Remove the audio unit (see page 23-90). Check that the audio unit connectors are properly connected.

Is it connected properly?

YES—Go to step 5.

NO—Repair poor connections and reconnect the connector, and recheck the function. ■

5. Disconnect the audio unit connector A (17P).

6. Turn the ignition switch ON (II).

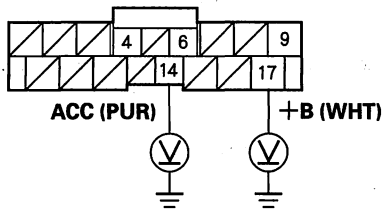
(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

7. Measure the voltage between No. 14 and 17 terminals of audio unit connector A (17P) and body ground.

AUDIO UNIT CONNECTOR A (17P)



Wire side of female terminals

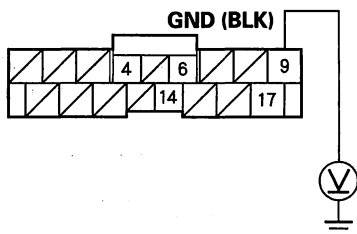
Is there battery voltage?

YES—Go to step 8.

NO—Repair open in the wire(s) between the No. 5 (10 A) and No. 32(10 A) fuses in the under-dash fuse/relay box and the audio unit. ■

8. Reconnect the audio unit connector A (17P).
9. Measure the voltage between audio unit connector A (17P) terminal No. 9 and body ground.

AUDIO UNIT CONNECTOR A (17P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Audio unit is faulty, replace the audio unit. ■

NO—Repair open in the wire between the audio unit connector A (17P) terminal No. 9 and body ground (G504) (see page 22-32). ■

Power will not turn OFF

1. With the ignition switch ON (II), push the power switch OFF or turn the ignition switch OFF to see if the audio unit turns OFF.

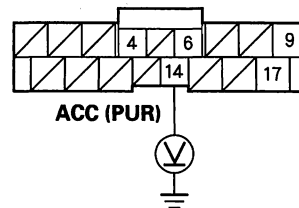
Does the audio unit turn OFF?

YES—Operation is normal. ■

NO—Go to step 2.

2. Turn the ignition switch OFF.
3. Remove the audio unit (see page 23-90). Disconnect the audio unit connector A (17P).
4. Measure the voltage between the No. 14 terminal of audio unit connector A (17P) and body ground.

AUDIO UNIT CONNECTOR A (17P)



Wire side of female terminals

Is there voltage?

YES—Check for short to power on the PUR wire. ■

NO—Audio unit is faulty, replace the audio unit. ■



No sound is heard from speaker(s) (display is normal) (with navigation)

NOTE:

- Set the fader and balance positions to the center.
- Before doing troubleshooting, do the power switch will not turn ON troubleshooting (see page 23-41).
- On vehicles equipped with navigation and HandsFreeLink, verify the voice systems are not activated. Press each system's back button to return the audio unit to the normal operating mode.
- Always check the connectors for poor connections or loose terminals.

1. Check that the volume button is not set to the min level.

Is it at the MIN level?

YES—Raise the volume level, and recheck the function. ■

NO—Go to step 2.

2. Check the NAVIGATION VOICE MUTE COMMAND and HANDSFREELINK MUTE COMMAND.

Are the NAVIGATION VOICE MUTE COMMAND and HANDSFREELINK MUTE COMMAND set?

YES—Cancel the NAVIGATION VOICE MUTE COMMAND by depressing the voice command and HANDSFREELINK MUTE COMMAND back button, then recheck the function.

NO—Go to step 3.

3. Do the speaker check mode with the self-diagnostic function (see page 23-35).

Did all speakers produce a tone?

YES—Go to step 10.

NO—Go to step 4.

4. Check the subwoofer for tone.

Did the subwoofer make a tone?

YES—Go to step 5.

NO—Go to step 28.

5. Turn the ignition switch OFF.

6. Check the faulty speaker(s) for damage.

Is there any damage?

YES—Replace the speaker and recheck. ■

NO—Go to step 7.

7. Remove the faulty speaker(s) that has no sound (see page 23-91), and disconnect its connector.

8. Check the speaker connector for a loose or poor connection.

Reconnect the speaker connector, and recheck the symptom; is the condition still present?

YES—Go to step 9.

NO—Intermittent failure. Operation is normal. ■

9. Test the speaker(s) (see page 23-91).

Is the speaker OK?

YES—Go to step 10.

NO—Replace the speaker(s). ■

10. Do the audio unit self-diagnostic function DSP unit communication check (see page 23-32).

Is the DSP communication OK?

YES—Go to step 11.

NO—Audio unit is faulty, replace the audio unit. ■

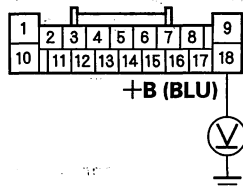
(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

11. Disconnect stereo amplifier connector B (18P).
12. Turn the ignition switch ON (II).
13. Measure the voltage between stereo amplifier connector B (18P) No. 18 terminal and body ground.

STEREO AMPLIFIER CONNECTOR B (18P)



Wire side of female terminals

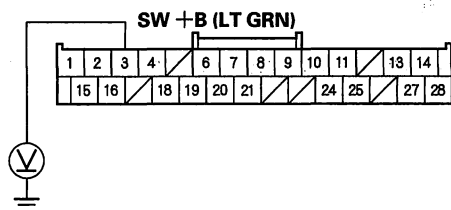
Is there battery voltage?

YES—Go to step 14.

NO—Repair open in the wire between No. 8 (30 A) fuse in the under-dash fuse/relay box and stereo amplifier connector B (18P) No. 18 terminal. ■

14. Disconnect stereo amplifier connector A (28P).
15. Measure the voltage between stereo amplifier connector A (28P) No. 3 terminal and body ground.

STEREO AMPLIFIER CONNECTOR A (28P)



Wire side of female terminals

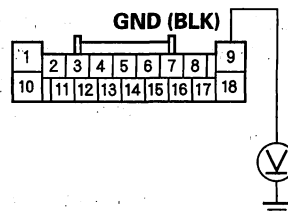
Is there battery voltage?

YES—Go to step 16.

NO—Repair open in the wire between the stereo amplifier connector A (28P) No. 3 terminal and audio unit connector B (32P) No. 23 terminal. ■

16. Reconnect the stereo amplifier connector B (18P).
17. Measure the voltage between stereo amplifier connector B (18P) No. 9 terminal and body ground.

STEREO AMPLIFIER CONNECTOR B (18P)



Wire side of female terminals

Less than 0.1 V?

YES—Go to step 18.

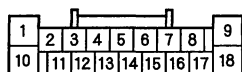
NO—Repair open to the body ground in the wire between the stereo amplifier connector B (18P) No. 9 terminal and body ground (G504) (see page 22-32). ■



18. Disconnect stereo amplifier connector B (18P) and speaker connector.
19. Check for continuity between body ground and stereo amplifier connector B (18P) according to the table.

Speaker	Stereo amplifier connector	Wire color
Front center speaker	B11 (+)	BLK
	B2 (-)	PNK
Driver's door speaker, Left tweeter	B16 (+)	WHT
	B7 (-)	GRN
Front passenger's door speaker, Right tweeter	B15 (+)	RED
	B6 (-)	BRN
Left rear door speaker	B13 (+)	PNK
	B4 (-)	PUR
Right rear door speaker	B12 (+)	BLU
	B3 (-)	ORN
Left satellite speaker	B17 (+)	BLU
	B8 (-)	GRY
Right satellite speaker	B14 (+)	RED
	B5 (-)	BLK
Subwoofer	B10 (+)	BLU
	B1 (-)	PNK

STEREO AMPLIFIER CONNECTOR B (18P)



Wire side of female terminals

Is there continuity?

YES—Repair short in the wire(s) between the stereo amplifier and the speaker(s). ■

NO—Go to step 20.

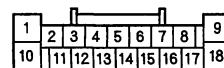
20. Measure the resistance between stereo amplifier connector B (18P) according to the table.

Speaker	Stereo amplifier connector	Wire color
Front center speaker	B11 (+)	BLK
	B2 (-)	PNK
Driver's door speaker, Left tweeter	B16 (+)	WHT
	B7 (-)	GRN
Front passenger's door speaker, Right tweeter	B15 (+)	RED
	B6 (-)	BRN
Left rear door speaker	B13 (+)	PNK
	B4 (-)	PUR
Right rear door speaker	B12 (+)	BLU
	B3 (-)	ORN
Left satellite speaker	B17 (+)	BLU
	B8 (-)	GRY
Right satellite speaker	B14 (+)	RED
	B5 (-)	BLK
Subwoofer	B10 (+)	BLU
	B1 (-)	PNK

Resistance

Front center speaker:	4 Ω
Driver's door speaker, Left tweeter:	2 Ω
Front passenger's door speaker, Right tweeter:	2 Ω
Left rear door speaker:	2 Ω
Right rear door speaker:	2 Ω
Left satellite speaker:	4 Ω
Right satellite speaker:	4 Ω
Subwoofer:	2 Ω

STEREO AMPLIFIER CONNECTOR B (18P)



Wire side of female terminals

Is the resistance the same as indicated?

YES—Go to step 21.

NO—Repair open in the wire between the stereo amplifier and the speaker(s). ■

(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

- 21. Disconnect audio unit connector B (32P).
- 22. Check for continuity between the following terminals of the stereo amplifier connector A (28P) and audio unit connector A (32P).

Stereo amplifier connector	Audio unit connector	Wire color
A1	B6	LT BLU
A2	B20	PNK
A15	B5	GRN

STEREO AMPLIFIER CONNECTOR A (28P)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Wire side of female terminals

AUDIO UNIT CONNECTOR B (32P)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Wire side of female terminals

Is there continuity?

YES—Go to step 23.

NO—Repair open in the wire between the stereo amplifier and audio unit. ■

- 23. Check for continuity between the terminals of stereo amplifier connector A (28P) according to the table.

From terminal	To terminal
A1	A2, A15, A16
A2	A15, A16

STEREO AMPLIFIER CONNECTOR A (28P)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Wire side of female terminals

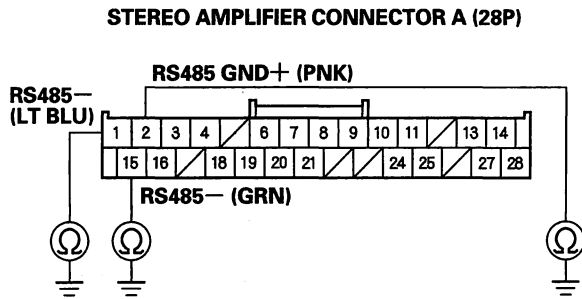
Is there continuity between any of the terminals?

YES—Repair short in the wire(s) between audio unit and stereo amplifier (replace appropriate shield harness). ■

NO—Go to step 24.



24. Check for continuity between body ground and stereo amplifier connector A (28P) terminal No. 1, 2 and 15 individually. Then check for continuity between the same terminals listed in the table and the audio unit connector A (25P) No. 15 terminal (the harness shield).



Wire side of female terminals

Is there continuity?

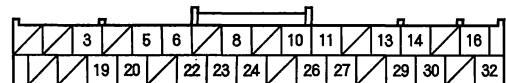
YES—Repair short to body ground in the wire(s) between stereo amplifier and audio unit or short between the shield wires (replace the appropriate shielded harness). ■

NO—Go to step 25.

25. Check for continuity between audio unit connector B (32P) and stereo amplifier connector A (28P) according to the table.

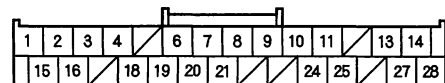
Audio unit connector	Stereo amplifier connector	Wire color
B32	A4	BLU
B16	A18	PNK
B24	A10	GRN
B8	A24	RED
B26	A11	BLU
B10	A25	PNK
B27	A13	LT BLU
B11	A27	PUR
B29	A14	BRN
B13	A28	YEL
B14	A19	RED
B30	A6	GRN

AUDIO UNIT CONNECTOR B (32P)



Wire side of female terminals

STEREO AMPLIFIER CONNECTOR A (28P)



Wire side of female terminals

Is there continuity?

YES—Go to step 26.

NO—Repair open in the appropriate wire(s) between the audio unit and stereo amplifier. ■

(cont'd)

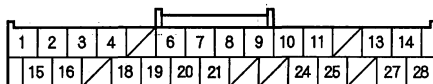
Audio System

Symptom Troubleshooting (cont'd)

26. Check for continuity between stereo amplifier connector A (28P) and body ground according to the table.

stereo amplifier connector	Wire color
A4	BLU
A18	PNK
A10	GRN
A24	RED
A11	BLU
A25	PNK
A13	LT BLU
A27	PUR
A14	BRN
A28	YEL
A19	RED
A6	GRN

STEREO AMPLIFIER CONNECTOR A (28P)



Wire side of female terminals

Is there continuity?

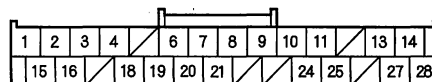
YES—Repair short body ground in the wire(s) between the audio unit and stereo amplifier. ■

NO—Go to step 27.

27. Check for continuity between the terminals of stereo amplifier connector A (28P) according to the table.

From terminal	To terminals
A4	A18, A10, A24, A11, A25, A13, A27, A14, A28
A18	A10, A24, A11, A25, A13, A27, A14, A28
A10	A24, A11, A25, A13, A27, A14, A28
A24	A11, A25, A13, A27, A14, A28
A11	A25, A13, A27, A14, A28
A25	A13, A17, A14, A28
A13	A27, A14, A28
A27	A14, A28
A14	A28

STEREO AMPLIFIER CONNECTOR A (28P)



Wire side of female terminals

Is there continuity between any of the terminals?

YES—Repair short in the wire(s) between audio unit and stereo amplifier (replace appropriate shield harness). ■

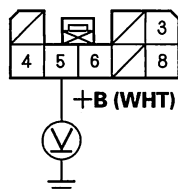
NO—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good stereo amplifier and recheck. If the symptom indicated goes away, replace the original stereo amplifier. ■



28. Disconnect the subwoofer 8P connector.

29. Measure the voltage between subwoofer 8P connector No. 5 terminal and body ground.

SUBWOOFER 8P CONNECTOR



Wire side of female terminals

Is there battery voltage?

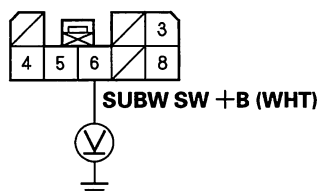
YES—Go to step 30.

NO—Repair open in the between the subwoofer 8P connector No. 5 terminal and No. 12 (10 A) fuse in the under-dash fuse/relay box. ■

30. Turn the ignition switch ON (II).

31. Measure the voltage between subwoofer 8P connector No. 6 terminal and body ground.

SUBWOOFER 8P CONNECTOR



Wire side of female terminals

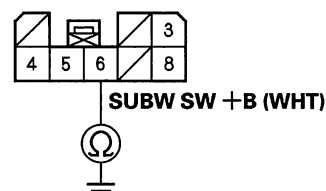
Is there battery voltage?

YES—Go to step 31.

NO—Repair open in the between the stereo amplifier connector A (28P) No. 20 terminal and subwoofer 8P connector No. 6 terminal. ■

32. Check for continuity between body ground and subwoofer 8P connector No. 6 terminal.

SUBWOOFER 8P CONNECTOR



Wire side of female terminals

Is there continuity?

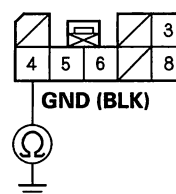
YES—Repair short to body ground in the wire(s) between the stereo amplifier and subwoofer. ■

NO—Go to step 33.

33. Turn the ignition switch OFF.

34. Check for continuity between subwoofer 8P connector No. 4 terminal and body ground.

SUBWOOFER 8P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Go to step 5.

NO—Repair open to the body ground in the wire between the subwoofer 8P connector No. 4 terminal and body ground (G606) (see page 22-38). ■

Audio System

Symptom Troubleshooting (cont'd)

No sound is heard from speaker(s) (display is normal) (without navigation)

NOTE:

- Set the fader and balance positions to the center.
- Before doing troubleshooting, do the power switch will not turn ON troubleshooting (see page 23-41).
- Always check the connectors for poor connections or loose terminals.

1. Check that the volume button is not set to the min level.

Is it at the MIN level?

YES—Raise the volume level, and recheck the function. ■

NO—Go to step 2.

2. Do the speaker check mode with the self-diagnostic function (see page 23-35).

Did all speakers produce a tone?

YES—Go to step 8.

NO—Go to step 3.

3. Turn the ignition switch OFF.

4. Check the faulty speaker(s) for damage.

Is there any damage?

YES—Replace the speaker and recheck. ■

NO—Go to step 5.

5. Remove the speaker(s) that has no sound (see page 23-91), and disconnect its connector.

6. Check the speaker connector for a loose or poor connection.

Reconnect the speaker connector, and recheck the symptom; is the condition still present?

YES—Go to step 7.

NO—Intermittent failure. Operation is normal. ■

7. Test the speaker(s) (see page 23-91).

Is the speaker OK?

YES—Go to step 8.

NO—Replace the speaker(s). ■

8. Do the audio unit self-diagnostic function DSP unit communication check (see page 23-32).

Is the DSP communication OK?

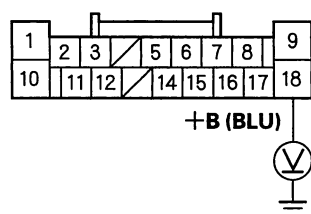
YES—Go to step 9.

NO—Audio unit is faulty, replace the audio unit (see page 23-90). ■



9. Disconnect stereo amplifier connector B (18P).
10. Turn the ignition switch ON (II).
11. Measure the voltage between stereo amplifier connector B (18P) No. 18 terminal and body ground.

STEREO AMPLIFIER CONNECTOR B (18P)



Wire side of female terminals

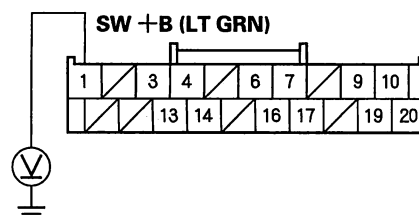
Is there battery voltage?

YES—Go to step 12.

NO—Repair open in the between No. 8 (30 A) fuse in the under-dash fuse/relay box and stereo amplifier connector B (18P) No. 18 terminal. ■

12. Disconnect stereo amplifier connector A (20P).
13. Measure the voltage between stereo amplifier connector A (20P) No. 1 terminal and body ground.

STEREO AMPLIFIER CONNECTOR A (20P)



Wire side of female terminals

Is there battery voltage?

YES—Go to step 14.

NO—Repair open in the between the stereo amplifier connector A (20P) No. 1 terminal and audio unit connector B (32P) No. 23 terminal. ■

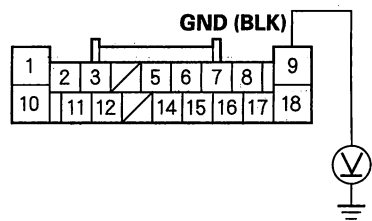
(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

- 14. Reconnect the stereo amplifier connector B (18P).
- 15. Measure the voltage between stereo amplifier connector B (18P) No. 9 terminal and body ground.

STEREO AMPLIFIER CONNECTOR B (18P)



Wire side of female terminals

Is there less than 0.1 V?

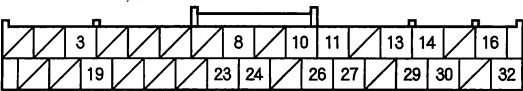
YES—Go to step 16.

NO—Repair open to the body ground in the wire between the stereo amplifier connector B (18P) No. 9 terminal and body ground (G504) (see page 22-32). ■

- 16. Check for continuity between audio unit connector B (32P) and stereo amplifier connector A (20P) according to the table.

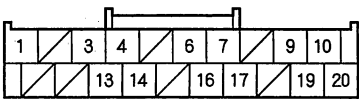
Audio unit connector	Stereo amplifier connector	Wire color
B32	A3	BLU
B16	A13	PNK
B24	A6	GRN
B8	A16	RED
B26	A7	BLU
B10	A17	PNK
B27	A9	LT BLU
B11	A19	PUR
B29	A10	BRN
B13	A20	YEL

AUDIO UNIT CONNECTOR (32P)



Wire side of female terminals

STEREO AMPLIFIER CONNECTOR A (20P)



Wire side of female terminals

Is there continuity?

YES—Go to step 17.

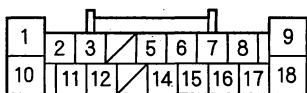
NO—Repair open in the appropriate wire(s) between the audio unit and stereo amplifier. ■



17. Disconnect stereo amplifier connector B (18P) and speaker connector.
18. Check for continuity between body ground and stereo amplifier connector B (18P) according to the table.

Speaker	Stereo amplifier connector	Wire color
Front center speaker	B16 (+)	BLK
	B7 (−)	PNK
Driver's door speaker, Left tweeter	B11 (+)	WHT
	B2 (−)	GRN
Front passenger's door speaker, Right tweeter	B15 (+)	RED
	B6 (−)	BRN
Left rear door speaker	B10 (+)	PNK
	B1 (−)	PUR
Right rear door speaker	B14 (+)	BLU
	B5 (−)	ORN
Subwoofer	B12 (+)	BLU
	B3 (−)	GRY
	B17 (+)	RED
	B8 (−)	BLK

STEREO AMPLIFIER CONNECTOR B (18P)



Wire side of female terminals

Is there continuity?

YES—Repair short in the wire(s) between the stereo amplifier and the speaker(s). ■

NO—Go to step 19.

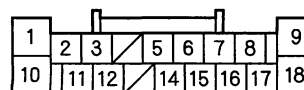
19. Measure the resistance between stereo amplifier connector B (18P) according to the table.

Speaker	Stereo amplifier connector	Wire color
Front center speaker	B16 (+)	BLK
	B7 (−)	PNK
Driver's door speaker, Left tweeter	B11 (+)	WHT
	B2 (−)	GRN
Front passenger's door speaker, Right tweeter	B15 (+)	RED
	B6 (−)	BRN
Left rear door speaker	B10 (+)	PNK
	B1 (−)	PUR
Right rear door speaker	B14 (+)	BLU
	B5 (−)	ORN
Subwoofer	B12 (+)	BLU
	B3 (−)	GRY
	B17 (+)	RED
	B8 (−)	BLK

Resistance

Front center speaker:	4 Ω
Driver's door speaker, Left tweeter:	2 Ω
Front passenger's door speaker, Right tweeter:	2 Ω
Left rear door speaker:	2 Ω
Right rear door speaker:	2 Ω
Subwoofer:	2 Ω

STEREO AMPLIFIER CONNECTOR B (18P)



Wire side of female terminals

Is the resistance the same as indicated?

YES—Go to step 20.

NO—Repair open in the wire between the stereo amplifier and the speaker(s). ■

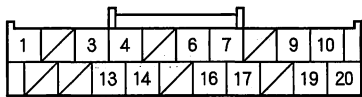
(cont'd)

Symptom Troubleshooting (cont'd)

20. Check for continuity between stereo amplifier connector A (20P) and body ground according to the table.

stereo amplifier connector	Wire color
A3	BLU
A13	PNK
A6	GRN
A16	RED
A7	BLU
A17	PNK
A9	LT BLU
A19	PUR
A10	BRN
A20	YEL
A14	RED
A4	GRN

STEREO AMPLIFIER CONNECTOR A (20P)



Wire side of female terminals

Is there continuity?

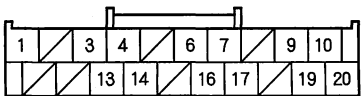
YES—Repair short to body ground in the wire(s) between the audio unit and stereo amplifier. ■

NO—Go to step 21.

21. Check for continuity between the terminals of stereo amplifier connector A (20P) according to the table.

From terminal	To terminals
A3	A13, A6, A16, A7, A17, A9, A19, A10, A20
A13	A6, A16, A7, A17, A9, A19, A10, A20
A6	A16, A7, A17, A9, A19, A10, A20
A16	A7, A17, A9, A19, A10, A20
A7	A17, A9, A19, A10, A20
A17	A9, A19, A10, A20
A9	A19, A10, A20
A19	A10, A20
A10	A20

STEREO AMPLIFIER CONNECTOR A (20P)



Wire side of female terminals

Is there continuity between any of the terminals?

YES—Repair short in the wire(s) between audio unit and stereo amplifier (replace appropriate shield harness). ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good stereo amplifier and recheck. If the symptom indicated goes away, replace the original stereo amplifier. ■



Audio system sound is weak or distorted (display is normal)

1. Check for sound in each mode (AM, FM, XM, and disc).

Is there sound from the speakers, and is the sound quality normal in each mode?

YES—Intermittent failure. The system is OK at this time. Check for loose connections at the audio unit, the amplifier, and each speaker. ■

NO—Speakers all work, sound quality is poor. ■

- If sound is poor only with XM radio, or the XM radio does not function, go to poor or no sound with XM radio (see page 23-77).
- If the sound is poor only with AM or FM, go to poor radio reception or interference (see page 23-38).
- If the sound is poor in all modes, go to sound quality diagnosis (see page 23-84).

Radio preset memory is lost

NOTE: If only XM stations are lost, go to XM radio preset memory is lost (with AcuraLink) (see page 23-75) or XM radio preset memory is lost (without AcuraLink) (see page 23-76).

1. Set each of the radio station preset buttons.

Do each of the preset buttons set properly?

YES—Go to step 2.

NO—Go to step 4.

2. Turn the ignition switch OFF for 1 minute, then turn it back to ON (II).

3. Test all the preset buttons for proper recall operation.

Do the preset buttons recall the set radio stations?

YES—System is normal at this time. Check connections at the audio unit. ■

NO—Go to step 4.

4. Inspect the under-dash fuse/relay box No. 5 (10 A) fuse.

Is it OK?

YES—Go to step 5.

NO—Replace the fuse and reset. If it fails again, repair the short to ground in the harness. ■

5. Remove the audio unit (see page 23-90).

6. Turn the ignition switch ON (II).

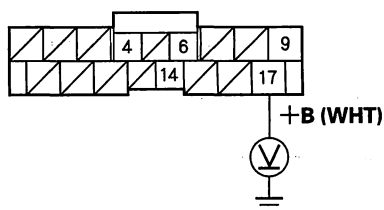
(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

7. Measure the voltage between the audio unit connector A (17P) terminal No. 17 and body ground.

AUDIO UNIT CONNECTOR A (17P)



Wire side of female terminals

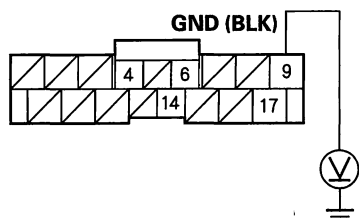
Is there battery voltage?

YES—Go to step 8.

NO—An open wire between the under-dash fuse/relay box and audio unit A17 terminal. ■

8. Measure the voltage between the audio unit connector A (17P) terminal No. 9 and body ground.

AUDIO UNIT CONNECTOR A (17P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Replace the audio unit. ■

NO—An open wire between the audio unit connector A (17P) terminal No. 9 and body ground (G504). ■

Volume does not change

NOTE: Set the fader and balance positions to the center.

1. Listen for sound from the speakers.

Is the sound normal?

YES—Go to step 2.

NO—Go to audio system sound is weak or distorted (see page 23-55), or no sound is heard from speakers (see page 23-43). ■

2. Operate the volume knob to see if the volume changes.

Does the volume change?

YES—Operation is normal. ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indication goes away, replace the original audio unit. If the symptom is still present, substitute a known-good audio panel and recheck. If the symptom/indication goes away, replace the original audio panel. ■



Volume does not increase with speed

1. Verify the (SVC) mode setting in the navigation or audio unit sound set-up.

Is the (SVC) set to off?

YES—Change the setting to “Mid” and reset (see page 23-8). ■

NO—Go to step 2.

2. Do the self-diagnostic function for the vehicle speed pulse indication (see page 23-32).

Does the self-diagnostic function indicate a VSP signal?

YES—Substitute a known-good navigation or audio unit and retest. If the symptom/indication goes away, replace the original navigation or audio unit. ■

NO—Go to step 3.

3. Check for B-CAN codes with the HDS.

Are there any gauge module B-CAN codes?

YES—Go to test mode A (see page 22-112). ■

NO—Go to step 4.

4. Inspect the VSP signal in the navigation system (see page 23-165). ■

Does the VSP change from 0 to 1 when the vehicle is moving?

YES—Substitute a known-good audio unit, then retest the VSP signal in the audio self-diagnostic test. If the speed is shown, replace the original audio unit. If so speed is shown, substitute a known-good navigation unit. ■

NO—Inspect the VSP circuit (see page 23-123). ■

Audio System

Symptom Troubleshooting (cont'd)

Volume is too high or too low when driving at freeway speeds

1. Test-drive the vehicle at highway speeds, and monitor volume level.

Is the volume level too high or too low?

YES—Go to step 2.

NO—Intermittent failure, the system is OK at this time. ■

2. Change the (SVC) mode setting in sound set-up to "Mid" (see page 23-8).

Is the volume level still too high, or too low?

YES—Replace the audio unit (see page 23-90). ■

NO—Improper (SVC) setting for clients sound taste. ■



Radio tuner does not change stations

1. Check the audio information on the display panel.

Does the audio information display properly?

YES—Go to step 2.

NO—Go to power switch will not turn ON (see page 23-41). ■

2. Operate the tuning knob to see if the radio station changes.

Does the radio station change?

YES—Intermittent failure, the turning knob is OK at this time. ■

NO—Replace the audio unit. ■

Display does not dim or brighten with dimmer

NOTE: Always check the connectors for poor connections or loose terminals.

1. Turn the ignition switch ON (II).
2. Turn the headlight switch to the parking or headlight on position.
3. Check the display of the climate control unit.

Does the climate control illumination change with dimmer?

YES—Go to step 4.

NO—Go to climate control power and ground circuit troubleshooting (see page 21-93). ■

4. Check the No. 7 (10 A) fuse and the No. 32 (10 A) fuse in the under-dash fuse/relay box.

Are the fuses OK?

YES—Go to step 5.

NO—Replace the fuse, and recheck. ■

5. Remove the audio unit (see page 23-90). Check that the audio unit and climate control unit connectors are properly connected.

Are they connected properly?

YES—Go to step 6.

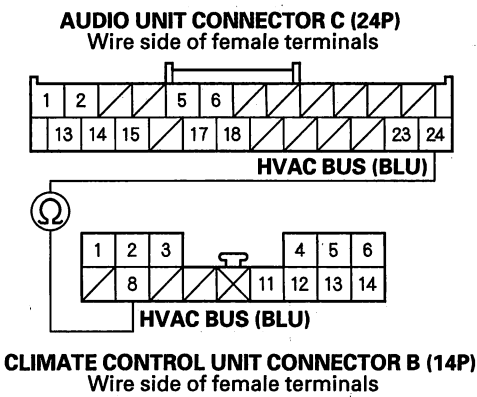
NO—Repair poor connections and reconnect the connector, and recheck the function. ■

(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

- 6. Turn the ignition switch OFF.
- 7. Disconnect audio unit connector C (24P) and climate control unit connector B (14P).
- 8. Check for continuity between the audio unit connector C (24P) No. 24 terminal and climate control unit connector B (14P) No. 8 terminal.

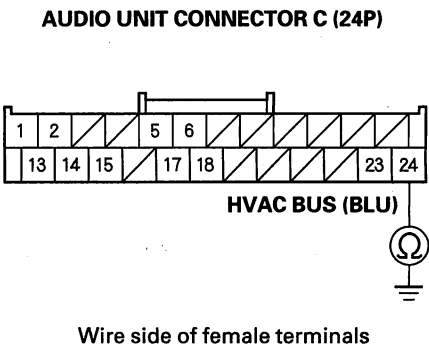


Is there continuity?

YES—Go to step 9.

NO—Repair open in the wire between the audio unit connector C (24P) No. 24 terminal and climate control unit connector B (14P) No. 8 terminal. ■

- 9. Check for continuity between the body ground and audio unit connector C (24P) No. 24 terminal.



Is there continuity?

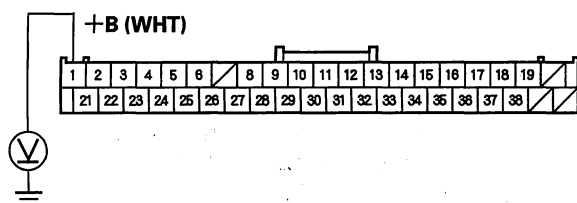
YES—Repair short to body ground in the wire(s) between the audio unit and climate control unit. ■

NO—Go to step 10.



10. Disconnect climate control unit connector A (40P).
11. Measure the voltage between No. 1 terminal of climate control unit connector A (40P) and body ground.

CLIMATE CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

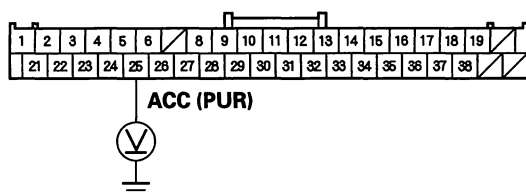
Is there battery voltage?

YES—Go to step 12.

NO—Repair open in the wire(s) between No. 7 (10 A) fuse in the under-dash fuse/relay box and the climate control unit. ■

12. Turn the ignition switch ON (II).
13. Measure the voltage between No. 25 terminal of climate control unit connector A (40P) and body ground.

CLIMATE CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

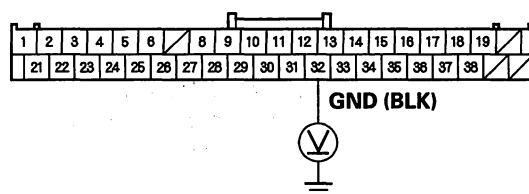
Is there battery voltage?

YES—Go to step 14.

NO—Repair open in the wire(s) between the 32 (10 A) fuse in the under-dash fuse/relay box and the climate control unit. ■

14. Turn the ignition switch OFF.
15. Reconnect the audio unit connector A (17P).
16. Turn the ignition switch ON (II).
17. Measure the voltage between climate control unit connector A (40P) terminal No. 37 and body ground.

CLIMATE CONTROL UNIT CONNECTOR A (40P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Substitute a known-good climate control unit, and recheck. If the symptom/indicated goes away, replace the original climate control unit. If the symptom is still present, substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. ■

NO—Repair open in the wire between the climate control unit connector A (40P) terminal No. 37 and body ground (G506) (see page 22-32). ■

Audio System

Symptom Troubleshooting (cont'd)

Audio unit button illumination does not work

NOTE: Always check the connectors for poor connections or loose terminals.

1. Turn the ignition switch to ON (II).
2. Turn the combination lighting switch to the parking light position.
3. Check the illumination of the audio unit buttons.

Are the buttons illuminated?

YES—All buttons illuminated: Intermittent problem: the audio unit is OK at this time. Check for loose or poor connections at the audio unit connector C (24P). ■

Some button(s) illuminated: Audio panel is faulty, replace the audio panel. ■

NO—Go to step 4.

4. Check the illumination of several other buttons not related to the audio system.

Are the buttons illuminated?

YES—Go to the B-CAN line troubleshooting (see page 23-227). If the B-CAN line is OK, substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good audio panel and recheck. If the symptom/indicated goes away, replace the original audio panel. ■

NO—Troubleshoot the interior lights. Start by checking the No. 22 (7.5 A) fuse in the under-hood fuse/relay box. If the fuse is OK, check the interior light relay.

Audio disc does not load

NOTE:

- Disc labels should not be used in the audio unit. They may damage the player mechanism.
- Make sure the CD disc is compatible with the system (see the owner's manual for more information).

1. Insert a known-good disc to see if the symptom can be duplicated.

Does the disc load?

YES—Operation is normal. If the disc loads normally, but will not play, go to audio disc does not play (see page 23-63). ■

NO—Go to step 2.

2. Insert another disc.

Does the disc load?

YES—The original disc is faulty. ■

NO—Replace the audio unit. ■



Audio disc does not eject

NOTE: Disc labels should not be used in the audio unit. They may damage the player mechanism.

1. Turn on the audio system.

Does the system turn on?

YES—Go to step 2.

NO—Go to power switch will not turn ON (see page 23-41). ■

2. Check to see if the disc ejects correctly with no binding by pushing the EJECT button.

Is it normal?

YES—Operation is normal. ■

NO—Replace the audio unit. ■

Special tools required

Diagnostics CD 07AAZ-SDBA100

Audio disc does not play

1. Try loading a disc.

Does the disc load?

YES—Go to step 2.

NO—Go to disc does not load (see page 23-62). ■

2. Insert another audio disc to see if the symptom can be duplicated.

Does the disc play?

YES—Operation is normal. ■

NO—Go to step 3.

3. Insert audio diagnostic CD (T/N 07AAZ-SDBA100) in the audio unit.

Does the disc play?

YES—The original disc is faulty or has an unreadable format. ■

NO—Replace the audio unit. ■

Audio System

Symptom Troubleshooting (cont'd)

Special tools required

- Diagnostics CD 07AAZ-SDBA100
- Skip test CD 07AAZ-SDBA200
- Skip test CD 07AAZ-SDBA300

Audio disc skips

1. Confirm the vehicle's tires are properly inflated.
2. Check the client's CD for scratches and fingerprints.

NOTE: The following test should be done with the audio unit bass and treble set to the client's listening settings. When comparing to known-good vehicles, do the comparison on the same model and trim level.

3. Test-drive to identify when the client's CD skips. The audio diagnostic CD (T/N 07AAZ-SDBA100) can be used if the client's CD is not available; use tracks 10—12.

Does the CD skip?

YES—Go to step 4.

NO—Operation is normal. ■

4. Compare the client's skipping CD to a known-good vehicle under the same conditions.

Does the CD skip in the known-good vehicle under the same conditions?

YES—The CD player operation is normal, the problem is with the client's CD. ■

NO—Go to step 5.

NOTE: Do the following test with vehicle parked and the engine running.

5. Insert the diagnostic skip test CD (T/N 07AAZ-SDBA300). Play tracks 2—11, and note on which number track(s) the CD starts skipping. Do the same test on a known-good vehicle.

Does the CD skip on same track(s) as the known-good vehicle?

YES—Operation is normal. ■

NO—Go to step 6.

6. Insert the diagnostic skip test CD (T/N 07AAZ-SDBA200). Play tracks 7—11 and tracks 13—15 and note on which number track(s) the CD starts skipping. Do the same test on a known-good vehicle.

Does the CD skip on same track(s) as the known-good vehicle?

YES—Operation is normal. ■

NO—Replace the audio unit. ■



Audio disc changer does not load all six discs

NOTE: Disc labels should not be used in the audio unit. They may damage the player mechanism.

1. Try loading six discs into the audio unit.

Does the audio unit accept all six discs?

YES—Intermittent failure, the audio unit is OK at this time. ■

NO—Go to step 2.

2. Try loading the disc player with six known-good discs.

Does the audio unit accept all six discs?

YES—At least one of the original discs is faulty. ■

NO—Replace the audio unit. ■

Audio disc changer does not move between discs

NOTE: Disc labels should not be used in the audio unit. They may damage the player mechanism.

1. Insert six discs into the audio unit and see if the changer moves between discs.

Does the changer operate normally?

YES—Intermittent failure, the disc changer is OK at this time. ■

NO—Go to step 2.

2. Insert six known-good disks into the audio unit.

Does the changer operate normally?

YES—At least one of the original discs is faulty. ■

NO—Replace the audio unit. ■

Audio System

Symptom Troubleshooting (cont'd)

Error code: XM NO SIGNAL or XM ANTENNA is displayed

NOTE:

- Check XM radio reception in an open area. Poor reception/interference can be caused by tall buildings, mountains, or high-voltage power lines.
- If you can only tune to channel 000,001,174 and 247, make sure the audio unit is set to channel mode (see owner's manual), if it is set to channel mode, call XM radio customer support and check the account activation status.
- If you replace the XM receiver, the Acuralink must be reactivated by Acura Client Services.

1. Park vehicle outside with a clear view of the southern horizon.

Does the XM radio receive a signal?

YES—Reception interference operation is normal. ■

NO—With AcuraLink: Go to step 2.
Without AcuraLink: Go to step 8.

2. Check XM antenna 2P connector and XM receiver (AcuraLink control unit) connector C (2P).

Are the connectors connected?

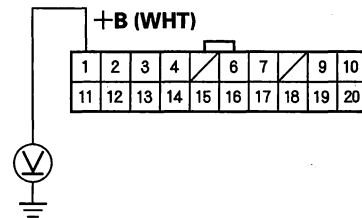
YES—Go to step 3.

NO—Reconnect XM antenna 2P connector and XM receiver (AcuraLink control unit) connector C (2P), recheck XM radio operation. If the signal is restored, operation is normal. If signal is not restored go to step 3.

3. Turn the ignition switch to OFF (0).

4. Measure the voltage between XM receiver (AcuraLink control unit) connector A (20P) No. 1 terminal and body ground.

XM RECEIVER (ACURALINK CONTROL UNIT) CONNECTOR A (20P)



Wire side of female terminals

Is there battery voltage?

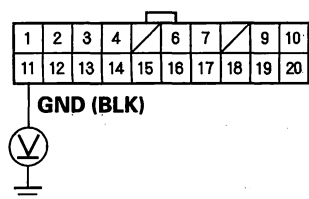
YES—Go to step 5.

NO—Repair open in the wire between No. 5 (10 A) fuse in the under-dash fuse/relay box and XM receiver (AcuraLink control unit) connector A (20P) No. 1 terminal. ■



5. Reconnect the XM receiver (AcuraLink control unit) connector A (20P).
6. Check the voltage between XM receiver (AcuraLink control unit) connector A (20P) No. 11 terminal and body ground.

**XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)**



Wire side of female terminals

Is there less than 0.1 V?

YES—Go to step 7.

NO—Repair open in the wire between XM receiver (AcuraLink control unit) connector A (20P) No. 11 terminal and body ground (G606) (see page 22-38). ■

7. Substitute known-good XM antenna.

Does the XM radio receiver a signal?

YES—Replace XM antenna (see page 23-98). ■

NO—Substitute a known-good XM antenna lead. If the XM receiver (AcuraLink control unit) receives a signal, replace the original XM antenna lead. If the XM receiver (AcuraLink control unit) does not receive a signal, substitute a known-good XM receiver (AcuraLink control unit). ■

8. Check XM antenna 2P connector and XM receiver connector B (2P).

Are the connectors connected?

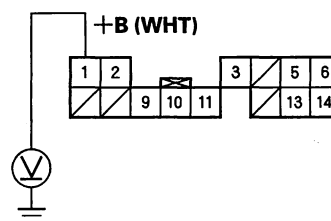
YES—Go to step 9.

NO—Reconnect XM antenna 2P connector and XM receiver connector B (2P), recheck XM radio operation. If the signal restored, operation is normal. If signal not restored go to step 3.

9. Turn the ignition switch to OFF (0).

10. Measure the voltage between XM receiver connector A (14P) No. 1 terminal and body ground.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there battery voltage?

YES—Go to step 11.

NO—Repair open in the wire between No. 5 (10 A) fuse in the under-dash fuse/relay box and XM receiver connector A (14P) No. 1 terminal. ■

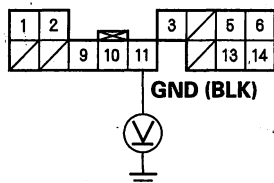
(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

11. Reconnect the XM receiver connector A (14P).
12. Measure the voltage between XM receiver connector A (14P) No. 11 terminal and body ground.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Go to step 13.

NO—Repair open in the wire between XM receiver connector A (14P) No. 11 terminal and body ground (G606) (see page 22-38). ■

13. Substitute known-good XM antenna.

Does the XM radio receiver a signal?

YES—Replace XM antenna (see page 23-98). ■

NO—Substitute a known-good XM antenna lead. If the XM receiver receives a signal, replace the original XM antenna lead. If the XM receiver does not receive a signal, substitute a known-good XM receiver unit. ■

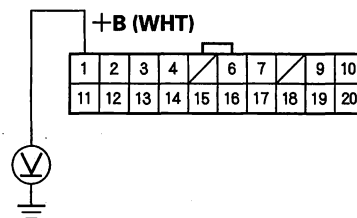
XM radio display is blank and no station information is displayed (with AcuraLink)

NOTE:

- Always check the connectors for poor connections or loose terminals.
- If you replace the XM receiver, the Acuralink must be reactivated by Acura Client Services.

1. Turn the ignition switch to LOCK (0).
2. Disconnect the XM receiver (AcuraLink control unit) connector A (20P).
3. Measure the voltage between XM receiver (AcuraLink control unit) connector A (20P) No. 1 terminal and body ground.

XM RECEIVER (ACURALINK CONTROL UNIT) CONNECTOR A (20P)



Wire side of female terminals

Is there battery voltage?

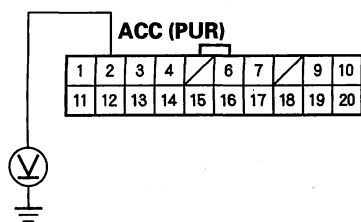
YES—Go to step 4.

NO—Repair open in the between No. 5 (10 A) fuse in the under-dash fuse/relay box and XM receiver (AcuraLink control unit) connector A (20P) No. 1 terminal. ■



4. Turn the ignition switch ON (II).
5. Measure the voltage between XM receiver (AcuraLink control unit) connector A (20P) No. 2 terminal and body ground.

**XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)**



Wire side of female terminals

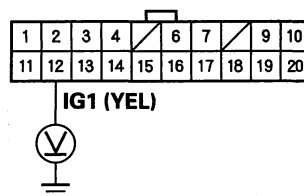
Is there battery voltage?

YES—Go to step 6.

NO—Repair open in the wire between No. 32 (10 A) fuse in the under-dash fuse/relay box and XM receiver (AcuraLink control unit) connector A (20P) No. 2 terminal. ■

6. Measure the voltage between XM receiver (AcuraLink control unit) connector A (20P) No. 12 terminal and body ground.

**XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)**



Wire side of female terminals

Is there battery voltage?

YES—Go to step 7.

NO—Repair open in the wire between No. 21 (10 A) fuse in the under-dash fuse/relay box and XM receiver (AcuraLink control unit) connector A (20P) No. 12 terminal. ■

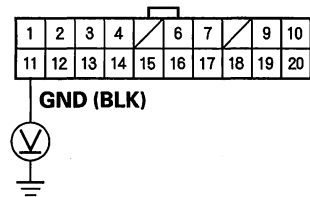
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Audio System

Symptom Troubleshooting (cont'd)

- 7. Reconnect the XM receiver (AcuraLink control unit) connector A (20P).
- 8. Measure the voltage between XM receiver (AcuraLink control unit) connector A (20P) No. 11 terminal and body ground.

XM RECEIVER (ACURALINK CONTROL UNIT) CONNECTOR A (20P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Go to step 9.

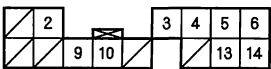
NO—Repair open in the wire between XM receiver (AcuraLink control unit) connector A (20P) No. 11 terminal and body ground (G606) (see page 22-38).

- 9. Disconnect audio unit connector D (14P), XM receiver (AcuraLink control unit) connector A (20P), navigation unit connector A (20P), and navigation display unit 20P connector.

- 10. Check for continuity between the following terminals of the audio unit connector D (14P) and XM receiver (AcuraLink control unit) connector A (20P).

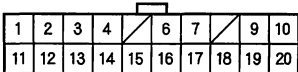
Audio unit connector	XM receiver (AcuraLink control unit) connector	Wire color
D3	A18	BRN
D9	A7	GRN
D10	A17	RED

AUDIO UNIT CONNECTOR D (14P)



Wire side of female terminals

XM RECEIVER (ACURALINK CONTROL UNIT) CONNECTOR A (20P)



Wire side of female terminals

Is there continuity?

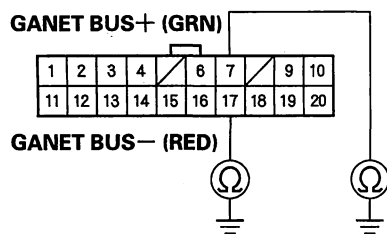
YES—Go to step 11.

NO—Repair open in the wire(s) between audio unit and XM receiver (AcuraLink control unit).



11. Check for continuity between body ground and XM receiver (AcuraLink control unit) connector A (20P) terminals No. 7 and 17 individually.

**XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)**



Wire side of female terminals

Is there continuity?

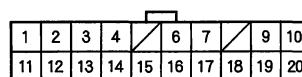
YES—Repair short to body ground in the wire(s) between the audio unit and XM receiver (AcuraLink control unit) or between the shield wires (replace the applicable shield harness). ■

NO—Go to step 12.

12. Check for continuity between the terminal of XM receiver (AcuraLink control unit) connector A (20P) according to the cable.

From terminal	To terminals
A7	A17, A18
A17	A18

**XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)**



Wire side of female terminals

Is there continuity between any of the terminals?

YES—Repair short in the wire(s) between the audio unit and XM receiver (AcuraLink control unit) (replace the appropriate shield harness). ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good XM receiver (AcuraLink control unit) and recheck. If the symptom indicated goes away, replace the original XM receiver (AcuraLink control unit). ■

Audio System

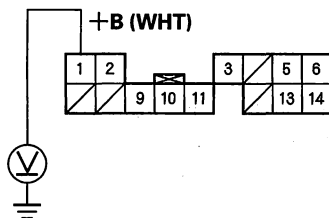
Symptom Troubleshooting (cont'd)

XM radio display is blank and no station information is displayed (Without AcuraLink)

NOTE: If you can only tune to channel 000, 001, 174, and 247, make sure the audio unit is set to channel mode (see the owner's manual). If it is set to channel mode, call XM radio customer support and check the account activation status.

1. Turn the ignition switch to ACC (I).
2. Disconnect XM receiver connector A(14P).
3. Measure the voltage between XM receiver connector A (14P) No. 1 terminal and body ground.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

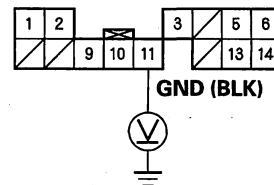
Is there battery voltage?

YES—Go to Step 4.

NO—Repair open in the wire between No. 5 (10 A) fuse in the under-dash fuse/relay box and XM receiver connector A (14P) No. 1 terminal. ■

4. Measure the voltage between XM receiver connector A (14P) No. 11 terminal and body ground.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

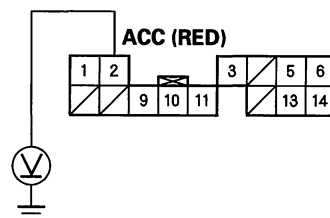
Is there less than 0.1V?

YES—Go to Step 5.

NO—Repair open in the wire between XM receiver connector A (14P) No. 11 terminal and body ground (G606) (see page 22-38). ■

5. Turn the ignition switch OFF.
6. Reconnect XM receiver connector A (14P).
7. Measure the voltage between XM receiver connector A (14P) No. 2 terminal and body ground.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there 10 volts or more present?

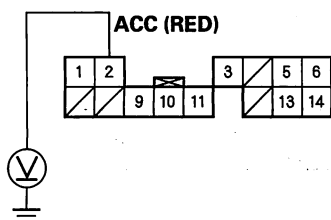
YES—Go to step 8.

NO—Substitute a known- good XM receiver and recheck. If 10 volts or more are present, replace the original XM receiver (see page 23-96). ■



8. Turn the ignition switch ON (II).
9. Measure the voltage between XM receiver connector A (14P) No. 2 terminal and body ground.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there less than 0.5V?

YES—Go to step 10.

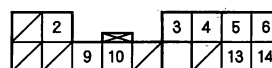
NO—Substitute a known- good audio unit and recheck. If 0.5 volts or less are present, replace the original audio unit (see page 23-90). ■

10. Turn the ignition switch to LOCK(0).
11. Disconnect audio unit connector D(14P), XM receiver connector A (14P), navigation unit connector A (20P), and navigation display unit 20P connector.

12. Check for continuity between the following terminals of the audio unit connector D (14P) and XM receiver A (14P).

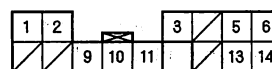
Audio unit connector	XM Receiver connector	Wire color
D3	A3	BRN
D9	A9	GRN
D10	A10	RED

AUDIO UNIT CONNECTOR D (14P)



Wire side of female terminals

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there continuity?

YES—Go to step 13.

NO—Repair open in the wire(s) between audio unit and XM receiver. ■

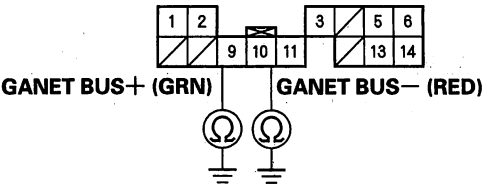
(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

13. Check for continuity between body ground and XM receiver connector A (14P) terminals No. 9 and 10 individually.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there continuity?

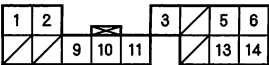
YES—Repair short to body ground in the wire(s) between the audio unit and XM receiver or a short between the shield wires (replace the applicable shielded harness). ■

NO—Go to Step 14.

14. Check for continuity between the terminals of XM receiver connector A(14P) according to the cable.

From terminal	To terminals
D3	A9, A10
A9	A10

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there continuity between any of the terminals?

YES—Repair short in the wire(s) between the audio unit and XM receiver (replace the appropriate shield harness). ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good XM receiver and recheck. If the symptom/indicated goes away, replace the original XM receiver. ■



XM radio preset memory is lost (with AcuraLink)

NOTE:

- Always check the connectors for poor connections or loose terminals.
- If you can only tune to channel 000, 001, 174, and 247, make sure the audio unit is set to channel mode (see owners manual), if it is set to channel mode, call XM Satellite Radio customer support and check the account activation status.
- If you replace the XM receiver, the AcuraLink must be reactivated by Acura Client Services.

1. Set each of the XM radio channel preset buttons.

Do each of the XM radio channel preset buttons set properly?

YES—Go to step 2.

NO—Go to Step 6.

2. Turn the ignition switch OFF for 1 minute, then turn it back to ON (II).

3. Test all of the XM radio channel preset buttons for proper recall operation.

Do the preset buttons recall the set radio stations?

YES—System is normal at this time. Check connections at the audio unit. ■

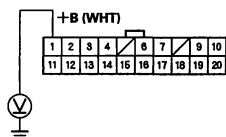
NO—Go to step 4.

4. Turn the ignition switch to LOCK (0).

5. Disconnect XM receiver (AcuraLink control unit) connector A (20P).

6. Measure the voltage between XM receiver (AcuraLink control unit) connector A (20P) terminal No. 1 and body ground.

XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)



Is there battery voltage?

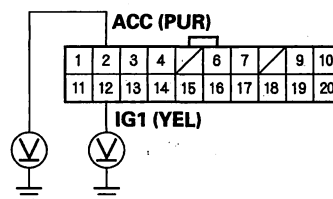
YES—Go to Step 7.

NO—Repair open in the wire between the under-dash fuse/relay box and XM receiver (AcuraLink control unit) connector A (20P) terminal No. 1. ■

7. Turn the ignition switch ON (II).

8. Measure the voltage between XM receiver (AcuraLink control unit) connector A (20P) terminals No. 2, and No. 12 and body ground individually.

XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)



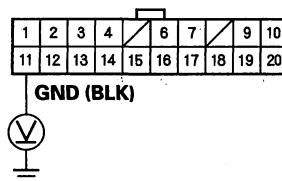
Is there battery voltage?

YES—Go to Step 9.

NO—Repair open in the wire between the under-dash fuse-relay box and XM receiver (AcuraLink control unit) connector A (20P) terminals No. 2 and No. 12. ■

9. Reconnect XM receiver (AcuraLink control unit) connector A (20P).
10. Measure the voltage between XM receiver (AcuraLink control unit) connector A (20P) terminal No. 11 and body ground.

XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)



Is there less than 0.1 V?

YES—Replace the XM receiver (AcuraLink control unit). ■

NO—Repair open in the wire between XM receiver (AcuraLink control unit) connector A (20P) terminals No. 11 and body ground (G606) (see page 22-38). ■

Symptom Troubleshooting (cont'd)

XM radio preset memory is lost (without AcuraLink)

NOTE:

- Always check the connectors for poor connections or loose terminals.
- If you can only tune to channel 000, 001, 174, and 247, make sure the audio unit is set to channel mode (see owners manual), if it is set to channel mode, call XM Satellite Radio customer support and check the account activation status.
- If you replace the XM receiver, the AcuraLink must be reactivated by Acura Client Services.

1. Set each of the XM radio channel preset buttons.

Do each of the XM radio channel preset buttons set properly?

YES—Go to step 2.

NO—Go to Step 6.

2. Turn the ignition switch OFF for 1 minute, then turn it back to ON (II).

3. Test all of the XM radio channel preset buttons for proper recall operation.

Do the preset buttons recall the set radio stations?

YES—System is normal at this time. Check connections at the audio unit. ■

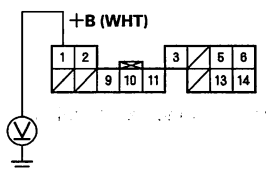
NO—Go to step 4.

4. Turn the ignition switch to LOCK (0).

5. Disconnect XM receiver connector A (14P).

6. Measure the voltage between XM receiver connector A (14P) terminal No. 1 and body ground.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there battery voltage?

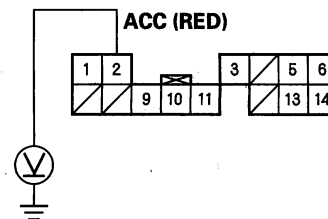
YES—Go to Step 7.

NO—Repair open in the wire between the under-dash fuse/relay box and XM receiver connector A (14P) terminal No. 1. ■

7. Turn the ignition switch ON (II).

8. Measure the voltage between XM receiver connector A (14P) terminal No. 2, and body ground individually.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there battery voltage?

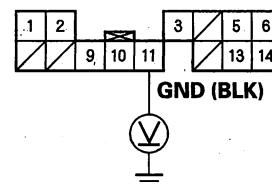
YES—Go to Step 9.

NO—Repair open in the wire between the under-dash fuse-relay box and XM receiver connector A (14P) terminal No. 2. ■

9. Reconnect XM receiver connector A (14P).

10. Measure the voltage between XM receiver connector A (14P) terminal No. 11 and body ground.

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Replace the XM receiver. ■

NO—Repair open in the wire between XM receiver connector A (14P) terminals No. 11 and body ground (G606) (see page 22-38). ■



Poor or no sound with XM radio (Audio unit does display XM channels)

NOTE:

- Check the XM radio reception in an open area. Poor reception/interference can be caused by nearby tall buildings, mountains, or high-voltage power lines.
- Always check the connectors for poor connections or loose terminals.
- If you can only tune to channel 000, 001, 174, and 247, make sure the audio unit is set to channel mode (see owners manual), if it is set to channel mode, call XM Satellite Radio customer support and check the account activation status.
- If you replace the XM receiver, the AcuraLink must be reactivated by Acura Client Services.

1. Turn the ignition switch to ACC (I).
2. Turn on the audio unit and select XM radio.
3. Check for an error message on the display.

Are there any messages displayed?

YES—Go to error code list (see page 23-37). ■

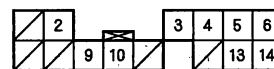
NO—

- With AcuraLink: Go to step 4.
- Without AcuraLink: Go to step 8.

4. Disconnect audio unit connector D (14P) and the XM receiver (AcuraLink control unit) connector A (20P).
5. Check for continuity between audio unit connector D (14P) and XM receiver (AcuraLink control unit) connector A (20P) according to the table.

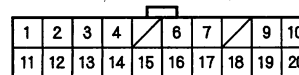
Audio unit connector	XM Receiver (AcuraLink control unit) connector	Wire color
D6	A9	BLK
D14	A19	GRN
D5	A10	RED
D13	A20	WHT

AUDIO UNIT CONNECTOR D (14P)



Wire side of female terminals

XM RECEIVER (ACURALINK CONTROL UNIT) CONNECTOR A(20P)



Wire side of female terminals

Is there continuity?

YES—Go to Step 6.

NO—Repair open in the wire(s) between the audio unit and XM receiver (AcuraLink control unit) or replace the appropriate shielded harness. ■

(cont'd)

Audio System

Symptom Troubleshooting (cont'd)

6. Check for continuity to body ground between the terminals of XM receiver (AcuLink control unit) connector A(20P) and body ground according to the table. Then check for continuity between the same terminals listed in the table and the audio unit connector D (14P) No. 4 terminal (the harness shield).

XM Receiver (AcuLink control unit) connector	Wire color
A9	BLK
A10	RED
A19	GRN
A20	WHT

**XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)**

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

AUDIO UNIT CONNECTOR D (14P)

1	2	3	4	5	6
7	8	9	10	11	12

Wire side of female terminals

Is there continuity?

YES—Replace the shielded wires between the audio unit and XM receiver (AcuLink control unit). ■

NO—Go to Step 7.

7. Check for continuity between the terminals of XM receiver (AcuLink control unit) connector A(20P) according to the cable.

From terminal	To terminals
A9	A10, A19, A20
A10	A19, A20
A19	A20

**XM RECEIVER (ACURALINK CONTROL UNIT)
CONNECTOR A (20P)**

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

Is there continuity between any of the terminals?

YES—Repair short in the wire(s) between the audio unit and XM receiver (AcuLink control unit). ■

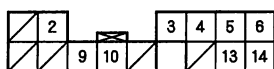
NO—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good XM receiver (AcuLink control unit) and recheck. If the symptom/indication goes away, replace the original XM receiver (AcuLink control unit). ■



8. Check for continuity between audio unit connector D (14P) and XM receiver connector A (14P) according to the table.

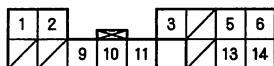
Audio unit connector	XM receiver connector	Wire color
D6	A6	BLK
D14	A14	GRN
D5	A5	RED
D13	A13	WHT

AUDIO UNIT CONNECTOR D (14P)



Wire side of female terminals

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there continuity?

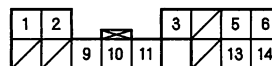
YES—Go to Step 6.

NO—Repair open in the wire(s) between the audio unit and XM receiver. ■

9. Check for continuity between XM receiver connector A(14P) and body ground according to the table. Then check for continuity between the same terminals listed in the table and the audio unit connector D (14P) No. 4 terminal (the harness shield).

XM receiver connector	Wire color
A5	RED
A6	BLK
A13	WHT
A14	GRN

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there continuity?

YES—Repair short to body ground in the wire(s) between the audio unit and XM receiver or a short between the shield wires (replace the applicable shielded harness). ■

NO—Go to Step 10.

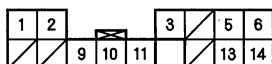
(cont'd)

Symptom Troubleshooting (cont'd)

10. Check for continuity between the terminals of XM receiver connector A(14P) according to the cable.

From terminal	To terminals
A5	A6, A13, A14
A6	A13, A14
A13	A14

XM RECEIVER CONNECTOR A (14P)



Wire side of female terminals

Is there continuity between any of the terminals?

YES—Repair short in the wire(s) between the audio unit and XM receiver. ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good XM receiver and recheck. If the symptom/indication goes away, replace the original XM receiver. ■

Audio remote switch does not work properly

NOTE: Always check the connectors for poor connections or loose terminals.

1. Test the audio remote switch (see page 23-97).

Is the audio remote switch OK?

YES—Intermittent failure, the audio remote switch and audio unit are OK at this time. ■

NO—Go to step 2.

2. Check the audio unit operation (volume up, volume down, CH (—), CH (+), MODE).

Is the audio unit operation OK?

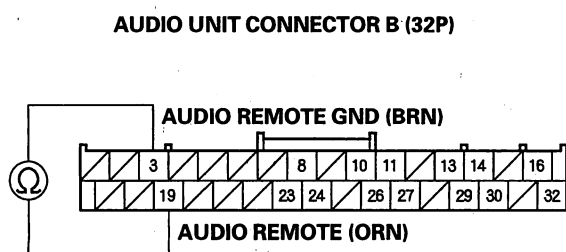
YES—Operation is normal. ■

NO—Go to step 3.

3. Remove the audio unit (see page 23-90).
4. Disconnect the audio unit connector B (32P).



5. Reconnect the audio remote switch. While moving the steering wheel about 3/4 turn left and right, measure the resistance between the audio unit connector B (32P) No. 3 and No. 19 terminals as specified in the table.



Wire side of female terminals

AUDIO REMOTE SWITCH TABLE

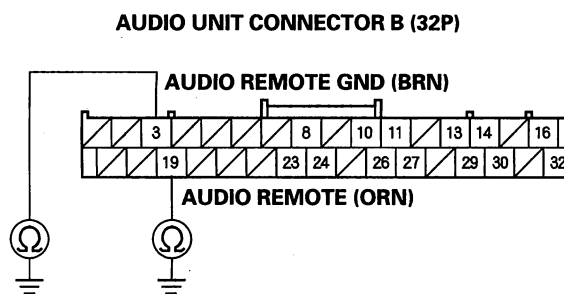
Button held down	VOL DOWN	VOL UP	CH (-)	CH (+)	MODE	(NONE)
Resistance	about 100 Ω	about 370 Ω	about 840 Ω	about 2 k Ω	about 4 k Ω	10 k Ω

Is the resistance OK?

YES—Go to step 6.

NO—Repair open or high resistance in the circuit between the audio unit and the audio remote switch. If the wires are OK, replace the cable reel (see page 24-154). ■

6. Check for continuity between body ground and the No. 3 and No. 19 terminals of audio unit connector B (32P) individually.



Wire side of female terminals

Is there continuity?

YES—Repair the short to body ground in the circuit between the audio unit and the audio remote switch. If the wires are OK, replace the cable reel (see page 24-149). ■

NO—Replace the audio unit (see page 23-90). ■

Audio System

Symptom Troubleshooting (cont'd)

Audio unit button does not work

NOTE: In order to troubleshoot the main power switch, go to "Power switch will not turn on" (see page 23-41).

1. Refer to the following switch list, and find the appropriate switch for each button. Then perform the following exercise to identify the switch that does not work by operating various buttons which only belong to that switch.

Switch list

Switch A: AM/FM, XM, 6DDISC, AUX, DISP, SCAN, RPT, ASEL/RDM, SEEK $\pm$, DVD, REAR PWR, FRONT SOURCE, REAR SOURCE, REAR CTRL, ELECT, ROAD, PWR, SOUND, 1-6

Switch B: INFO, MAP/GUIDE, MENU, CANCEL, SET UP, AUDIO, interface dial, display

2. Check to see if the buttons that do not function all belong to switch A.

Are they all switch A's?

YES—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good audio panel and recheck. If the symptom/indication goes away, replace the original audio panel. ■

NO—Go to Step 3.

3. Check to see if the buttons that do not function belong to switch B.

Are they switch B's?

YES—Faulty audio-HVAC display panel and audio unit. Replace the audio-HVAC display module. ■

NO—Check the connections between the interface dial and audio panel, and recheck the function. If the symptom is still present, substitute a known-good audio unit and recheck. If the symptom/indication goes away, replace the original audio unit. If the symptom is still present, substitute a known-good audio panel and recheck. If the symptom/indication goes away, replace the original audio panel. ■



Audio unit disc indicator does not work

NOTE: Disc with labels should not be used in the audio unit. They may damage the player mechanism.

1. Turn on the audio system.
2. Insert a known-good disc or press the EJECT button.

Is the DISC indicator (LED) indicated?

YES—The audio unit is OK at this time. Check for loose or poor connections at audio unit and audio panel. ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indication goes away, replace the original audio unit. If the symptom is still present, substitute a known-good audio panel and recheck. If the symptom/indication goes away, replace the original audio panel. ■

Security indicator does not work properly

NOTE:

- The system will not operate without the 4-digit security (anti-theft) code.
- Before troubleshooting, confirm that a 4-digit security (anti-theft) code is recorded.

1. Turn off the audio system.

Is the security indicator (LED) light on (blink)?

YES—Go to Step 2.

NO—Substitute a known-good audio unit and recheck. If the symptom/indication goes away, replace the original audio unit. If the symptom is still present, substitute a known-good audio panel and recheck. If the symptom/indication goes away, replace the original audio panel. ■

2. Turn on the audio system.

Is the security indicator (LED) light out?

YES—The audio unit is OK at this time. Check for loose or poor connections at audio unit and audio panel. ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indication goes away, replace the original audio unit. If the symptom is still present, substitute a known-good audio panel and recheck. If the symptom/indication goes away, replace the original audio panel. ■

Audio System

Sound Quality Diagnosis

Special tools required

Diagnostics CD 07AAZ-SDBA100

Use the following tests to check sound quality.

NOTE: Before beginning the following tests, write down the client's bass, treble, fader and balance settings, then set them to their center positions for the testing.

Left/Right Channel ID

Do this test to confirm proper channel routing.

1. Insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit.
2. Play track No. 1 (left, both, right channel ID) at a normal, or slightly higher than normal, volume level.
3. The voice should be audible only from the channel or channels when indicated.
 - If the channel ID is correct for each side, go to phase test.
 - If the channel ID is not correct, check for
 - Shorted speaker wire
 - Faulty amplifier
 - Faulty audio unit

Special tools required

Diagnostics CD 07AAZ-SDBA100

Use the following tests to check sound quality.

NOTE: Before beginning the following tests, write down the client's bass, treble, fader and balance settings, then set them to their center positions for the testing.

Phase Test

Do this test to confirm proper speaker phasing.

1. Insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit.
2. Play track No. 2 (phase) at a normal, or slightly higher than normal, volume level.
3. The voice should sound centered and focused when it is in-phase.
4. The voice should sound diffused, and have "less base" when it is out of phase.
 - If the voice changes from in-phase to out of phase as indicated by the prompt, the phasing is correct. Go to electrical noise test (see page 23-85).
 - If the voice always sounds out of phase, phasing is not correct. Check for
 - Crossed speaker wire
 - Faulty amplifier
 - Faulty audio unit



Special tools required

Diagnostics CD 07AAZ-SDBA100

Electrical Noise Test

Do this test to check for electrical noise being induced into the audio system.

NOTE: Electrical noise may be caused by outside sources that cannot be handled by the audio system. Make sure you remove any cell phones and/or turn off any aftermarket devices before beginning this test.

1. Insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit.
2. Play track No. 4 (digital zero) at a normal, or slightly higher than normal, volume level.
3. Operate any electrical device that may create electrical noise in the audio system, including starting the engine.
4. Play track No. 5 (near digital zero) at a normal, or slightly higher than normal, volume level.
5. Operate any electrical device that may create electrical noise in the audio system, including starting the engine.
6. Play track No. 6 (SNR) at a normal, or slightly higher than normal, volume level.

7. Operate any electrical device that may create electrical noise in the audio system, including starting the engine.

- If no abnormal noise is heard, go to the individual speaker test (see page 23-86).
- If the noise is present only during the SNR track, replace the audio unit.
- If the noise is heard during the digital zero or near digital zero track, check for
 - Poor ground at the audio unit, amplifier, engine, or battery cable
 - Pinched or shorted speaker or amplifier wire
 - Faulty amplifier
 - Faulty audio unit
 - Other faulty components causing excessive electrical noise (ignition coils, alternator, door lock actuators, etc.). Disconnect any suspect components, and then replay the tracks that were originally noisy. If the noise is gone, check the component's circuit and the component.

Audio System

Sound Quality Diagnosis (cont'd)

Special tools required

Diagnostics CD 07AAZ-SDBA100

Individual Speaker Test

Do this test to identify a faulty speaker.

1. Insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit.
2. Play track No. 30 (steady 300 Hz tone) at a normal, or slightly higher than normal, volume level.
3. Listen to each speaker for poor sound compared to the other channels. Use the audio unit's fader and balance settings to help isolate the channel with the problem.
 - If the sound quality produced by a specific speaker is poor, substitute it with a known-good speaker. If the poor sound quality continues, go to the sound balance test (see page 23-86).
 - If the sound quality is OK, go to the sound balance test (see page 23-86).

Special tools required

Diagnostics CD 07AAZ-SDBA100

Sound Balance Test

Perform this test to identify a faulty channel or speaker.

1. Insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit.
2. Confirm the bass and treble are set to the center positions.
3. Play track No. 3 (pink noise) at a normal, or slightly higher than normal, volume level.
4. A "static" type sound should be heard through all speakers.
5. Insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit of a known-good vehicle.
6. Set the bass and treble to the center positions.
7. Play track No. 3 (pink noise) all the same level as was played in step 3.
8. Compare the sounds made by the two vehicles.
 - If the sound does not have as much bass, check the subwoofer and circuit.
 - If the sound does not have enough "hiss," check the tweeters and their circuits.



Special Tools Required

Diagnostics CD 07AAZ-SDBA100

Frequency Sweep

Do this test to find rattles or reverberations that may cause a perception of poor sound quality.

1. Insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit.
2. Play track No. 13 (sweep from 500 Hz to 35 Hz) at a normal, or slightly higher than normal, volume level.
3. Listen to each speaker for poor sound quality or reverberations caused by specific frequencies. Use the voice-over to estimate the frequency that causes the vibration. Use the audio unit's fader and balance settings to help isolate the channel with the problem.
 - If vibrations or poor sound quality are heard, go to step 4.
 - If no vibrations or poor sound quality are heard, go to sound judging (see page 23-87).
4. Choose the appropriate track from No. 14 to 25 (small range frequency sweep) or 26 to 53 (single frequencies) to recreate the frequency that caused the poor sound quality or vibration witnessed in step 3; this aids in diagnosis of the cause.

NOTE: When you get to the track that recreates the problem, select the repeat function on the audio unit, this will help you isolate the cause.

5. Replace or insulate the source of the vibration or, if the speaker is the source of the poor sound quality, replace it.

Special tools required

Diagnostics CD 07AAZ-SDBA100

Sound Judging

Do this test to compare overall sound quality, imaging, and dynamics between the client's vehicle and a known-good vehicle. Only use a vehicle of the same model and trim level for this test.

1. In the client's vehicle, set the bass, treble, fader, and balance settings to the client's normal settings that were written down before beginning the test.
2. Insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit.
3. Play tracks No. 7 to 12 (sound quality, midland, dynamics, and imaging demonstration tracks) at a normal, or slightly higher than normal, volume level. Write down the volume setting being used.
4. Listen to areas of the track that stand out as being either very clear or poorer than other areas of the track.
5. In a known-good vehicle, insert the audio diagnostic CD (T/N 07AAZ-SDBA100) into the audio unit.
6. Play the tracks at the same volume level and the same bass, treble, balance, and fader settings as used in step 3 in the client's vehicle.
7. Listen to the same area of the track that stood out as being either very clear or poorer than other areas of the track.

(cont'd)

Audio System

Sound Quality Diagnosis (cont'd)

8. Compare the client's vehicle's sound quality results the known-good vehicle's results.

- If the sound quality in the client's vehicle is comparable to the sound quality in the known-good vehicle, then the client's vehicle is operating as designed.
- If the sound quality is not comparable, check these items in order.
 - Loose or improperly installed speakers or other hardware that may create interference from the vibrations generated by the speakers
 - Poor power or ground to the stereo amplifier
 - Damaged speaker(s)
 - Faulty amplifier
 - Faulty audio unit

Seek Stop Test

Do this test to check the performance of the audio unit's AM and FM reception. Refer to symptom troubleshooting: audio sound weak or distorted, or no sound is heard from speakers (display is normal) (see page 23-43) before continuing with this test.

NOTE:

- Window tint, aftermarket theft-recovery devices and other aftermarket devices may affect reception.
 - Changes in cloud cover and other atmospheric conditions will affect the ability of the audio unit to receive radio signals.
1. Park the client's vehicle in an open area away from buildings or other obstructions.
 2. Park a known-good vehicle (same year, model, and trim level) next to the client's vehicle, facing the same direction.
 3. Start the engine in the client's vehicle, and turn on the radio.
 4. Set the FM receiver to 87.7 MHz.
 5. Press the "Seek +" button, and record the first station that the audio unit locks onto.
 6. Press the "Seek +" button repeatedly, and write down each station that the audio unit locks onto until the station recorded in step 5 is reached again.
 7. Set the AM receiver to 530 kHz.
 8. Press the "Seek +" button, and record the first station that the audio unit locks onto.
 9. Press the "Seek +" button repeatedly, and write down each station that the audio unit locks onto until the station recorded in step 8 is reached again.



10. Turn the ignition switch to LOCK (0).
11. Start the engine in the known-good vehicle, and then perform steps 4 thru 10 on the known-good vehicle.
12. Compare the number of stations received in steps 6 and 9 in the client's vehicle with the number of stations received in the known-good vehicle.
 - If the number of stations received is the same, or within 10 %, the audio unit's tuner performance is OK. The problem may be atmospheric conditions, multi-path interference, or other obstructions to the radio signal.
 - If the client's vehicle receives fewer stations by at least 10 %, go to step 2 of poor radio reception or interference (see page 23-38).

Audio System

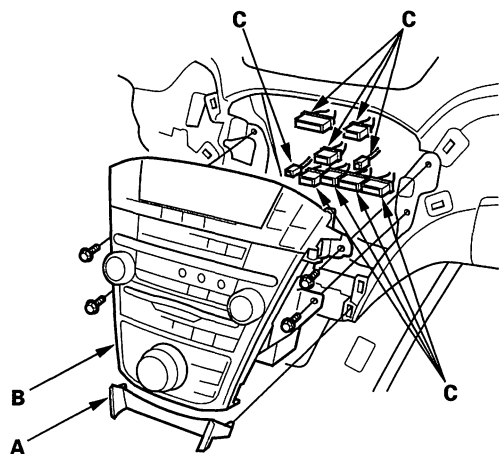
Audio Unit Removal/Installation

SRS components are located in this area. Review the SRS component locations (see page 24-18), and the precautions and procedures (see page 24-20) before performing repairs or service.

NOTE:

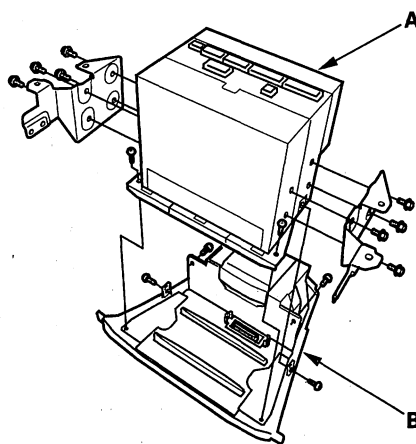
- Put on gloves to protect your hands.
- Take care not to scratch the dashboard and related parts.
- Lay a workshop towel under the parts when working on them to protect the face panel from scratches or other damage.

1. Make sure you have anti-theft codes for the audio system.
2. Remove the driver's inner dashboard trim (see page 20-118), and front passenger's dashboard trim (see page 20-123).
3. Remove the console lower trim panel (A) and the self tapping screws, then pull out the audio unit (B).



4. Disconnect the connectors (C), then remove the audio unit.
5. Remove the climate control unit (see page 21-114).

6. Remove the screws and the audio unit (A) from the audio panel (B).



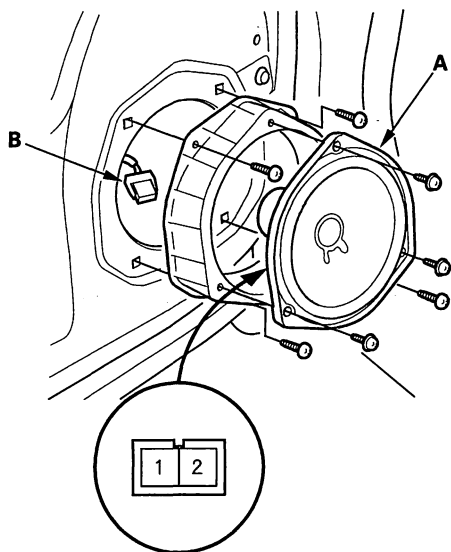
7. Install the audio unit in the reverse order of removal, and note these items:
 - Make sure all the connectors and the antenna lead are secure.
 - Enter the anti-theft codes for the audio system, and set the clock.
 - If necessary, enter the navigation system code.



Speaker Test/Replacement

Door Speaker

1. Remove the door panel.
 - Front: (see page 20-8)
 - Rear: (see page 20-22)
2. Remove the three mounting screws from the speaker (A).



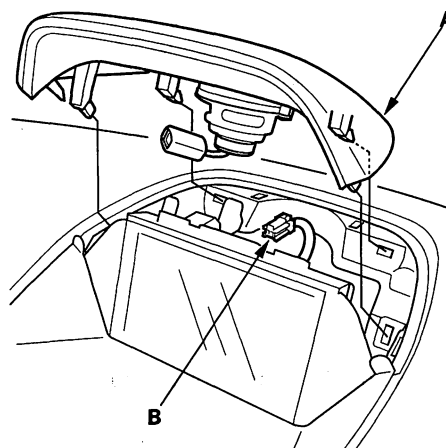
3. Disconnect the 2P connector (B), and remove the speaker.
4. Measure the resistance between the No. 1 and No. 2 terminals there should be about 2 Ω .
5. If the resistance is not as specified, replace the door speaker.

Center Speaker

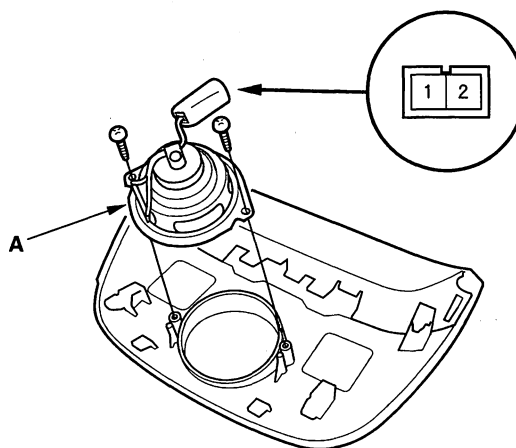
NOTE:

- Put on gloves to protect your hands.
- Take care not scratch the dashboard.

1. Remove the dashboard upper visor (A).



2. Disconnect the 2P connector (B).
3. Remove the screws and the speaker (A).



4. Measure the resistance between No. 1 and No. 2 terminals there should be about 4 Ω .
5. If the resistance is not as specified, replace the front center speaker.

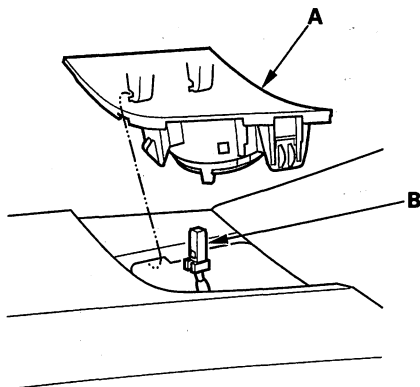
(cont'd)

Audio System

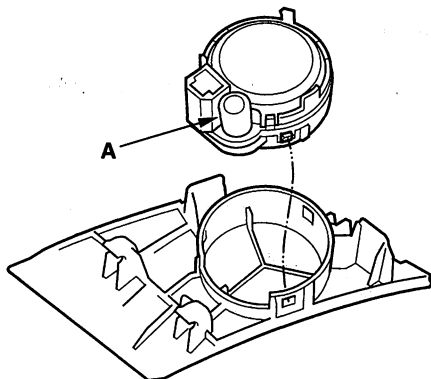
Speaker Test/Replacement (cont'd)

Tweeter

1. Carefully pry the tweeter grille (A) out of the dashboard. Be careful not to damage the tweeter grille and the dashboard.



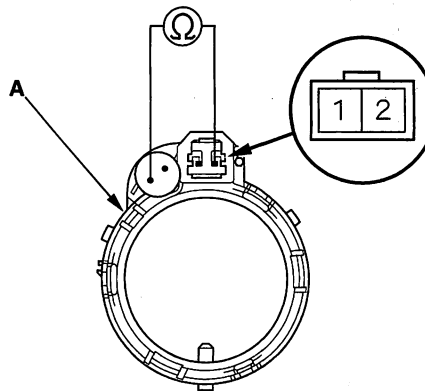
2. Disconnect the 2P connector (B) from the tweeter.
3. Remove the tweeter speaker from the speaker grille.



4. Check the capacitor (A) condition. If any malfunction is found, replace the tweeter.

5. Measure the resistance between the tweeter (A) terminal No. 2 and the outside terminal of the capacitor.

There should be about 6 Ω .

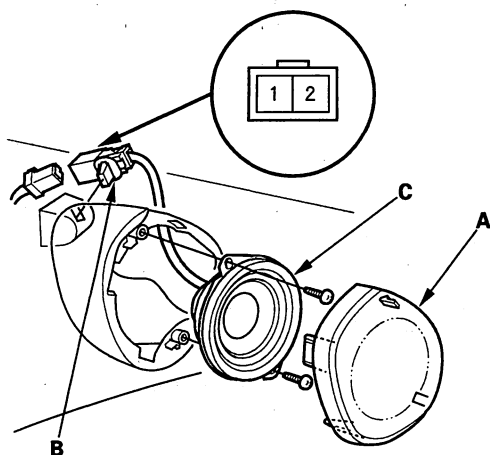


6. If the resistance is not as specified, replace the tweeter.



Satellite Speaker

1. Remove the quarter pillar trim (see page 20-85).
2. Remove the speaker grille (A) and connector clip (B).

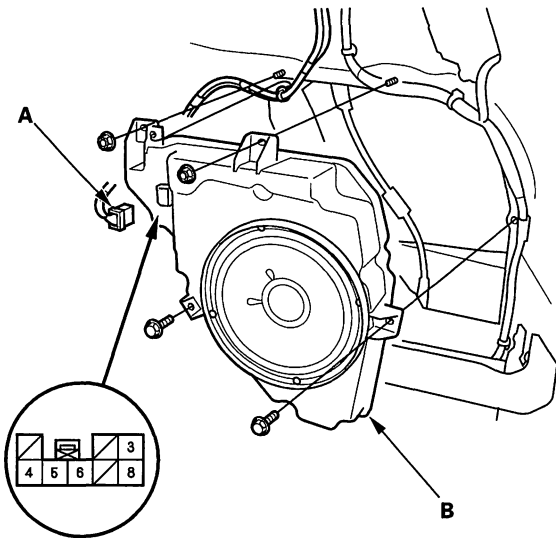


3. Remove the screws and the satellite speaker (C).
4. Measure the resistance between the No. 1 and No. 2 terminals there should be about 4 Ω .
5. If the resistance is not as specified, replace the satellite speaker.

Speaker Test/Replacement (cont'd)

Subwoofer/amplifier unit (With navigation)

- 1. Remove the right rear side trim panel (see page 20-92).
- 2. Disconnect the 8P connector (A), then remove the bolts, nuts and pull out the subwoofer (B).



Input Test

- 1. With the connector still disconnected, make the input tests at the connector according to the table.

Terminal	Test
5	Measure the voltage to ground with all conditions: There should be battery voltage.
6	Measure the voltage to ground with audio power switch ON: There should be battery voltage.

- 2. Reconnect the connector to the subwoofer/ amplifier unit, and make the input test at the connector according to the table.

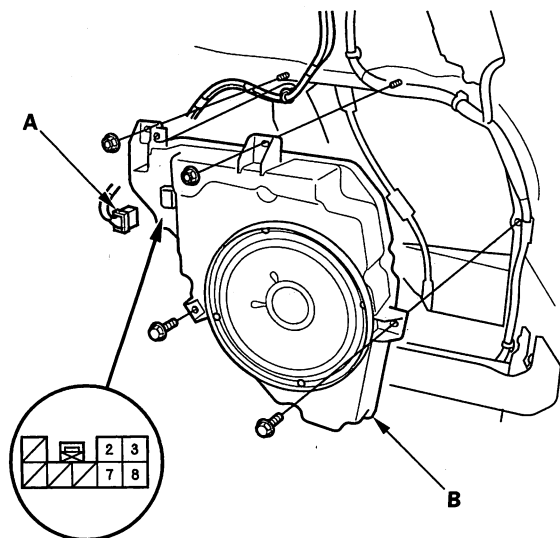
Terminal	Test
4	Measure the voltage to ground with all conditions: There should be less than 1 V.

- 3. If the input test proves OK and the subwoofer has no sound, replace the faulty subwoofer/amplifier unit.



Subwoofer (Without navigation)

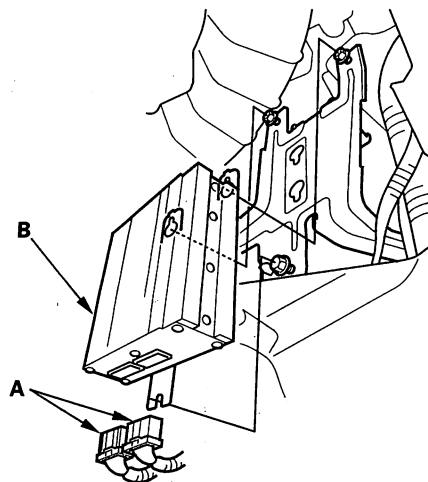
1. Remove the right rear side trim panel (see page 20-92).
2. Disconnect the 8P connector (A), then remove the bolts, nuts and pull out the subwoofer (B).



3. Measure the resistance between the No. 2 and No. 7 terminals and No. 3 and No. 8 there should be about 2 Ω .
4. If the resistance is not as specified, replace the subwoofer.

Stereo Amplifier Removal/Installation

1. Remove the glove box (see page 20-125) and passenger's dashboard under cover (see page 20-127).
2. Disconnect the connectors (A).



3. Loosen the bolts, then pull out the stereo amplifier (B).
4. Install the stereo amplifier in the reverse order of removal.

Audio System

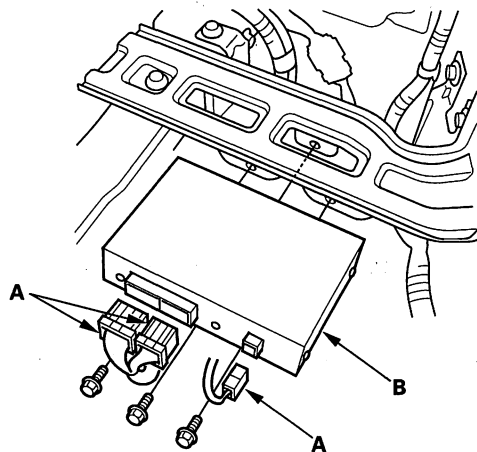
AcuraLink Control Unit (XM Receiver) Removal/Installation

With AcuraLink:

NOTE: The AcuraLink must be reactivated by Acura Client Services when:

- The AcuraLink control unit (XM receiver) is replaced.
- DATA RESET was selected while in the self-diagnostic function.
- Vehicle ownership changes.

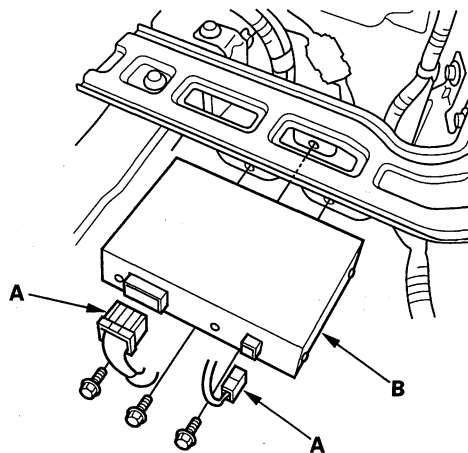
1. Remove the right rear side trim panel (see page 20-92).
2. Disconnect the connectors (A), then remove the bolts and pull out the AcuraLink control unit (XM receiver) (B).



3. Install the AcuraLink control unit (XM receiver) in the reverse order of removal.

XM Receiver Removal/Installation

1. Remove the right rear side trim panel (see page 20-92).
2. Disconnect the connector (A), then remove the bolts and pull out the XM receiver (B).

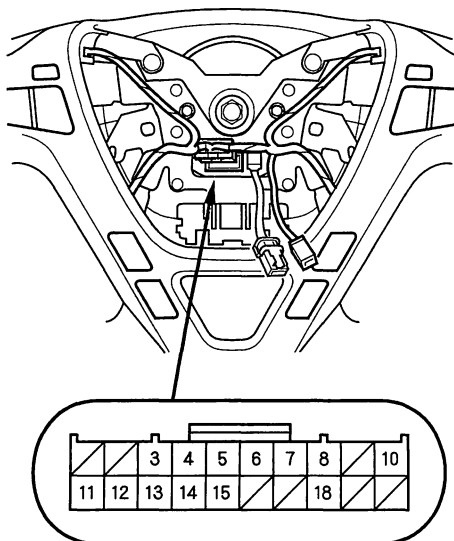


3. Install the XM receiver in the reverse order of removal.



Audio Remote Switch Test

1. Remove the driver's airbag assembly (see page 24-137).
2. Remove the 20P connector from the cable reel.



Wire side of female terminals

3. Measure the resistance between the No. 9 and No. 10 terminals in each switch position according to the table.

Position	Resistance
OFF	About 10 k Ω
MODE	About 4 k Ω
CH (+)	About 2 k Ω
CH (-)	About 840 Ω
▲ (VOL. UP)	About 370 Ω
▼ (VOL. DOWN)	About 100 Ω

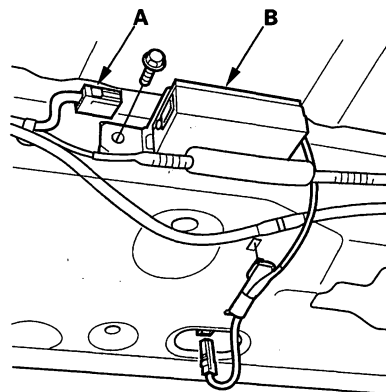
4. If the resistance is not as specified, replace the audio remote switch (see page 17-22).
5. Use a diode tester between the terminals in each switch position according to the table.

Terminal	12		11
	○	⊗	○

6. If the diode test is not as specified, replace the audio remote switch (see page 17-22).

AM/FM Antenna Amplifier Replacement

1. Remove the headliner (see page 20-101).
2. Disconnect the connector (A) from the AM/FM antenna amplifier (B).

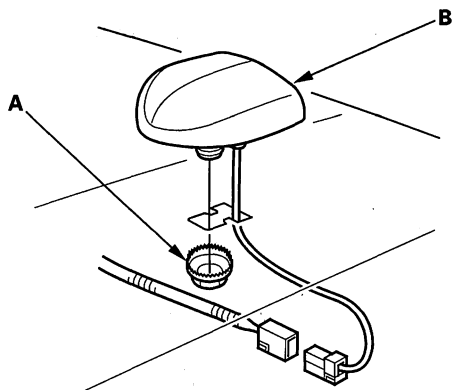


3. Remove the bolt and AM/FM antenna amplifier.
4. Install the unit in the reverse order of removal.

Audio System

XM Antenna Replacement

1. Remove the headliner (see page 20-101).
2. Remove the nut (A) from the XM antenna (B).

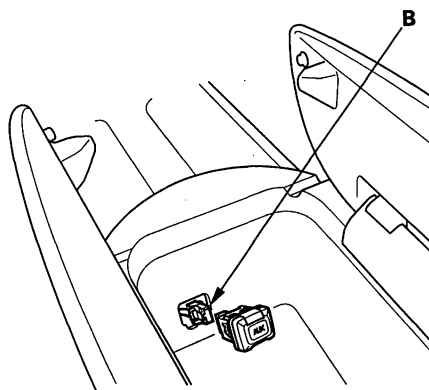


3. Disconnect the connector (C) and remove the XM antenna.
4. Install the XM antenna in the reverse order of removal.

Auxiliary Jack Assembly Replacement

Without Rear Entertainment

1. Open the center console.
2. Carefully pull out the auxiliary jack assembly (A), then disconnect the 5P connector (B).

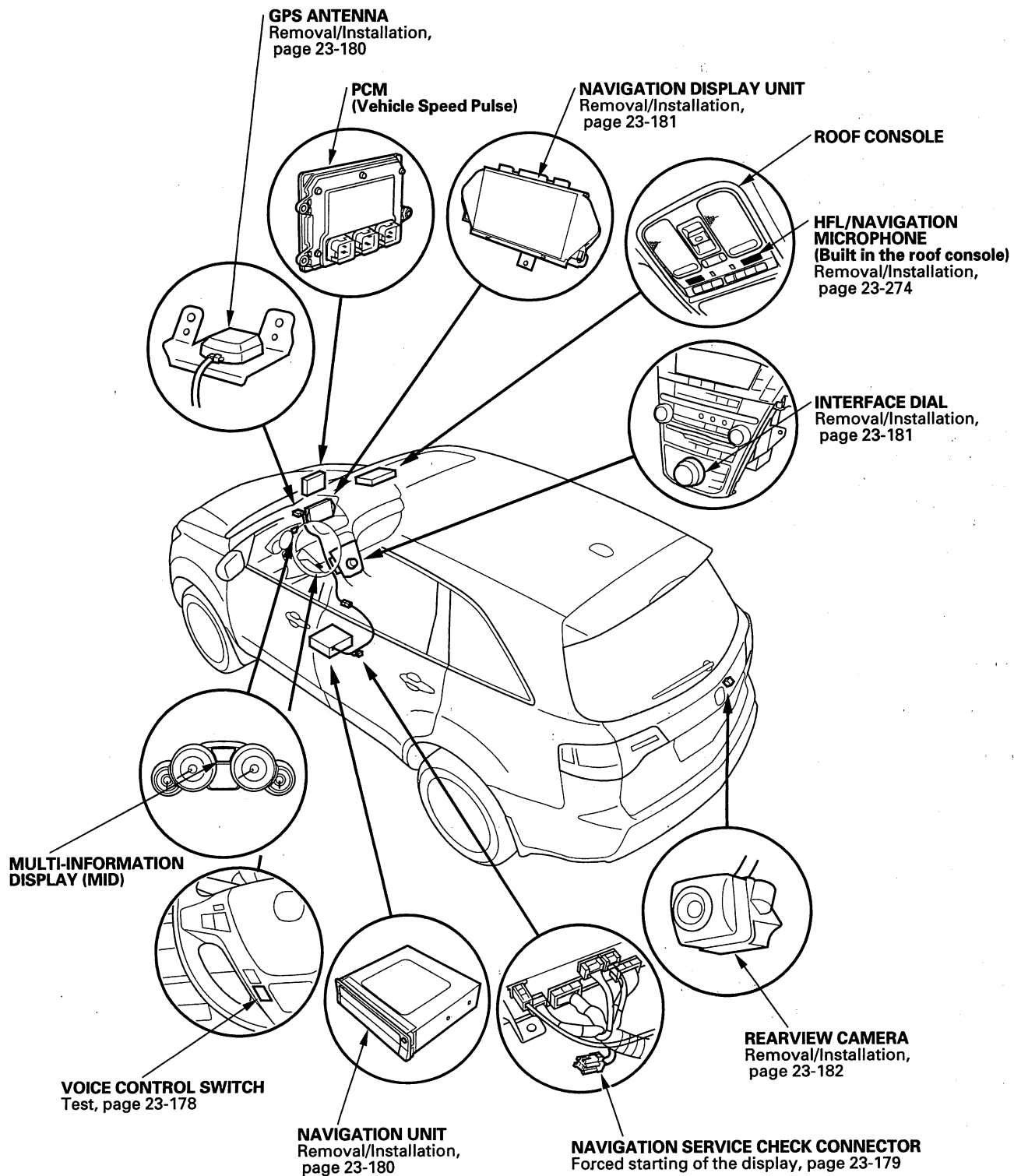


3. Install the reverse order of removal.



Navigation System

Component Location Index



cardiagn.com

Navigation System

General Troubleshooting Information

General Operation

Refer to the Navigation System Manual for the navigation system operating procedures.

Anti-theft Feature

The navigation system and audio unit have a coded theft protection circuit. Be sure to get the client's anti-theft security codes number before;

- Disconnecting the battery.
- Disconnecting the navigation unit 8P connector.
- Removing the No. 7 (10 A) fuse from the under-dash fuse/relay box.

After service, reconnect power to the navigation unit, and turn the ignition switch ON (II). Enter the 4-digit anti-theft security code, then select "Done".

If the code cannot be found, use the Interactive Network (iN) to look it up. You can view the serial number in the Navi ECU diagnostic screen (see page 23-161). Also, you can find the serial number on the navigation unit that is stored under the driver's seat. The serial number is on a label on the bottom of the unit.

When replacing the navigation unit, be sure to give the client's the new anti-theft security code.

Symptom Diagnosis

Certain circumstances and system limitations will result in occasional vehicle positioning errors. Some client's may think this indicates a problem with the navigation system when, in fact, the system is normal. Keep the following items in mind when interviewing client's about symptoms of the navigation system.

Self-Inertial Navigation Limitations

The limitations of the self-inertial portion of the navigation system (the yaw rate sensor and the vehicle speed signal) can cause some discrepancies between the vehicle's actual position and the indicated vehicle position (GPS vehicle position).

The following circumstances may cause vehicle positioning errors:

- Moving the vehicle with the engine stopped and the vehicle stopped, such as by ferry or tow truck, or if the vehicle is spun on a turn table.

- Tire slippage, changes in tire rolling diameters, and some driving situations may cause discrepancies in travel distances. Examples of this include:
 - Continuous tire slippage on a slippery surface
 - Driving with snow chains mounted
 - Abnormal tire pressure
 - Incorrect tire size
 - Frequent lane changes across a wide highway
 - Continuous driving on a straight or gently curving highway
 - Very bumpy roads
- Tolerances in the system and map inaccuracies sometimes limit how precisely the vehicle position is indicated. Examples of this include:
 - Driving on roads not shown on the map (map matching is not possible)
 - Driving on a road that winds in one direction, such as a loop bridge, an interchange, or a spiral parking garage
 - Driving on a road with a series of sharp hair-pin turns
 - Driving near a gradual highway exit or transition
 - Driving on one of two close parallel roads
 - Making many 90 degree turns

Global Positioning System (GPS) Limitations

The GPS cannot detect the vehicle's position or elevation during the following instances:

- For the first 5 to 10 minutes after reconnecting the battery (This can take as long as 45 minutes).
- When the satellite signals are blocked by tall buildings, mountains, tunnels, large trees, inside parking structures or large trucks.
- When the GPS antenna is blocked by metallic window tinting or by an object placed above it in the vehicle. The GPS antenna requires a clear unobstructed view of the sky.
- When the satellite signals are blocked by the operation of some electronic aftermarket accessories including, but not limited, to non-OEM in-dash entertainment units (radio, CD players/changers, radar detectors, and theft recovery systems), and cell phones placed near the navigation system.



The accuracy of GPS is reduced during these instances:

- Metallic window tinting above the GPS antenna
- When only three or less satellite signals can be received (Four satellite signals are required for accurate positioning).
- When the satellite control centers are experiencing problems.
- When driving near high tension power lines.
- When the satellite signals are blocked by the operation of some electronic aftermarket accessories including, but not limited, to non-OEM in-dash entertainment units (radio, CD players/changers, radar detectors, and theft recovery systems), and cell phones placed near the navigation system.

Muting Logic

Whenever the navigation system is giving guidance, only the front speakers are muted. When the voice control system is being used, all of the speakers are muted. If the HandsFreeLink is in use, the voice control system is unavailable to the navigation system.

LCD Display Unit Limitations

NOTE: The screen is not touch sensitive. Use the interface dial and buttons to select items on the screen.

- In cold temperatures, the display may stay dark for the first 2 or 3 minutes until it warms up.
- When the display is too hot because of direct summer sunlight, it will remain dark until the temperature drops (you may see an error message displayed stating this fact).
- When the humidity is high and the interior temperature is low, the display may appear cloudy. The display will clear up after some use.
- Fingerprints on the screen may sometimes be noticeable because of the panel's low-reflection coating. Clean the screen with a soft, damp cloth. You may use a mild cleaner intended for eye glasses or computer screens.

Symptom Duplication

- When the symptom can be duplicated, verify that it is not a characteristic of the system. Review the navigation manual and compare it to a known-good vehicle (with the same software and database), under the same conditions. If the symptom is not the same as the known-good vehicle, follow the self-diagnostic procedures and the appropriate troubleshooting procedures.
- When the symptom does not reappear or only reappears intermittently, ask the client about the conditions when the symptom occurred.
 - Always ask the client to demonstrate the problem.
 - Try to establish possible user error or misunderstanding of the system.
 - Try to establish if outside interference may have been the cause.
 - Try to duplicate the symptom under the same conditions the client experienced.
 - Vibration, temperature extremes, and moisture (dew, humidity) are factors that are difficult to duplicate.
 - Inspect the vehicle for after-market electronic devices (vehicle locators, amps, radar detectors, etc) that may be hidden.

Service Precautions

- If the navigation unit needs to be replaced, you can back-up the navigation data and transfer it to a new navigation unit. See save users memory (see page 23-174).
- Before disconnecting the battery, make sure you have the anti-theft codes for the audio and the navigation system. Audio remembers presets even if the battery is disconnected. Also obtain any PGM-FI or transmission DTCs and freeze frame data (which will be lost when the PCM loses power).
- When the battery is disconnected, the internal GPS clock is reset to "0:00". The clock will reset to the correct time after the system finishes GPS initialization.
- After reconnecting the battery, you have to wait to get the initial signal from the satellite. It will take from 10 to 45 minutes.
- Verify map matching.
- Before returning the vehicle, enter the audio and navigation anti-theft security code. The audio system remembers the audio presets, even when the battery is disconnected.
- Adjust the time zone and daylight savings in the setup clock settings found in the navigation system.

(cont'd)

Navigation System

General Troubleshooting Information (cont'd)

System Initialization

If for any reason, you lose power to the navigation system (like the battery was disconnected), the navigation system requires initialization. Once completed, your system is ready to use.

This initialization requires the following:

- Entering the 4-digit anti-theft security code to "unlock" the system
- GPS initialization (may not be needed depending of the length of time the system was without power)
- Map matching to align the GPS to a location on the map

Entering Security Code

The navigation system and audio unit have a coded theft protection circuit. Make sure you have the anti-theft security codes number before;

- Disconnecting the battery
- Disconnecting the navigation unit 8P connector
- Removing the No. 7 (10 A) fuse from the under-dash fuse/relay box

After service, reconnect power to the navigation unit, and turn the ignition switch ON (II). Enter the 4-digit navigation anti-theft security code, then select "Done". Enter the 5-digit audio anti-theft security code.

When replacing the navigation unit or audio unit, be sure to give the client the new anti-theft security codes.

GPS initialization

NOTE: You must park the vehicle outside with a clear view of the southern sky.

Depending on the length of time the battery was disconnected, your system may require GPS initialization. If it does, the following screen appears:

*****Wait*****
The system is acquiring its GPS signal.
This could take up to 10 minutes.
• Engine must be running
• Vehicle must be parked outside,
away from buildings
• Do not move the vehicle at this time

If this procedure is not necessary, the system proceeds directly to the Disclaimer screen. During initialization, the system searches for all available GPS satellites, and obtains their orbital information. During this procedure, park the vehicle out in the open with a clear view of the sky.

If the navigation system finds the satellites properly, this box clears, and changes to the Disclaimer screen. If within 10 minutes the system fails to locate a sufficient number of satellites to locate your position, the following screen appears.

Navigation system is unable acquire a proper GPS signal.

- Move vehicle to another location
- Turn the ignition switch off
- Disconnect the battery for 30 minutes to clear the GPS receiver's memory
- Reconnect the battery and follow the screen prompts

If this is displayed, turn off the engine, then restart the vehicle and move it to a different location. If you now see the Disclaimer screen, the GPS initialization is complete.

NOTE:

- The average acquiring time is less than 10 minutes, but it can take as long as 45 minutes.
- If the system is still unable to acquire a signal, follow the instructions on the screen. If this screen appears again, go to troubleshooting for the GPS icon is white or not shown (see page 23-141).



Map Matching

This part of the initialization matches the GPS coordinates with a road on the map screen. To perform this part of the procedure, ensure that the navigation system is displaying a map. Check the "GPS" icon in the upper left corner of the screen, it should be "Green" when the vehicle is parked outside, with the correct color labeled DVD installed in the navigation unit. Drive the vehicle on a mapped road shown on the map screen. Do not enter a destination at this time. When the name of the current road you are driving on, appears at the bottom of the screen, the entire procedure is complete. Your system is now ready to use.

Obtaining A Navigation DVD

If the navigation DVD is lost or damaged, or you need a yearly updated DVD, you have two ways to purchase one. You can either call (888) 549-3798, or order on-line at www.acura.com "ORDER NAVIGATION DVD" link.

Both methods require a credit card. The DVD for this model has a white label, and cannot be ordered through the parts system. The following DVDs will not work in this navigation system:

- Earlier model navigation DVDs (black or orange label)
- Map software programs manufactured by other companies
- DVD movies, or DVDs containing audio recordings

Update DVDs are available for purchase usually in the fall of each year. They may contain the following:

- Enhanced maps and points of interest (POI) coverage
- Fixes for minor software bugs
- Additional features

NOTE:

- Updating is optional, and there is no program to provide free DVDs containing yearly mapping updates.
- Map matching must be done any time the DVD is removed or replaced.

Navigation System

Symptom Troubleshooting Index

Symptom	Diagnostic procedure	Also check for
Navigation system stays on the GPS initialization screen	System Initialization (see page 23-102)	- Navigation unit - GPS antenna/cable is disconnected or damaged - Harness/fuses/switches
Vehicle position icon constantly leaves road, moves erratically, or is very far from actual position	Symptom Troubleshooting (see page 23-136)	- Navigation unit - GPS antenna/cable - PCM (speed and fuel pulses) - Harness/fuses/switches
System always comes up in in—line diagnostic mode	Symptom Troubleshooting (see page 23-157)	
Navigation system will not accept security code	Symptom Troubleshooting (see page 23-147)	Wrong color DVD
Navigation frequently asks for anti-theft code and needs GPS initialization	Symptom Troubleshooting (see page 23-151)	- Loss of voltage or poor ground (G605) - Navigation unit - Low battery voltage - Harness/fuses/switches
GPS icon is white or not shown	Symptom Troubleshooting (see page 23-141)	- Navigation unit - Aftermarket accessories connected to the system - GPS antenna/cable - Harness/fuses/switches
Vehicle icon wanders across the map when driving (does not follow a displayed road) or map or vehicle ICON spins	Symptom Troubleshooting (see page 23-146)	- Navigation unit - GPS antenna/cable - PCM (speed signal)
No picture is displayed	Symptom Troubleshooting (see page 23-134)	- Navigation unit - Display unit - Harness/fuses/switches
Picture has lines/rolls/other issues or is an odd color	Symptom Troubleshooting (see page 23-138)	- Navigation unit - Aftermarket accessories connected to the system - Display unit - Harness/fuses/switches
Picture is missing a color or tone or is an odd color	Symptom Troubleshooting (see page 23-137)	- Navigation unit - Wrong color DVD installed - Display unit - Aftermarket accessories connected to the system - Harness/fuses/switches
Traffic information is not being shown on map screen	Symptom Troubleshooting (see page 23-152)	- Client account status - Area outage - Area not covered - Traffic icons are turned OFF - AcuraLink (XM receiver) - Navigation unit - Harness/fuses/switches
No real time traffic on the display screen	Symptom Troubleshooting (see page 23-155)	



Symptom	Diagnostic procedure	Also check for
Display day/night mode does not work	Symptom Troubleshooting (see page 23-145)	• Display brightness set to "High" • Display unit • Gauge control module (CAN) • Harness/fuses/switches
System locks up or freezes constantly	Symptom Troubleshooting (see page 23-146)	• Navigation unit • Wrong color DVD installed • Harness/fuses/switches • Damage DVD
Voice guidance cannot be heard, is broken up, or there is static	Symptom Troubleshooting (see page 23-141)	• Volume or voice feedback setting (see Owner's manual) • Navigation unit • Audio unit/amplifier • Harness/fuses/switches
Voice control does not work/respond	Symptom Troubleshooting (see page 23-143)	Navigation unit microphone harness/switches HandsFreeLink control unit
Navigation cannot control A/C by voice	Symptom Troubleshooting (see page 23-145)	• Wrong color DVD installed • Harness/fuses/switches • Wrong navigation unit (model code)
Navigation cannot control XM radio	Symptom Troubleshooting (see page 23-151)	
Navigation cannot control audio/disc/rear entertainment	Symptom Troubleshooting (see page 23-148)	Wrong color DVD
Interface dial buttons do not work	Symptom Troubleshooting (see page 23-139)	• Navigation unit • Display unit • Interface dial • Harness/fuses/switches
Today's Destinations button is dim and not selectable in the Enter destination by screen (grayed-out)	The client has not entered a group of locations for Today's Destinations. This is normal. The button is only selectable if the client is using this function.	See Owner's Manual
Some set-up and information functions of the navigation system are grayed-out and do not work		Client did not select "OK" from Disclaimer screen. Refer to System Function Diagram (see page 23-118).
Previous Destinations button is dim and not selectable in the Enter destination by screen (grayed-out)	The vehicle may be new, or the client deleted the destination. Enter a destination, and allow the system to route to it. After the trip, the Previous Destinations button will be selectable.	
Address cannot be found or system gives poor routing	Verify proper operation and system limitations using the owner's manual	• Database limitations (address not in database) • Wrong color DVD installed

(cont'd)

Navigation System

Symptom Troubleshooting Index (cont'd)

Symptom	Diagnostic procedure	Also check for
Rearview camera does not come on or work properly	Symptom Troubleshooting (see page 23-149)	• Software for the latest updates • No backup signal • Wrong disc installed in navigation unit • Harness
The map will not display the Southern portion of the U.S. or the Northern parts of Canada	North American coverage is different for USA/Canada markets. See the "Version" Diagnostic Screen (see page 23-172) for details on coverage differences.	See Owner's Manual
Navigation stays on with ignition switch off	Symptom Troubleshooting (see page 23-148)	• Harness/fuses/switches • Aftermarket accessories connected to the system
DVD screen error messages	Symptom Troubleshooting (see page 23-144)	• Navigation unit • Wrong color DVD installed • Display unit • Damaged DVD
Navigation system will not go beyond the disclaimer screen and displays the OK button		• Wrong color DVD installed • Scratched or damaged DVD • Navigation unit
The navigation anti-theft code card is lost or missing	See anti-theft feature (see page 23-100)	
The vehicle icon lags behind when the vehicle turns	See self-inertial navigation limitations (see page 23-100)	• Aftermarket accessories connected to the system • GPS antenna/cable
Navigation screen is darker than normal or takes time to start up when it is cold	See LCD unit limitations (see page 23-101)	
The navigation clock is off by 1 to 3 hours after replacing the navigation unit	See service precautions (see page 23-101)	• Perform map matching (see page 23-103) • GPS antenna/cable • Check and adjust the clock settings
A new navigation DVD is needed	See obtaining a navigation DVD (see page 23-103)	

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System Description

Overview

The navigation system is a highly-sophisticated, hybrid locating system that uses satellites and a map database to show you where you are and to help guide you to a desired destination.

The navigation system receives signals from the global positioning system (GPS), a network of 24 satellites in orbit around the earth. By receiving signals from several of these satellites, the navigation system can determine the latitude, longitude, and elevation of the vehicle. In addition, signals from the system's yaw rate sensor and the PCM (vehicle speed pulse) enable the system to keep track of the vehicle's direction and speed of travel.

This hybrid system has advantages over a system that is either entirely self-contained or one that relies totally on the GPS. For example, the self-contained portion of the system can keep track of vehicle position even when satellite signals cannot be received. When the navigation system is on, the GPS can keep track of the vehicle position even when the vehicle is transported by ferry.

The navigation system applies all location, direction, and speed information to maps and calculates a route to the destination entered. As you drive to that destination, the system provides both visual and audio guidance.

This navigation system also has voice recognition that allows voice control of most of the navigation functions. The Navigation TALK and BACK buttons on the steering wheel activate the voice control. The voice control also allows control of the audio and climate functions.

The illumination signal (headlights ON) is used by the navigation unit to automatically switch the display between "Night" and "Day" brightness modes. When the instrument panel brightness control is set to full brightness (hold both "+" and "-" key at the same time), the navigation system stays in the day mode, even with the headlights on.

The GA-NET II communication bus passes information back and forth between the display panel control unit, the navigation unit and the RES/audio system. The information passed on this bus is audio climate control settings directed by the navigation unit.

The "Comm. Bus" connects the HFL, XM (HIP) (AcuraLink), and navigation units. This bus supports these functions:

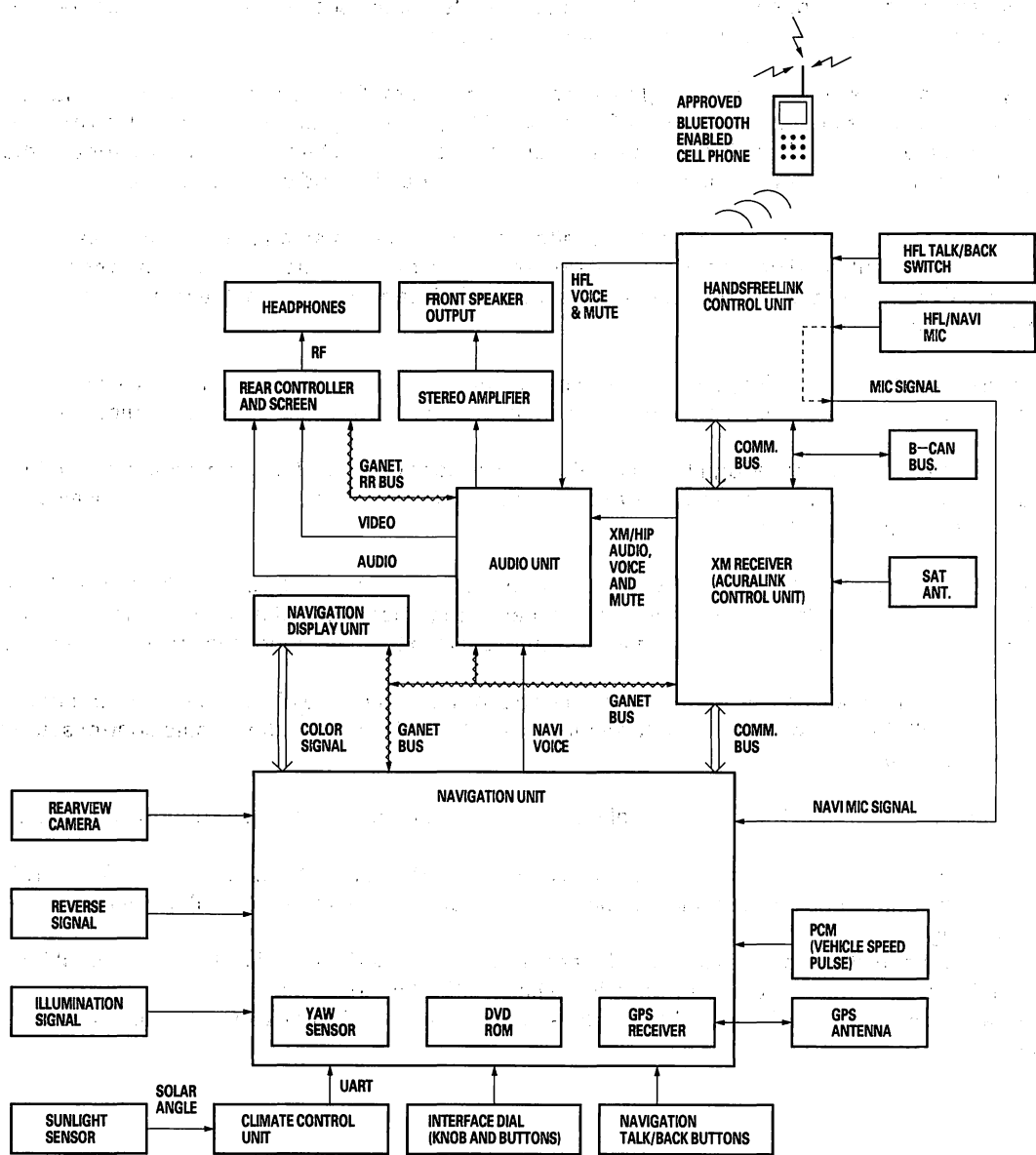
- The navigation control unit receives traffic and AcuraLink message information from the AcuraLink Control unit.
- The navigation control unit sends a POI phone number (on the "Calculate route to" screen) to the HandsFreeLink control unit for dialing.
- If vehicle problems are detected, and the client's cellular contract includes data service, then the AcuraLink control unit can send vehicle data to the HFL unit for transmitting back to the AcuraLink servers.
- The AcuraLink server can pass additional problem details back through the AcuraLink Control unit, to the navigation unit for display.

(cont'd)

Navigation System

System Description (cont'd)

System Diagram

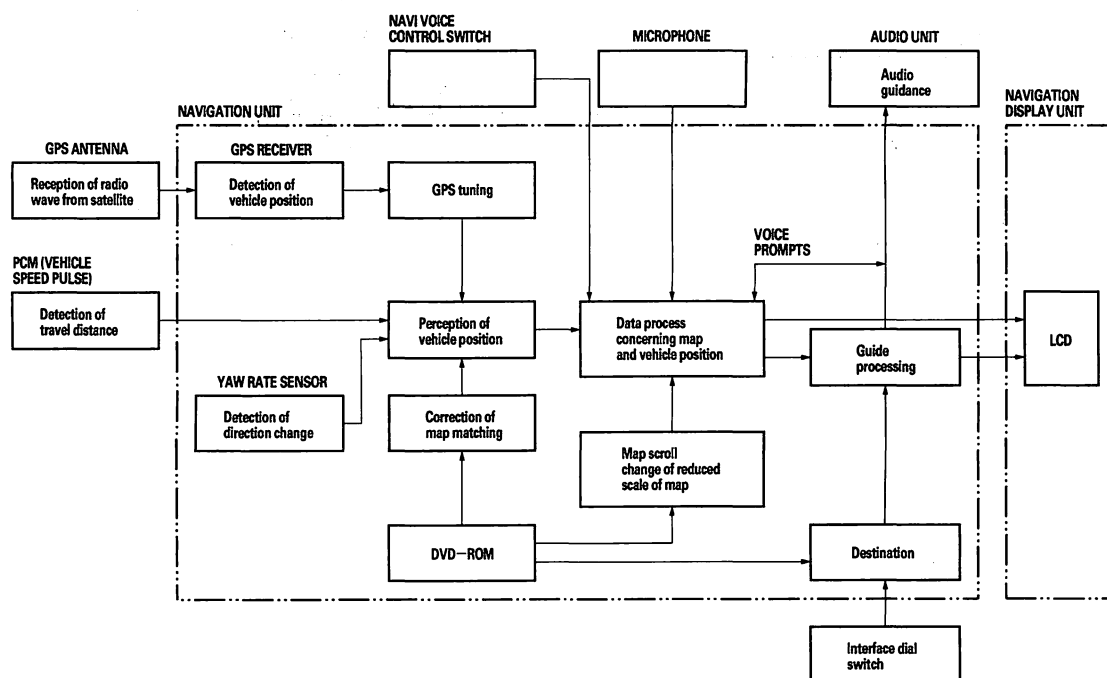




Navigation Function

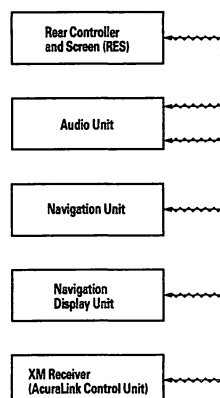
The navigation system is composed of the navigation unit, the PCM (vehicle speed signal), the GPS antenna, the microphone, the voice control switch, the audio unit, the display unit, and the interface dial.

Function Diagram



GA-Net Bus Configuration

The GA-Net bus passes audio and navigation commands throughout the navigation and RES/audio components. These commands include navigation audio/XM selections by voice, and XM station and music title names. Because the entire bus is interconnected between components, an open or short in the GA-Net bus harness may cause any or all of these functions to become inoperative.



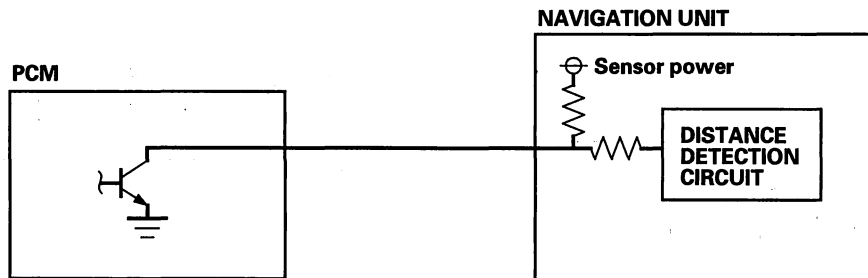
(cont'd)

Navigation System

System Description (cont'd)

Vehicle Speed Pulse

The vehicle speed pulse is sent by the PCM. The PCM receives a signal from the countershaft speed sensor, then processes the signal and transmits it to the speedometer and other systems.





Yaw Rate-Lateral Acceleration Sensor

The yaw rate-lateral acceleration sensor (located in the navigation unit) detects the direction change (angular speed) of the vehicle. The sensor is an oscillation gyro built into the navigation unit.

Sensor Element Structure

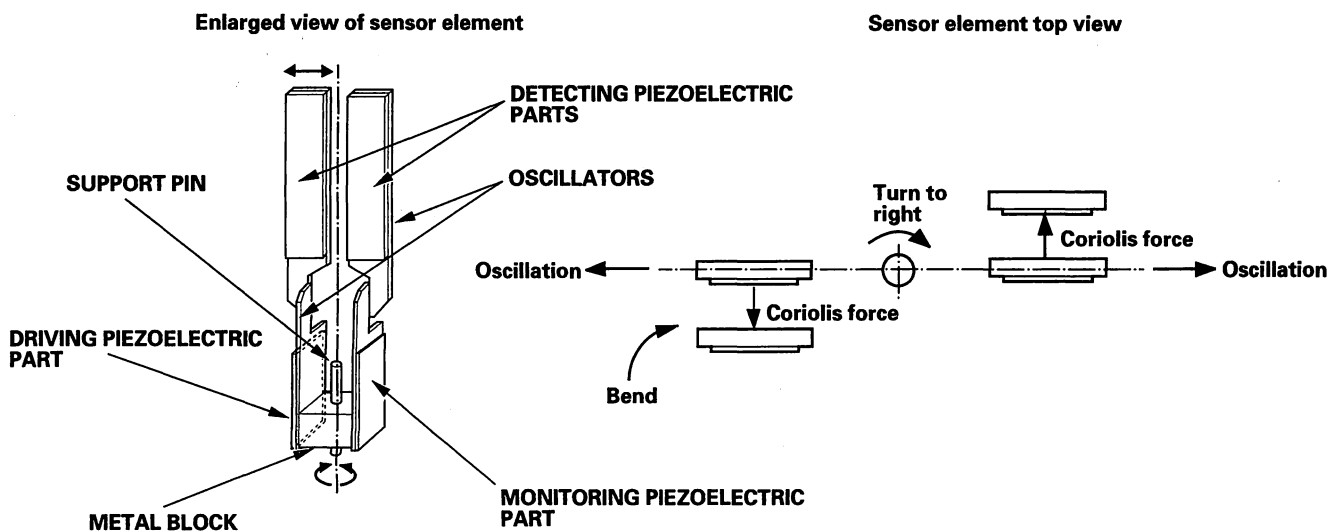
The sensor element is shaped like a tuning fork, and it consists of the piezoelectric parts, the metal block, and the support pin. There are four piezoelectric parts: one to drive the oscillators, one to monitor and maintain the oscillation at a regular frequency, and two to detect angular velocity. The two oscillators, which have a 90-degree twist in the center, are connected at the bottom by the metal block and supported by the support pin. A detection piezoelectric part is attached to the top of each oscillator. The driving piezoelectric part is attached to the bottom of one oscillator, and the monitoring piezoelectric part is attached to the bottom of the other oscillator.

Oscillation Gyro Principles

The piezoelectric parts have "electric/mechanical transfer characteristics." They bend vertically when voltage is applied to both sides of the parts, and voltage is generated between both sides of the piezoelectric parts when they are bent by an external force. The oscillation gyro functions by utilizing this characteristic of the piezoelectric parts and "Coriolis force." (Coriolis force deflects moving objects as a result of the earth's rotation.) In the oscillation gyro, this force moves the sensor element when angular velocity is applied.

Operation

1. The driving piezoelectric part oscillates the oscillator by repeatedly bending and returning when an AC voltage of 6 kHz is applied to the part. The monitoring-side oscillator resonates because it is connected to the driving-side oscillator by the metal block.
2. The monitoring piezoelectric part bends in proportion to the oscillation and outputs voltage (the monitor signal). The navigation unit control circuit controls the drive signal to stabilize the monitor signal.
3. When the vehicle is stopped, the detecting piezoelectric parts oscillate right and left with the oscillators, but no signal is output because the parts are not bent (no angular force).
4. When the vehicle turns to the right, the sensor element moves in a circular motion with the right oscillator bending forward and the left oscillator bending rearward. The amount of forward/rearward bend varies according to the angular velocity of the vehicle.
5. The detecting piezoelectric parts output voltage (the yaw rate signal) according to the amount of bend. The amount of vehicle direction change is determined by measuring this voltage.



(cont'd)

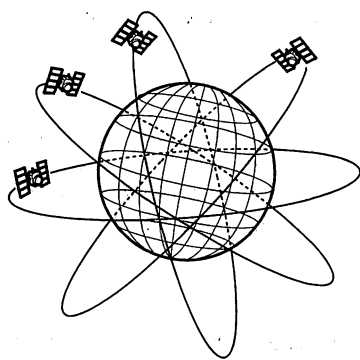
Navigation System

System Description (cont'd)

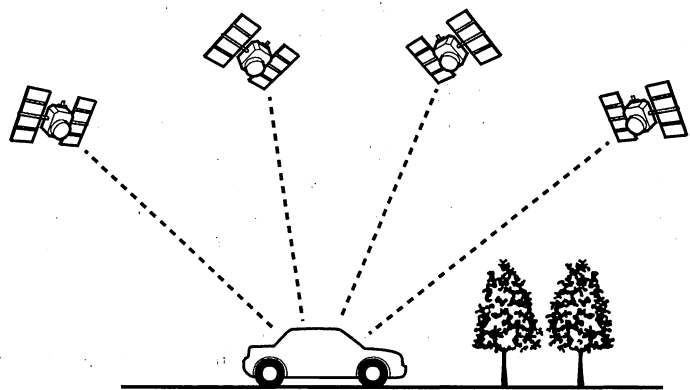
Global Positioning System (GPS)

The global positioning system (GPS) enables the navigation system to determine the current position of the vehicle by using the signals transmitted from the satellites in orbit around the earth. The satellites transmit the satellite identification signal, orbit information, transmission time signal, and other information. When the GPS receiver receives a signal from four or more satellites simultaneously, it calculates the current position of the vehicle based on the distance to each satellite and the satellite's position in its respective orbit.

Position detection Image with GPS satellite



NOTE: Four satellites on each of 6 orbits.



Precision of GPS

The precision of the GPS varies according to the number of satellites from which signals are received and the view of the sky. The precision is indicated by the color and shape of the GPS icon shown on the display.

GPS ICON	NUMBER OF SATELLITES	CONDITION	DESCRIPTION
No GPS icon shown	2 or less	Impossible to detect vehicle position	GPS function is normal. The satellite signals received by the GPS are too few to detect the vehicle position.
Square GPS icon shown with white "GPS"	3	Vehicle position detectable in 2 dimensions (longitude and latitude)	The longitude and latitude of the vehicle position can be detected. (Less precise than detection in three dimensions)
Cube GPS icon shown with green "GPS"	4 or more	Vehicle position detectable in 3 dimensions (longitude, latitude and elevation)	The longitude, latitude and the altitude of the vehicle position can be detected. (More precise than detection in two dimensions)

GPS Antenna and clock

The GPS antenna amplifies and transmits the signals received from the satellites to the GPS receiver.

GPS Receiver

The GPS receiver is built into the navigation unit. It calculates the vehicle position by receiving the signal from the GPS antenna. The current time vehicle position and signal reception condition are transmitted from the GPS receiver to the navigation control unit to adjust the vehicle position and clock.



Navigation Unit

The navigation unit calculates the vehicle position and guides you to the destination. The unit performs map matching correction, GPS correction, and distance tuning. It also controls the menu functions and the DVD-ROM drive, and interprets voice commands. With control of all these items, the navigation unit makes the navigation picture signal, then it transmits the signal to the display panel control unit and audio driving instructions to the audio unit.

Calculation of Vehicle Position

The navigation unit calculates the vehicle position (the driving direction and the current position) by receiving the directional change signals from the yaw rate sensor and the travel distance signals from vehicle speed pulse (VSP) signal of the PCM.

Map Matching Tuning

The map matching occurs when you drive the vehicle along a mapped road until the road name appears at the bottom of the screen. The map data transmitted from the DVD-ROM is checked against the vehicle position data, and the vehicle position is indicated on the nearest road. Map matching tuning does not occur when the vehicle travels on a road not shown on the map, or when the vehicle position is far away from a road on the map.

GPS Tuning

The GPS tuning is accomplished by indicating the vehicle position as the GPS's vehicle position. The navigation unit compares its calculated vehicle position data with the GPS vehicle position data. If there is a large difference between the two, the indicated vehicle position is adjusted to the GPS vehicle position.

Distance Tuning

The distance tuning reduces the difference between the travel distance signal from the VSP and the distance data on the map. The navigation unit compares its calculated vehicle position data with the GPS vehicle position data. The navigation unit then decreases the tuning value when the vehicle position is always ahead of the GPS vehicle position, and it increases the tuning value when the vehicle position is always behind the GPS vehicle position.

Route Guidance

The navigation unit can calculate different routes to a selected destination. You have five options:

- Direct Route-Calculate a route that is the most direct.
- Easy Route-Calculate a route that minimizes the number of turns needed.
- Minimize Freeways-Calculate a route that avoids freeway travel. If that is not possible, keep the amount of freeway travel to a minimum.
- Minimize Toll Roads-Calculate a route that avoids or minimizes travel on toll roads.
- Maximize Freeways-Calculate a route that uses freeways as much as possible.

Audio Guidance

The navigation unit transmits audio driving instructions before entering an intersection or passing a junction. The audio instructions come through the audio unit to the center speaker.

NOTE: The front speakers are muted whenever the navigation system is giving guidance commands, and all of the speakers are muted when the voice control system is being used.

Solar Angle

The climate control unit uses the sun's angle, along with the sunlight sensor, to control the driver/passenger A/C air flow.

Off Road Tracking (breadcrumbs)

Off road tracking dots that can be followed on the map to retrace your route back to a mapped (digitized) road.

Clock and Time Zone

The clock set up allows you to set daylight savings time, auto time zone and time adjustment.

(cont'd)

Navigation System

System Description (cont'd)

Muting Signal Logic

The audio muting logic is orchestrated by the audio unit. The audio unit determines what audio source has priority to use the speakers.

The priority of the audio sources is as follows:

HandsFreeLink has the highest priority, followed by, AcuraLink, navigation, and finally the radio/CD-DVD player. The priority is passed by HandsFreeLink and AcuraLink to the audio unit by dedicated mute wires. The navigation mute signal is passed to the stereo amplifier.

The navigation unit temporarily disables the voice control buttons, but allows guidance to be heard. In addition, the audio unit suppresses the output from the audio unit, XM receiver, disc player, or other audio accessories.

When the navigation system sends out a voice route guidance command, the door speakers are muted, and the navigation voice is heard in the center speaker.

When the navigation voice control system is in use, all of the speakers are muted, and the navigation voice prompts are heard from the center speaker.

DVD-ROM

The DVD includes:

- Map Data
- Point of interest (POI)
- Navigation software

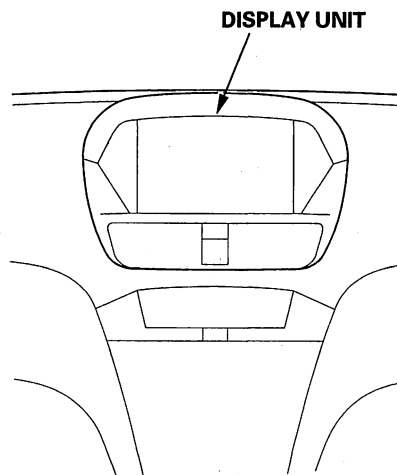
Audio Unit

The audio unit receives the voice guidance instructions from the navigation unit, and transmits the instructions through the center speaker even when the audio system is in use.

NOTE: If the navigation volume is turned OFF, this feature is disabled.

Display Unit

The display unit uses a liquid crystal display (LCD). The LCD is a 8-inch-diagonal, thin film transistor (TFT), stripe type with 336,960 picture elements. The color film and fluorescent light are laid out on the back of the liquid crystal film.



**Microphone (Mic)**

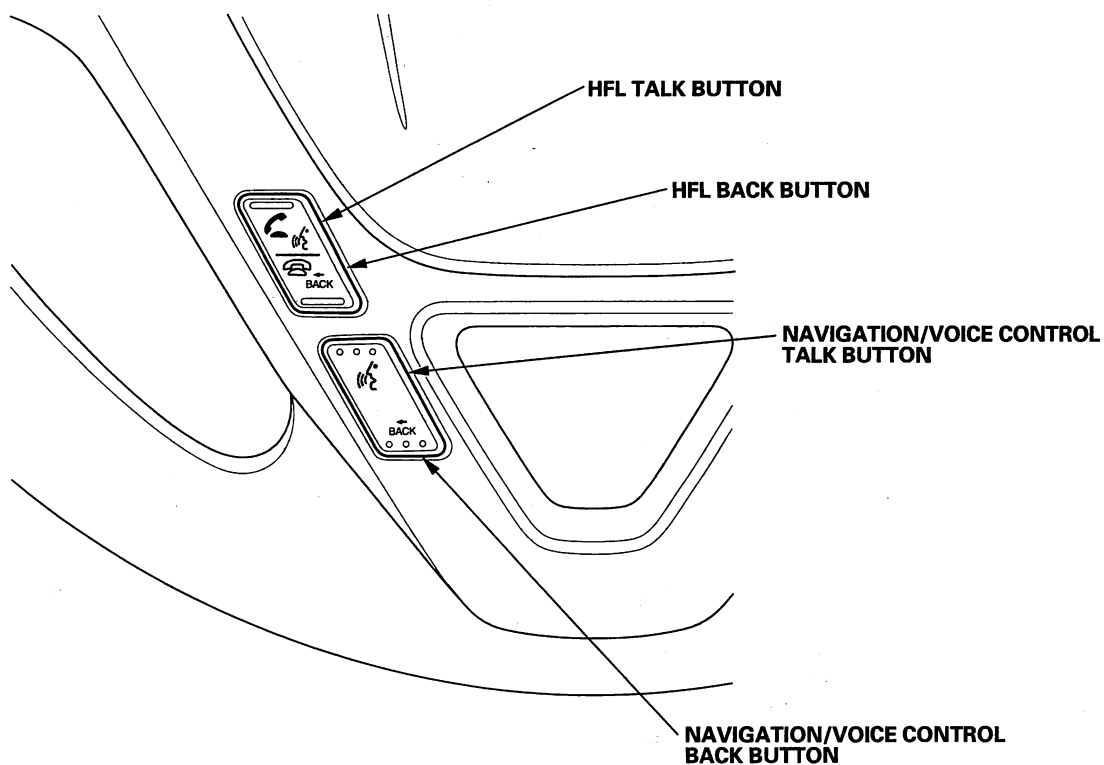
Receives voice commands and transmits them to the navigation unit or HandsFreeLink unit for interpretation. Both system share the same microphone.

TALK Button

Activates the voice control system in the navigation unit to accept voice commands.

BACK Button

Returns the display to the previous screen (similar function as the CANCEL button).



(cont'd)

Navigation System

System Description (cont'd)

Glossary

The following is a glossary of terms pertaining to the Voice Recognition Navigation System.

Item	Definition
AcuraLink	This device receives information from the XM satellites and passes XM audio information to the audio unit. In addition, traffic information is sent to the navigation unit.
B-CAN	Body CAN Bus (see CAN)
Breadcrumbs (White dots)	Off road tracking dots that can be followed on the map to retrace your route back to a mapped (digitized) road. This function can be turned on/off in Setup screen 1.
CAN	Controller Area Network. This communication network allows processors in the vehicle to send/receive information. The fuel pulses used by the MID trip computer are received from the PCM using the F-CAN (Fast Controller Area Network) bus.
CPU	Central Processing Unit. The main device within the navigation unit that coordinates the rest of the electronic functions.
CSS	Countershaft (Output) Speed Sensor. This sensor reads the output shaft speed at the transmission and provides a speed pulse to the PCM.
Database	This consists of the Map data, and the POI (Points Of Interest) data stored on the DVD.
DBW	Drive By Wire. Allows electrical control of the throttle without the need of a mechanical linkage.
DCA	Detailed Coverage Area. Main metropolitan areas in the Lower 48 states, and Canada are mapped to this level. See the navigation system manual for a list of these areas.
DTC	Diagnostic Trouble Codes. Use the PGM Tester, or HDS tablet to obtain, and troubleshoot the cause of these codes.
Dead reckoning	The use of the speed signal, and yaw rate sensor to position the vehicle on the map even when tall buildings, or driving in a tunnel obscures the GPS signal
Digitized road	A road that appears on the navigation screen. The road name will appear at the bottom of the navigation screen. If the user drives "off road" the navigation system will display "Not on a digitized road", and after 1/2 mile, the "breadcrumbs" will appear.
Disclaimer screen	Screen containing cautionary information. It is meant to be read carefully, and acknowledged by the customer when using the navigation system.
DVD or DVD-ROM	Digital Versatile Disk. The navigation program and database resides on this disk. See the Navigation Owner's Manual for information on how to order a replacement or an update DVD.
ECM	Engine Control Module. Typically referred to as the ECM.
FAQ	Frequency Asked Questions. See the navigation system manual for a list of the customer FAQs, and troubleshooting information.
F-CAN	Fast CAN Bus (see CAN)
GPS	Global Positioning System. A network of 24 satellites in orbit around the earth. The navigation system can simultaneously receive signals from up to 12 satellites to accurately position the vehicle on the map.
HDS	Honda Diagnostic System. A hand held tablet PC used for diagnosing vehicle problems. This device can be used to obtain DTC codes for diagnosis of the navigation system and CAN related problems.
HFL	HandsFreeLink uses Bluetooth technology as a wireless link between it and an approved Bluetooth compatible cell phone. See the vehicle Owner's manual or Quick Start Guide for more information.
HIP (AcuraLink)	Honda Information Platform (see AcuraLink)
H/U	Head Unit. The audio unit in the dash.
Initialization	This refers to the period needed to re-acquire the GPS satellite orbital information whenever the navigation system power has been disconnected. This can take from 10 to 45 minutes.
Interface Dial	This control device consists of a rotating knob and the buttons surrounding it. This device allows control of the navigation, audio, and climate functions displayed on the screen.
LCD	Liquid Crystal Display (the navigation screen)
Map matching	The received GPS information allows the navigation system to position the vehicle on the map. Map matching has occurred if the map screen is displaying the current street name in the bottom-shaded area.



Item	Definition
Mic	Abbreviation for the microphone used for receiving voice commands. It is located near the map light in the ceiling.
MID	Multi-Information Display
MW	Maneuver Window. While on-route to a destination, this window displays information about the next maneuver.
Navi	Abbreviation for the Navigation System.
Off-road tracking	See "Breadcrumbs"
Off route	This occurs when the user leaves mapped roads. Off road tracking dots (breadcrumbs) are displayed if the option is enabled in the setup menu. The user can use them to return to a mapped road. The bottom of the navigation screen will say "Not on a digitized road"
Outlying areas	These are rural areas that typically have only their main roads mapped. All other roads are shown in light brown for reference only, since they have not been verified.
Paired	Linking your cell phone to the HFL
PC card slot	The PC Card (PCMCIA, type II) slot is for factory use only. Make sure that the sliding door is closed at all times, if opened, an error message is displayed on the screen.
PCM	Powertrain Control Module. This unit supplies the navigation system speed signal, Also referred to as PCM.
PCMCIA	A computer industry defined term referring to the PC Card slot standard.
PIN	Personal Identification Number, a random 4 digit number created by the customer to protect personal information.
POI	Point Of Interest. These are the businesses, schools, etc. found under the "places" option on the main menu.
Polygon	Colored areas on the map screen denoting parks, schools, etc. See the Navigation System Manual "Driving to Your Destination" for a list of the assigned colors.
QWERTY	Keyboard layout resembling the typewriter keys. The keyboard layout can be changed to an alphabetical layout in the Setup mode.
SCS connector	The "service check signal" 2-pin connector used to put the navigation system into the diagnostic mode.
Security code	Code needed to activate the navigation system. You can get the security code from the "iN" by entering the navigation unit serial number. You can find the serial number on the diagnostic screens (unit check, Navi ECU), or on the underside of the navigation unit.
Tuning	A continual update of internal navigation system scaling factors. See the individual sensor tuning discussions under either "System Description", or "System Diagnosis Mode" (see page 23-157) in this manual.
Unverified streets	These streets have not been verified for turn restrictions, one-way, etc. They are shown in light brown on the map. You can enter address destinations in these areas, but depending on your "Unverified Routing" choice in setup, voice guidance may end at the last verified street closest to your destination.
Verified streets	These streets consist of the detailed metropolitan coverage areas, and all other inter-town connection roads. These roads are shown in black or red on the map. (interstates are red)
VP	Vehicle Position. When in map mode, this circular icon shows the vehicle position on the map.
VR	Voice Recognition. This allows voice control of many of the navigation functions. The hardware consists of the microphone, voice control switch (TALK/BACK buttons), and the center speaker. See the overview for more information.
VSP	Vehicle Speed Pulse. This pulse signal coming from the PCM (via the CSS) is used to update the Vehicle position on the map. These pulses do not indicate direction (forward or backward). When in reverse, the navigation receives a signal and directs the VP to move backwards on the map.
XM	This device receives information from the XM satellites and passes XM audio information to the audio unit. In addition, traffic information is sent to the navigation unit.
Yaw sensor	This device is located in the navigation system control unit and senses the side-to-side twisting force generated when the vehicle turns. See a detailed description of how this sensor works in this manual.

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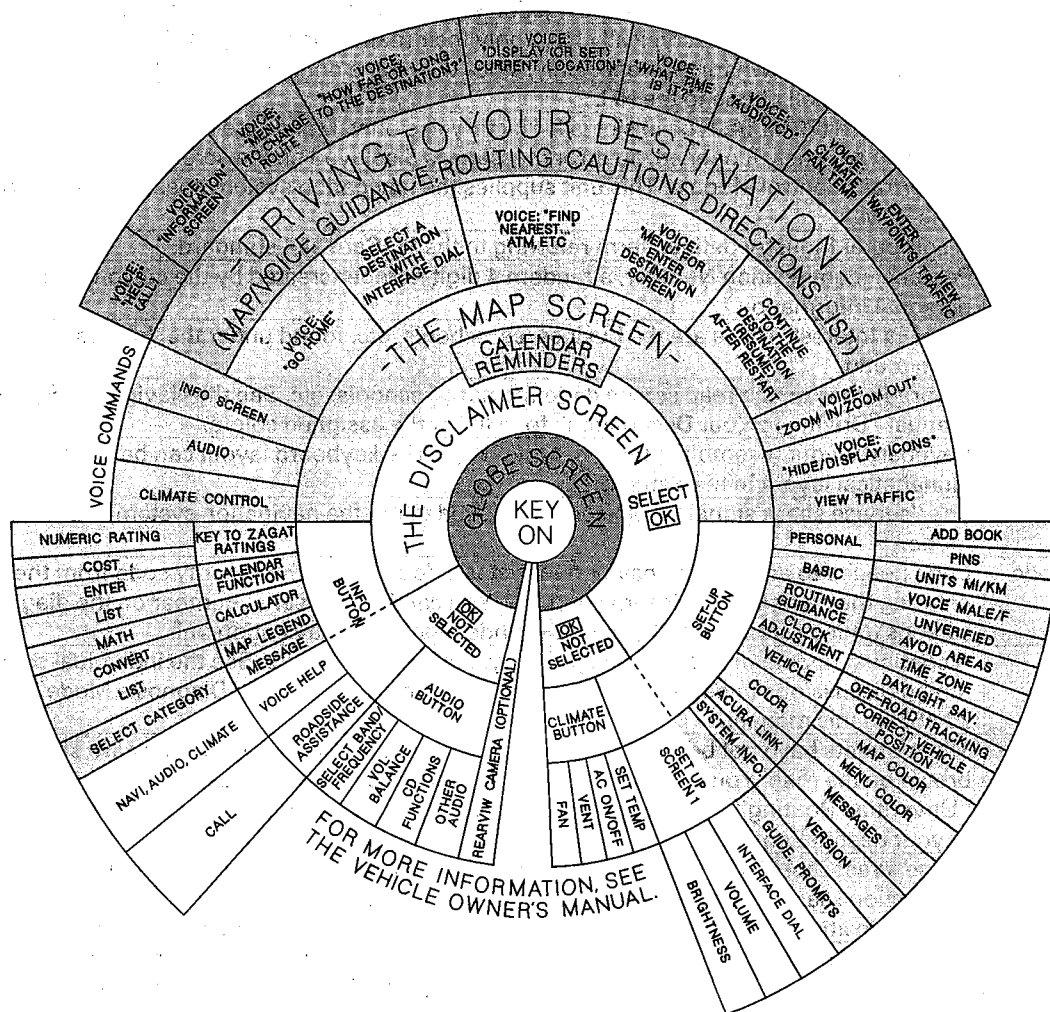
Navigation System

System Description (cont'd)

System Function Diagram

This diagram shows the features of the navigation system starting at the center and working outward in layers. The navigation program starts at "Key ON", and then displays the globe screen. Once the disclaimer screen is acknowledged, the next shaded portions of the diagram become active. However, some functions of the INFO and SET UP buttons, and all functions of the AUDIO and A/C buttons can be accessed immediately after the globe screen (white).

The items above the map screen show various ways to set a destination, such as "Go Home." Once you begin driving to your destination, you are provided with map/voice guidance, routing cautions (in unverified areas), and a directions list. While driving to your destination, use the voice control system as much as possible to interact with the navigation, audio, and climate control systems.



Functions accessible at any time

Disclaimer screen

Map screen/voice commands to enter a destination

Driving to your destination

Voice commands while driving to your destination

Globe screen

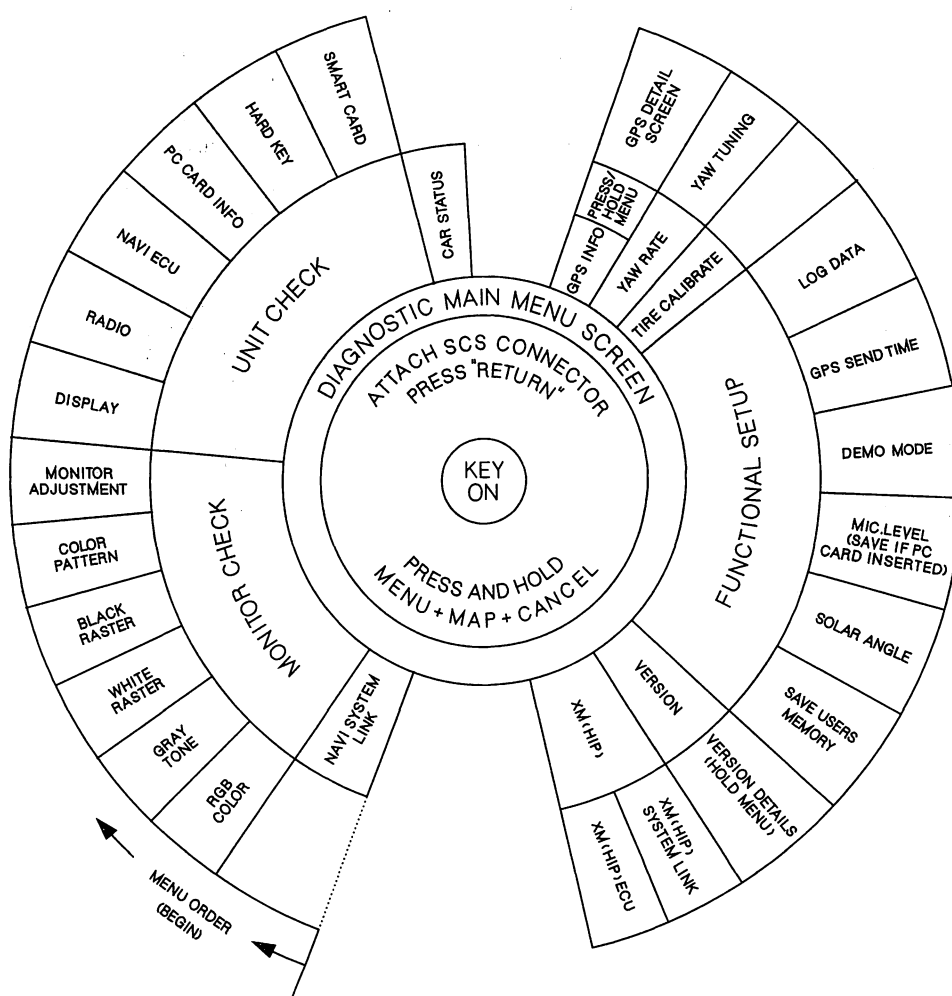


Diagnostic System Diagram

This diagram represents the diagnostic “slice” in the Navigation Functional diagram. The diagram shows an overview of the navigation diagnostic features starting at the center and working outward in layers. The diagram starts with “Key on”. The diagram shows two ways to get to the diagnostic main menu:

- By starting the vehicle with the SCS connector plugged in, you will enter the diagnostic “System Links” screen. select “Return” to get to the main diagnostic menu.
- From any of the navigation Map or Menu screens, press and simultaneously hold the keys Menu + Map + Cancel. The diagram shows the available diagnostic menu choices, starting at the bottom left, and moving clockwise. In most cases, do not clear or change settings in any diagnostic screen unless instructed to do so in the explanation, or by the factory.

If the factory asks you to insert a PCMCIA memory card into the “PC Slot,” then the features specified on the diagram as “(Card)” are available.



(cont'd)

Navigation System

System Description (cont'd)

Navigation Unit Inputs and Outputs for Connector A (20P)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	WHT	R SIG (Red signal)	Red color signal	0—1 V	If open: Red color missing (see "RGB Color" diagnostic). If short to ground: Red color missing (see "RGB Color" diagnostic).
2	RED	G SIG (Green signal)	Green color signal	0—1 V	If open: Green color missing (see "RGB Color" diagnostic). If short to ground: Green color missing (see "RGB Color" diagnostic).
3	BLK	SH SIG (Shield signal)	Shield for terminal No. 1, 2, 11, 12, 13	0 V	If open: No change to display. If short to ground: No change to display.
4	YEL	A/C-SI (Air conditioner serial in)	Communication signal for climate control unit	—	If open: HVAC cannot be controlled by the navigation system. If short to ground: HVAC cannot be controlled by the navigation system.
5	YEL	ILL (+) (Illumination positive)	Parking light on signal	Lights on: battery voltage, Lights off: 0 V	If open: When brightness="Auto," night mode for the display is inoperative when lights on. If short to ground: daytime mode regardless of the condition of a light switch.
9	BLK	GA NET BUS SH (GA-NET bus shield)	Shield for display bus terminal No. 10, 20	0 V	If open: No change to display. If short to ground: No change to display.
10	GRN	GA NET BUS + (GA-NET bus positive)	Date bus (+) GA-Net	0—5 V pulses average 2.5 V depends on bus traffic	If open: Navigation buttons do not work. If short to ground: Navigation buttons do not work.



Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
11	YEL	B SIG (Blue signal)	Blue color signal	0—1 V AC	If open: Blue color missing (see “RGB Color” diagnostic). If short to ground: Blue color missing (see “RGB Color” diagnostic).
12	GRN	C SIG (Composite signal)	Composite video (vertical/horizontal) Synchronizing signal	0.3 V AC	If open: Picture rolls horizontally, colors still visible. If short to ground: Picture rolls horizontally, colors still visible.
13	BLK	GND SIG (Ground signal)	Ground for color signal	0 V	If open: No change to display. If short to ground: No change to display.
14	RED	A/C-SO (Air conditioner serial out)	Communication signal for climate control unit	—	If open: HVAC cannot be controlled by the navigation system. If short to ground: HVAC cannot be controlled by the navigation system.
15	BLU	A/C-CLK (Air conditioner clock)	Check signal for climate control unit	—	If open: HVAC cannot be controlled by the navigation system. If short to ground: HVAC cannot be controlled by the navigation system.
17	WHT	JOG BUS (Jog bus)	Interface dial operation signal	0—5 V pulses	If open: You cannot operate navigation system If short to ground: You cannot operate navigation system
19	BLK	JOG SH (Jog shield)	Shield for interface dial signal	—	—
20	RED	DISP BUS (—) (Display bus negative)	Date bus (—) GA-Net	0—5 V pulses nominally 2.5 V	If open: Navigation buttons do not work. If short to ground: Hard buttons work OK.

(cont'd)

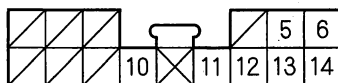
BACK

23-121

Navigation System

System Description (cont'd)

Navigation Unit Inputs and Outputs for Connector B (14P)

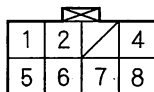


Wire side of female terminals

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
5	PUR	RG L (+) (Route guidance voice left positive)	Left audio signal of voice guidance, and Voice Recognition (VR) prompts	Audio signal 0.004—0.04 V	If open: If voice activated, radio speakers buzz; if voice off, no effect. If short to ground: If voice activated, radio speakers buzz; if voice off, no effect.
6	PUR	HFL MIC OUT+ (HFL mic signal positive)	Microphone output signal positive	4—5 V (TALK button pressed)	If open: microphone signal shown as red in diagnostic screens: "Navi System Link" and Functional Setup "Mic Level." If short to ground: microphone signal shown as red in diagnostic screens: "Navi System Link" and Functional Setup "Mic Level."
10	PUR	NAVI REMOTE SW (Navigation remote switches)	Steering switch output	4—5 V (TALK button pressed) 2.5—3 V (BACK button pressed)	If open: Steering wheel TALK and BACK buttons do not work. If short to ground: Steering wheel TALK, and BACK buttons do not work.
11	BLK	RG SH (Route guidance shield)	Shield for terminal No. 5, 12	0 V	If open: No effect on voice output. If short to ground: No effect on voice output.
12	LT BLU	RG GND (Route guidance ground)	Ground for voice guidance, and Voice Recognition (VR) prompts	0 V	If open: No effect on voice output. If short to ground: No effect on voice output.
13	BLK	HFL MIC OUT SH (HFL mic signal shield)	Shield for terminal No. 6, 14	0 V	If open: No effect on voice control. If short to ground: No effect on voice control.
14	LT BLU	HFL MIC OUT— (HFL mic signal negative)	Ground for microphone signal	0 V	If open: microphone signal shown as red in diagnostics: "Navi System Link" and Functional Setup "Mic Level." If short to ground: No effect on voice recognition.



Navigation Unit Inputs and Outputs for Connector C (8P)



Wire side of female terminals

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	WHT	+B (+B Power source)	Continuous power source	Battery voltage	If open: Display picture goes out (display back light still on). NOTE: System will reboot to "enter code" screen. If short to ground: Blows fuse No. 5 (10A) in the under-dash fuse/relay box.
2	PUR	ACC (Accessory)	Power source for accessories	Battery voltage at ACC (I)	If open: Display picture goes out (display back light still on). If short to ground: Blows fuse No. 32 (10 A) in the under-dash fuse/relay box.
4	BLK	GND (Ground) (G605)	Ground for navigation unit	0 V	If open: No effect on system. If short to ground: No effect on system.
5	BRN	BACK LT (Back light or reverse signal)	Reverse signal of select lever from "Multiplex Integrated Control Unit" (A/T) or backup light switch (M/T)	In reverse, battery voltage: Otherwise 0 V	If open: Navigation never sees reverse. Diagnostic screen "Car Status," "Back"=0. If short to ground: Blows fuse No. 21 (7.5 A) in the driver's under-dash fuse/relay box.
6	BLU	VSP (Vehicle speed pulse)	Vehicle speed pulse signal from PCM	Pulses 0—5 V: Average 2.5 V, when moving	If open: No vehicle speed pulses. Diagnostic screen "Car Status," VSP Navi=0. If short to ground: No vehicle speed pulses. Diagnostic screen "Car Status," VSP Navi=0.
7	GRY	DIAG+ (Diagnostic positive)	Service check signal for navigation system	5—6 V	If open: No effect on system. If short to ground: System goes into diagnostic mode at key ON (I) and (II).
8	YEL	DIAG- (Diagnostic negative)	Ground for service check signal	0 V	If open: The system will not go into diagnostic mode when using the SCS jumper. If short to ground: No effect on system.

(cont'd)

BACK

Navigation System

System Description (cont'd)

Navigation Unit Inputs and Outputs for Connector D (7P)



Wire side of female terminals

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
D1	WHT	CAMERA VCC (VCC supply)	Power source for rearview camera	7 V	If open: No rearview camera image. If short to ground: When put into reverse, the navigation screen goes black (backlight still operative).
D5	BLK	VIDEO (Video camera)	Video signal for rearview camera	0.3 V	If open: No rearview camera image. If short to ground: When put into reverse, the navigation screen goes black (backlight still operative).
D6	BLK	CAMERA SH (Shield and ground for camera)	Shield for terminal No. 1 to No. 7	0 V	If open: No rearview camera image. If short to ground: No change to rearview camera image.
D7	RED	CAMERA ADPT (Adaptive camera)	Control signal for rearview camera	0 V	If open: No change to rearview camera image. If short to ground: No change to rearview camera image.



Navigation Unit Inputs and Outputs for Connector E (2P)



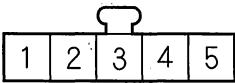
Wire side of female terminals

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	—	GPS	GPS signal	5 V	If open: GPS icon on screen is white, system links screen ANT shows "NG." If short to body ground: Same as open.
2	—	GND GPS	Ground for GPS signal	0 V	If open: GPS icon on screen is white, system links screen ANT shows "NG." If short to body ground: No effect on system.

Navigation System

System Description (cont'd)

Navigation Unit Inputs and Outputs for Connector F (5P)



Wire side of female terminals

With AcuraLink

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	WHT	HFL COMM3 (HFL communication 3)	Communication signal for HFL	—	Solid red HFL icon in Navi System Link
2	RED	HFL COMM4 (HFL communication 4)	Communication signal for HFL	—	Solid red HFL icon in Navi System Link
3	GRN	HFL COMM1 (HFL communication 1)	Communication signal for HFL	—	HFL icon in Navi System Link changes between red and green
4	BLK	HFL COMM2 (HFL communication 2)	Communication signal for HFL	—	HFL icon in Navi System Link changes between red and green
5	BLK	SH HFL (Shield HFL)	Shield for terminal No.1, 2, 3, 4	—	—

Without AcuraLink

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	RED	HFL COMM3 (HFL communication 3)	Communication signal for HFL	—	Solid red HFL icon in Navi System Link
2	WHT	HFL COMM4 (HFL communication 4)	Communication signal for HFL	—	Solid red HFL icon in Navi System Link
3	GRN	HFL COMM1 (HFL communication 1)	Communication signal for HFL	—	HFL icon in Navi System Link changes between red and green
4	BLK	HFL COMM2 (HFL communication 2)	Communication signal for HFL	—	HFL icon in Navi System Link changes between red and green
5	BRN	SH HFL (Shield HFL)	Shield for terminal No.1, 2, 3, 4	—	—



Navigation Display Unit Inputs and Outputs for 20P Connector

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	WHT	+B (+B power source)	Continuous power source	Battery voltage	If open: Screen completely off (no backlight visible). If short to ground: Blows fuse No. 7 (10 A) in the under-dash fuse/relay box.
2	PUR	ACC (Accessory)	Power source for accessory	Battery voltage at ACC (I)	If open: Display and buttons do not work. If short to ground: Blows fuse No. 32 (10 A) in the under-dash fuse/relay box.
5	GRN	GA NET BUS+ (GA-NET bus positive)	Data bus (+) GA-Net	0–5 V pulses average 2.5 V depends on bus traffic	If open: Navigation hard buttons do not work. If short to ground: Navigation hard buttons XM/ AcuraLink and RES do not work.
6	RED	SCTY (1) (Security positive)	Security signal	0 V	If open: If security system set, it will not trip when screen is removed. If short: If security system set, it will not trip when screen is removed.
8	WHT	R SIG (Red signal)	Red color signal	0–1 V	If open: Red color missing (see “RGB Color” diagnostic). If short to ground: Red color missing (see “RGB Color” diagnostic).
9	RED	G SIG (Green signal)	Green color signal	0–1 V	If open: Green color missing (see “RGB Color” diagnostic). If short to ground: Green color missing (see “RGB Color” diagnostic).
10	BLK	GND (Ground)	Ground for display unit	0 V	If open: No change to display. If short to ground: No change to display.
11	YEL	ILL (+) (Illumination positive)	Parking light on signal from dash and console light	Lights on: battery voltage, Lights off: 0 V	If open: When brightness “Auto,” night mode for the display is inoperative when lights on. If short to ground: Blows small light relay in under-hood fuse/relay box.
14	GRY	GA NET BUS SH (GA-NET bus negative)	Shield for display bus terminal No. 5, 16)	0 V	If open: No change to display. If short to ground: No change to display.
15	RED	GA NET BUS– (GA-NET bus negative)	Date bus (–) GA-Net	0–5 V pulses average 2.5 V depends on bus traffic	If open: Navigation hard buttons do not work. If short to ground: Navigation hard buttons work OK.
16	PNK ^{*1} LT GRN ^{*2}	SCTY (3, 4) (Security negative)	Security signal	0 V	If open: If security system set, it will not trip when screen is removed. If short: If security system set, it will not trip when screen is removed.
17	BLK	GND SIG (Ground signal)	Ground for color signal	0 V	If open: No change to display. If short to ground: No change to display.
18	YEL	B SIG (Blue signal)	Blue color signal	0–1 V	If open: Blue color missing (see “RGB Color” diagnostic). If short to ground: Blue color missing (see “RGB Color” diagnostic).
19	GRN	C SIG (Composite signal)	Composite video (vertical/horizontal) synchronizing signal	0.3 V	If open: Picture rolls horizontally, colors still visible. If short to ground: Picture rolls horizontally, colors still visible.
20	GRY	SIG SH (Signal shield)	Shield for terminal No. 8, 9, 17, 18, 19	0 V	If open: No change to display. If short to ground: No change to display.

* 1: With rear entertainment system

* 2: Without rear entertainment system

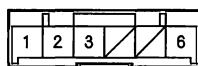
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BACK

Navigation System

System Description (cont'd)

Rearview Camera Inputs and Outputs for 6P Connector



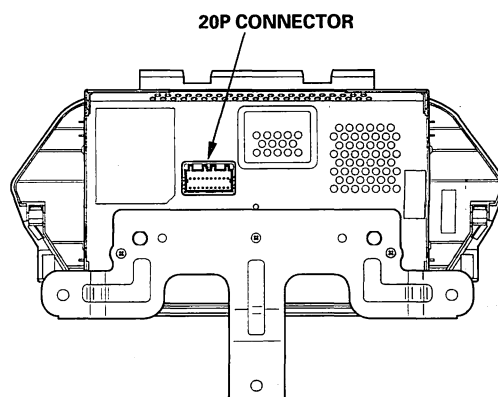
Terminal side of male terminals

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	RED	CAMERA ADPT (Adaptive camera)	Control signal for rearview camera	0 V	If open: No change to rearview camera image. If short to ground: No change to rearview camera image.
2	BLK	CAMERA SH (Shield and ground for camera)	Shield for terminal No. 5	0 V	If open: No rearview camera image. If short to ground: No change to rearview camera image.
3	BLK	CAMERA VIDEO (Video camera)	Video signal for rearview camera	0.3 V	If open: No rearview camera image. If short to ground: When put into reverse, navigation screen goes black (display backlight still operative).
6	WHT	CAMERA VCC (VCC supply)	Power source for rearview camera	8 V	If open: No rearview camera image. If short to ground: When put into reverse, navigation screen goes black (display backlight still operative).



Circuit Diagram

Navigation display unit connector

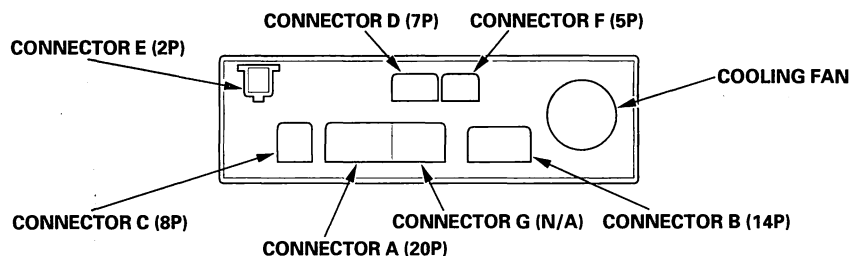


20P CONNECTOR

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

Navigation unit connector



CONNECTOR A (20P)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

CONNECTOR B (14P)

1	2	3	4	5	6
7	8	9	10	11	12

CONNECTOR C (8P)

1	2	3	4
5	6	7	8

CONNECTOR D (7P)

1	2	3	4	5	6	7
---	---	---	---	---	---	---

CONNECTOR E (2P)

1	2
---	---

CONNECTOR F (5P)

1	2	3	4	5
---	---	---	---	---

Wire side of female terminals

INTERFACE DIAL
5P CONNECTOR

1	2	3	4	5
---	---	---	---	---

REARVIEW CAMERA
6P CONNECTOR

1	2	3	4	5	6
---	---	---	---	---	---

Terminal side of male terminals

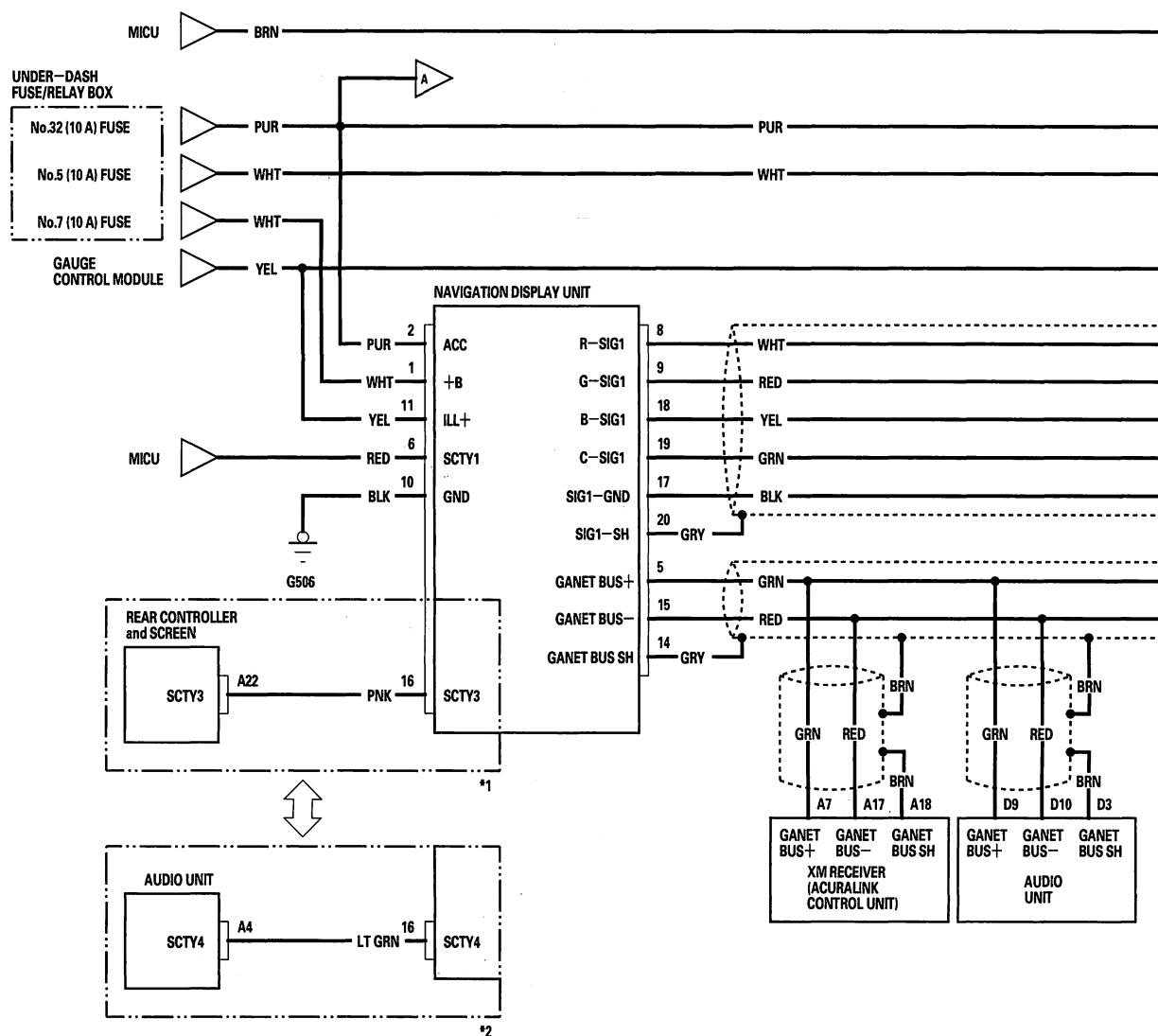
(cont'd)

BACK

Navigation System

Circuit Diagram (cont'd)

With AcuraLink

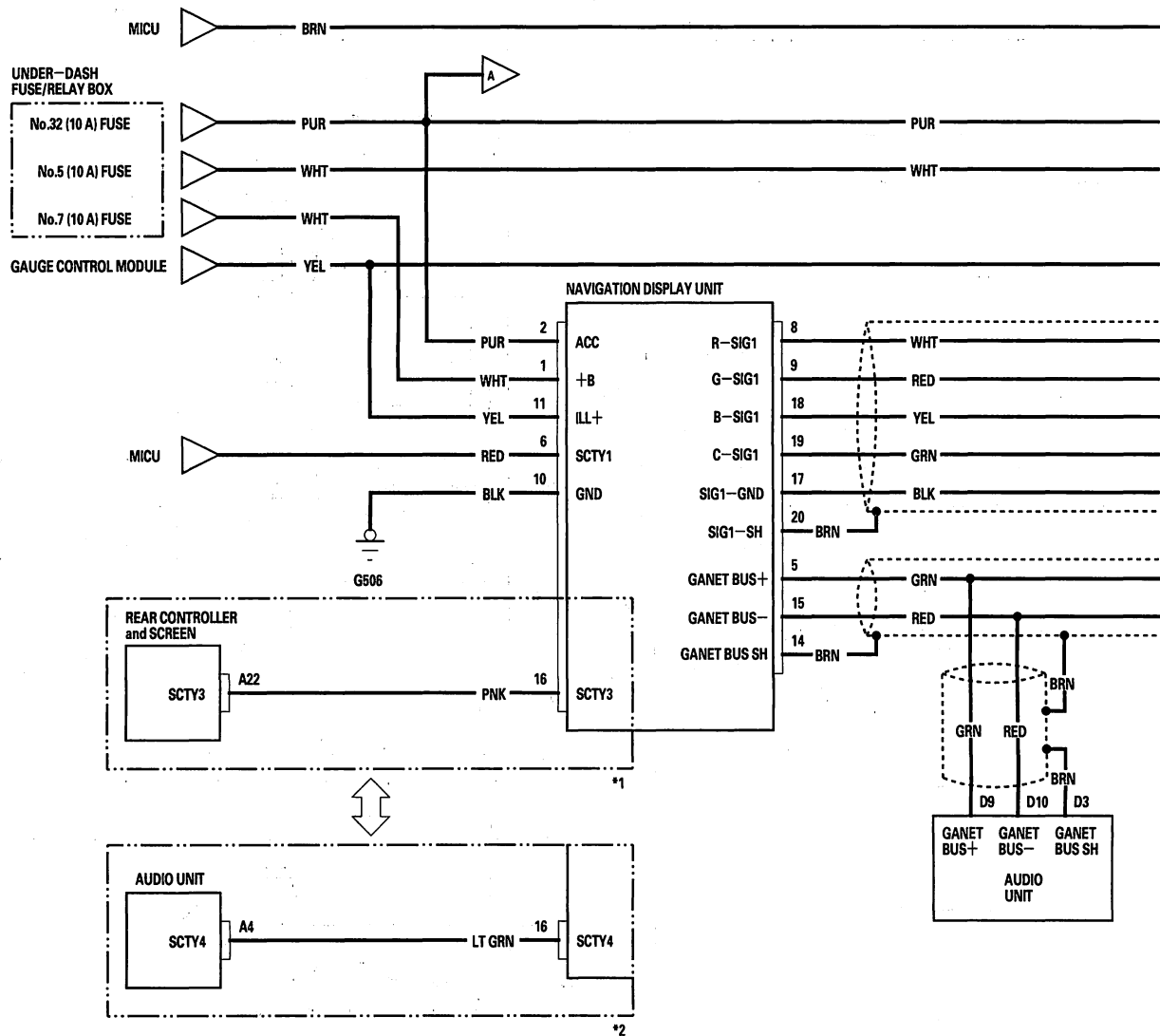


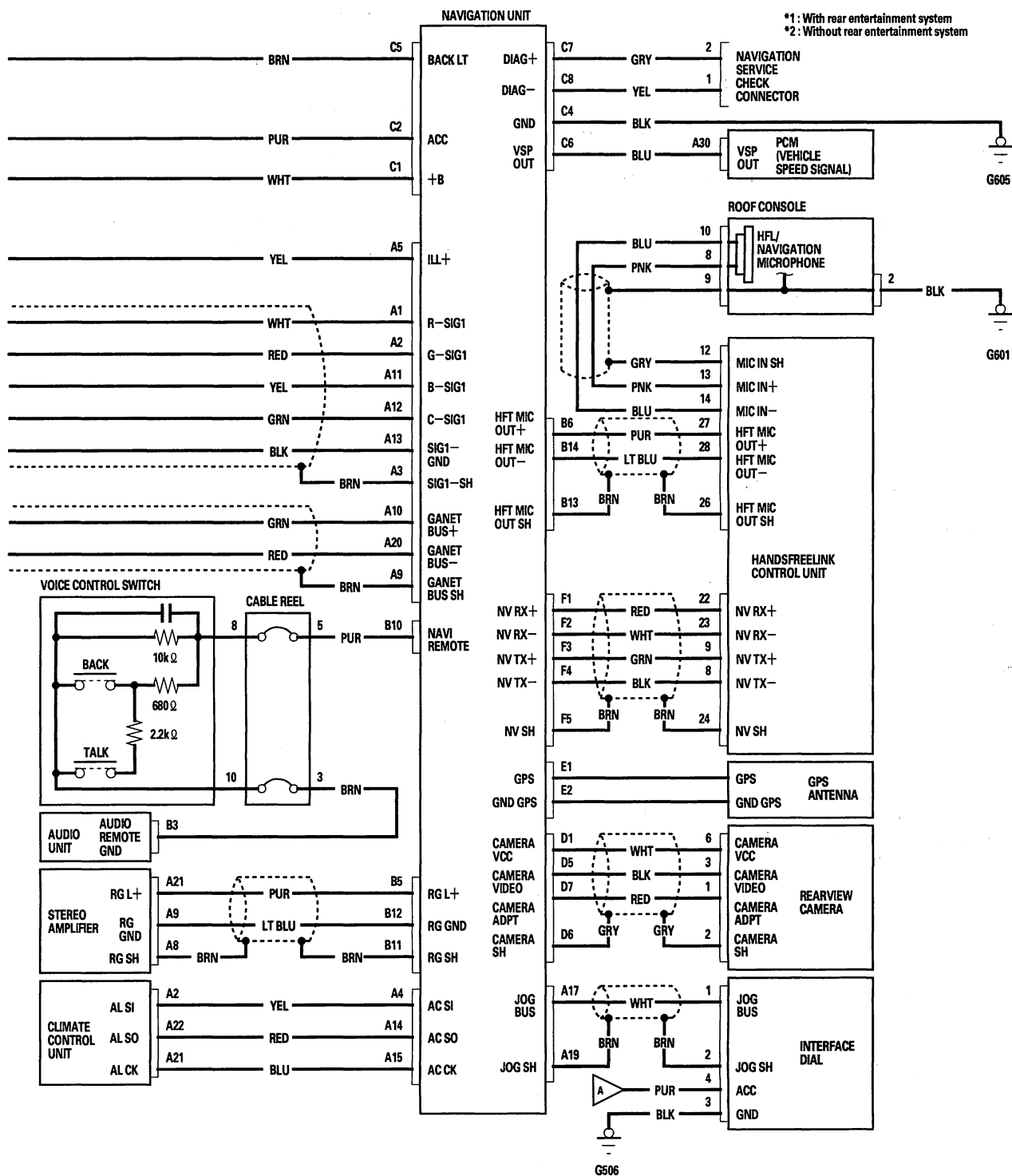


Navigation System

Circuit Diagram (cont'd)

Without AcuraLink





Navigation System

Symptom Troubleshooting

No picture is displayed

Diagnostic Test: Navi System Link

NOTE:

- Check the navigation volume level (see owner's manual for more information).
- Always check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have the navigation system anti-theft code.
- Confirm the correct DVD color and version disc is installed in the navigation unit (see page 23-172).

1. Check the No. 5 (10 A), No. 7 (10 A) fuse and No. 32 (10 A) fuse in the under-dash fuse relay box, and reinstall the fuses if they are OK.

Are the fuses OK?

YES—Go to step 2.

NO—Replace the fuse and recheck. ■

2. Turn the ignition switch to ACC (I).
3. Operate the radio and listen to the audio.

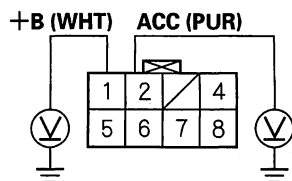
Can you hear the audio?

YES—Go to step 4.

NO—Check the ACC circuit. ■

4. Turn the ignition switch ON (II).
5. Measure the voltage between body ground and navigation unit connector C (8P) terminals No. 1 and No. 2 individually.

NAVIGATION UNIT CONNECTOR C (8P)



Wire side of female terminals

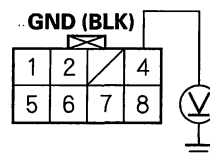
Is there battery voltage?

YES—Go to step 6.

NO—If the +B wire does not have voltage, repair open in the wire between the under-dash fuse relay box and the navigation unit. If the ACC wire does not have voltage, repair open in the wire between the under-dash fuse/relay box and the navigation unit. ■

6. Measure the voltage between navigation unit connector C (8P) terminal No. 4 and body ground.

NAVIGATION UNIT CONNECTOR C (8P)



Wire side of female terminals

Is there less than 0.5 V?

YES—Go to step 7.

NO—Repair open in the wire between the navigation unit and body ground (G605) (see page 22-38). ■



7. Perform the forced starting of the display (see page 23-179).

Is the diagnosis menu of the picture diagnosis displayed?

YES—Go into the Diagnostic mode and use the “Navi System Link” diagnostic (see page 23-159) to check the links. ■

NO—Go to step 8.

8. Shield the display unit from the sun with your hand, and check that the display is back lit (only back light is ON.)

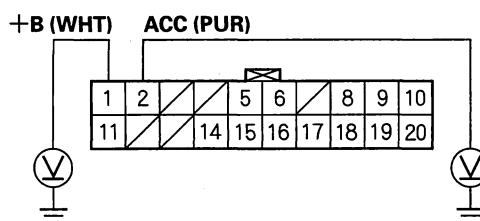
Can you see the back light?

YES—Replace the navigation unit (see page 23-180) and retest. If the problem is still present, replace the navigation display unit (see page 23-181). ■

NO—Go to step 9.

9. Measure the voltage between body ground and navigation display unit 20P connector terminal No. 1 and No. 2 individually.

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

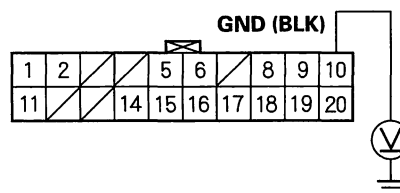
Is there battery voltage?

YES—Go to step 10.

NO—If the +B wire does not have voltage, repair open in the wire between the under-dash fuse relay box and the navigation display unit 20P connector. If the ACC wire does not have voltage, repair open in the wire between the under-dash fuse/relay box and the navigation display unit 20P connector. ■

10. Measure the voltage between the navigation display 20P connector terminal No. 10 and body ground.

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

Is there less than 0.5 V?

YES—Replace the navigation display unit. ■

NO—Repair open or poor connections between the navigation display and body ground (G506) (see page 22-32). ■

Navigation System

Symptom Troubleshooting (cont'd)

Vehicle position icon constantly leaves road, moves erratically, or is very far from actual position

NOTE:

- Check for aftermarket accessories that could interfere with the GPS signal.
 - Check that the GPS antenna is plugged in.
1. Check the GPS icon on the navigation picture.

Is the GPS icon white?

YES—Do the troubleshooting for GPS icon is white or not shown (see page 23-141). ■

NO—Go to step 2.

2. Go into the Diagnostic Menu, and use the “Yaw Rate” test (see page 23-167) to check the yaw rate sensor.

3. Go into the Diagnostic Menu, and use the “Car Status” test (see page 23-165) to check the vehicle speed pulse.

Are the yaw rate sensor and vehicle speed pulse OK?

YES—The problem may be normal. Check to see if the problem occurs in the same place. If it does, the problem could be in the database. Go to step 4.

NO—If the problem is the yaw rate sensor, replace the navigation unit (see page 23-180). If the problem is the vehicle speed pulse, check for an open in the wire between the navigation unit and the PCM. If the wire is OK, troubleshoot the vehicle speed signal circuit. ■

4. Substitute a known-good navigation unit, and check to see if the problem occurs in the same place.

Does the problem occur in the same place?

YES—The problem is in the database. Report the problem according to the Navigation System Manual under “Reporting Errors.” ■

NO—Replace the original navigation unit (see page 23-180). ■



Picture is missing a color or tone or is an odd color

NOTE:

- Confirm the correct DVD color and version disc is installed in the navigation unit (see page 23-179).
- Always check the connectors for poor connections or loose terminals.
- Before troubleshooting, get the navigation system anti-theft codes.
- After troubleshooting, enter the navigation system anti-theft codes.
- Check for aftermarket accessories that may interfere with the navigation system.

1. Go into the Diagnostic Menu, and use "RGB Color" test under Monitor Check (see page 23-160).

Are the red, green, and blue colored circles shown?

YES—The system is OK at this time. ■

NO—Go to step 2.

2. Turn the ignition switch to OFF.
3. Disconnect navigation unit connector A (20P) and the navigation display unit 20P connector.
4. Check for loose terminals at navigation unit connector A (20P) and the navigation display unit 20P connector.

Are there loose terminals?

YES—Repair the terminal. ■

NO—Go to step 5.

5. Check for continuity between the appropriate terminals of navigation unit connector A (20P) and the navigation display unit 20P connector based on the missing color(s).

Missing color	Navigation unit connector A (20P)	Navigation display unit 20P connector	Wire color
Blue	A11	18	YEL
Green	A2	9	RED
Red	A1	8	WHT

NAVIGATION UNIT CONNECTOR A (20P)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

NAVIGATION DISPLAY UNIT 20P CONNECTOR

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

Is there continuity?

YES—Go to step 6.

NO—There is an open in the circuit between the navigation display unit and the navigation unit. Check for poor connections or loose terminals at the navigation display unit and navigation units. If a poor connection or loose terminal is found, replace the affected shielded harness. ■

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

6. Check for continuity between the appropriate terminals of navigation unit connector A (20P) and the navigation display unit 20P connector based on the missing color(s).

Missing color	Navigation unit connector A (12P)	Navigation display unit 20P connector
Blue	A11	10, 20
Green	A2	10, 20
Red	A1	10, 20

NAVIGATION UNIT CONNECTOR A (20P)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

NAVIGATION DISPLAY UNIT 20P CONNECTOR

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Wire side of female terminals

Is there continuity?

YES—There is a short to body ground in the circuit between the navigation display unit and the navigation unit. Replace the affected shielded harness. ■

NO—Replace the navigation unit. If the problem is still unresolved, replace the navigation display unit. ■

Picture has lines/rolls/other issues or is an odd color

Diagnostic Test: Monitor Check

NOTE:

- Always compare the screen image to a known-good vehicle. If the screen looks the same, inform the client that it is characteristic of the system.
- Always check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have anti-theft codes for the audio system and navigation system.

1. Check for electronic aftermarket accessories (possibly hidden) mounted near the navigation display unit or the navigation unit.

Are there any electronic accessories?

YES—Disable the accessories, and recheck. ■

NO—Go to step 2.

2. Start up the navigation picture.

Is the picture scrolling horizontally (left to right or right to left)?

YES—Check for an open or short to ground in the C SIG wire from navigation unit connector A (20P) terminal No. 12 to navigation display unit 20P connector terminal No. 19. Also check for a short to ground between navigation display unit 20P connector terminal No. 19 and terminal No. 20. ■

NO—Go to step 3.

3. Go into the Diagnostic mode, and use "RGB Color" diagnostic under Monitor Check (see page 23-160).

Is the picture missing a red, green or blue color?

YES—Do troubleshooting for the picture is missing a color or tone or is an odd color (see page 23-137). ■

NO—Go to step 4.



4. Turn the ignition switch OFF.
5. Substitute a known-good navigation display unit (see page 23-180), and recheck.

Is the picture OK?

YES—Check for loose connections, then replace the original navigation display unit (see page 23-181). ■

NO—Check for loose connections and recheck. If a poor connection or loose terminal is found, replace the shielded harness. If no poor or loose terminals are found, substitute a known-good navigation unit (see page 23-180) and recheck. If the problem is gone, replace the original navigation unit (see page 23-180). ■

Interface dial buttons do not work

NOTE:

- Confirm the correct DVD color and version disc is installed in the navigation unit (see page 23-179).
- Always check the connectors for poor connections or loose terminals.
- Before troubleshooting, get the navigation system anti-theft codes.
- After troubleshooting, enter the anti-theft codes for the audio system and navigation system.

1. Turn the ignition switch to ACC (I).
2. Go into the Diagnostic mode, and use "Hard Key" test under Unit Check (see page 23-161).

Do the buttons work properly?

YES—The system is OK at this time. ■

NO—Go to step 3.

3. Try all the buttons on the navigation system.

Is there a specific row or columns of buttons, set of buttons, or a certain button that does not respond properly (i.e. pressing a button in the lower left corner causes a button in the right lower corner to respond.)?

YES—Replace the interface dial (see page 23-181). ■

NO—Go to step 4.

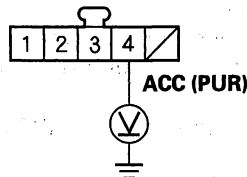
(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

4. Turn the ignition switch ON (II).
5. Measure the voltage between the interface dial 5P connector terminal No. 4 and body ground.

INTERFACE DIAL 5P CONNECTOR



Wire side of female terminals

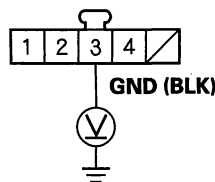
Is there battery voltage?

YES—Go to step 6.

NO—Repair open in the wire between the under-dash fuse/relay box and the interface dial. ■

6. Measure the voltage between interface dial 5P connector terminal No. 3 and body ground.

INTERFACE DIAL 5P CONNECTOR



Wire side of female terminals

Is there less than 0.5 V?

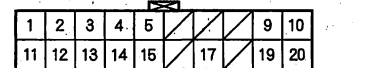
YES—Go to step 7.

NO—Repair open in the wire between the interface dial and body ground (G506) (see page 22-32). ■

7. Turn the ignition switch OFF.
8. Disconnect the interface dial 5P connector and the navigation unit connector A (20P).
9. Check for continuity between navigation unit connector A (20P) terminal No. 17 and interface dial 5P connector terminal No. 1.

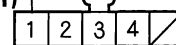
NAVIGATION UNIT CONNECTOR A (20P)

Wire side of female terminals



JOGBUS(WHT)

JOGBUS(WHT)



INTERFACE DIAL 5P CONNECTOR

Wire side of female terminals

Is there continuity?

YES—Check for an open in the wire between the navigation unit connector A (20P) terminal No. 19 and the interface dial 5P connector terminal No. 2. If the wire is OK, go to step 10. If the wire is open, repair the wire. ■

NO—There is an open in the circuit between the interface dial and the navigation unit. Check for poor connections or loose terminals at the interface dial and navigation unit. If a poor connection or loose terminals is found, replace the affected shielded harness. ■

10. Substitute a known-good interface dial (see page 23-181), and recheck.

Is the system OK?

YES—Replace the original interface dial (see page 23-181). ■

NO—Replace the navigation unit (see page 23-180). ■



GPS icon is white or not shown

Diagnostic Test: Navi System Link

NOTE:

- With proper reception, the icon normally appears green.
- Make sure the GPS antenna is plugged in.
- Check for any aftermarket accessories that may be interfering with the GPS signal.
- Make sure the vehicle is parked outside and away from buildings.
- Refer to GPS Information (see page 23-166) for real-time satellite reception display.

1. Check for metallic window tint on the windshield and electronic aftermarket accessories (possibly hidden) mounted near the GPS antenna or the navigation unit.

Is there metallic window tint or electronic accessories?

YES—Remove tint or the accessories and recheck. ■

NO—Go to step 2.

2. Go into the Diagnostic mode, and use the "Navi System Link" diagnostic (see page 23-159) to check the GPS antenna.

Is the "GPS Ant" icon red?

YES—Check for a kinked, crushed, or disconnected GPS antenna wire. If icon is still red, replace the GPS antenna. ■

NO—Check that nothing is blocking the GPS antenna located under the rear shelf and recheck. Substitute a known-good GPS antenna, and recheck. ■

- If the symptom is gone, replace the GPS antenna.
- If the symptom is still present, substitute a known-good navigation unit and recheck. If the symptom is gone, replace the original navigation unit (see page 23-180).

Voice guidance cannot be heard, is broken up, or there is too much static

Diagnostic Test: Navi System Link

NOTE:

- Check the navigation volume level (see Owner's Manual).
- Always check the connectors for poor connections or loose terminals.
- Before troubleshooting, get the audio system and the navigation system anti-theft codes.
- After troubleshooting, enter the anti-theft codes for the audio system and navigation system.

1. Press the display unit SET-UP button.
2. Check the volume and voice feedback setting for the navigation system in set-up.

Is either set to OFF?

YES—Set the voice feedback to ON and select an audible level for the volume. ■

NO—Go to step 3.

3. Check the radio operation.

Can you hear the radio?

YES—Go to step 4.

NO—Troubleshoot audio system. ■

4. Go into the Diagnostic mode, and use the "Navi System Link" diagnostic (see page 23-159) to check the radio.

Is the "Radio" icon red?

YES—Troubleshoot the audio system. ■

NO—Go to step 5.

5. Turn the ignition switch OFF.
6. Disconnect navigation unit connector B (14P) and the stereo amplifier connector A (28P).

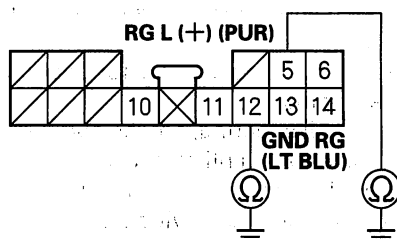
(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

7. Check for continuity between body ground and navigation unit connector B (14P) terminals No. 5 and No. 12 individually.

NAVIGATION UNIT CONNECTOR B (14P)



Wire side of female terminals

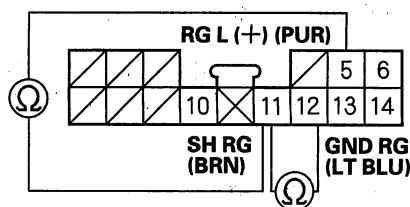
Is there continuity?

YES—Repair short to body ground in the wire between the navigation unit and stereo amplifier units. Replace the affected shielded harness. ■

NO—Go to step 8.

8. Check for continuity between navigation unit connector B (14P) terminal No. 11 and terminals No. 5 and No. 12 individually.

NAVIGATION UNIT CONNECTOR B (14P)



Wire side of female terminals

Is there continuity?

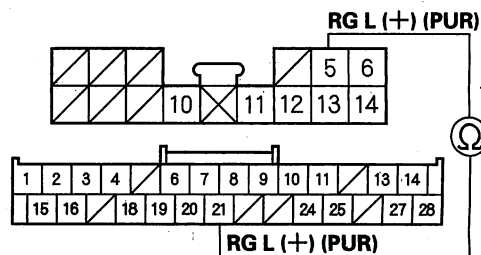
YES—Repair short to body ground in the wire between the navigation unit and stereo amplifier units. Replace the affected shielded harness. ■

NO—Go to step 9.

9. Check for continuity between navigation unit connector B (14P) terminal No. 5 and the stereo amplifier unit connector A (28P) terminal No. 21.

NAVIGATION UNIT CONNECTOR B (14P)

Wire side of female terminals



STEREO AMPLIFIER UNIT CONNECTOR A (28P)

Wire side of female terminals

Is there continuity?

YES—Go to step 10.

NO—There is an open in the circuit between the navigation unit and stereo amplifier. Check for poor connections or loose terminals at the stereo amplifier and navigation unit. If a poor connection or loose terminal is found, replace the affected shielded harness. ■



- 23-143**

Navigation System

Symptom Troubleshooting (cont'd)

1. Go into the Diagnostic Menu, and use the "Mic Level" test under Functional Setup (see page 23-169) to check the operation of the TALK and BACK buttons.

Are the TALK and BACK buttons operational?

YES—Go to step 2.

NO—Check for an open or short to ground on navigation unit connector B (14P) terminal No. 10. ■

2. Use the "Mic Level" diagnostic under Functional Setup (see page 23-169) to check the operation of the microphone.

Is the microphone operational?

YES—Check the operation of the voice control system (see the Navigation System Manual). ■

NO—Check for a loose front map light (microphone) assembly. If OK, check for an open or short to ground on navigation unit connector B (14P) terminals No. 6 and No. 14. ■

DVD screen error messages

Diagnostic Test: Car Status

NOTE:

- Confirm the correct DVD color and version disc is installed in the navigation unit (see page 23-179).
- Refer to General Troubleshooting for a list of common DVD screen error messages and the probable causes (see page 23-177).
- Go into the Diagnostic mode and use the "Car Status" diagnostic (see page 23-165) to check the status of the DVD lid.
- Inspect the navigation DVD for scratches or damage.
- The following troubleshooting is for the error messages shown on the error message table (see page 23-177).

1. Check the DVD-ROM reading surface for scratches and finger prints.

Are there any scratches or finger prints on the DVD-ROM reading surface?

YES—Clean or replace the DVD-ROM (see page 23-179). ■

NO—If the problem occurs occasionally when the system is cold, this is normal. If the problem occurs frequently when driving, replace the navigation unit (see page 23-180). ■



Navigation cannot control A/C by voice

NOTE:

- Always check and repair all CAN DTCs before troubleshooting the navigation system.
- Always check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have the navigation system anti-theft codes.
- After troubleshooting, enter the anti-theft codes for the audio system and navigation system.
- Verify that the correct navigation unit is installed for this model. Go into the Diagnostic mode and use "Version" (see page 23-172).

1. Go into the Diagnostic Mode, and use the "Navi System Link" check (see page 23-159).

Is the "Air-con" icon red?

YES—Do the climate control system troubleshooting. ■

NO—Check for an open or short to ground between navigation unit connector A (20P) terminals No. 4, No. 14, and No. 15, and climate control unit connector A (40P) terminals No. 2, No. 21, and No. 22. If OK, check the climate control system for normal operation. If the climate control system works properly, substitute a known-good navigation unit and recheck. ■

Display day/night mode does not work

NOTE:

- Check that the dash brightness setting is not set to high.
- Always check the connectors for poor connections or loose terminals.
- Before troubleshooting, get the navigation system anti-theft codes.
- After troubleshooting, enter the anti-theft codes for the audio system and navigation system.

1. Turn the headlights on, and adjust the dash brightness to the middle range.

Does the display change to day and night modes when turning the headlights on and off?

YES—The system is OK at this time. ■

NO—Go to step 2.

2. Go into the Diagnostic Mode, and use the "Car Status" diagnostic to check for an ILL signal (see page 23-165).

Is the "ILL" signal OK?

YES—The system is OK. ■

NO—Check the ILL+ circuit for an open or short to ground between the navigation unit and gauge control module. If OK, substitute a known-good navigation unit and recheck. ■

Navigation System

Symptom Troubleshooting (cont'd)

System locks up or freezes constantly

NOTE: Check the GPS and VSP signals in the GPS information check (see page 23-166) and car status (see page 23-165).

1. Start the engine, turn the ignition switch OFF, then turn the ignition switch ON (II).

Does the system reboot?

YES—The system is OK at this time. ■

NO—Check the DVD for the correct color, software version, scratches or damage and the navigation unit for water damage. If OK, go into the Diagnostic mode and do all of the "Unit Check" diagnostics (see page 23-161). ■

Vehicle icon wanders across the map when driving (does not follow a displayed road) or map vehicle ICON spins

NOTE:

- This is not the same condition as when driving off-road (or on a fire or logging road).
- This condition is caused by a loss of map matching from a bad sensor input. Check for aftermarket or other objects that can block the GPS signal. Always perform Map matching (see page 23-103) before proceeding with the troubleshooting.

1. Go into the Diagnostic mode, and do the Navi System Link diagnostic (see page 23-159), the Navi ECU diagnostic under "Unit Check" (see page 23-161), the Car Status check (see page 23-165), the GPS Information check (see page 23-166), the GPS Detail check (see page 23-166), and the Yaw Rate check (see page 23-167).

Are all the tests OK?

YES—The system is OK at this time. ■

NO—Repair the affected system. If the problem persists, substitute a known-good navigation unit, and monitor the condition. ■



Navigation system will not accept security code

NOTE:

- The system will not operate without the 4-digit security (anti-theft) code. Follow the this procedure. (After 10 consecutive tries, you must cycle the key to continue trying)
- The "Navigation System Diagnosis and Core Return Form" is available online, under "Job aids" and can be printed out for recording this information. This information will help the Reman facility determine what caused the failure.

1. Go into the "System diagnosis menu" (see page 23-158), select "Unit check," and then "Navi ECU." A brief diagnostic will run for 20 seconds, and the serial number is then displayed.

Is the serial number displayed?

YES—Go to step 2.

NO—Replace the navigation unit (see page 23-180). ■

2. Obtain the Serial Number (3 letters followed by 8 numbers) from the label on the underside of the navigation unit (not the display unit). Using the Serial Number, look up the navigation security code in the Interactive Network. (click: Service, Vehicle Information, Anti-Theft code Inquiry, and then select "Navigation" from the "product" dropdown box). Enter the serial number.

Is a 4-digit code displayed?

YES—Go to step 3.

NO—Call the Warranty Department, the telephone number is listed in the PDI/TQI bulletin, to obtain the code. Then go to step 4.

3. Check the obtained code work to bypass the code screen.

Does the code work?

YES—The system is OK at this time. ■

NO—Go to step 4.

4. Try entering four zeros (0000) in place for the code.

Do the four zeros work to bypass the code screen?

YES—Replace the control unit, and enter in the "problem description field" of the core return form: "Security code is 0000." ■

NO—Replace the control unit, and enter in the "problem description field" of the core return form: "Won't take security code" (as proof, enclose the sticker that contains the Serial number and the Code). ■

Navigation System

Symptom Troubleshooting (cont'd)

Navigation stays on with ignition switch off

NOTE:

- Check for aftermarket accessories that may interfere with the navigation system.
- Always check the connectors for poor connections or loose terminals.
- Before troubleshooting, get the navigation system anti-theft codes.
- After troubleshooting, re-enter the anti-theft code, and re-initialize the navigation system.
- The vehicle may have been used for a show event. Check for a short jumper harness in-line with the navigation unit "C" connector. If a jumper harness is present, remove it and return it to Tech Line.

1. Take the key out of the ignition switch.

Does the navigation screen stay on?

YES—Go to step 2.

NO—The system is OK at this time. ■

2. Check for a short to power on navigation unit connector C (8P) terminal No. 2.

Is there a short?

YES—Troubleshoot the ACC circuit. ■

NO—Replace the navigation unit (see page 23-180).

■

Navigation cannot control audio/disc/rear entertainment

Diagnostic Test: Navi System Link

1. Make sure the anti-theft code for the audio system is entered.
2. Go into the Diagnostic mode, and use the "Navi System Link" diagnostic (see page 23-159).

Is the "Radio" icon red?

YES—Do the troubleshooting for the voice guidance cannot be heard (see page 23-141). ■

NO—Go to step 3.

3. Substitute a known-good navigation unit (see page 23-180), and recheck.

Can the navi control audio/disc?

YES—Replace the navigation unit (see page 23-180).

■

NO—Do the audio system troubleshooting. ■



Rearview camera does not come on or work properly

1. Turn the ignition switch ON (II), and start the engine.

Does the Navigation screen come on and show an image when the vehicle is started?

YES—Go to step 2.

NO—Go to troubleshooting for “No picture is displayed” (see page 23-134). ■

2. Go into the diagnostic menu and use the “Navi System Link” test (see page 23-159) to check the connection between the navigation unit and the rearview camera.

Is the “R-camera” link on the screen?

YES—Go to step 3.

NO—Go to step 12.

3. Confirm the system connection.

Is the “R-camera” link red on the screen?

YES—Go to step 4.

NO—Go to “Car Status” and check the BACK-Reverse indication status (see page 23-165). ■

4. Check the connections between navigation unit connector D (7P) and the rearview camera connector (6P).

Are the connections OK?

YES—Go to step 5.

NO—Reconnect the connectors. ■

5. Disconnect navigation unit connector D (7P) and rearview camera connector (6P).

6. Check for continuity between the navigation unit connector D (7P) and the rearview camera connector (6P) according to the table.

Navigation unit connector	Rearview camera	Wire color
D1	6	WHT
D5	3	BLK
D7	1	RED
D6	2	GRY

Is there continuity?

YES—Go to step 7.

NO—Repair open in the wire between navigation unit connector D (7P) and rearview camera connector (6P). ■

7. Check for continuity between navigation unit connector D (7P) and body ground according to the table. Then check for continuity between the navigation unit connector D (7P) terminal No. 6, rearview camera 6P connector terminal No. 2 and same terminals.

Navigation unit connector	Wire color
D1	WHT
D5	BLK
D7	RED

Is there continuity?

YES—Repair short in the wire between navigation unit and the rearview camera, or replace the appropriate shielded harness. ■

NO—Go to step 8.

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

8. Turn the ignition switch ON (II), and measure the voltage between navigation unit connector D (7P) and body ground according to the table.

Navigation unit connector	Wire color
D1	WHT
D5	BLK
D7	RED
D6	GRY

Is there more than 0.5 V?

YES—Repair short to power in the wire between navigation unit and the rearview camera, or replace the appropriate shielded harness. ■

NO—Go to step 9.

9. Turn the ignition switch OFF.

10. Reconnect the rearview camera connector (6P).

11. Substitute and connect a known-good navigation unit and check the rearview camera image in reverse.

Is the rear view image OK?

YES—Replace the original navigation unit. ■

NO—Replace the rearview camera. ■

12. Press the "Return" in the upper light corner of the screen to return the main menu, then go to "Version" (see page 23-172).

13. Check the model code that is displayed.

Is the correct navigation unit model code displayed for this vehicle?

YES—Go to step 14.

NO—The wrong navigation unit is installed. Replace the navigation unit with the correct part. ■

14. Remove the DVD disc from the navigation unit and check the label color of the DVD disc.

Is the DVD disc label white (or possibly gray for Canada)?

YES—Reinsert the DVD disc, and go to step 4.

NO—Replace the DVD disc with the correct color. See the Obtaining a Navigation DVD in the "General Troubleshooting Information" (see page 23-100). ■



Navigation cannot control XM radio

Diagnostic Test: Navi System Link

1. Make sure the anti-theft code for the audio system is entered.
2. Go into the Diagnostic mode, and use the "Navi System Link" diagnostic (see page 23-159).

Is the "XM" icon red?

YES—Do the troubleshooting for the voice guidance cannot be heard (see page 23-141). ■

NO—Go to step 3.

3. Substitute a known-good navigation unit (see page 23-180).

Can the navi control XM radio?

YES—Replace the navigation unit (see page 23-180). ■

NO—Do the audio system troubleshooting. ■

Navigation frequently asks for anti-theft code and needs GPS initialization

NOTE: This is often caused by a loss of battery power or a poor ground.

1. Check for an open on navigation unit connector C (8P) terminals No. 1 and No. 2.

Are the circuits OK?

YES—Replace the navigation unit. ■

NO—Repair the circuits. ■

Navigation System

Symptom Troubleshooting (cont'd)

Traffic information is not being shown on map screen

If your client complains that traffic is not being displayed, it could be because a traffic setting is not correct.

NOTE:

- The client's account must be active. Call XM customer care to verify the account status before troubleshooting.
- Currently, real-time traffic (display of traffic flow and/or incidents) is available in over 30 metropolitan areas, and it is likely to grow. The current list can be found at www.acura.com/realtimetraffic. The site also contains a traffic demo and FAQs.
- Traffic flow speed is displayed as bands of red, orange, and green alongside of the freeway. Some or all freeways in a covered city may not have traffic coverage. The link above shows the freeways covered for each city.
- Incident icons (yellow or red diamonds) point out accidents, construction areas, or weather conditions.
- Not all areas have "traffic flow" and "traffic icons." It is possible that an area may have one or the other.

Even if your area does not receive real-time traffic, complete the steps below to make sure the system is set up correctly.

1. Check if your area has real-time traffic coverage. From an iN workstation, go to www.acura.com.
2. Make sure the keyless access remote is linked. When you turn the ignition switch ON (II) with a linked remote, you will see WELCOME DRIVER 1 or WELCOME DRIVER 2 on the multi-information display (MID).
 - If you see WELCOME DRIVER 1 or WELCOME DRIVER 2 on the MID, go to step 4.
 - If you do not see WELCOME DRIVER 1 or WELCOME DRIVER 2 on the MID, go to step 3.
3. Link the remote
 - Press and hold the LOCK and UNLOCK buttons on the remote until its LED blinks once.
 - Lock and unlock the driver's door once with the remote.

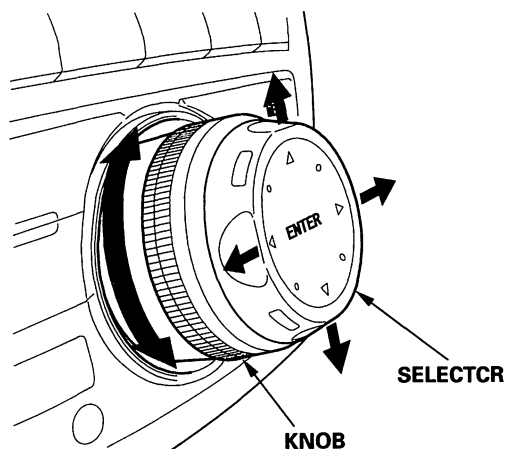
NOTE: It's important to use the same remote (Driver 1 or Driver 2) that your client's used when they noticed problems with the real-time traffic monitor. This is because each remote will recall the customized settings and the data for that driver, including real-time traffic settings. Ideally, check both remotes to make sure the real-time traffic settings are correct.



4. Park the vehicle outside where you have a clear view of the southern sky. Turn on the XM radio, and make sure it receives at least channels 000, 001, 174, and 247 (XM's preview mode).
 - If the XM radio gets at least channels 000, 001, 174, and 247, go to step 5.
 - If the XM radio does not get at least channels 000, 001, 174, and 247, troubleshoot the XM radio, repair as needed then go to step 5.

5. In the lower left corner of the navi map screen make sure the scale is set to 1/2, 1, 2, or 5 miles. (The scale must be set to one of these values to see real-time traffic). To change the scale, turn the interface knob left or right as needed.

NOTE: Many AcuraLink functions are selected using the interface dial at the center of the dashboard. The interface dial has two parts a gray knob behind a silver selector. The knob turns left and right. The selector can be pushed left, right, up, down, and in.



6. Check if the navi screen shows real-time traffic.
 - If you do not see real-time traffic, go to step 7.
 - If you see real-time traffic, or if you are not in an area that receives it, return the vehicle to your client.
7. Go into the map menu:
 - If you were using the interface selector to scroll on the map screen, press the MAP/GUIDE button.
 - Press the interface selection in.

8. In the map menu, turn the interface knob to show icon on map, then press the interface selector in. The traffic icon on the far left should be solid blue. If it is not blue, turn the interface knob until the traffic icon is outlined in blue, then press the selector in, and go to step 10.

If the traffic icon does not change to solid blue, do the AcuraLink self-diagnostic function (see page 23-227), then go to step 9.

9. Reset the AcuraLink control unit, then repeat step 8:
 - With the ignition switch in the LOCK (0) position, pull the No. 5 (10 A) fuse from the under-dash fuse/relay box. Wait 20 seconds, then reinstall the fuse.
 - Enter the audio and navigation system anti-theft codes.
10. From the "map menu," go into icon options by pressing the interface selector to the right.
11. Turn the interface knob to traffic, then press the selector in.
12. Press the interface selector in to select traffic speeds. Turn the knob to traffic icons, and press the selector in again. Both traffic speeds and traffic icons must be solid blue. When both are solid blue, select done by pushing the selector to the right.
13. Check if the map screen shows real-time traffic.
 - If you do not see real-time traffic, go to step 14.
 - If you see real-time traffic, or if you are not in an area that receives it, return the vehicle to your client.
14. See if real-time traffic is currently being broadcast by checking real-time traffic on another real-time traffic equipped vehicle with a known-good navigation system. Wait about 5 minutes for the display screen to refresh.
 - If the other real-time traffic equipped vehicle displays real-time traffic, go to step 15.
 - If the other real-time traffic equipped vehicle does not display real-time traffic, call Acura Client Service at 800-382-2238 and ask about any known traffic system outages or blackouts in your area.

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

15. Reset the AcuraLink control unit

- With the ignition switch in the LOCK (0) position, pull the No. 5 (10 A) fuse from the under-dash fuse/relay box. Wait 20 seconds, then reinstall the fuse.
- Enter the audio and navigation system anti-theft codes.

16. Check if the map screen shows real-time traffic.

- If you still do not see real-time traffic, go to step 17.
- If you see real-time traffic, or if you are not in an area that receives it, return the vehicle to your client.

17. Make sure the vehicle's XM Navi Traffic account status is active.

- Call XM at 800-852-9696.
- From the automated menu, select 1 (dealers and retailers) and from the next menu, select 3 (technical support).
- Ask the agent to check the XM Navi Traffic account status.
 - If the account is active and there are no known outages or blackouts, go to step 18.
 - If the account is inactive, get it activated, then ask for a rapid refresh. (A rapid refresh takes 15 to 30 minutes.)

18. Check if the map screen shows real-time traffic.

- If you still do not see real-time traffic, go to step 19.
- If you see real-time traffic, or if you are not in an area that receives it, return the vehicle to your client.

19. Install a known-good AcuraLink control unit, and check the real-time traffic.

Does the map screen show real-time traffic?

YES—Replace the AcuraLink control unit (XM receiver) and register it with XM radio and Acura client service. ■

NO—Replace the navigation control unit (see page 23-180). ■



No real-time traffic on the display screen

1. Do a VIN status inquiry, and check if the vehicle has any outstanding product updates for the AcuraLink control unit.

- If there are no outstanding product updates, go to step 2.
- If there are any outstanding product updates, complete them as appropriate.

2. Check if your area has Real-Time Traffic coverage. From an iN workstation, go to www.acura.com/realtimetraffic.

NOTE: At this time, Real-Time Traffic covers many metropolitan areas. Check the website often; more coverage areas are continually being added.

3. Make sure the keyless access remote is linked. When you turn the ignition switch ON (II) with a linked remote, you should see WELCOME DRIVER 1 or WELCOME DRIVER 2 on the multi-information display (MID).

- If you see WELCOME DRIVER 1 or WELCOME DRIVER 2 on the MID, go to step 5.
- If you do not see WELCOME DRIVER 1 or WELCOME DRIVER 2 on the MID, go to step 4.

NOTE: Make sure you are using the same remote (Driver 1 or Driver 2) that your client was using when problems were noticed with Real-Time Traffic. This is because each remote will recall the customized settings and data for that driver, including Real-Time Traffic settings. Ideally, check both remotes to make sure the Real-Time Traffic settings are correct.

4. Link the remote:

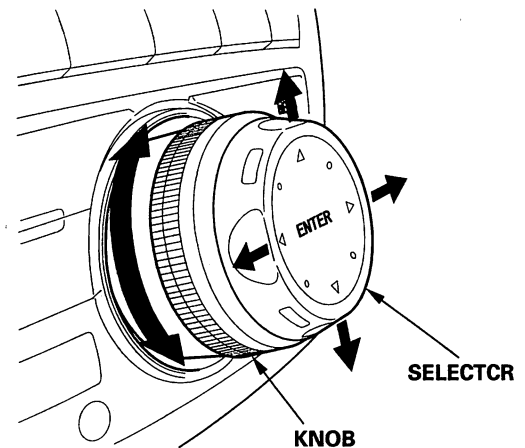
- Press and hold the LOCK and UNLOCK buttons on the remote until its LED blinks once.
- Lock and unlock the driver's door once with the remote.

5. Park the vehicle outside where you have a clear view of the southern sky. Turn on the XM radio, and make sure it gets at least channels 000, 001, 174, 247 (XM's preview mode).

- If the XM radio gets at least channels 000, 001, 174, 247 go to step 6.
- If the XM radio does not get at least channels 000, 001, 174, 247 troubleshoot the XM radio, repair as needed, then go to step 6.

6. In the lower left corner of the display screen, make sure the scale is set to 1/2, 1, 2, or 5 miles. (If the scale is not set to one of these values, you cannot see Real-Time Traffic.) To change the scale, turn the knob on the interface dial to the left or the right, as needed.

NOTE: Many AcuraLink functions are selected using the interface dial at the center of the dashboard. The interface dial consists of a gray knob with a silver selector over it. The knob turns left and right; the selector moves right, left, up, down, and in.



(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

7. Check if the display screen shows Real-Time Traffic.
 - If you do not see Real-Time Traffic, go to step 8.
 - If you see Real-Time Traffic, return the vehicle to your client.
8. Select the map menu, and press in the selector.

NOTE: If you were using the selector to manually scroll the map, the map menu is not available. Press the MAP/GUIDE button instead.
9. Turn the knob to select Show Icon on Map, then press in the selector.
10. From the icon selection bar at the bottom of the display screen, select the Traffic icon. The icon should turn solid blue when you select it.
 - If the icon turns solid blue, go to step 13.
 - If the icon does not turn solid blue, go to step 11.
11. Turn the knob until the Traffic icon is outlined in blue, then press in the selector.
 - If the icon turns solid blue, go to step 13.
 - If the icon does not turn solid blue, do the AcuraLink self-diagnostic procedure (see page 23-227), then go to step 12.
12. Reset the AcuraLink control unit;
 - Make sure you have the anti-theft codes for the audio system and navigation system.
 - With the ignition switch turned to LOCK (0), pull the No. 5 (7.5 A) fuse from the driver's under-dash fuse/relay box. Wait 20 seconds, then reinstall the fuse.
 - Enter the anti-theft codes for the audio system and navigation system.
13. Select Icon Options by pushing the selector to the right.
14. From the Select category for icon settings: screen, turn the knob to Traffic, then press in the selector.
15. From the Select traffic info: screen, press in the selector to select Traffic Speeds. Turn the knob to Traffic Icons, and press in the selector again. Both Traffic Speeds and Traffic Icons must be solid blue. When both are solid blue, select DONE by pushing the selector to the right.
16. Check if the display screen shows Real-Time Traffic.
 - If you do not see Real-Time Traffic, go to step 17.
 - If you see Real-Time Traffic, return the vehicle to your client.
17. Check the display screen on another RL with a known-good navigation system, to make sure the XM NavTraffic signal is currently being broadcast. Wait about 5 minutes for the display screen to refresh.
 - If you see Real-Time Traffic on the other MDXs display screen, go to step 18.
 - If you do not see Real-Time Traffic on the other MDX display screen, call Acura Client Services at 800-382-2238, and ask about any known traffic system outages or blackouts in your area.



System Diagnostic Mode

18. Make sure your client's XM NavTraffic account status is active. This account must be active to get Real-Time Traffic:

- Call XM at 800-852-9696.
- From the automated menu, select 1 (dealers and retailers), and from the next menu, select 3 (technical support).
- Ask the agent to check the XM NavTraffic account status:
 - If the account is active and there are no known outages or blackouts, go to step 20.
 - If the account is inactive, get it activated, and ask for a rapid refresh. (A rapid refresh takes about 15 to 30 minutes.). Then go to step 19.

19. Check if the display screen shows Real-Time Traffic.

- If you still do not see Real-Time Traffic, go to step 20.
- If you see Real-Time Traffic, return the vehicle to your client.

20. Substitute the AcuraLink control unit with a known-good unit, and check if the display screen shows Real-Time Traffic.

- If you still do not see Real-Time Traffic, replace the navigation unit. ■
- If you see Real-Time Traffic, replace the control unit. ■

System always comes up in in-line diagnostic mode

NOTE: If the vehicle left the factory in the factory diagnostic mode, you will see this screen every time you turn on the ignition.

When a navigation control unit is powered up for the first time at the factory or after replacement with a new or remanufactured navigation unit, the "factory diagnosis" screen (In Line Diag) shows up. Normally the factory performs the steps necessary to verify proper operation and terminate the "factory diagnostic".

Until the proper confirmation sequence is performed, the screen will show up every time the vehicle is started.

In Line Diag		Start Diag	Exit Diag
Navi ECU		XXXXCorrect PIN	
GPS Antenna		1	2
Display		4	5
A/C		7	8
Radio		0	Done
Rear Camera		BACK	
XM(HIP)		KA	
HFL			

Follow the steps below to prevent the screen from showing up in the future:

- Press and hold the buttons (Menu + Map/Guide + Cancel) for about 5 seconds (the "Select Diagnosis items" screen will appear).
- Press and hold the Map/Guide button for 5–10 seconds (A screen with a "Complete" button, will appear).
- Select "Complete", then "Return", and then turn the key off for 5 seconds. Do not disconnect the battery during this period as the unit is saving the setting to the SRAM memory. The InLine Diag should not appear again.
- Restart the vehicle, and confirm normal operation by completing the "TQI of the Navigation System" Service Bulletin.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Start-up procedure and Diagnostic Menu

There are two ways to enter the diagnostic mode:

1. Connect the SCS connector (see page 23-179) to the navigation service connector located in the trunk. Then turn the ignition switch to the ON (II). The display will go directly to the diagnostic menu screen shown below.

NOTE: When finished troubleshooting, make sure to remove the SCS connector.

2. Turn the ignition switch ON (II). Use the navigation display hard buttons as described below:

Make sure the battery is connected then press and hold the three buttons (Menu, Map/Guide, and Cancel), and keep them pressed for approximately 5 seconds. The display screen will go directly to the "Select Diagnosis Items" menu shown below.

Select Diagnosis Items		Return
Navi System	GPS Information	
Monitor Check	Yaw Rate	
Unit Check	Tire Calibrate	
Car Status	Functional Setup	
XM (HIP)	Version	

3. After the display changes to the Select Diagnosis Items menu, select the item you want to check and the diagnostic will start. To return to the previous screen, select "Return".

- Navi System (Link)
- Monitor Check
- Unit Check
- Car Status
- XM (HIP)
- GPS Information
- Yaw Rate
- Tire Calibrate
- Functional Setup
- Version



Navi System Link

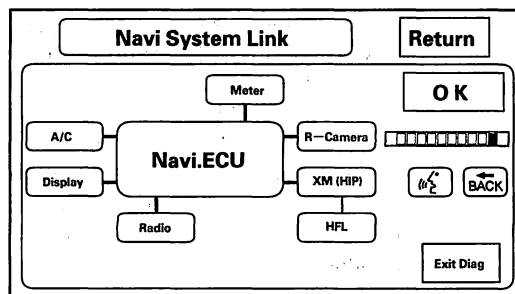
- This diagnostic tests the cables connecting the navigation components. Ensure that the ignition switch is in the ON (II) position. When the diagnostic begins, you hear a “bong” sound. The system is in a “Detecting” mode, and is waiting for all items in white to be tested. This includes the navigation voice control (TALK/BACK) buttons, and microphone. Press the navigation TALK button on the steering wheel, and in a normal voice, say “testing.” The TALK indicator on the screen should turn green, and the voice level indicator should move to at least the 6th bar to pass. Next, press the navigation BACK button. The “Back” indicator should turn green.
- If all of the communication lines connecting the system components, and the navigation TALK/BACK buttons/microphone check out OK (all block diagram items green), then the “OK” indicator turns green.
- If there is a problem with the system, the faulty system component item turns red, and the screen will show “NG” in red. Use the troubleshooting index, and other diagnostic screens to help locate the problem.
- The indication on the screen may not change until you cycle the ignition switch. After repairing the affected cable or system, repeat this diagnostic.

NOTE:

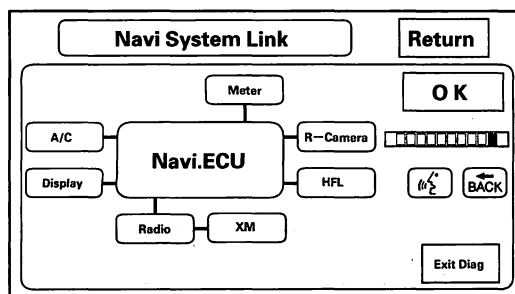
- Green boxes and green “OK” indicate that the communications lines (cables) are intact. This diagnostic does not necessarily imply that the individual components are functioning properly. For instance, the GPS antenna wire may be crushed, but still show as “green.” A road test, or other diagnostic may be necessary to find the problem.
- A green box and link to the AcuraLink control unit (XM receiver) does not mean that the unit is receiving traffic information. Always verify that the client’s account status is active, and compare to a known-good vehicle to ensure that there isn’t local coverage problem.

- Select “Return” to return to the Diagnosis Menu.

USA model



Canada model



NOTE:

- The mic level indicator must reach the 6th bar or greater to pass the test.
- If the XM link is red or flashing red, go to audio system symptom troubleshooting (see page 23-32), or see XM (HIP) diagnostic screen.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

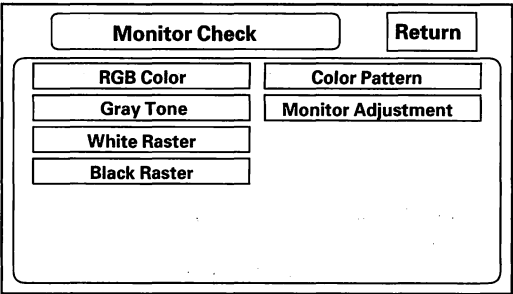
Monitor Check

Overview of display unit

- The display unit communicates with the navigation unit over its own GA-Net bus. Information sent by the navigation unit to the display unit includes commands to control the LCD back light.
- The security system protects the navigation display unit by daisy-chaining the security signal through it, and then passing the signal to the audio unit.
- The illumination input from the gauge brightness control provides back lighting for the buttons surrounding the screen.

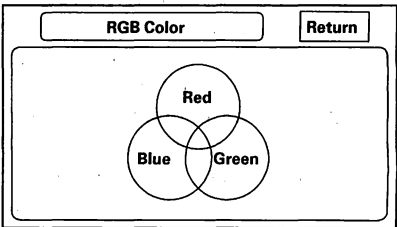
These screens allow you to troubleshoot the display unit. Select the item you want to troubleshoot, and follow the diagnostic instructions.

- RGB color
- Gray Tone
- White Raster
- Black Raster
- Color Pattern
- Monitor Adjustment



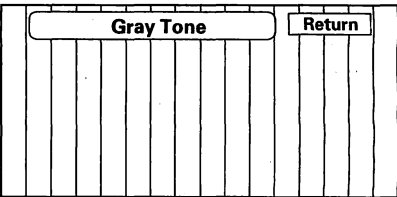
RGB Color

This screen verifies that the display unit is receiving the video (R, G, B and Composite sync) signals properly. The three primary colors should all be shown without distortion. The combination of all three should produce a central white section. If any of the colors are missing, troubleshoot for the color signal (see page 23-137). If the picture has lines in it or scrolls horizontally, or vertically, troubleshoot for a Composite sync problem (see page 23-138).



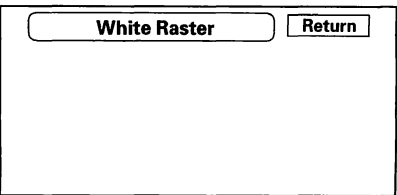
Gray Tone

This screen diagnoses problems with contrast. You should be able to see the changes from bar to bar across the scale. It is normal for the two bars on either side to appear the same.



White Raster

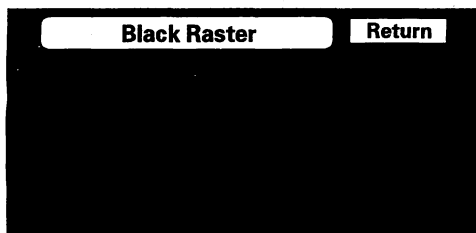
The entire display must be white.





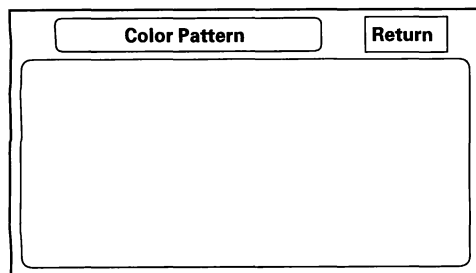
Black Raster

The entire display must be black.



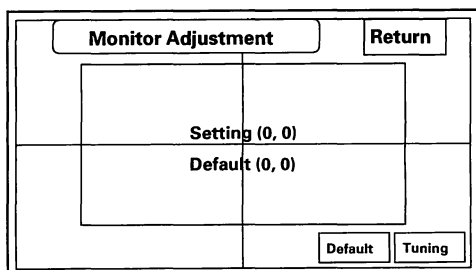
Color Pattern

The chart below shows the colors being used for the map and menu screens. This is for factory use only. To check the color signal use the "RGB Color" diagnostic found under the Monitor Check.



Monitor Adjustment

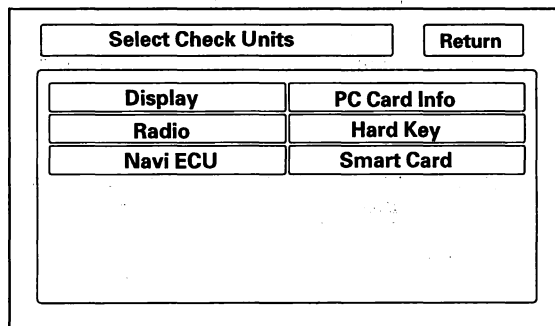
This allows you to center the navigation display. Use the joystick to move the picture up/down or left/right. It is unlikely that you will ever need to adjust the monitor position. The "Default" button will reset the display position to factory specifications.



Unit Check

To start the test, select the item you want to check starts.

- Display
- Radio
- Navi ECU
- PC Card Info
- Hard Key
- Smart Card



Navigation System

System Diagnostic Mode (cont'd)

Display

This diagnostic performs additional checks on the communication bus between the control unit and the display. In addition, the internal electronics functionality are confirmed.

- When the connection is NG, first check for loose terminals at the navigation unit and the display unit connections. Next check for an open or short in the communication line between the navigation unit and the display unit. If you find the line has an open or short, replace the affected shielded harness.
- If the ROM or RAM is NG, replace the display unit.
- The version represents the software version in the display.

Display

Return

ConnectionOK

ROMOK

RAMOK

Version030611

OK

Radio

If the NG is indicated, check for loose audio unit connector.

NOTE: If the XM link was displayed red, but the radio link was displayed green in the navigation system link, refer to audio system symptom troubleshooting.

Radio

Return

ConnectionOK

OK



Navi ECU

This screen looks for problems with the navigation unit. When you initiate this diagnosis, the navigation unit may delay up to a minute while the diagnosis runs.

NOTE: Do not try to end this diagnostic by pressing "OK" or "Mem clear" before it finishes, otherwise the system may reboot.

- If "V-RAM" or "D-RAM" is NG, then replace the navigation unit.
- If "GPS" indicates "NG (ANT)," then check the entire GPS antenna wire from the navigation unit to the antenna. If the wire is crushed or damaged, try a known good antenna. If this diagnostic reads OK, then order a new GPS antenna. If the diagnostic still reads NG (ANT), then replace the navigation unit.
- "DVD ROM" represents the database version on the DVD. You can find this information in either the Setup Screen "Version," or in the Diagnostic Screen "Version."
- "Serial No." should be the same as the serial number found on the underside of the navigation unit. You need this number to obtain the security code from the Interactive Network (iN) system.
- The Mem Clr is for factory use and should not be used unless instructed by the factory. Selecting this will erase the client's settings, personal information, GPS orbital data, and anything else stored in memory.

Navi ECU		Return
V-RAM	OK	OK
D-RAM	OK	
GPS	OK	
DVD-ROM	-	
Serial No.	-	
		Mem Clear

PC Card info.

There is no PC Card in the PC slot, and the screen should say, "PC Card is not inserted."

NOTE: Do not insert any card or object into the slot.

PC Card Info.	Return
PC Card is not inserted.	

If the factory provides a PC card and instructs you to insert a card, then the screen displays the Manufacturer, and Product Name as shown in the following screen.

PC Card Info.	Return
Manufacturer xxxxxx Product Name xxxxxx	

(cont'd)

Navigation System

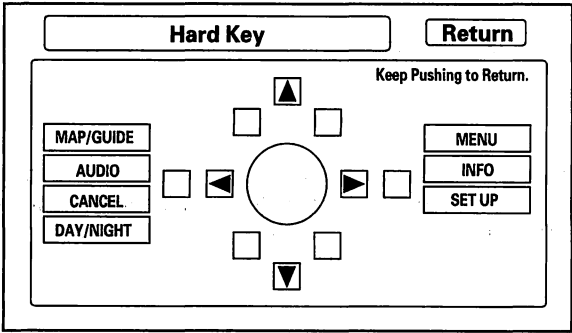
System Diagnostic Mode (cont'd)

Hard Key

This diagnostic tests the interface dial, and the buttons that surround it. For this model, the interface dial and buttons do not use the GA-Net bus for communications.

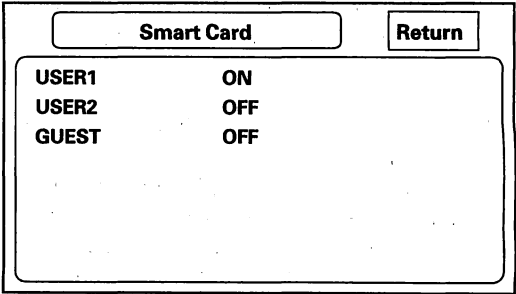
To complete the test, touch each button on the vehicle's control panel, and move the interface dial to each indicated position. As each function is tested, the corresponding button on the display should highlight. To exit, push in and hold the selector knob.

NOTE: You cannot use the onscreen return button to exit this function.



Smart Card

If the smart card is being used, you can check the card condition.





Car Status

Use this screen to confirm that the navigation unit is properly receiving input signals. Signals equal to (0) are OFF, and signals equal to (1) are ON. If the value on the display does not match the actual vehicle status, then check the wire carrying the signal.

- VSP-Vehicle Speed Pulse from PCM
(Pin 6 of C-connector)
 - a) OFF (0) when vehicle is not moving
 - b) ON (1) when vehicle is moving

The VSP comes from the PCM as a dedicated signal. Internally, the navigation unit compares the actual VP on the map against street data to adjust the pulse to speed scaling factor. As this scaling factor becomes more accurate, the "Level" gradually increases from 0 to 10 (see the Tire Calibrate diagnostic screen).

- BACK-Reverse indication from taillight relay
(Pin 5 of C-connector)
 - a) OFF (0) when the shift lever is in any position other than reverse
 - b) ON (1) when the shift lever is in reverse

The Back signal is used by the navigation unit to allow the map screen to show the VP moving backwards when in reverse. This signal is needed because the Speed Pulse has no direction indication.

Car Status		Return	
VSP	[0]	ILL	[0]
BACK	[0]	DVD Lid	[Close]
ILL CANCEL	[0]		

- ILL CANCEL

This function is not applied to this model.

- ILL-Illumination Indication
(Pin 5 of navigation unit A-connector)
 - a) OFF (0) when parking lights, or headlights are off
 - b) ON (1) when parking lights, or headlights are on

The navigation uses the signal to determine whether to put the navigation screen into the Day or Night brightness mode. (Setup screen 1)

- DVD Lid-senses if the DVD door is open
 - a) (Close) when the door is closed
 - b) (Open) when the door is open

The navigation unit has a micro switch to detect this. If open is indicated when the door is closed, replace the navigation unit.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

GPS Information

This screen shows the current status of GPS reception. The circular diagram shows the current location of the GPS satellites (yellow numbers) as they would appear in the sky. The outer circle represents the horizon (0 degrees elevation). The middle and inner circles represents 30 and 60 degrees respectively. The very center of the diagram (90 degrees elevation) is directly overhead. Nearby obstructions, like tall buildings will block satellites in that direction. That is why it is necessary to be in an open area to effectively troubleshoot GPS reception issues. The satellite numbers shown on the diagram correspond to the "PRN" number in the "GPS Details" screen. There are always at least 24 "active" GPS satellites in orbit. Because satellites fail, and have to be removed from service, spares are always parked in orbit, ready to be activated. This is why the PRN (satellite ID number) can be greater than 24.

NOTE: To use this screen for troubleshooting, the vehicle should be outside away from buildings, tall trees, and high-tension wires for at least 10 minutes with the engine running.

- The "Number of Satellites" box shows the number of acquired satellites (maximum of 12). It should contain four or more icons. If not troubleshoot for "GPS icon is white or not shown" (see page 23-141).
- The "Current Position" shows latitude, longitude, and elevation (in feet). If there are less than four satellites, the elevation can be grossly inaccurate.
- The Date/Time field shows the current date, and also GMI time.

GPS Information

Return

Number of Satellites

Current Position

Latitude: Nxx°xx'xx"

Longitude: Wxxx°xx'xx"

Elevation: xxx feet

xxxx.xx.xx xx:xx:xx

In Use

Search

NOTE: Pressing the "map guide" button displays the satellite number on each circle.

GPS Detail

By pressing and holding the MENU button for 10 seconds, a GPS Detail screen appears. This screen displays real time incoming satellite positional data when the vehicle is outside in the open. The information shown on this screen is for factory use.

GPS Detail						Return
TS:xx	HDop:xx.x	Speed:x.xKm/h	Date:xxxx.xx.xx			
AS:xx	VDop:xx.x	Direction: x°	Time:xx:xx:xx			
3D	PRN	ST	AZI	EL	C/N	ACC
☐	xx	xx	xxx	xx	xxx	xx
☐	xx	xx	xxx	xx	xxx	xx
☐	xx	xx	xxx	xx	xxx	xx
☐	xx	xx	xxx	xx	xxx	xx
☐	xx	xx	xxx	xx	xxx	xx
☐	xx	xx	xxx	xx	xxx	xx

- The box TS/AS and H Dop/V Dop is for factory use.
- The Speed and Direction information is updated in real time when driving.
- The Date/Time Information is the same as in Setup screen 2 "Adjust Time Zone/Clock."
- If the "3D" icon is shown above the yellow dots, this implies that at least four satellites are available for map positioning, and the "GPS" indicator on the map screen will be green. See the "Global Positioning System" detailed explanation in the "System Description".
- If the row of data in the table below begins with a "yellow dot", the AZI and EL fields can be used to locate each satellite on the circular GPS diagram (see prior screen).



NOTE: The data shown in the GPS Detail screen is an example only.

The table of values shown on the screen below has the following columns:

Column	Description	Problem indication
Active	Active satellites (Yellow Dot)	If "3D" or "2D" is missing when the vehicle is parked outside, do the GPS icon is white or not shown troubleshooting (see page 23-141).
PRN	The satellite ID number	
ST	The status: 0 = cannot view or searching, 2 = acquiring	If all 0, then, do the GPS icon is white or not shown troubleshooting (see page 23-141).
AZI	Azimuth, the angle (0—360) clockwise from north	
EL	Elevation from the horizon (90 deg is overhead)	
C/N	N/A	Healthy signal is 49-52, no signal: 27-33
ACC	N/A	
△ 1/2 or 2/2 ▽	Shows view of all satellites in two screen views 1/2 or 2/2	

Yaw Rate

This diagnostic checks the yaw rate sensor in the control unit. This device detects when the vehicle turns, and repositions the vehicle position icon on the map screen. For more detailed information, see the yaw rate sensor theory of operation under "System Description" (see page 23-111).

- "Sensor" indicates the voltage output from the yaw rate sensor. It should indicate about 2.500 volts when stopped.
- "Offset" is the reference voltage or standard within the yaw rate sensor. It also should indicate about 2.500 volts when stopped.
- A "sensor" output voltage LOWER than the "Offset" voltage indicates that the vehicle is turning to the right.
A "sensor" output voltage HIGHER than the "Offset" voltage indicates that the vehicle is turning to the left.
- The yaw rate offset, and sensor should both indicate about 2.500 volts when stopped. If either reads zero, or 5.000 volts, replace the navigation unit.
- The yaw rate offset and sensor should be within ± 0.01 V of each other when stopped. The sensor value should change relative to the offset as the car is turned while driving. If not, replace the navigation unit.

Example: Car stopped

Normal		Abnormal	
Offset	2.526 V	Offset	2.526 V
Sensor	2.516—2.536 V	Sensor	2.623 V

Example: Car turning

Normal		Abnormal	
Offset	2.526 V	Offset	2.526 V
Sensor	2.678 V (left turn) 2.478 V (right turn)	Sensor	2.623 V (no change on turns)

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

- "Sensitivity study" represents the status of the internal tuning function. At initialization, this value starts at 6 and increases to # 10 as the internal correction values become more accurate.
- The settings "CCW Cal Factor," "CW Cal Factor," and "Set" are for factory use only. THIS SHOULD NEVER BE ADJUSTED.
- For detailed analysis of the yaw rate select "tuning."

Yaw Rate

Return

Sensor

Offset

CCW Factor

CW Factor

x.xxx V

x.xxx V

x.x%

x.x%

▲

▼

▲

▼

Tuning

Set

Yaw Rate Tuning

This diagnostic allows you to graphically display problems with the yaw rate sensor.

- The "ANG-Disp" value accumulates any differences between the "offset," and "sensor" voltages (see Yaw Rate diagnostic). When the sensor is functioning normally, the random changes in these two voltages generally cancels out, so the value is 0. However if one voltage is consistently higher than the other, then the "ANG-Disp" value accumulates the constant change.
- The "Reset" button temporarily clears the angular accumulation (ANG-Disp), and clears the display dots.
- Do not touch the "CCW," "CW," or "Set" buttons. These are used for factory setup only.

Two tests are explained below. For gross problems with the sensor, the stationary test usually confirms whether the sensor is defective. For yaw rate issues related to driving, perform the road test described below.

1. Stationary test: If the "VP" icon spins in place and the "ANG-Disp" value slowly increases or decreases in value, the yaw rate sensor is defective. Replace the navigation control unit.
2. Road test: Drive the vehicle on a very straight road. Enter the diagnostic mode, select "Yaw rate," and touch the "Tuning" button. While driving down a straight road, the white "dots" should trace a straight line across the screen. However, if you are driving on a straight road, and you notice the dots constantly dropping down or heading up as you drive, the navigation control unit's yaw sensor is defective. You can touch "Reset" to clear "ANG-Disp," and dotted lines.

If either test above fails, please enter "Yaw rate sensor defective" for the problem description, on the "Navigation core return form."

Tuning

0.0%

▲

▼

Return

ANG-Disp

0°

Reset

CCW

CW

Set



Tire Calibrate

As the vehicle moves, the navigation system receives speed pulses from the PCM. These pulses are converted using a conversion factor to a mph speed that moves the vehicle position (VP) on the map. The navigation system has an internal tuning function that generates and refines this factor based on actual driving. The "Study" indicates the status of the tuning. At navigation initialization, it begins at 0, and increases to 10 as the navigation system is used.

- The "Auto Tuning" is factory set to "ON," and should remain on.
- The "Study" indicates the tuning status. If it is less than 10, the unit is still calibrating.
- The "Tire-Cal. Tuning" and Set should not be used. It is for factory use only.

Tire-Calibrate		Return
Auto Tuning	OFF	ON OFF
Study	----	
Tire-Cal.Tuning	-x.xx%	▲ ▼
		Set

Functional Setup

Select the item you want to check.

- Log Data
- GPS Send Time
- Demo Mode
- Mic Level
- Solar Angle
- Save Users Data

Functional Setup		Return
Log Data	Mic Level	
GPS Send Time	Solar Angle	
Demo Mode	Save Users Data	

(cont'd)

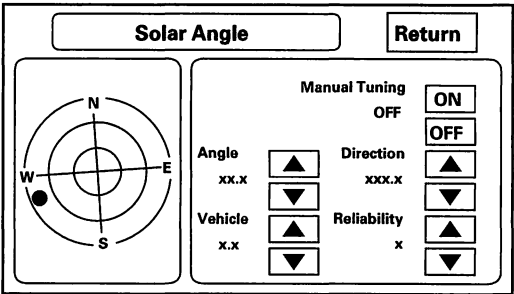
Navigation System

System Diagnostic Mode (cont'd)

Solar Angle

This screen graphically displays the sun's position as determined by GPS. The HVAC system uses the navigation systems sun's angle, along with the sunlight sensor to control the driver/passenger A/C air flow. The heat that the climate control unit removes varies, depending on the angle of the sun entering the vehicle. This screen is for factory use only, and should not be adjusted.

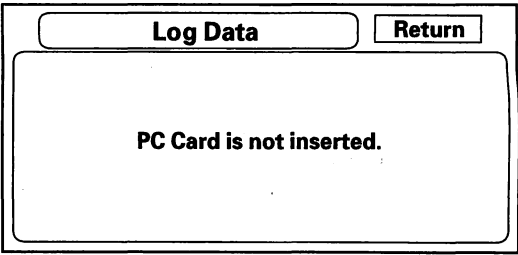
- The screen shows a circular diagram of the sky oriented in the direction that the vehicle is pointing. During daylight hours a red dot is shown, representing the direction and elevation of the sun. The outer circle represents the horizon (0 degrees elevation). The middle circle is 30 degrees, the center circle is 60 degrees, and the very center is directly overhead (90 degrees).
- The "manual tuning" button should always be "OFF."
- The "Angle" is the angle that the sun (shown with red "dot") is above the horizon.
- The "vehicle" value represents the angle, clockwise from North, to the direction that the vehicle position (VP) icon is pointing (always points straight up).
- The "direction" value is the angle, measured clockwise from the VP (straight up) to the sun's position.
- The reliability ranges from 1 to 3, and represents the accuracy of the Vehicle Position relative to the sun.



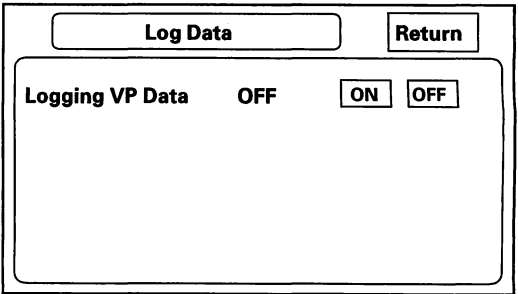
Log Data

This screen allows the factory to select log data to troubleshoot navigation system issues.

- Normally there is no card in the "PC Card Slot," and the PC slot door should always be closed. The screen should look like below.



- However, if the factory provides a PC card and instructs you to insert it into the card slot (label side up). If instructed by the factory, select "Gyro. Sensor Logs ON." Follow the factory procedure for gathering test data, and properly ending the test.





Send GPS Time

This screen is for factory use only. It allows adjustment of the GPS time. This display updates in real time.

- "GPS Time" is the time as received from the GPS satellites. It is in Greenwich Mean Time (GMT).
- Date, Hour, Minute, and "Set" should not be used.

Demo Mode

This screen is for factory use only, and should always be set to "OFF." Occasionally "DEMO" setting is turned "ON" when vehicles are being used at Auto Shows or similar events. Turning this feature on, allows the navigation system to automatically follow a route to a destination when the vehicle is stationary. The "Speed" can change the speed of the demo mode.

Mic Level

This diagnostic allows you to independently test the microphone and the NAVI TALK and BACK buttons. They are used to activate the voice control system. The microphone is located near the map light in the roof console. It is directional, and works best with the voice coming from the drivers seat.

- Press the TALK button on the steering wheel, and in a normal voice say "testing." The TALK indicator on the screen should momentarily turn green, and the text "Now Recording..." should appear in yellow. If the TALK indicator on the screen does not briefly turn green, then check the wiring from the steering wheel TALK button to the navigation unit. If there is no "Mic Level" movement when you speak, then you should check the wires running from the microphone in the roof console to the HFL unit and the navigation unit. If the wires are OK, the microphone must be faulty; replace the roof console (see page 20-101).
- Press the BACK button on the steering wheel. This should cause the BACK indicator on the screen to momentarily turn green. If it does not briefly turn to green, then check the wiring from the steering wheel BACK button to the navigation unit.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Version

This screen displays the current version information for the navigation system software. In addition, this screen allows the loading of updated software if requested by the factory, or instructed by a Service Bulletin. Software may be loaded from a CD or a PC card.

- **Program Flash:** Displays the version of the navi software in memory.
- **Program Disc:** If displayed, this value represents the version of the navi software on the navi DVD.
NOTE: The last two letters of the Program "Flash" or DVD fields indicate which DVD is installed in the unit. The letters "KA" imply that a "United States" DVD is installed. If the letters are KC, then a "Canada" DVD is installed. (See coverage discussion below.)
- **IPL, APL, DBOOT, and System uCom,** are all for factory use.
- **Model:** For this model, the field should begin with "STX."
- **Download:** Do not touch, unless instructed by the factory.

Version		Return
Program Flash	x.xx.xxKA	Download
Program Disc	-	
IPL	x.xxx.xxx	
APL	-	
DBOOT	x.x.xxx	
System uCom	x.xxx.	
Model	STXA	

There are two navigation DVDs produced for this model.

- The white DVD labeled "United States" is for the US market and contains maps for the contiguous 48 US states, and some southern portions of Canada. Clients wanting additional northern coverage in Canada, can purchase a "Canada," DVD by contacting the DVD fulfillment desk.
- The gray DVD labeled "Canada," is for the Canada market, and contains maps for all of Canada, plus some of the northern US states. If clients with this DVD require full US coverage (including states like Florida and Texas), they may purchase a "United States" DVD by contacting the DVD fulfillment desk.

XM (HIP)

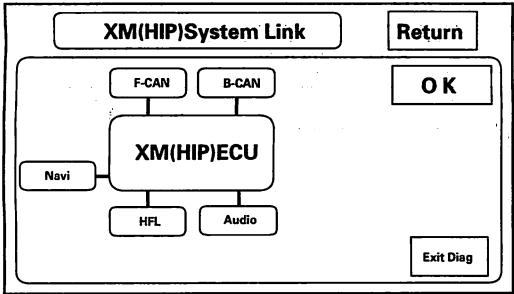
These screens allow troubleshooting of XM or HIP (AcuraLink) problems. Select the item you want to troubleshoot, and follow the diagnostic instructions.

XM (HIP)	Return
XM (HIP) System Link	
XM (HIP) ECU	



XM (HIP) System Link

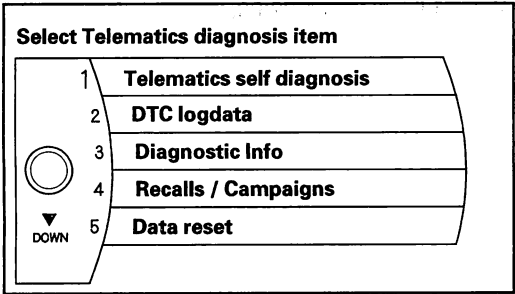
This diagnostic tests the cables connecting the XM (HIP) components.



XM (HIP) ECU

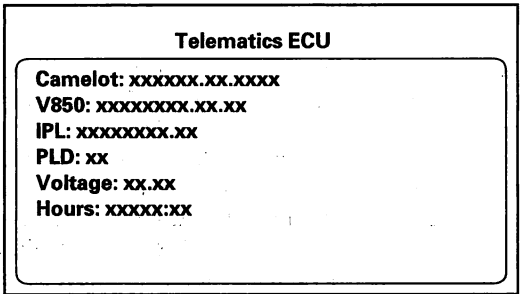
Select the item you want to troubleshoot, and follow the diagnostic instructions.

Note: Only select "DATA RESET" when instructed. Selecting "DATA RESET" will clear the AcuraLink registration, and the AcuraLink service will reset to the factory default. If the vehicle was already registered for the AcuraLink service, it will have to be reactivated by calling Acura Client Services before all features will be available. The reactivation will cause the Feature Guide to start over at the first message, which will result in the client getting repeated messages.



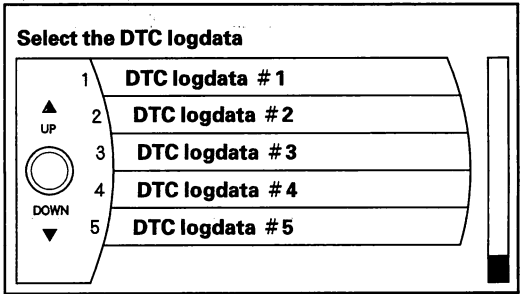
Telematics Self-Diagnosis

This screen used to do self-diagnosis for the XM (HIP).



DTC Log Data

You can check the DTC log data in this screen.



NOTE: When DTC B2200-B2249 is displayed. It is in engineering mode and is not for trouble diagnosis.

(cont'd)

Navigation System

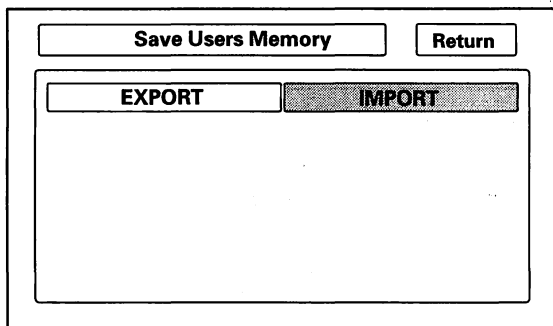
System Diagnostic Mode (cont'd)

Save users Memory

When replacing the navigation unit, this function allows the dealer to transfer the client's personal data to the new navigation unit

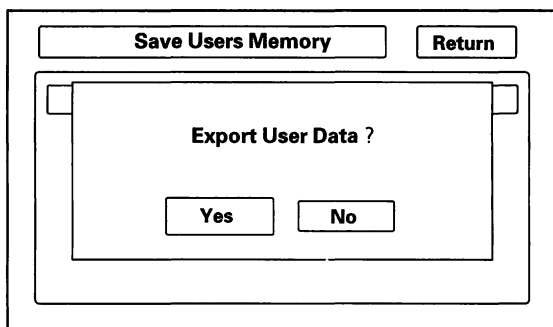
This is similar to saving and entering the client's audio presets when replacing an audio core. The transferred information includes their Setup settings, and personal addresses. The dealer inserts a PC card (like the PC card in the HDS), and then selects the "Save users Memory" function. The two functions in this diagnostic screen are Export and Import saves the client's data to the PC card, and Import moves the PC card files to the new core.

See the FAQs below for information regarding PC cards, and the use of this function.



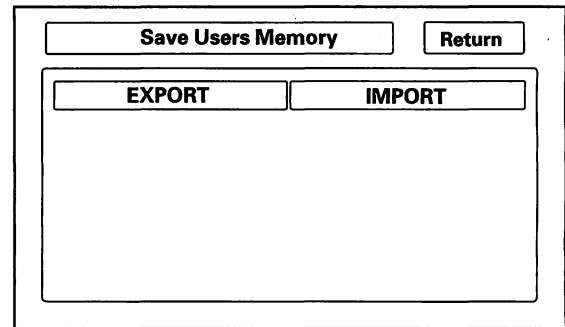
Export

Select this button to move the client's data from the original navigation unit to the PC card. Select "YES" on the "Export User Data" Confirmation screen. The process takes only a couple of seconds. The system stores two small files on the card.



Import

After installing the client's original DVD in the new core, allow the system to boot up. Insert the PC card in the new core and enter the navigation diagnostic mode.



Select "YES" on the "Import Confirmation" screen.

Import moves the two files stored by the Export process from the PC card to the new navigation unit. When the transfer is finished (a few seconds) the system will automatically reboot. After the system reboots, remove the PC card from the PC slot.

If the Import button is grayed out, follow the troubleshooting in the FAQs below. The client's files can only be transferred to a new core if the "Model" and the "Program Flash" shown on the "Version" screen are the same. These files cannot be transferred from TSX to MDX, or from a MDX with version 1.07.00 to a MDX with version 1.32.00.



PC Card FAQs

Question	Answer
Where do we buy the flash memory or adaptors, and what do we ask for?	You need a "PCMCIA type II" adaptor and a flash memory chip (see below for memory chip types). They can be purchased at a computer, or office supply store. The card will have the same size and shape as the PC card in the HDS. Adaptors that accept multiple flash types are not recommended.
What memory flash chips will work with what adaptors?	The flash memory devices that have been tested include Compact Flash (CF), and ATA style (like the card in the HDS). Other card types and flash memory chips may work, but have not been tested.
What capacity card do I need for this function?	A memory chip with capacity of 64 MB to 2 GB will work. The two files moved to the card during "export" are less than a Megabyte in size. An adaptor and flash memory can be obtained for less than 50 dollars.
Should the dealer have a dedicated card for the Export and Import navigation function?	Yes, treat the card as a dedicated "special tool" that should be used anytime your '07 or later client needs their navi personal files transferred to a new ECU core.
What device can I use to maintain the card, and delete files	Any computer store sells USB style PC card readers that accept the card, and allow you to perform file maintenance on your card. Most laptops will also accept the card.
Can we move the client's data to different models (like moving TSX navi data to a MDX)?	No, the files are model specific and will only load into a navi ECU with the same part number.
Can we move the client's data to the same vehicle with a different software version? (Like moving version 4.51)	The client's files can only be transferred to a new core, if the "Model" and the "Program Flash" shown on the "Version" screen are the same. Files cannot be transferred from TSX to MDX (different model code), or '07 MDX to '08 MDX (different versions)
The "Export" button is "grayed out" Why?	• A PC card with its media memory chip is not inserted properly. • Check the card's edge connector, and the pins inside the navigation unit (with a flashlight) for damage
The "Import" button is "grayed out". Why is this?	• A PC card with its media memory chip is not inserted • The model code of the files stored during export do not match the model code of the new navi ECU • The version of the files from the original navi ECU are not the same as the version in the new ECU
Will other files on the card like images or music files prevent the Export/Import function from working?	No, the system simply adds two small files that are recognized by the new core when performing the Import function. However, if the card is full, the Export function won't work correctly.
Do I have to delete the files on the card after each transfer of the client's data?	After the transfer of client data to the new core, the files remain on the card. Since this is confidential information, we recommend that you delete these files after each use. Please note that each time you export navi files of the same model and version, the files are overwritten. If you do not delete the files after use, over time the card will accumulate two files for each version of the 5 or so Acura navi models.
What format should be used if the card needs reformatting?	It is unlikely that the card will ever need formatting, however the FAT file system should be used
I can't enter the navi diagnostic mode to do the Export/Import function. How can I transfer the client's data?	Some internal navi ECU failures may make it impossible to use the Export/Import function.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Question	Answer
Why won't the Export or Import functions work? What do I check as part of troubleshooting?	• The card may not be fully inserted into the slot. Eject the card, and inspect for warping or damage to the edge connector. Never use excessive force to insert a card. This can result in damage to the pins in the rear of the slot. • The card may not contain files that are recognized by the new core. Navi data can only be transferred between cores with the same "Model code", and with the same navi "Program flash" version. • The flash memory chip type may not be accepted by the system. Only Compact Flash, and ATA cards have been tested. • The card's PCMCIA adaptor may be preventing a known good card from being recognize. Avoid multi slot type PCMCIA adaptors that accept several different flash memory types • The card may be full and as a result the files are stored, but without any data. Export and import appear to function, but move nothing. Delete unused files from the card. • There may not be any files on the card. If the card has a "write protection" switch, make sure it is turned off before attempting to use the Export function. • Although flash memory chips are reliable, occasionally they develop bad sectors or other formatting errors that prevents them from accepting files. The card should be reformatted using the FAT format. • The card may have been formatted using the format "NTFS". Only the "FAT" format is accepted by the system. • Hard Disc Drive (HDD) cards may not work properly in the system and can overheat or quit functioning, particularly in a hot vehicle. They are not recommended. • Before performing the import function, ensure that the client's original DVD is loaded into the new core and working properly.
Are there any error messages to tell me what is wrong?	There are no error message associated with the Import/Export feature. Follow the troubleshooting steps above.

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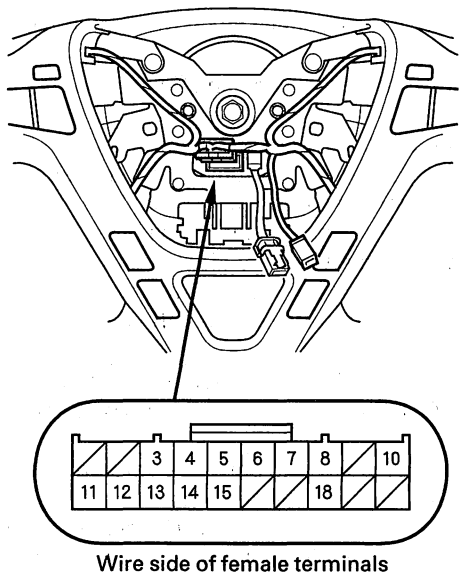


Error Message Table

Screen Error Message	Solution
Navigation system is unable to acquire a proper GPS signal.	Make sure there is nothing on the dashboard blocking the GPS antenna. If not, move the vehicle to an open space away from tall buildings, trees, etc. Window tinting and after-market devices can affect the GPS reception.
Navigation unit door is open or No DVD disc installed. Please check system.	Make sure the navigation DVD is the correct color and is not scratched or damaged. Make sure it is installed with the label side up and the navigation unit door is snapped fully closed.
No DVD disc, please check system.	Check that the navigation DVD is installed with the label side up.
Display temp is too high. System will shut down until display cools down.	This message will appear briefly when the display temperature is too high, and then the display will turn off until the temperature cools down. The system will turn back on when the display cools down.
Outside temperature is low, system will take a while to start up.	The temperature is below -30°C and the navigation unit has difficulties reading the DVD. The system will start up when the temperature warms up.
DVD disc reading error (unformatted), please consult your dealer.	Check the DVD for the correct color and software version. Also check for deep scratches or other damage. Make sure you are using an official Honda navigation DVD (white in color). The system cannot read other mapping databases or video DVDs. If the problem persists, see your dealer.
Route has not been completed. Please try again from a different location.	Routing to or from a place (new area) that is not in the database. Try planning a different route to or from a different location that is clearly displayed on the map (map matched).
No alternate route found. Original route will be guided.	No alternate route method was found. The original route method will be used.
This destination cannot be found in database.	The destination was not found in the database. Try another destination nearby, or select the destination with the joystick.

Voice Control Switch Test

- 1. Remove the driver’s airbag assembly (see page 24-137).
- 2. Remove the 20P connector from the cable reel.



- 3. Measure the resistance between the No. 8 and No. 18 terminals in each switch position according to the table.

Position	Resistance
OFF	About 10 kΩ
Talk button pressed	About 2.2 kΩ
Back button pressed	About 640 Ω

- 4. If the resistance is not as specified, replace the voice control switch (see page 17-23).
- 5. Use a diode tester between the terminals in each switch position according to the table.

Terminal	12		11

- 6. If the diode test is not as specified, replace the voice control switch (see page 17-23).

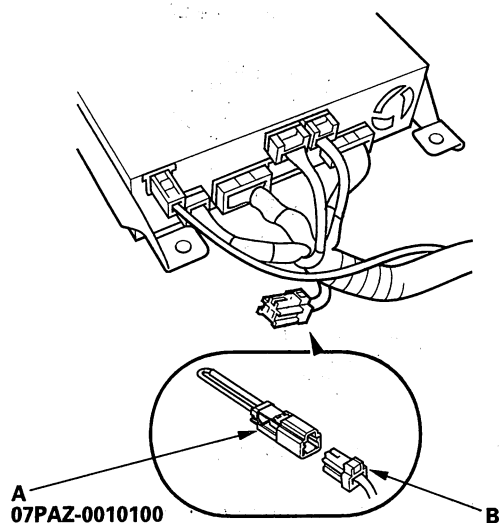


Forced Starting of Display

Special tools required

SCS Service Connector 07PAZ-0010100

1. Turn the ignition switch OFF.
2. Connect the SCS service connector (A) to the navigation service connector (B) located behind the navigation unit.



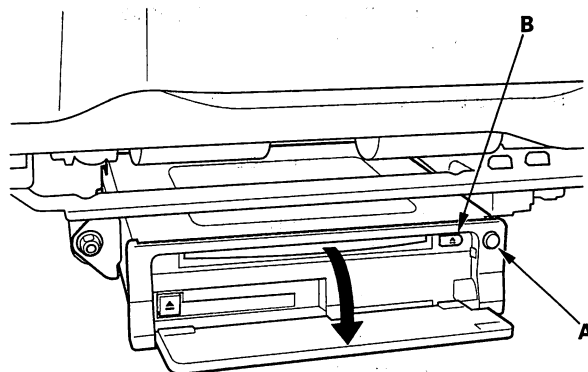
3. Turn the ignition switch ON (II).
4. Check that the diagnosis menu for the picture diagnosis starts up, and then changes to the system link menu.

NOTE: If the display fails to display the system link screen, refer to no picture is displayed (see page 23-134).

DVD-ROM Replacement

NOTE: When the DVD-ROM is re-inserted or replaced, a map match must be done (see page 23-103).

1. Turn the ignition switch ON (II).
2. Push the open button (A) of the navigation unit located under the driver's seat.



3. Press the EJECT button (B).
4. Remove the DVD-ROM.
5. Insert the new DVD-ROM with the white label facing up.
6. Close the front cover. Do not turn the ignition switch OFF; watch the navigation screen until the data is downloaded to the navigation unit.

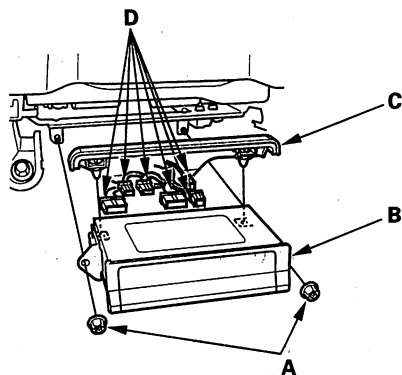
Navigation System

Navigation Unit Removal/Installation

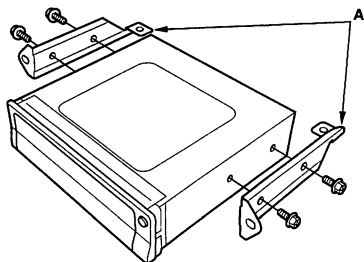
NOTE:

- If possible, have the client record any personal information from the navigation system that will be lost.
- If the navigation unit is replaced or disconnected, a Map Match must be done (see page 23-103).
- Dealer should do save users memory (see page 23-174) if replacing unit.

1. Remove the DVD-ROM (see page 23-179).
2. Remove the Driver's seat (see page 20-141).
3. Remove the two mounting nuts (A) from the navigation unit (B).



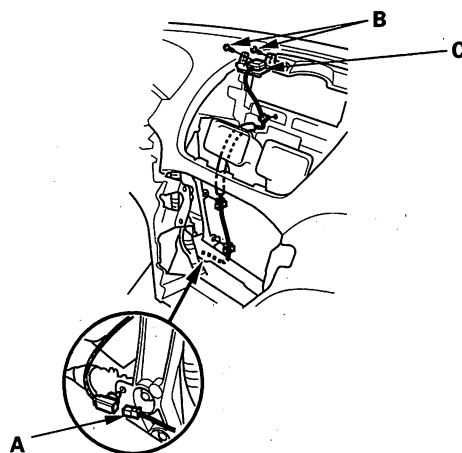
4. Remove the cover (C), then disconnect the navigation unit connectors (D).
5. Remove the bolts, and the brackets (A).



6. Install the unit in the reverse order of removal.
7. Install the DVD-ROM, then enter the 4-digit security code.
8. Do the system initialization (see page 23-102).
9. Give the new security code to the client.

GPS Antenna Removal/Installation

1. Remove the audio unit (see page 23-90).
2. Remove the display unit (see page 23-181).
3. Disconnect the GPS antenna connector (A), and remove the bolt (B).

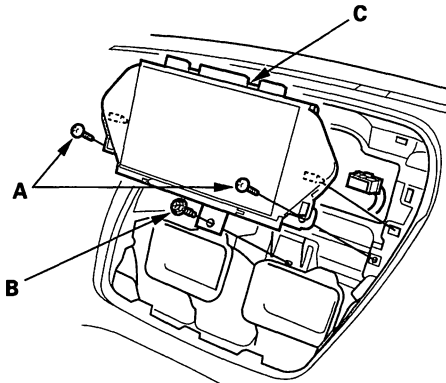


4. Remove the GPS antenna (C).
5. Install the antenna in the reverse order of removal.



Display Unit Removal/Installation

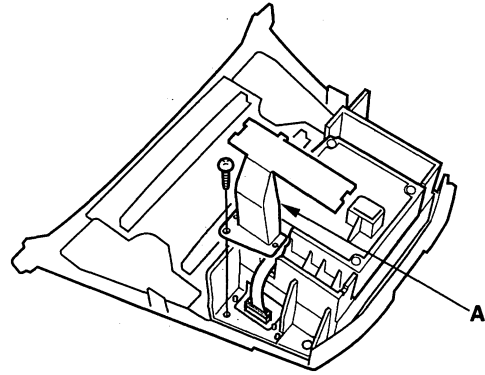
1. Remove the dashboard upper visor (see page 23-91).
2. Remove the two screws (A) and bolt (B), then remove the display unit (C).



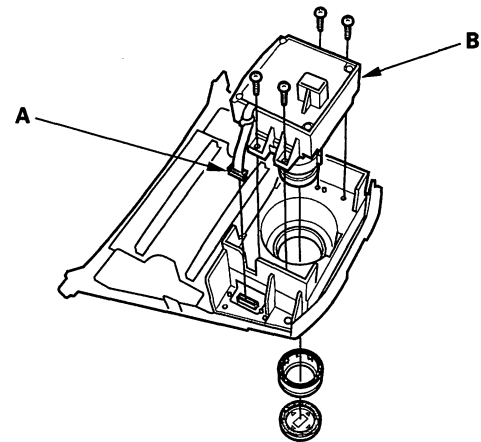
3. Disconnect the navigation display connector (D).
4. Install the unit in the reverse order of removal. Be careful not to drop the forward bolt behind the dashboard.

Interface Dial Removal/Installation

1. Remove the audio unit (see page 23-90).
2. Remove the harness cover (A).



3. Disconnect the interface dial connector (A), then remove the interface dial (B).

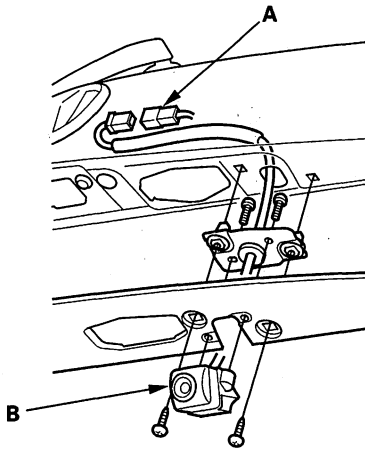


4. Install the dial in reverse order of removal.

Navigation System

Rearview Camera Removal/Installation

1. Remove the rear license trim (see page 20-214) and tailgate lower trim panel (see page 20-96).
2. Disconnect the connector (A), then remove the screws and the rearview camera (B).

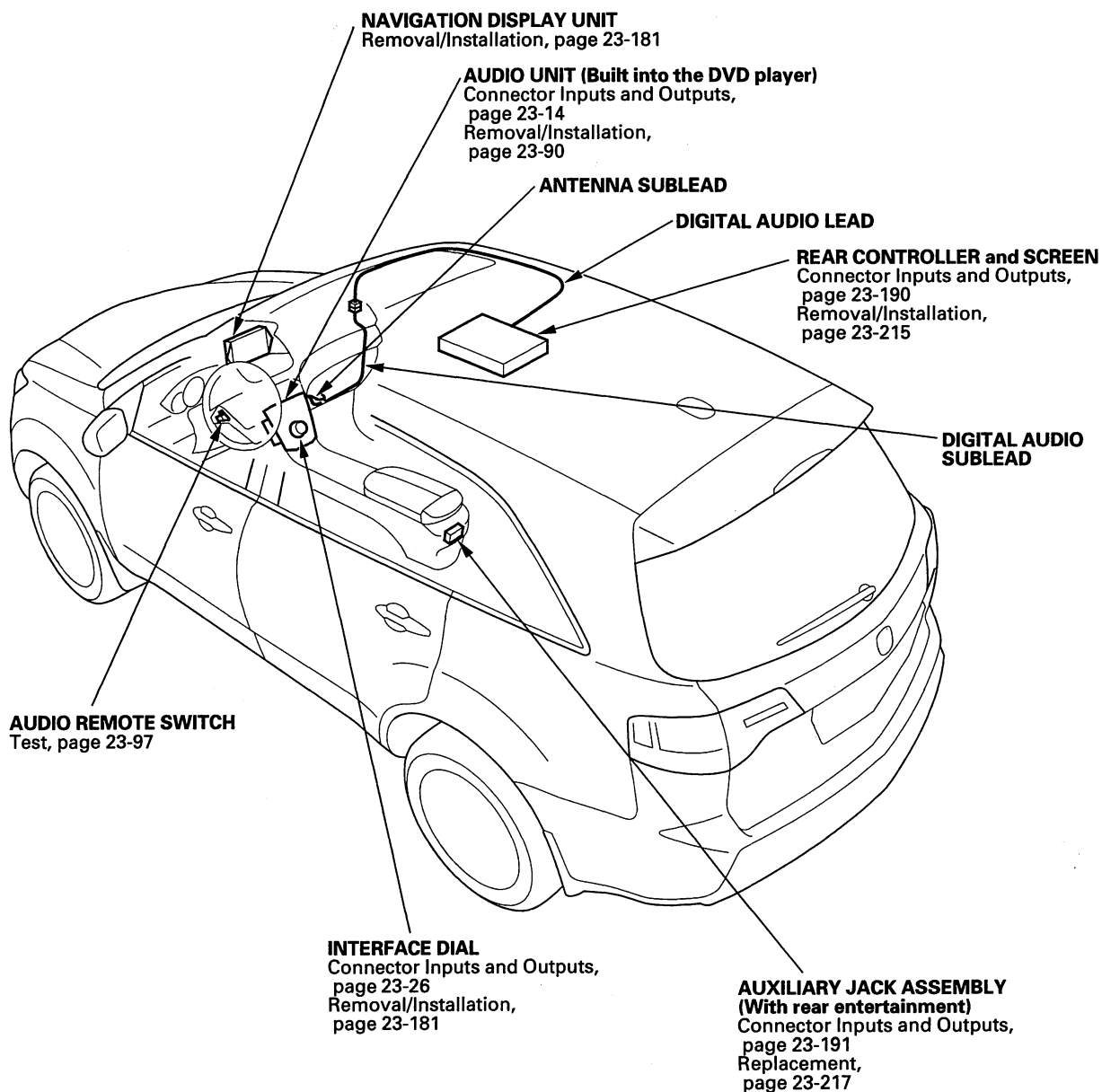


3. Install in the reverse order of removal.



Rear Entertainment System

Component Location Index

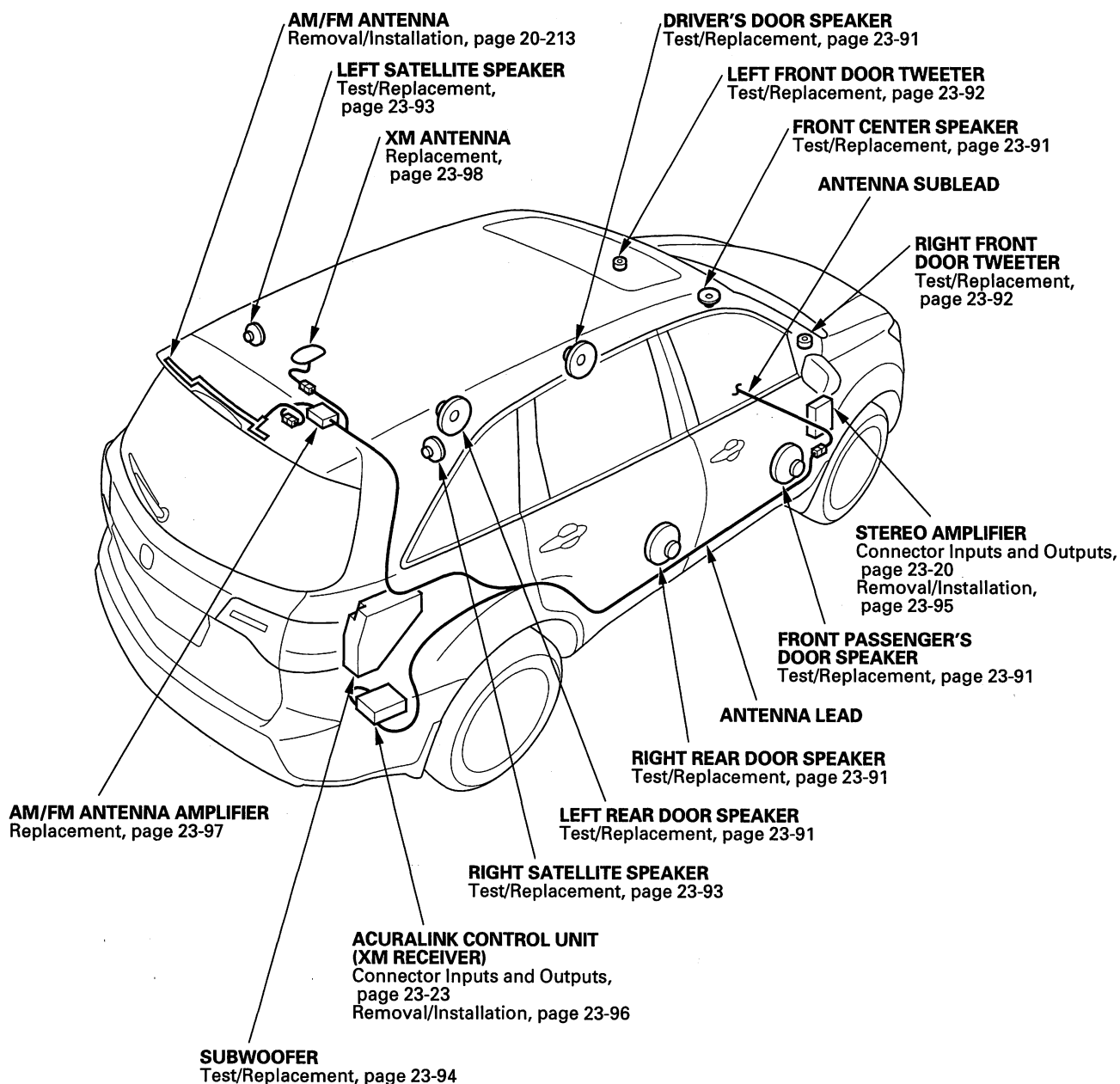


(cont'd)

BACK

Rear Entertainment System

Component Location Index (cont'd)





Symptom Troubleshooting Index

Symptom	Diagnostic procedure	Also check for
RES disc does not load	Symptom Troubleshooting (see page 23-201)	• Peeled label stuck in player • Wrong type disc
RES disc does not eject	Symptom Troubleshooting (see page 23-201)	• Peeled label stuck in player • Wrong type disc
RES disc does not play	Symptom Troubleshooting (see page 23-202)	• Peeled label stuck in player • Wrong type disc
RES disc skips	Symptom Troubleshooting (see page 23-202)	• Peeled label stuck in player • Wrong type disc
Black picture is shown on the display	Symptom Troubleshooting (see page 23-203)	
White picture is shown on the display/display lock	Symptom Troubleshooting (see page 23-204)	
Display area picture has lines or has shifted	Symptom Troubleshooting (see page 23-204)	
Display does not go off when screen is closed	Symptom Troubleshooting (see page 23-205)	
No display appears on the rear controller indicator	Symptom Troubleshooting (see page 23-205)	
No sound/no display with auxiliary video unit inputs	Symptom Troubleshooting (see page 23-206)	• Poor connections or disconnect device • Low batteries in accessory device, or disconnected from power source
Wired headphone sound is weak, distorted, volume does not change, or there is no sound	Symptom Troubleshooting (see page 23-207)	
Wireless headphones do not work or there is static in DVD mode	Symptom Troubleshooting (see page 23-208)	
Wireless headphone sound is weak, sound is distorted, there is static, volume does not change, or there is no sound in all modes	Symptom Troubleshooting (see page 23-210)	Wireless headphone batteries (see page 23-217)
Wireless remote control does not work (all buttons)	Symptom Troubleshooting (see page 23-211)	Wireless remote control batteries (see page 23-218)
Wireless remote control does not work (source select buttons)	Symptom Troubleshooting (see page 23-211)	Wireless remote control batteries (see page 23-218)
Wireless remote control does not work (rear power button)	Symptom Troubleshooting (see page 23-212)	Wireless remote control batteries (see page 23-218)
Screen backlight does not dim/remains dim	Symptom Troubleshooting (see page 23-212)	
An error code is displayed	Enter the self-diagnostic function with the wireless remote control (see page 23-196), then scroll to function 3.	
DVD player unit DISC IN indicator or DISC DISTINCTION indicator does not come on/does not go off	Symptom Troubleshooting (see page 23-214)	
Wireless remote control illumination does not come on	Symptom Troubleshooting (see page 23-214)	Wireless remote control batteries (see page 23-218)

Rear Entertainment System

System Description

The rear entertainment system is composed of a special DVD player unit built into the audio unit, a rear controller, and screen wireless headphones, wireless remote control, and auxiliary jack assembly.

System Components

Audio Unit

- Provides rear system power
- Provides control for the rear functions
- Allows the rear display to show information about the rear system status
- Provides a method to stop the rear passenger's from having control of the rear system
- Built into the DVD player

Rear Screen

- Has a flip down 9" display
- Allows information on the LCD
- Display does not work when pushed beyond the detent
- Provides output for infrared (IR) headphones

Wireless Headphone

- Has automatic ON/OFF control
- Has volume control
- Works only in the second and third row seats, not outside the vehicle or in the front seats

Wireless Remote Control

Allows remote operation of the audio functions.

Auxiliary Jack Assembly

- Allows input from standard video game and video equipment using RCA connectors
- Provides three headphone connectors and separate volume controls

Audio Remote Switch

Allows operation of the audio functions from the steering wheel.

Voice Control Switch

Allows operation of the audio functions through the navigation system.

Navigation Display

Allows operation of the audio functions through the navigation system.



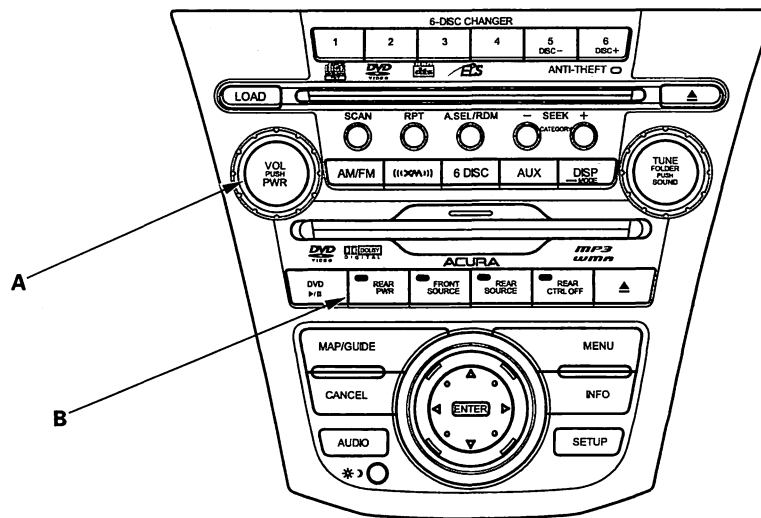
Operating Method

NOTE: Refer to the Owner's Manual for full operation details.

Audio Unit

1. Turn the rear entertainment system ON.

- After the main power switch "VOL PUSH PWR" (A) is turned ON, push "REAR PWR" switch (B) to turn the rear system ON. To turn the rear system OFF, push "REAR PWR", and to turn the whole system OFF, push "VOL PUSH PWR".

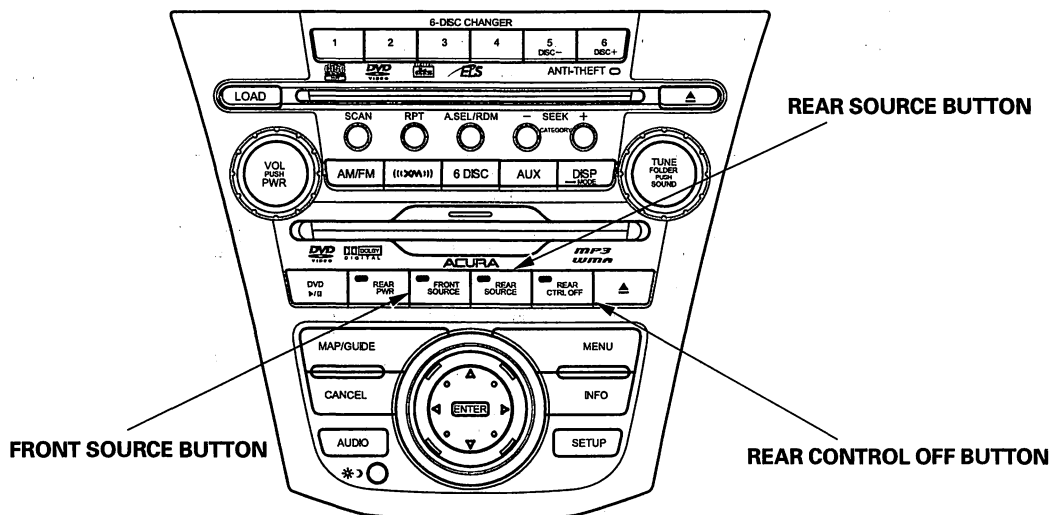


Rear Entertainment System

System Description (cont'd)

2. Using the select button.

- Front source button, indicator light ON: control of front source from audio unit.
- Rear source button, indicator light ON: control of rear source from audio unit.
- The rear source will automatically revert back to front source after 10 seconds if no operation is done.



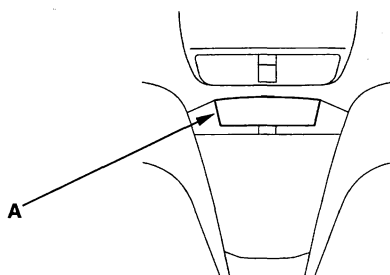
3. Rear Control Enable/Disable.

- By pushing the "REAR CTRL OFF" button the LED indicator will be ON and the rear seat passenger's will not be able to control the system from the remote. The rear display will show rear control OFF. Press button again to enable.



4. Viewing the display.

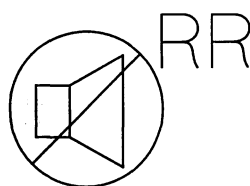
- The display (A) (built into the climate control unit) indicates the status of the front and rear systems.



5. Rear speaker automatic OFF Function.

- By turning the rear speaker OFF you can reduce the interference between the front source and the rear source (Headphone). The speaker will be turned ON/OFF automatically when the front and rear have different sources selected. When the rear speaker is in the OFF mode, the LCD display on the audio unit displays the rear speaker icon shown.

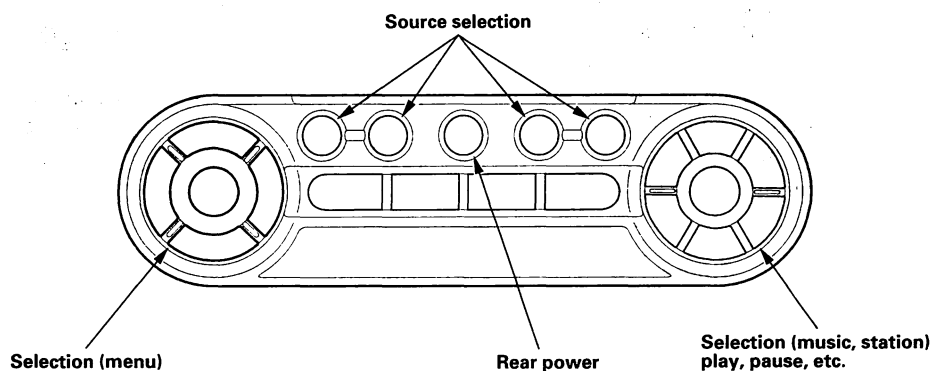
RR SP OFF:



Wireless Remote Control

Remote control switch use and function.

- With "Rear Power ON" and rear control enabled, the rear passengers can control the functions with the remote, except volume.
- Rear passenger can control the functions, unless the rear control has been turned off by the front user.



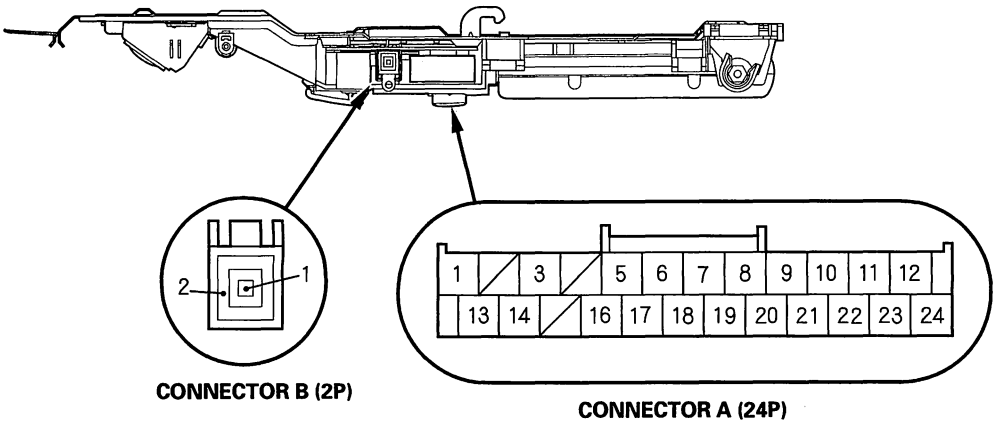
(cont'd)

Rear Entertainment System

System Description (cont'd)

Rear Controller and Screen Connector for Inputs and Outputs

When replacing a rear controller and screen connector, match the wires to the cavities listed in the following table.



CONNECTOR A (24P)

Cavity	Wire	Connect to
A1	GRN	Rear controller and screen (+B)
A3	LT BLU	Audio unit (RR BUS+)
A5	PNK	Audio unit (RR NTSC GND)
A6	WHT	Audio unit (RES AUDIO OUT GND)
A7	BRN	Audio unit (RES AUDIO OUT SH)
A8	PNK	Auxiliary jack assembly (HP R/L OUT GND)
A9	BRN	Auxiliary jack assembly (HP R/L OUT SH)
A10	LT GRN	Audio unit (SCTY4)
A11	LT BLU	Lights-on signal
A12	YEL	Audio unit (SYSTEM ACC)

Cavity	Wire	Connect to
A13	BRN	Audio unit (RR BUS SH)
A14	PUR	Audio unit (RR BUS-)
A16	BLU	Audio unit (RR NTCS)
A17	BRN	Audio unit (RR NTSC SH)
A18	RED	Audio unit (RES AUDIO OUT L)
A19	BLK	Audio unit (RES AUDIO OUT R)
A20	BLU	Auxiliary jack assembly (HP R OUT)
A21	GRN	Auxiliary jack assembly (HP L OUT)
A22	PNK	Navigation (SCTY3)
A23	RED	Dash lights brightness controller
A24	BLK	Ground (G506)

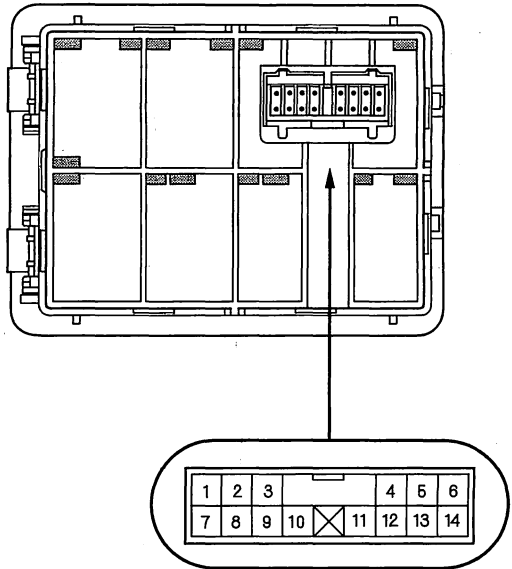
CONNECTOR B (2P)

Cavity	Wire	Connect to
B1	—	Audio unit (DIG AUDIO SIG)
B2	—	Audio unit (DIG AUDIO SH)



Auxiliary Jack Assembly Connector for Inputs and Outputs (With rear entertainment)

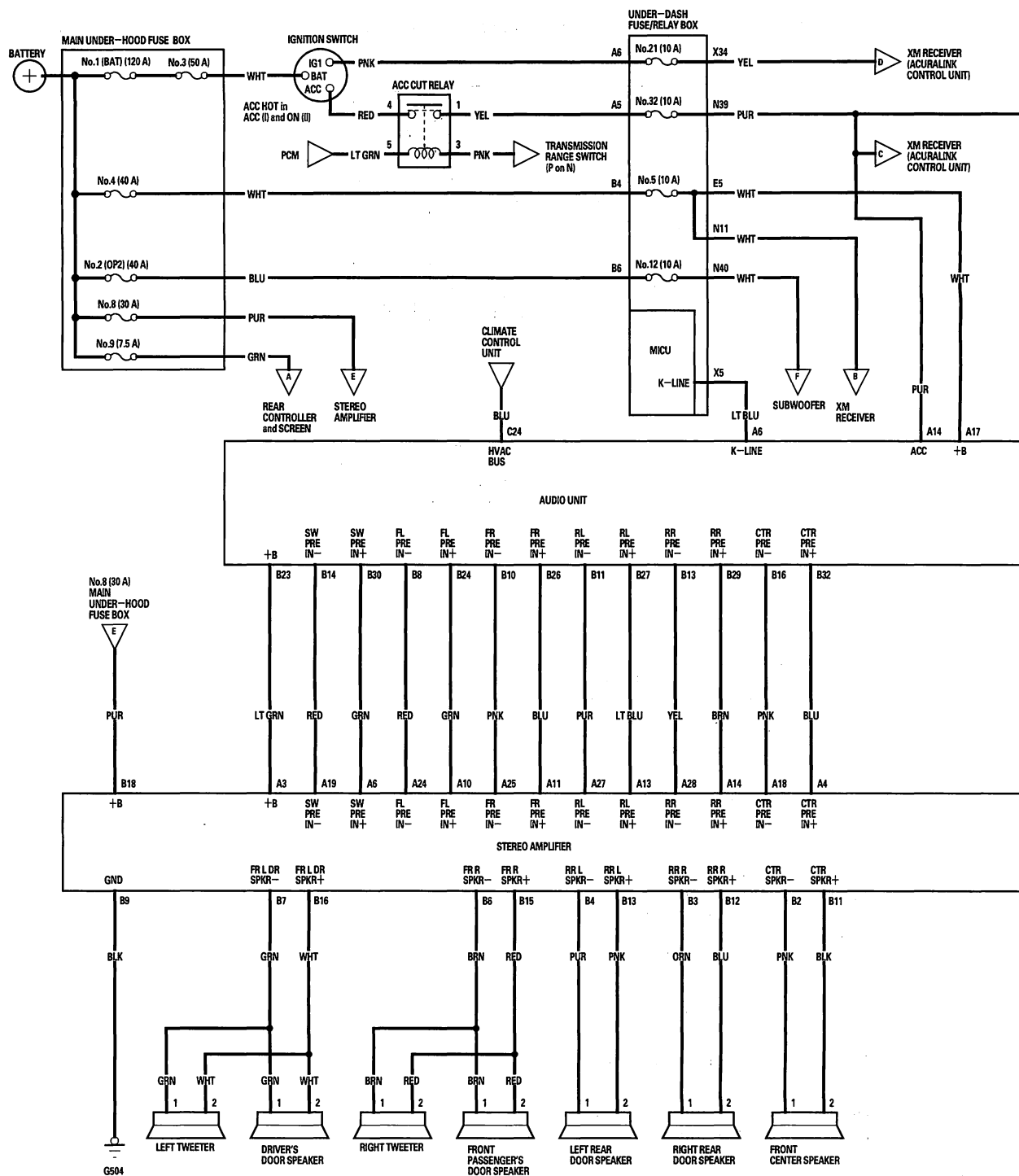
When replacing an auxiliary jack assembly connector, match the wires to the cavities listed in the following table.

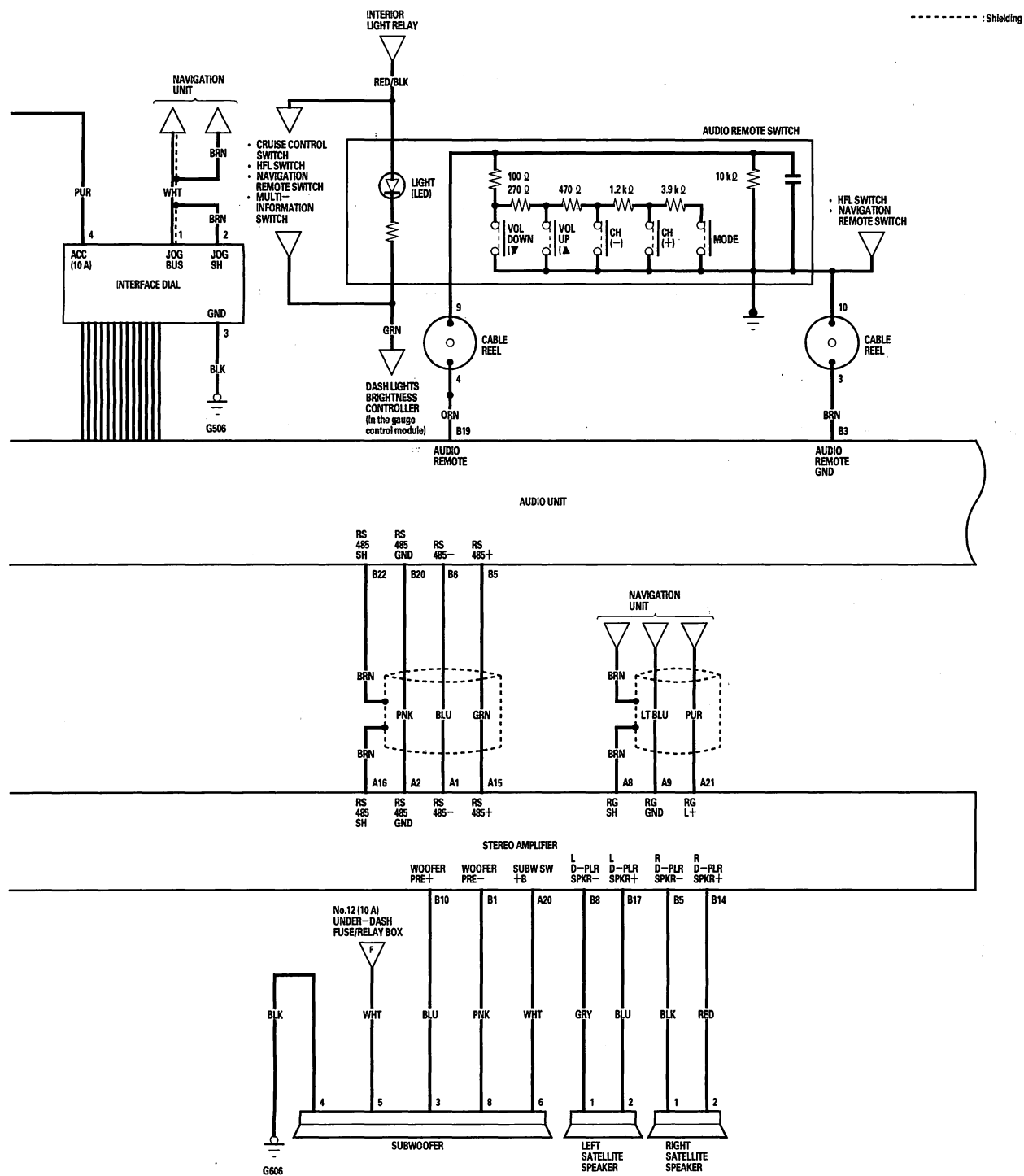


Cavity	Wire	Connect to
1	RED	Dash lights brightness controller
2	LT BLU	Lights-on signal
3	BRN	Rear controller and screen (HP R/L OUT SH)
4	LT BLU	Audio unit (AUX VIDEO IN GND)
5	BRN	Audio unit (AUX AUDIO R/L SH)
6	WHT	Audio unit (COMN CHK)
7	PNK	Audio unit (HP R/L OUT GND)
8	BRN	Audio unit (AUX VIDEO IN SH)
9	PUR	Audio unit (AUX VIDEO IN)
10	GRN	Audio unit (AUX VIDEO L)
11	PNK	Audio unit (AUX AUDIO R/L GND)
12	BLU	Audio unit (AUX AUDIO R)
13	GRN	Audio unit (HP L OUT)
14	BLU	Audio unit (HP R OUT)

Rear Entertainment System

Circuit Diagram





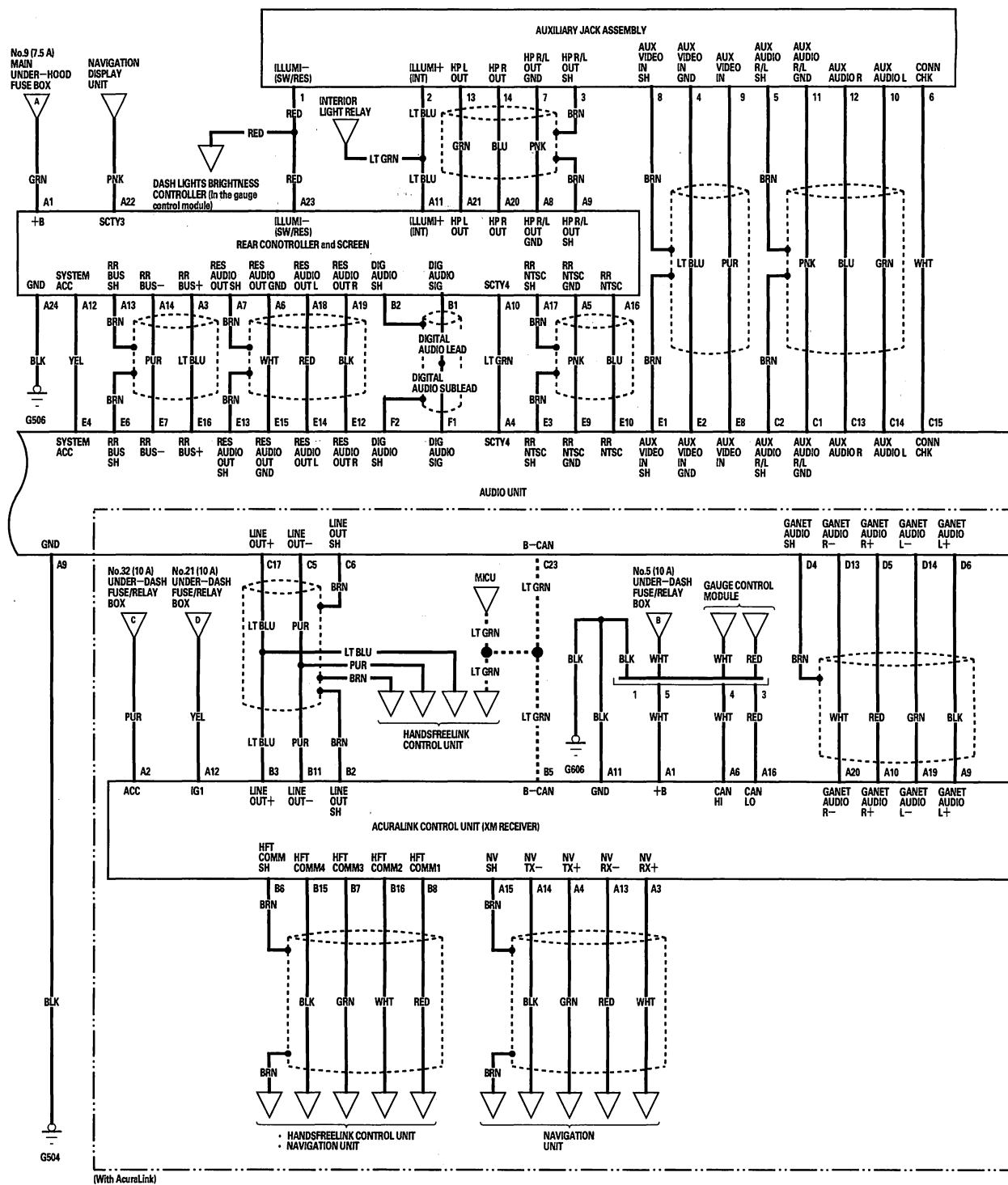
(cont'd)

BACK

23-193

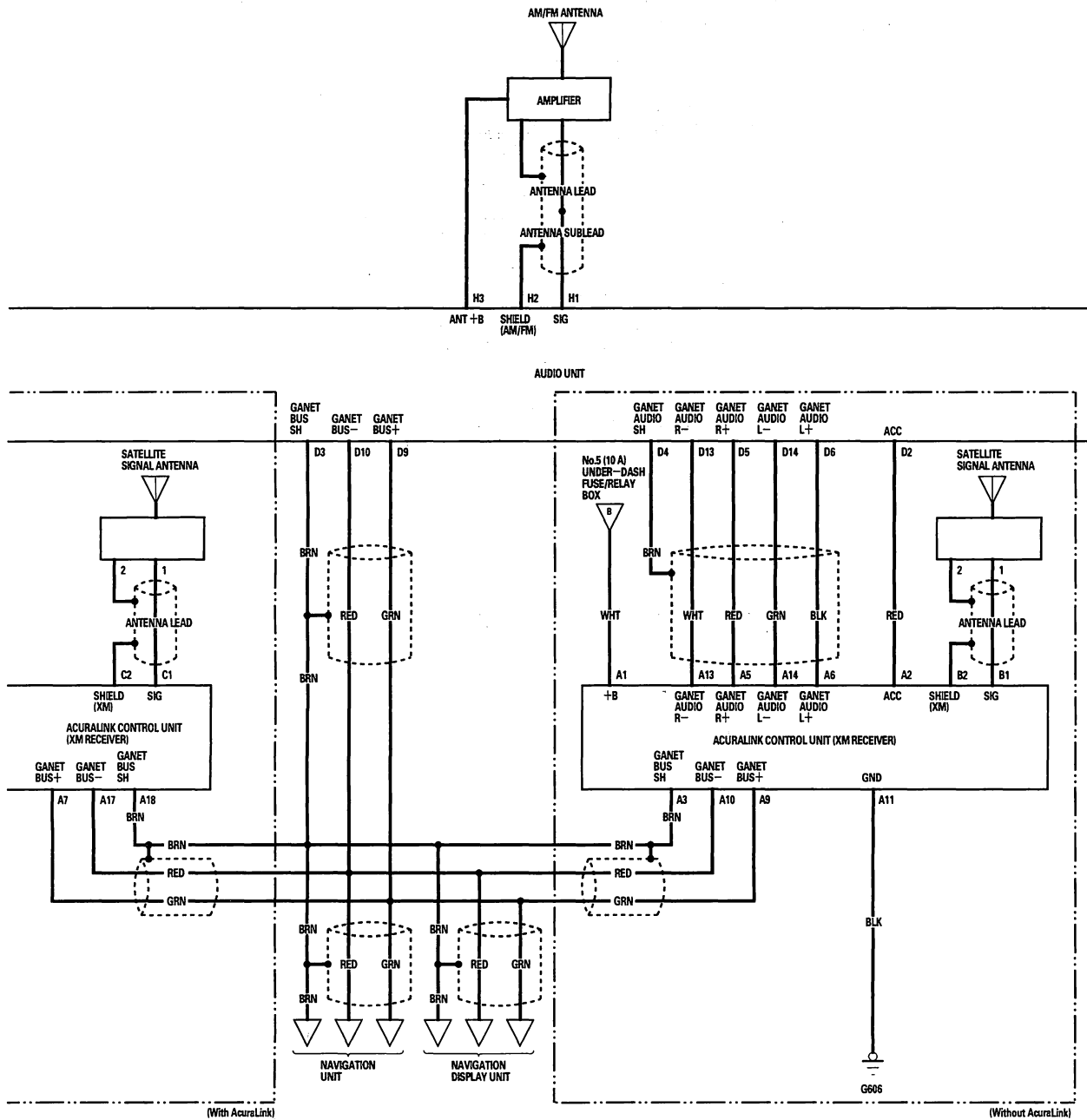
Rear Entertainment System

Circuit Diagram (cont'd)





----- : CAN line
----- : Shielding



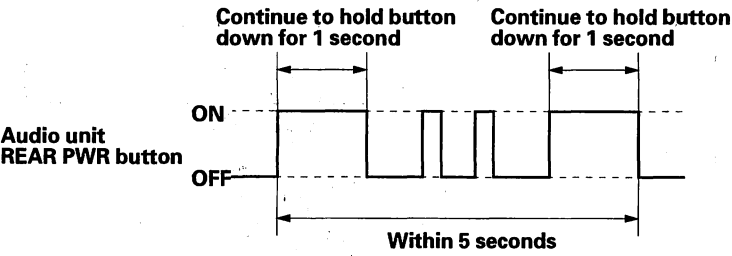
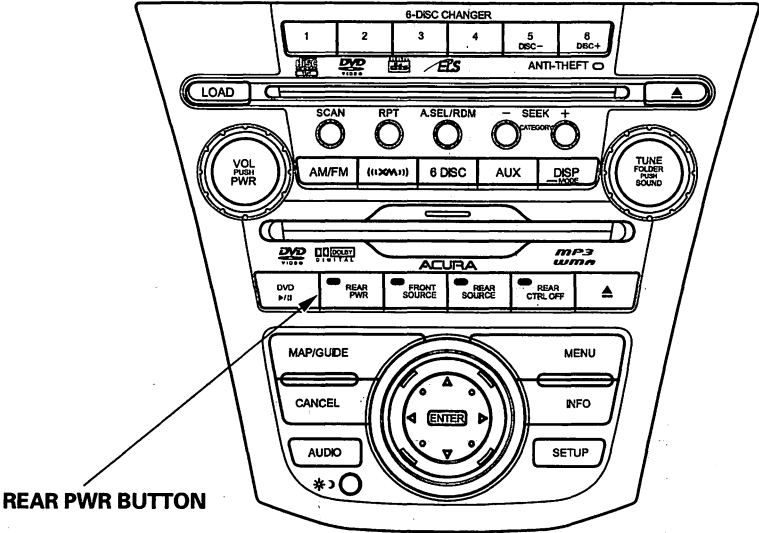
Rear Entertainment System

Self-diagnostic Function

The rear entertainment system has a self-diagnostic function that shows on the display. To run the self-diagnostic function, do the following:

How to Enter the Self-diagnostic Function with the Audio Unit

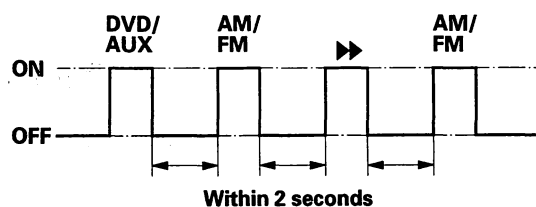
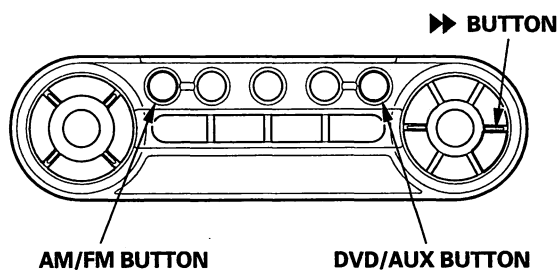
- 1. Turn the ignition switch to the ACC (I) position.
- 2. To run the self-diagnostic, press the REAR PWR button four times within 3 seconds and hold the REAR PWR button in on the fourth time until the diagnostic screen appears.





How to Enter for Self-diagnostic Function with the Wireless Remote Control

1. Turn the ignition switch to the ACC (I) position.
2. To run the self-diagnostic, press the DVD/AUX button, the AM/FM button, the ►► button, and then the AM/FM button again. The buttons must be pressed in that order, and within 2 seconds of each other (see table), and the self-diagnostic will begin.



Canceling the Self-diagnostic Function

Turn the ignition switch OFF to cancel the self-diagnostic function. After completing repair work, run the self-diagnostic function again to make sure that there are no other malfunctions.

(cont'd)

Rear Entertainment System

Self-diagnostic Function (cont'd)

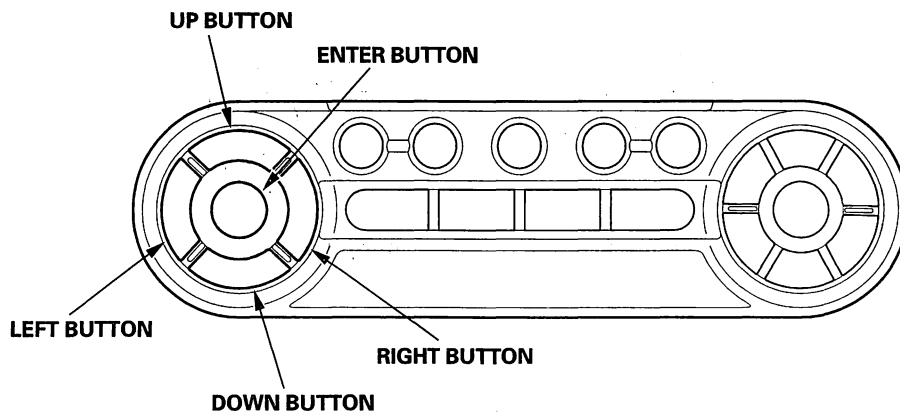
Self-diagnostic Function Mode Select

Use the wireless, remote control to navigate within the self-diagnostic function.

LEFT/RIGHT button: Change the function mode

UP/DOWN button: Change the detection

ENTER button: Select the detection point



Function No.	Category		Check item or information	Judge display
1	CONNECT	RR DISP	Rear controller and screen connection check	OK or NG with GRN or RED
		H/U	Audio unit connection check	OK or NG with GRN or RED
		AUX	Auxiliary jack assembly connection check	OK or NG with GRN or RED
		XM	XM receiver connection check	OK or NG with GRN or RED
		DIGITAL LINE	Digital line connection check	OK or NG with GRN or RED
2	UNIT CHECK	DISPLAY VER	Rear controller and screen version and soft release day information	—
		SUB-M VER	Rear controller and screen sub u-com version and soft release day information	—
		COSD VER	Rear controller and screen COSD version and soft release day information	—
		OSD VER	Rear controller and screen COSD version and soft release day information	—
		RAM CHECK	Rear controller and screen RAM check	OK or NG
		DISP PANEL	Screen open or close condition	OPEN or NG
		+B VOLT	+B voltage	* * V or Err
		TEMP.	Screen temperature	* * h or Err

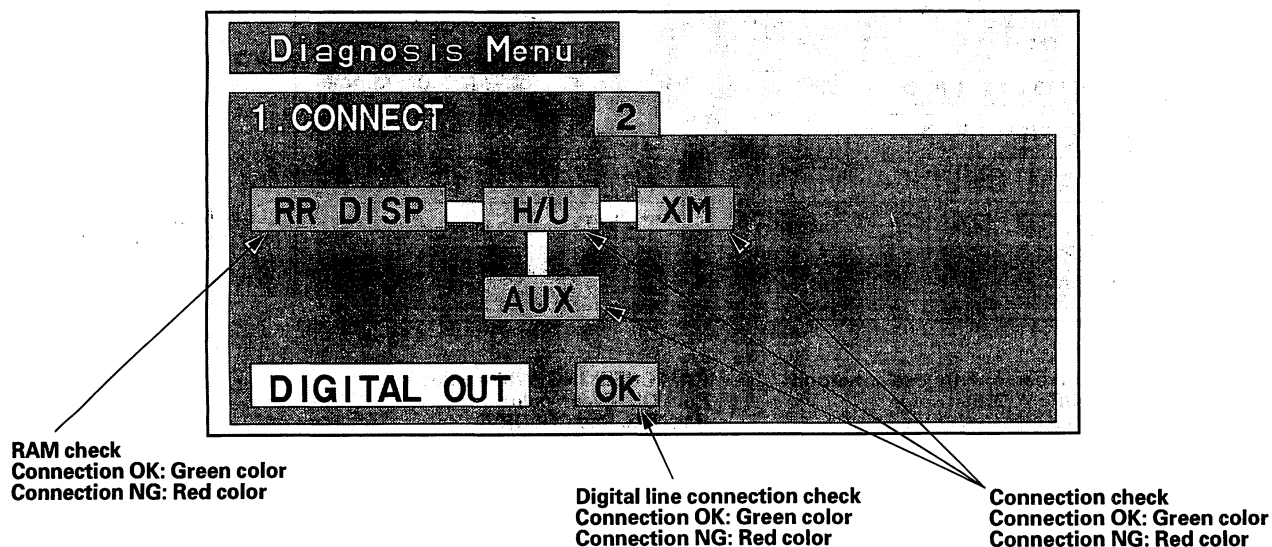


Self-diagnostic Function Mode Display

1. CONNECT

The screen will display connection check status for each device while in this self-diagnostic mode.

- If the RAM condition for the "RR DISP" (rear controller and screen) is faulty, the screen will display NG (red color).
- If the connection for the "H/U" (audio unit) is "XM" (XM receiver), or "AUX" (auxiliary jack assembly) is faulty, the screen will display NG (red color).
- If the digital line connection between the rear controller and screen and audio unit is faulty, the screen will display NG (red color).



(cont'd)

BACK

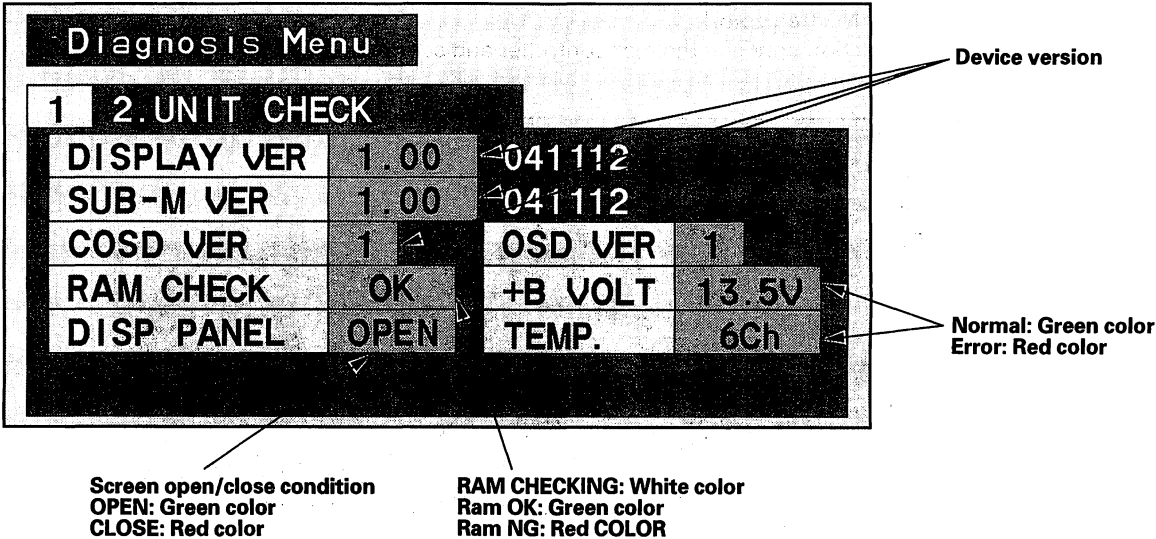
Rear Entertainment System

Self-diagnostic Function (cont'd)

2. UNIT CHECK

The screen will display device version, self-diagnostic status and screen status while in this self-diagnostic mode.

- If a connection to a device is no-good, the screen will display "_____".
- If there is a change (analog to digital) of signal error for the categories "+B VOLT" or "TEMP", the screen will display "Err".
- The screen indicates open or closed condition of the screen.





Symptom Troubleshooting

RES disc does not load

NOTE:

- Discs with labels should not be used in the DVD player unit (built into the audio unit). They may damage the player mechanism.
- Make sure the CD or DVD disc is compatible with the system (refer to the Owner's Manual for more information).

1. Try loading a disc.

Does the disc load?

YES—Intermittent failure, the DVD player unit is OK at this time. ■

NO—Go to step 2.

2. Insert a known-good disc.

Does the disc load?

YES—The original disc is faulty. ■

NO—Replace the audio unit (see page 23-90). ■

RES disc does not eject

NOTE: Discs with labels should not be used in the DVD player unit (built into the audio unit). They may damage the player mechanism.

1. Turn the ignition switch ON (II).
2. Try ejecting a disc.

Does the disc eject?

YES—Intermittent failure, the DVD player unit (built into the audio unit) is OK at this time. ■

NO—Replace the audio unit (see page 23-90). ■

Rear Entertainment System

Symptom Troubleshooting (cont'd)

RES disc does not play

NOTE:

- CD-R/RWs and DVD-R/RWs will not work in the DVD player unit (built into the audio unit).
- Damaged or contaminated discs may not always play properly.
- Discs with labels should not be used in the DVD player unit (built into the audio unit). They may damage the player mechanism.

1. Try loading a DVD.

Does the DVD play (display and sound)?

YES—Intermittent failure, the DVD player unit (built into the audio unit) is OK at this time. ■

NO—Go to step 2.

2. Insert a known-good DVD.

Does the DVD play (display and sound)?

YES—The original DVD is faulty or is an unreadable format. ■

NO—Go to step 3.

3. Check the "CONNECT" of the rear entertainment system self-diagnostic (see page 23-197).

Is the audio unit connect condition OK?

YES—Go to step 4.

NO—Repair the poor connection in the audio unit connectors. ■

4. Substitute a known-good audio unit, then test the audio unit.

Is the sound normal?

YES—Replace the original audio unit. ■

NO—Check for loose wires or poor connections at audio unit connectors, and recheck. ■

RES disc skips

NOTE:

- Copy protected material on a CD-R/RW or DVD-R/RW disc will skip or not play.
- Check for scratches, smudges, and fingerprints on the disc.

1. Try playing a disc.

Does the disc skip?

YES—Go to step 2.

NO—Intermittent failure, the DVD player unit (built into the audio unit) is OK at this time. ■

2. Clean the disc, and recheck.

Does the disc play properly?

YES—The original disc was dirty. ■

NO—Go to step 3.

3. Insert a known-good disc.

Does the disc play properly?

YES—The original disc is dirty or the wrong type. ■

NO—Go to step 4.

4. Compare the disc skipping to a known-good vehicle under the same conditions.

Does the known-good vehicle's disc skip under the same conditions (over the same bumps and on the same rough roads)?

YES—Operation is normal. ■

NO—Substitute a known-good audio unit, and recheck. If the symptom/indication goes away, replace the original audio unit. ■



Black picture is shown on the display

NOTE: If the navigation system, or XM radio do not function properly, troubleshoot and resolve those problems first.

1. With the ignition switch ON (II), push the rear power switch ON to see if the screen turns ON.

Does the screen come ON?

YES—Operation is normal at this time. ■

NO—Go to step 2.

2. Check for brightness settings in the display set up (refer to the Owner's Manual for more information).

Are the display setting set properly?

YES—Go to step 3.

NO—Adjust the display setting and recheck the function. ■

3. Check the No. 9 (7.5 A) fuse in the main under-hood fuse box.

Is the fuse OK?

YES—Go to step 4.

NO—Replace the fuse, and recheck. ■

4. Remove the display cover (see page 23-91). Then check that the rear controller and screen is properly connected.

Is the rear controller and screen connected properly?

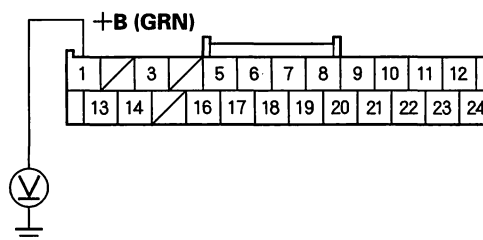
YES—Go to step 5.

NO—Reconnect the connector, and recheck the function. ■

5. Disconnect the rear controller and screen connector A (24P).

6. Measure the voltage between the No. 1 terminal of the rear controller and screen connector A (24P) and body ground.

REAR CONTROLLER AND SCREEN CONNECTOR A (24P)



Wire side of female terminals

Is there battery voltage?

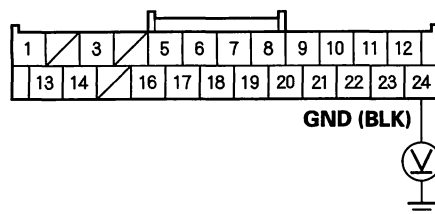
YES—Go to step 7.

NO—Repair open in the wire(s) between the No. 9 (7.5 A) fuse in the main under-hood fuse box and the rear controller and screen. ■

7. Reconnect the rear controller and screen connector A (24P).

8. Measure the voltage between the rear controller and screen connector A (24P) terminal No. 24 and body ground.

REAR CONTROLLER AND SCREEN CONNECTOR A (24P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Replace the rear controller and screen. ■

NO—Repair open in the wire between the rear controller and screen connector A (24P) terminal No. 24 and body ground (G506). ■

Rear Entertainment System

Symptom Troubleshooting (cont'd)

White picture is shown on the display/ display lock

1. With the ignition switch ON (II), push the rear power switch ON to see if the screen turns ON.

Is it normal?

YES—Operation is normal. ■

NO—Go to step 2.

2. Run the rear entertainment system self-diagnostic (see page 23-196).

Is it normal?

YES—Operation is normal. ■

NO—Substitute a known-good rear controller and screen, and recheck. If the symptom/indication goes away, replace the original rear controller and screen. ■

Display area picture has lines or has shifted

1. With the ignition switch ON (II), push the rear power switch ON to see if the screen turns ON.

Does the screen come have lines or has the image shifted?

YES—Go to step 2.

NO—Operation is normal at this time. ■

2. Check the screen mode set up (refer to the Owner's Manual for more information).

Are the settings set properly?

YES—Substitute a known-good rear controller and screen, and recheck. If the symptom/indication goes away, replace the original rear controller and screen. ■

NO—Adjust the display settings and recheck the function. ■



Display does not go off when screen is closed

1. With the ignition switch ON (II) and screen open, push the rear power switch ON. Then close the screen by pivoting it up.

Does the screen go off?

YES—Operation is normal at this time. ■

NO—Go to step 2.

2. Check the lock switch.

Does the screen close securely?

YES—If the screen securely closes and the screen does not go off, replace it. ■

NO—Relock the screen, and recheck. If the screen will not securely lock into position, replace it. ■

No display appears on the rear controller indicator

1. With the ignition switch ON (II), push the rear power switch ON to see if the screen turns ON.

Does the screen come on?

YES—Operation is normal at this time. ■

NO—Go to step 2.

2. Check the operation and display of the screen, the wireless remote control and the wireless headphone.

Are the operation and display normal?

YES—Faulty rear indicator. ■

NO—

- Screen faulty: Go to the "Black picture is shown on the display" troubleshooting (see page 23-203). ■
- Wireless remote control faulty: Go to the "Wireless remote control does not work (all buttons)" troubleshooting (see page 23-211). ■
- Wireless headphone faulty: Go to the "Wireless headphone sound is weak, distorted, volume does not change, or there is no sound in all modes" troubleshooting (see page 23-210). ■

Rear Entertainment System

Symptom Troubleshooting (cont'd)

No sound/no display with auxiliary video unit inputs

NOTE:

- Check that the auxiliary device is properly connected, and has fresh batteries or power source connected.
- Do not connect an RCA type shorting plug with the auxiliary jack assembly 14P connector, or system damage may occur.

1. Connect an auxiliary video source, and check the volume/display operation.

Is the display operate properly and does the audio shound normal?

YES—Operation is normal at this time. ■

NO—Go to step 2.

2. Substitute a known-good auxiliary video unit and recheck.

Does the auxiliary video unit operate properly?

YES—Original auxiliary video unit faulty. ■

NO—Go to step 3.

3. Check the "CONNECT" of the rear entertainment system self-diagnostic (see page 23-197).

Is the auxiliary jack assembly connect condition OK?

YES—Go to step 8.

NO—Go to step 4.

4. Remove the auxiliary jack assembly (see page 23-217). Check that the auxiliary jack assembly is properly connected.

Is the auxiliary jack assembly connected properly?

YES—Go to step 5.

NO—Reconnect the connector, and recheck the function. ■

5. Turn the ignition switch OFF.

6. Disconnect the audio unit connector C (24P), E (16P), and the auxiliary jack assembly 14P connector.

7. Check for continuity between audio unit connector C (24P), E (16P) and body ground according to the table. Then check same terminals for continuity to the harness shield terminals C2 and E1.

Audio unit connector	Wire color
E8	PUR
C14	GRN
C13	BLU
C1	PNK
E21	LT BLU

Is there continuity?

YES—Short in the wire between the audio unit and the auxiliary jack assembly. Replace the appropriate shielded harness. ■

NO—Go to step 8.

8. Check for continuity between the audio unit connector C (24P), E (16P) and auxiliary jack assembly 14P connector according to the table.

Audio unit connector	Auxiliary jack assembly connector	Wire color
E8	9	PUR
C14	10	GRN
C13	12	BLU
E2	4	LT BLU
C1	11	PNK

Is there continuity?

YES—Go to step 9.

NO—Open in the wire between the audio unit and the auxiliary jack assembly. Replace the appropriate shielded harness. ■

9. Connect an RCA type shorting plug to each audio input (R and L).

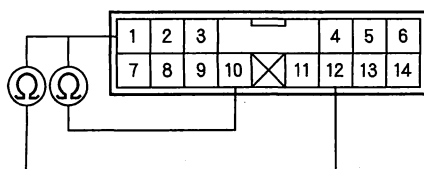
NOTE: Do not connect the RCA type shorting plug with the auxiliary jack assembly 14P connected, or system damage may occur.



10. Check for continuity between the following terminals of the auxiliary jack assembly.

No. 10 ↔ No. 1
No. 12 ↔ No. 1

AUXILIARY JACK ASSEMBLY



Terminal side of male terminals

Is there continuity?

YES—Go to step 11.

NO—Faulty auxiliary jack assembly. ■

11. Remove the RCA type shorting plug(s) and check the same terminals again for continuity.

Is there continuity?

YES—Faulty auxiliary jack assembly. ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. If the symptom is still present, substitute a known-good rear controller and screen and recheck. If the symptom/indicated goes away, replace the original rear controller and screen. ■

Wired headphone sound is weak, distorted, volume does not change, or there is no sound

1. Substitute a known-good wired headphone set and recheck.

Does the symptom go away?

YES—Original wired headphone set is faulty. ■

NO—Go to step 2.

2. Plug the wired headphones into the other ports of the auxiliary jack assembly to check their condition.

Do all the ports have the same symptom?

YES—Go to step 3.

NO—Faulty auxiliary jack assembly. ■

3. Check that the wired headphone jack is properly connected.

Is the headphone jack connected properly?

YES—Go to step 4.

NO—Reconnect the wired headphone connector, and recheck the function. ■

4. Disconnect the auxiliary jack assembly 14P connector and rear controller and screen 24P connector.

(cont'd)

Rear Entertainment System

Symptom Troubleshooting (cont'd)

5. Check for continuity between rear controller and screen connector A (24P) and body ground according to the table. Then check same terminals for continuity to the harness shield terminal A9.

Rear controller and screen connector	Wire color
A20	BLU
A21	GRN

Is there continuity?

YES—Short in the wire between the rear controller and screen unit and the auxiliary jack assembly. Replace the appropriate shielded harness. ■

NO—Go to step 6.

6. Check for continuity between the rear controller and screen connector A (24P) and auxiliary jack assembly 14P connector according to the table.

Audio unit connector	Auxiliary jack assembly connector	Wire color
A21	13	GRN
A20	14	BLU
A8	7	PNK

Is there continuity?

YES—Faulty auxiliary jack assembly. ■

NO—Open in the wire between the rear controller and screen and the auxiliary jack assembly. Replace the appropriate shielded harness. ■

Wireless headphones do not work or there is static in DVD mode

NOTE: Check the battery condition first.

1. Check the "CONNECT" and "UNIT CHECK" of the rear entertainment system self-diagnostic (see page 23-196).

If the self-diagnostic status indicator OK (Green color)?

YES—Go to the "Wireless headphone sound is weak, distorted, volume does not change, or there is no sound in all modes (see page 23-210)." ■

NO—Go to step 2.

2. Remove the audio unit (see page 23-90).
3. Check that the audio unit connector F (2P) is properly connected to the audio unit.

Is the digital audio unit connector F (2P) connected properly?

YES—Go to step 4.

NO—Reconnect the audio unit connector F (2P) and recheck the wireless headphone function. ■

4. Remove the rear controller and screen (see page 23-215).
5. Check that the rear controller and screen connector B (2P) is properly connected to the rear controller and screen.

Is the audio unit connector F (2P) connected properly?

YES—Go to step 6.

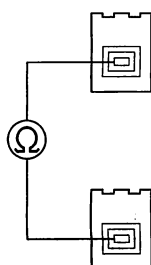
NO—Reconnect the audio unit connector F (2P) and recheck the wireless headphone function. ■

6. Disconnect the audio unit connector F (2P) from the audio unit and the rear controller and screen.



7. Check for continuity between the audio unit connector F (2P) No. 1 terminal and the rear controller and screen connector B (2P) No. 1 terminal.

AUDIO UNIT CONNECTOR F (2P)
Terminal side of female terminals



REAR CONTROLLER AND SCREEN CONNECTOR B (2P)
Terminal side of female terminals

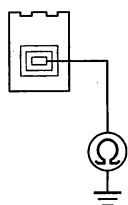
Is there continuity?

YES—Go to step 8.

NO—Replace the digital audio lead. ■

8. Check for continuity between the audio unit connector F (2P) No. 1 terminal and body ground.

AUDIO UNIT CONNECTOR F (2P)



Terminal side of female terminals

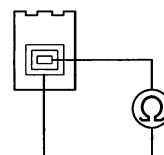
Is there continuity?

YES—Replace the digital audio lead. ■

NO—Go to step 9.

9. Check for continuity between the audio unit connector F (2P) No. 1 terminal No. 2 terminal.

AUDIO UNIT CONNECTOR F (2P)



Terminal side of female terminals

Is there continuity?

YES—Replace the digital audio lead. ■

NO—Go to step 10.

10. Substitute a known-good audio unit and recheck the wireless headphone function.

Do the wireless headphones work in DVD mode?

YES—Replace the original audio unit. ■

NO—Replace the rear controller and screen. ■

Rear Entertainment System

Symptom Troubleshooting (cont'd)

Wireless headphone sound is weak, sound distorted, there is static, volume does not change, or there is no sound in all modes

NOTE: Check battery condition first.

1. Substitute a known-good wireless headphone and recheck.

Does the symptom go away?

YES—Replace the original wireless headphones. ■

NO—Go to step 2.

2. Check the lens on the rear edge of the rear screen for dirt or damage.

Does the rear screen appear to be in good condition?

YES—Go to step 3.

NO—Substitute a known-good rear controller and screen and recheck. ■

3. Substitute a known-good audio unit and recheck.

Does the symptom go away?

YES—Replace the original audio unit. ■

NO—Go to step 4.

4. Disconnect the audio unit connector E (16P), and the rear controller and screen connector A (24P).

5. Check for continuity between audio unit connector E (16P) and body ground according to the table. Then check the same terminals for continuity to the harness shield terminal E13.

Audio unit connector	Wire color
E12	BLK
E14	RED
E15	WHT

Is there continuity?

YES—Short in the wire between the audio unit and the rear controller and screen. Replace the appropriate shielded harness. ■

NO—Go to step 6.

6. Check for continuity between the audio unit connector E (16P) and rear controller and screen connector A (24P) according to the table.

Audio unit connector	Rear controller and screen	Wire color
E12	A19	BLK
E14	A18	RED
E15	A6	WHT

Is there continuity?

YES—Rear controller and screen faulty. ■

NO—Repair open in the wire between the audio unit and rear controller and screen. ■



Wireless remote control does not work (all buttons)

NOTE:

- Check the wireless remote control battery condition first.
- Make sure that the rear power and rear control are on (refer to the Owner's Manual for more information).

1. Check the wireless remote control operation.

Does the wireless remote control operate normally?

YES—Operation is normal at this time. ■

NO—Go to step 2.

2. Substitute a known-good wireless remote control and recheck.

Does the wireless remote control operate normally?

YES—Replace the original wireless remote control. ■

NO—Go to step 3.

3. Check the audio unit operation.

Does the audio unit operate normally?

YES—Go to step 4.

NO—Go to the "Power switch will not turn ON (No information display and no sound)" troubleshooting (see page 23-41). ■

4. Check the rear controller display.

Does the display operate normally?

YES—Replace the rear indicator sub-printed circuit board (see page 23-215). ■

NO—Go to the "No display appears on the rear indicator" troubleshooting (see page 23-205). ■

Wireless remote control does not work (source select buttons)

NOTE: Check the wireless remote control battery condition first.

1. Check the wireless remote control operation.

Does the source select button operate?

YES—Operation is normal at this time. ■

NO—Go to step 2.

2. Check the "CONNECT" status of the rear entertainment system self-diagnostic (see page 23-197).

Is the device connect condition OK?

YES—Replace the wireless remote control. ■

NO—Repair the connection for the device that has a connection error indicated. ■

Rear Entertainment System

Symptom Troubleshooting (cont'd)

Wireless remote control does not work (rear power button)

NOTE:

- Check the wireless remote control battery condition first.
- The audio unit main and rear pwr must be ON before the wireless remote control power button will operate.

1. Check the wireless remote control operation.

Does the audio unit indicate "REAR PWR"?

YES—Replace the wireless remote control. ■

NO—Go to step 2.

2. Press the "REAR PWR" button on the audio unit.

Is the rear power button on?

YES—Operation is normal at this time. ■

NO—Replace the wireless remote control. ■

Screen backlight does not dim/remains dim

1. Turn the ignition switch ON (II).
2. Turn the combination light switch ON and OFF.

Does the screen backlight dim with the combination light switch in the ON position?

YES—Operation is normal at this time. ■

NO—Go to step 3.

3. Check the backlight settings in the display set up (refer to the Owner's Manual for more information).

Are the display settings set properly?

YES—Go to step 4.

NO—Adjust the display settings and recheck the function. ■

4. Turn the ignition switch OFF.

5. Check that the rear controller and screen and audio unit are properly connected.

Are the connections OK?

YES—Go to step 6.

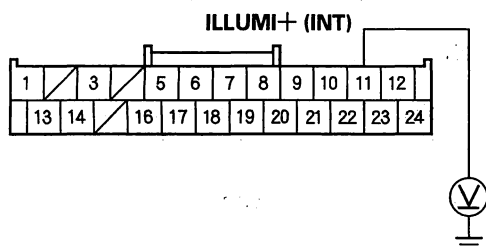
NO—Reconnect the connector, and recheck the function. ■

6. Disconnect the rear controller and screen connector A (24P).



7. Turn the ignition switch ON (II).
8. Measure the voltage between the rear controller and screen connector A (24P) No. 11 terminal and body ground. Turn the combination light switch on and off to see if the voltage changes.

REAR CONTROLLER AND SCREEN CONNECTOR A (24P)



Wire side of female terminals

Is there battery voltage with the combination light switch ON?

YES—Go to step 10.

NO—Go to step 9.

9. Check the illumination of several other unit/switches not related to the rear entertainment system.

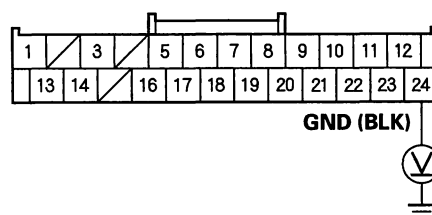
Are the buttons illuminated?

YES—Repair open in the wire(s) between the interior light relay in the auxiliary under-hood relay box and the rear controller and screen. ■

NO—Troubleshoot the interior lights. Start by checking the interior light relay in the auxiliary under-hood relay box. If the relay is OK, check the No. 22 (7.5 A) fuse in the under-hood fuse/relay box. If there is OK, check for open in the wire between the under-hood fuse/relay box and the interior light relay. ■

10. Reconnect the rear controller and screen connector A (24P).
11. Measure the voltage between the rear controller and screen connector A (24P) terminal No. 24 and body ground.

REAR CONTROLLER AND SCREEN CONNECTOR A (24P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Replace the rear controller and screen. ■

NO—Repair open in the wire between rear controller and screen connector A (24P) terminal No. 24 and body ground (G506). ■

Rear Entertainment System

Symptom Troubleshooting (cont'd)

DVD player unit DISC IN indicator or DISC DISTINCTION indicator does not come on/does not go off

1. Check the DVD player unit operation.

Does the DVD player unit operate normally?

YES—Operation is normal at this time. ■

NO—Go to step 2.

2. Substitute a known-good disc and recheck.

Is it normal?

YES—Original disc is faulty. ■

NO—Substitute a known-good audio unit and recheck. If the symptom/indicated goes away, replace the original audio unit. ■

Wireless remote control illumination does not come on

1. Check the wireless remote control operation.

Does the illumination for all the buttons come on (10 seconds)?

YES—Operation is normal at this time. ■

NO—Go to step 2.

2. Replace the batteries in the wireless remote control and recheck (see page 23-218).

Does the wireless control illumination come on?

YES—The original batteries were faulty. ■

NO—Replace the wireless remote control. ■

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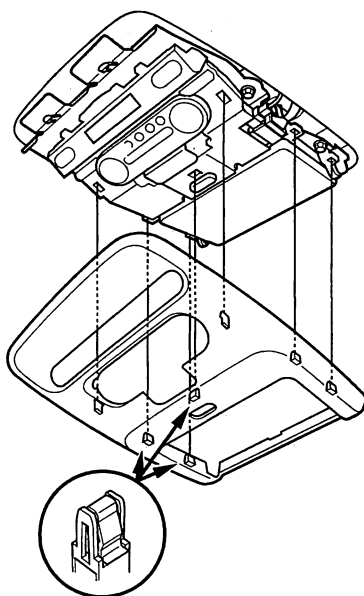


Rear Controller and Screen Removal/Installation

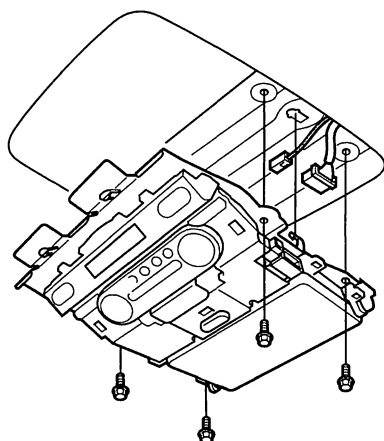
NOTE:

- Put on gloves to protect your hands.
- Take care not to scratch the headliner and display cover.

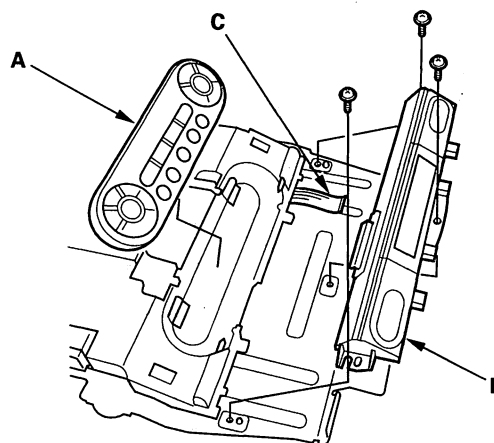
1. Remove the display cover.



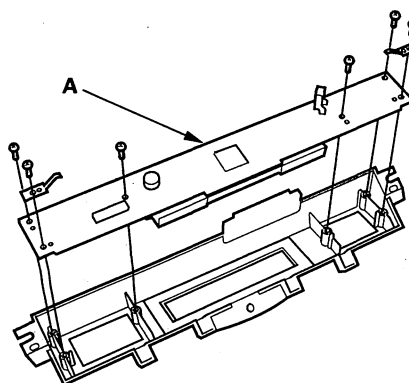
2. Remove the mounting bolts, disconnect the connector (A) from the rear controller and screen.



3. Remove the wireless remote control (A).



4. Remove the screws from the rear indicator (B).
5. Disconnect the cable (C) from the rear indicator.
6. Remove the screws, then remove the rear indicator sub printed circuit board (A).

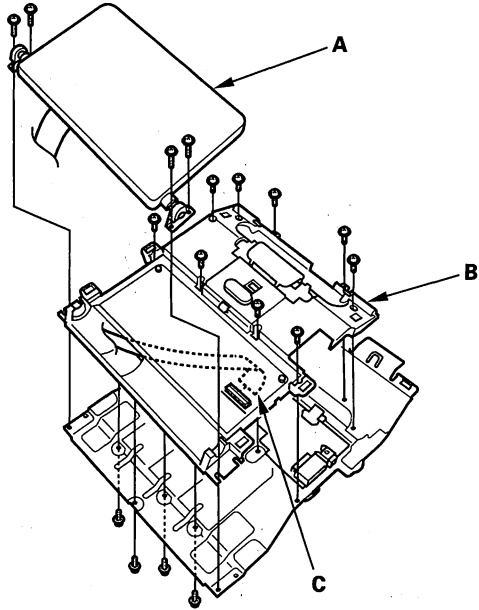


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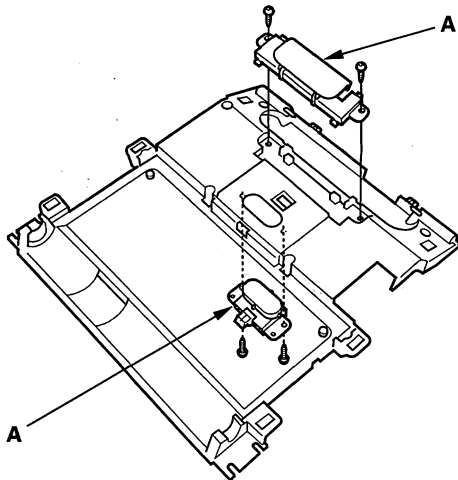
Rear Entertainment System

Rear Controller and Screen Removal/Installation (cont'd)

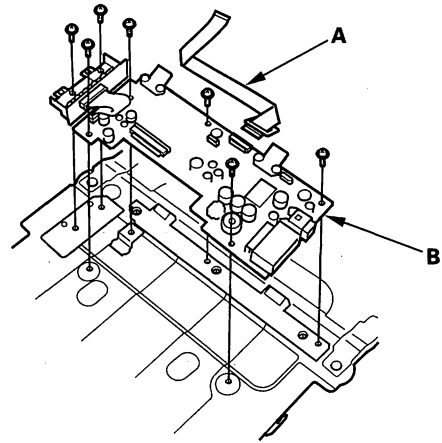
7. Remove the screws, then remove the screen (A) and base (B). Disconnect the cable (C).



8. Remove the screws and lock switches (A).



9. Disconnect the cable (A), then remove the screws and the rear control main printed circuit board (B).



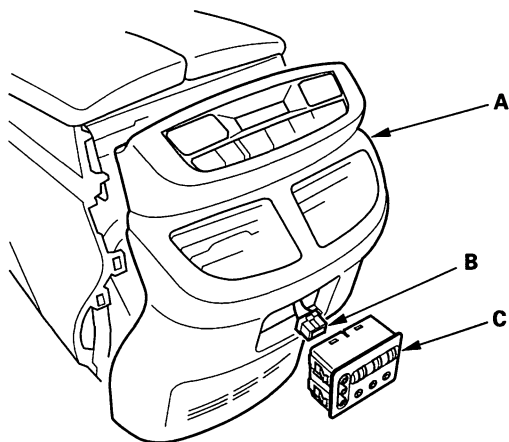
10. Install the parts in the reverse order of removal, and make sure the rear controller and screen connector is plugged in properly.



Auxiliary Jack Assembly Replacement

With Rear Entertainment

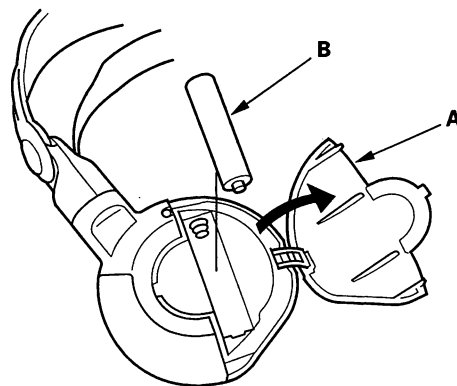
1. Gently pull out the console rear trim (A).



2. Disconnect the 14P connector (B), and remove the auxiliary jack assembly (C).
3. Carefully pry out the auxiliary jack assembly.

Wireless Headphone Battery Replacement

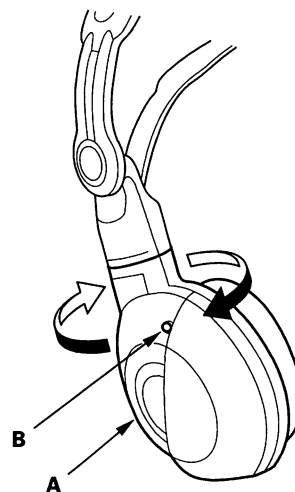
1. Remove the battery cover (A) from the wireless headphone and lift the cover.



2. Remove the battery (B) from the wireless headphone.

Replacement Battery Size: AAA

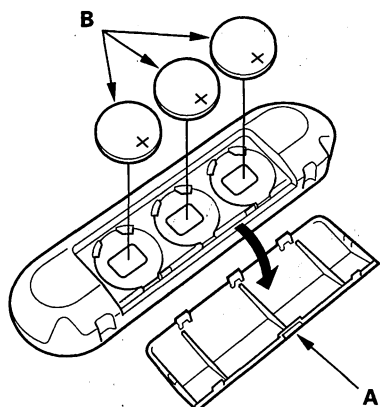
3. Turn the left earpiece (A), and confirm that the indicator (B) comes on after the battery is replaced.



Rear Entertainment System

Wireless Remote Control Battery Replacement

1. Remove the cover (A) from the remote control.



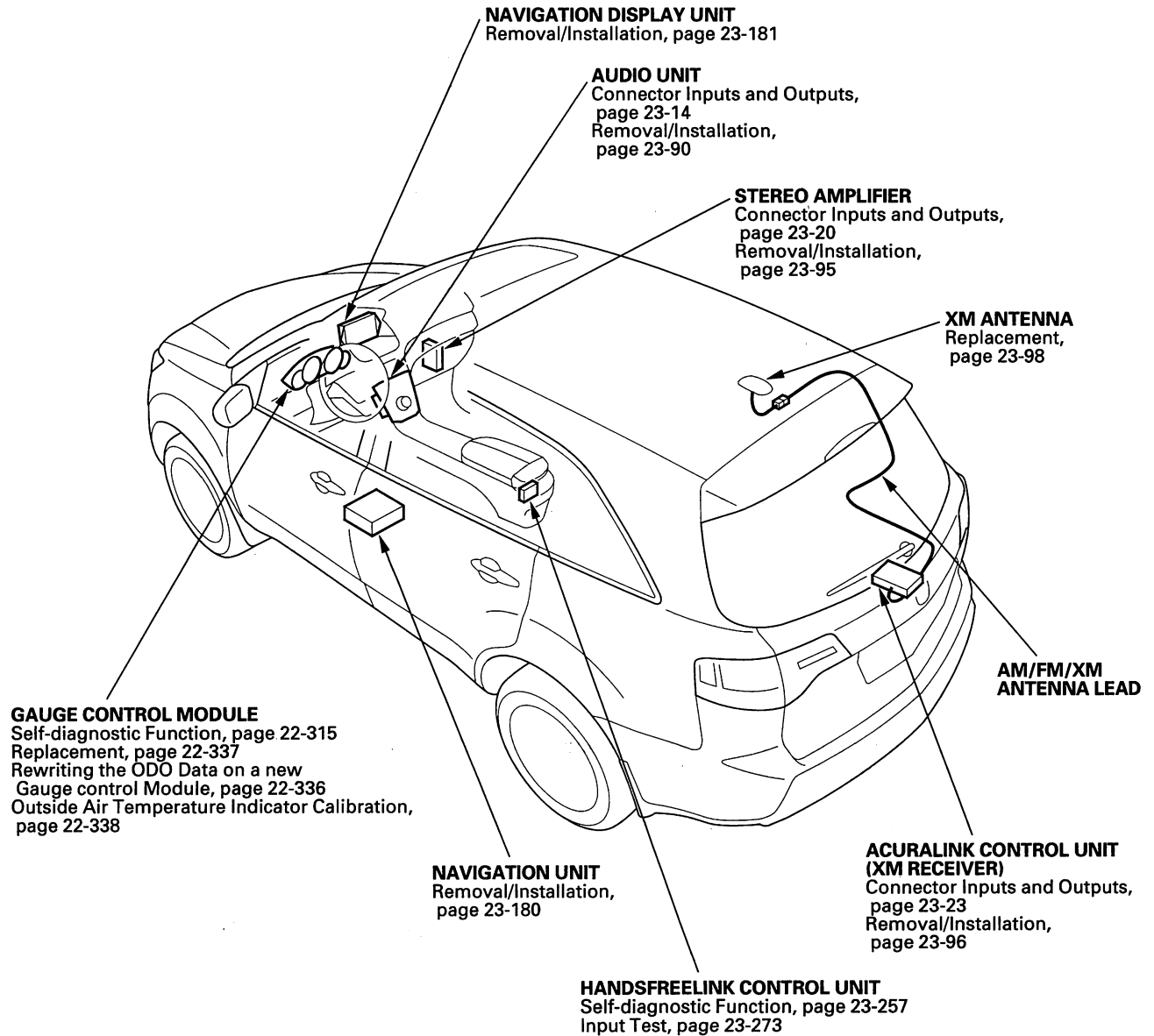
2. Remove the batteries (B).

Replacement Battery: BR3032

3. Confirm that each operation works normally after replacing the batteries.



Component Location Index

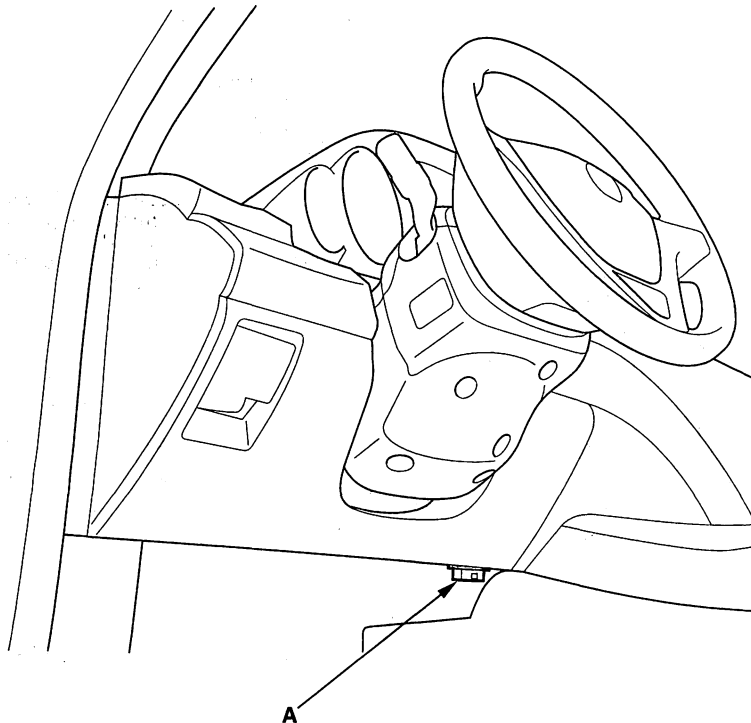


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General Troubleshooting Information

How to Check for DTCs with the HDS

1. Make sure the ignition switch is OFF.
2. Connect the HDS to the data link connector (DLC) (A) located under the driver's side of the dashboard.



3. Turn the ignition switch ON (II).
4. Make sure the HDS communicates with the vehicle and the AcuraLink control unit (XM receiver). If it doesn't, troubleshoot the DLC circuit (see page 11-223).
5. Select Telematics in the BODY ELECTRICAL menu.
6. Select DTCs in the Telematics menu.
7. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting. If no DTCs are indicated, refer to symptom troubleshooting.

NOTE: After troubleshooting, clear the DTCs with the HDS.



Symptom Troubleshooting Index

Symptom	Diagnostic procedure	Also check for
AcuraLink service application does not work	Symptom Troubleshooting (see page 23-252)	• Blown fuse No. 21 (7.5 A) and No. 32 (10 A) in the under-dash fuse/relay box • Poor ground at G606
AcuraLink services do not work after replacing the AcuraLink control unit (XM receiver)	Navigation system symptom troubleshooting (see page 23-134)	• Call Acura Client Services and request an activation. • Call XM client care and register the replacement AcuraLink control unit (XM receiver).

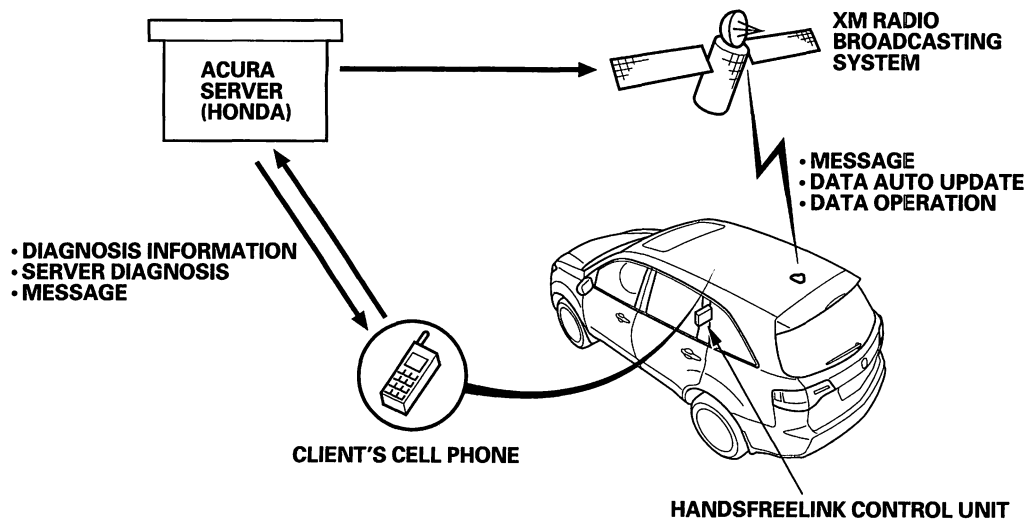
AcuraLink

System Description

The AcuraLink uses the client's cell phone or XM radio to transmit and receive information about the vehicle. In addition, the AcuraLink system has a Text-To-Speech engine, and will also have the capability to initiate voice or data calls with the HandsFreeLink control unit.

The AcuraLink control unit (HIP) is very similar in design to an XM receiver that has additional communication features. The main functions include:

- Receiving and playing XM stations. Displaying station, song title and other information on the audio unit using the GA-Net bus.
- Receiving XM traffic channel data.
- Gives "Feature Guide" tips.
- Receiving AcuraLink messages and displaying them in the navigation display.
- Processing DTC (diagnostic trouble code) error messages from the PCM, the SRS and other systems and displaying them on the navigation display.
- Sending DTC information to the AcuraLink servers using the client's cell phone (only if client has set up and enabled this option).

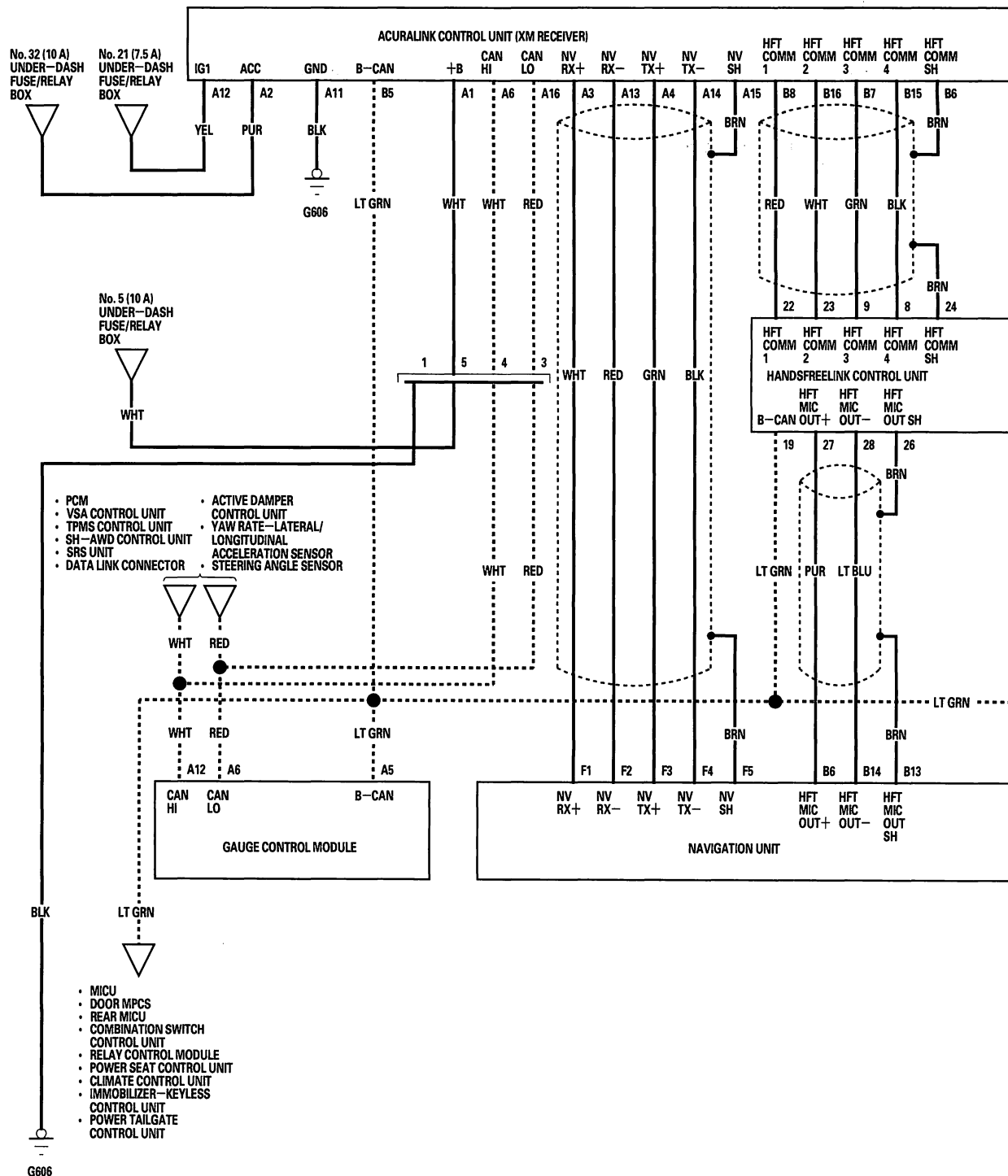


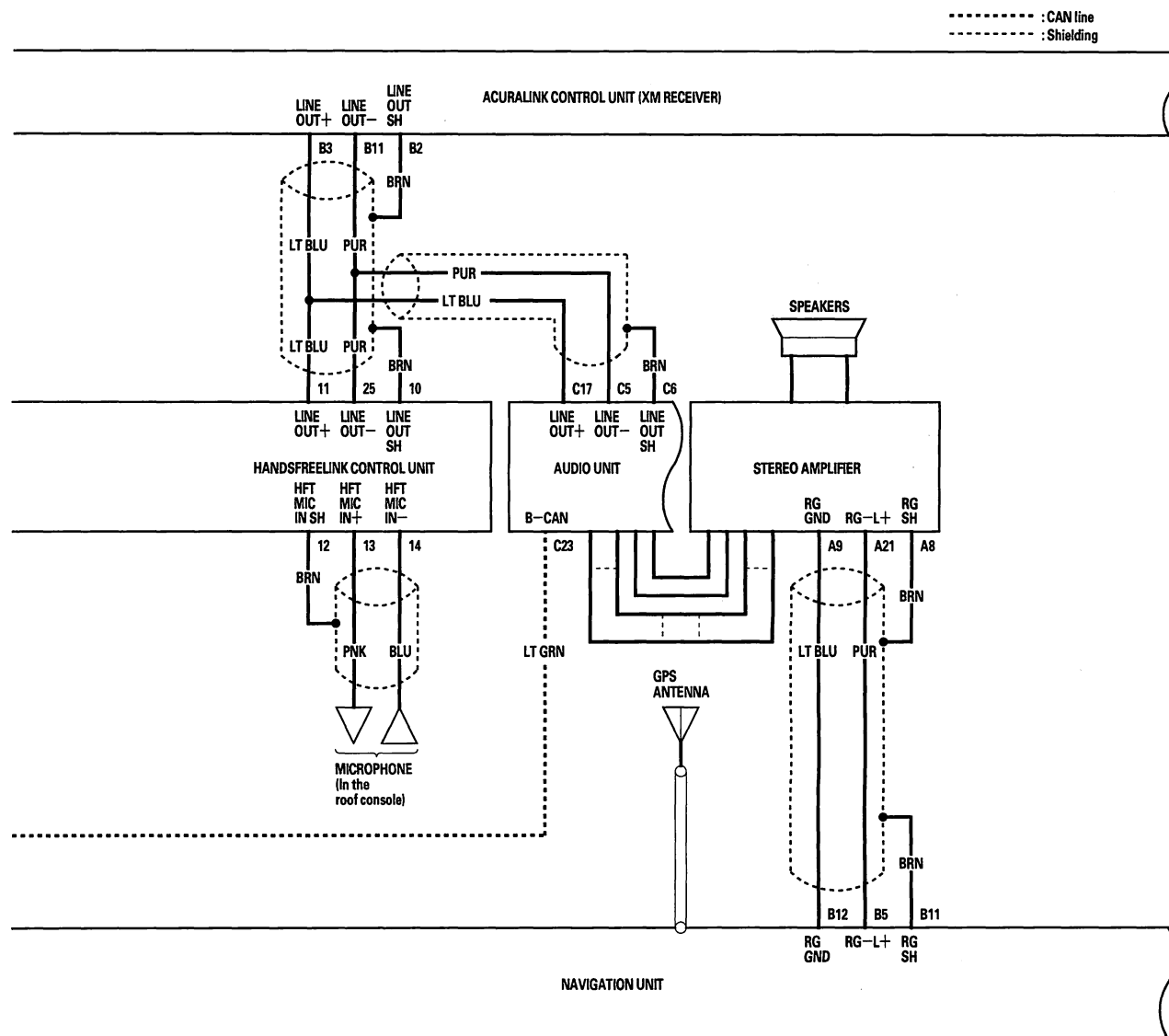


Service Application

- Malfunction indicator lamp (MIL) explanation (from server message and vehicle message)
- Service information message
- Recall Information
- Quick tips
- Place to provide feedback/view cautions that were not available when vehicle was initially sold
- Correction of address and full name that is registered
- Real time traffic information
- Maintenance information message
- Feature guide (90 days)

Circuit Diagram



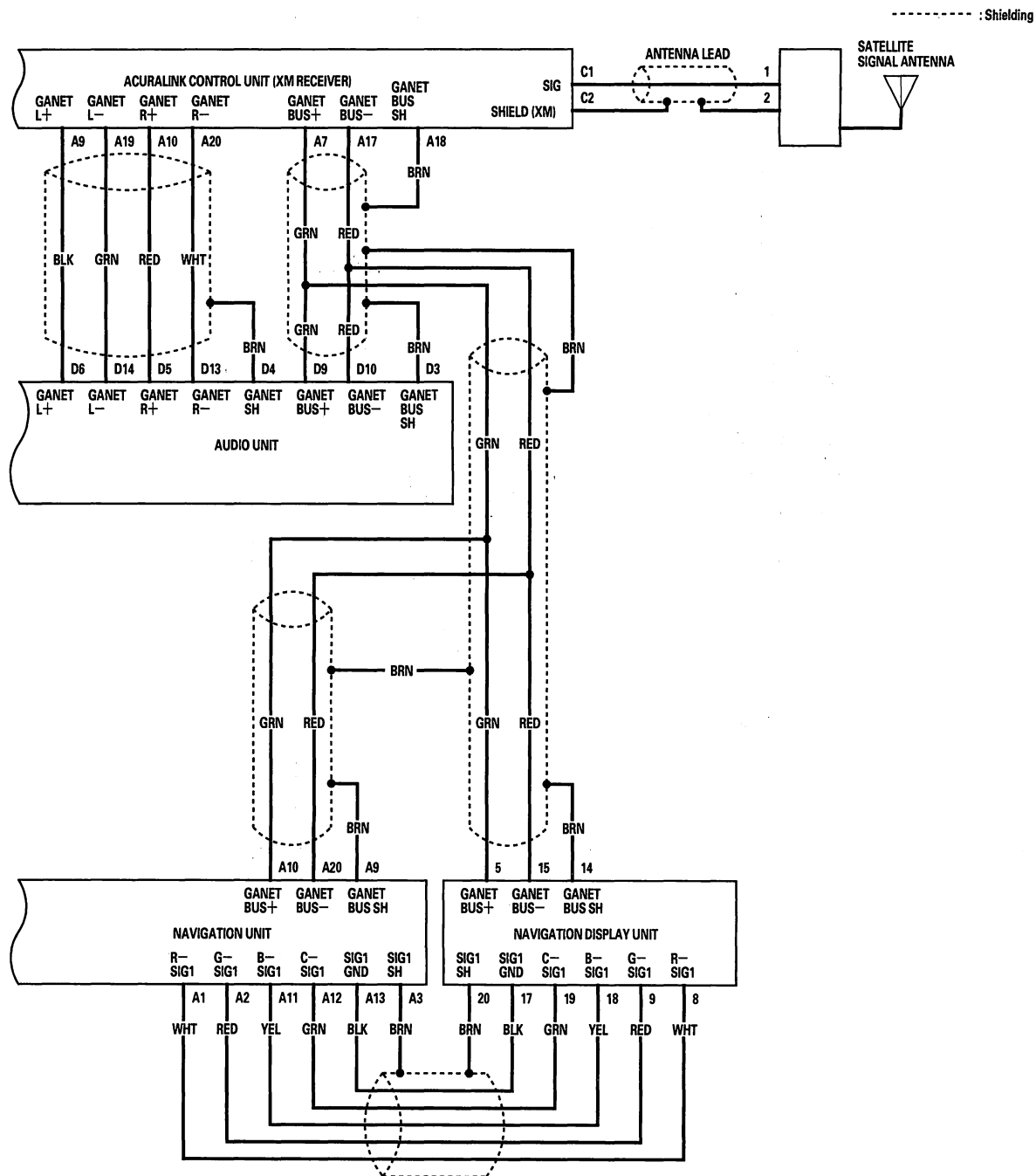


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BACK

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Circuit Diagram (cont'd)





Self-diagnostic Function

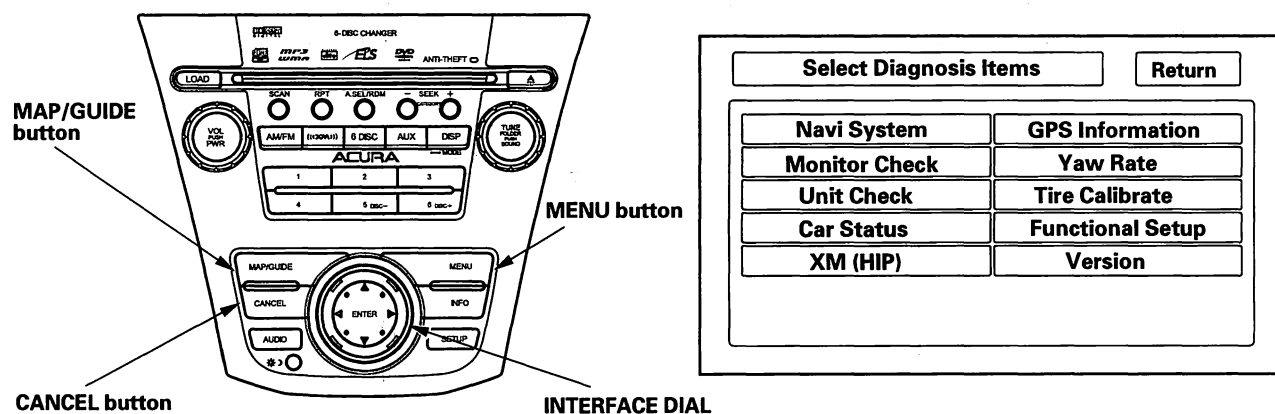
Note: Only select "DATA RESET" from the "XM (HIP) ECU" screen when instructed. Selecting "DATA RESET" will clear the AcuraLink registration, and the AcuraLink service will reset to the factory default. If the vehicle was already registered for the AcuraLink service, it will have to be reactivated by calling Acura Client Services before all features will be available.

The AcuraLink control unit (XM receiver) has a self-diagnostic function. To run the self-diagnostic function, do the following:

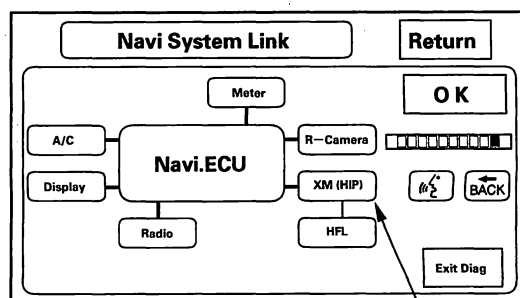
How to Enter the Self-diagnostic Function

NOTE: Always check for and repair any B-CAN or F-CAN DTCs before troubleshooting the AcuraLink system.

1. Turn the ignition switch ON (II).
2. Press the interface dial.
3. Press and hold the MAP/GUIDE, CANCEL, and MENU buttons at the same time for 3 seconds more, and the self-diagnosis will begin.



4. Using interface dial, select the "NAVI System" from the "Select Diagnosis Items". Press the interface dial. The display indicates "NAVI System Link", and will perform a Navi connection check for each device. If a connection is faulty, the place where it is faulty will be indicated with "NG" (red color). If "XM (HIP)" indicator is "NG" (red color), go to step 5.



Connection OK: Green color
Connection NG: Red color

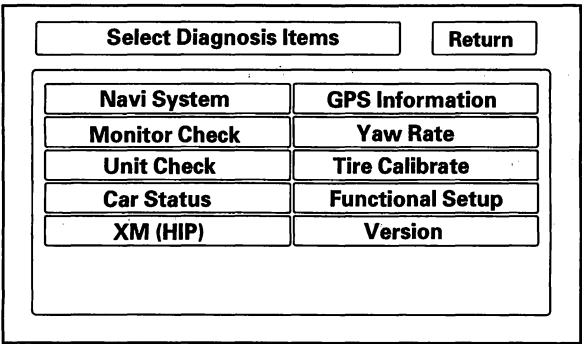
Acura Link indicator

5. Using the interface dial, select the "Return" from the "Navi System Link". Press the interface dial.

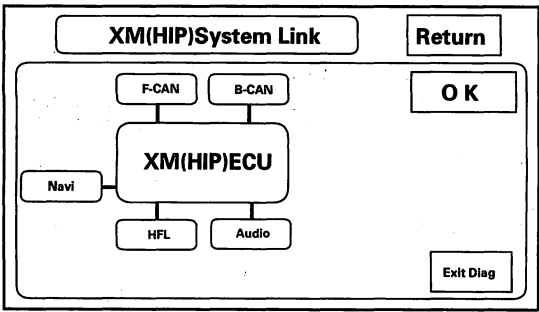
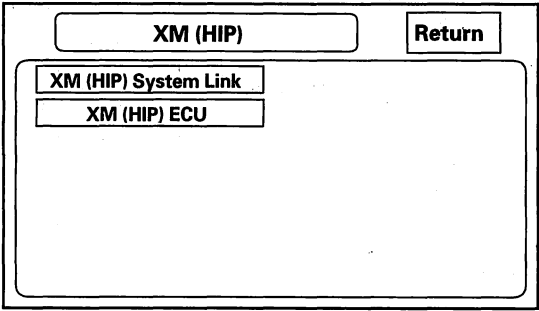
(cont'd)

Self-diagnostic Function (cont'd)

6. Using the interface dial, select the "XM (HIP)" from the "Select Diagnosis Items". Press the interface dial.



7. Using the interface dial, select the "XM (HIP) System Link" from the "XM (HIP)". Press the interface dial. The display indicates "XM (HIP) System Link", and will perform an AcuraLink connection check for each device. If a connection is faulty, the place where it is faulty will be indicated with "NG" (red color).



Connection OK: Green color
Connection NG: Red color



8. When a red color is indicated, check the continuity between the XM receiver unit and the device indicated in red.

Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
F-CAN	XM receiver control unit connector A (20P) and Gauge control module connector A (12P) disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 12 terminal of the Gauge control module connector A (12P): There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 6 terminal of the Gauge control module connector A (12P): There should be continuity.	An open in the wire
	XM receiver control unit connector A (20P) and PCM connector A (49P) disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 48 terminal of the PCM connector A (49P): There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 49 terminal of the PCM connector A (49P): There should be continuity.	An open in the wire
	XM receiver control unit connector A (20P) and VSA control unit 46P connector disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 18 terminal of the VSA control unit 46P connector: There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 17 terminal of the VSA control unit 46P connector: There should be continuity.	An open in the wire
	XM receiver control unit connector A (20P) and TPMS control unit 20P connector disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 1 terminal of the TPMS control unit 20P connector: There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 11 terminal of the TPMS control unit 20P connector: There should be continuity.	An open in the wire
	XM receiver control unit connector A (20P) and SH-AWD control unit connector A (20P) disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 10 terminal of the SH-AWD control unit connector A (20P): There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 20 terminal of the SH-AWD control unit connector A (20P): There should be continuity.	An open in the wire
	XM receiver control unit connector A (20P) and SRS unit connector A (27P) disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 11 terminal of the SRS unit connector A (27P): There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 12 terminal of the SRS unit connector A (27P): There should be continuity.	An open in the wire

(cont'd)

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Self-diagnostic Function (cont'd)

Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
F-CAN	XM receiver control unit connector A (20P) and active damper control unit connector B (14P) disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 1 terminal of the active damper control unit connector B (14P): There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 8 terminal of the active damper control unit connector B (14P): There should be continuity.	An open in the wire
	XM receiver control unit connector A (20P) and Yaw rate-lateral/longitudinal acceleration sensor 4P connector disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 3 terminal of the Yaw rate-lateral/longitudinal acceleration sensor 4P connector: There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 2 terminal of the Yaw rate-lateral/longitudinal acceleration sensor 4P connector: There should be continuity.	An open in the wire
	XM receiver control unit connector A (20P) and Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6 terminal of XM receiver unit connector A (20P) and the No. 4 terminal of the Steering angle sensor 5P connector: There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector A (20P) and the No. 2 terminal of the Steering angle sensor 5P connector: There should be continuity.	An open in the wire
	XM receiver control unit connector A (20P), Gauge control module connector A (12P), PCM connector A (49P), VSA control unit 46P connector, TPMS control unit 20P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 and No. 6 terminals of XM receiver unit connector A (20P): There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 and No. 16 terminals of XM receiver unit connector A (20P): There should be no continuity.	A short in the wire
	Gauge control module connector A (12P), PCM connector A (49P), VSA control unit 46P connector, TPMS control unit 20P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the XM receiver unit



Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
F-CAN	XM receiver control unit connector A (20P), PCM connector A (49P), VSA control unit 46P connector, TPMS control unit 20P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the Gauge control module
	XM receiver control unit connector A (20P), Gauge control module connector A (12P), VSA control unit 46P connector, TPMS control unit 20P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the PCM
	XM receiver control unit connector A (20P), Gauge control module connector A (12P), PCM connector A (49P), TPMS control unit 20P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the VSA control unit
	XM receiver control unit connector A (20P), Gauge control module connector A (12P), PCM connector A (49P), VSA control unit 46P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the TPMS control unit
	XM receiver control unit connector A (20P), Gauge control module connector A (12P), PCM connector A (49P), VSA control unit 46P connector, TPMS control unit 20P connector, SRS unit connector A (27P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the SH-AWD control unit
	XM receiver control unit connector A (20P), Gauge control module connector A (12P), PCM connector A (49P), VSA control unit 46P connector, TPMS control unit 20P connector, SH-AWD control unit connector A (20P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the SRS unit

(cont'd)

Self-diagnostic Function (cont'd)

Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
F-CAN	XM receiver control unit connector A (20P), Gauge control module connector A (12P), PCM connector A (49P), VSA control unit 46P connector, TPMS control unit 20P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector, Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the active damper control unit
	XM receiver control unit connector A (20P), Gauge control module connector A (12P), PCM connector A (49P), VSA control unit 46P connector, TPMS control unit 20P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), active damper control unit connector B (14P), Steering angle sensor 5P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the Yaw rate-lateral/longitudinal acceleration sensor
	XM receiver control unit connector A (20P), Gauge control module connector A (12P), PCM connector A (49P), VSA control unit 46P connector, TPMS control unit 20P connector, SH-AWD control unit connector A (20P), SRS unit connector A (27P), active damper control unit connector B (14P), Yaw rate-lateral/longitudinal acceleration sensor 4P connector disconnected	Check for continuity between the No. 6, No. 16 terminals of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the Steering angle sensor
B-CAN	XM receiver control unit connector B (16P) and MICU connector G (6P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 1 terminal of the MICU connector G (6P): There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and door MPCs connector A (40P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 28 terminal of the door MPCs connector A (40P): There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and rear MICU connector B (34P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 2 terminal of the rear MICU connector B (34P): There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and combination switch 8P connector disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 4 terminal of the combination switch 8P connector: There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and relay control module connector E (14P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 1 terminal of the relay control module connector E (14P): There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and power seat control unit connector B (40P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 40 terminal of the power seat control unit connector B (40P): There should be continuity.	An open in the wire



Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
B-CAN	XM receiver control unit connector B (16P) and immobilizer-keyless control unit 7P connector disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 4 terminal of the immobilizer-keyless control unit 7P connector: There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and power tailgate control unit connector C (14P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 7 terminal of the power tailgate control unit connector C (14P): There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and gauge control module connector A (12P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 5 terminal of the gauge control module connector A (12P): There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and HandsFreeLink control unit 28P connector disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 19 terminal of the HandsFreeLink control unit 28P connector: There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P) and audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 23 terminal of the audio unit connector C (24P): There should be continuity.	An open in the wire
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the wire
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and the No. 1 terminal of XM receiver unit connector A (20P) body ground: There should be no continuity.	A short in the wire

(cont'd)

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Self-diagnostic Function (cont'd)

Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
B-CAN	MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the XM receiver control unit
	XM receiver control unit connector B (16P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the MICU
	XM receiver control unit connector B (16P), MICU connector G (6P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the door MPCS
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the rear MICU



Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
B-CAN	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the combination switch control unit
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the relay control module
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the power seat control unit
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the immobilizer keyless control unit
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, gauge control module connector A (12P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the power tailgate control unit

(cont'd)

Self-diagnostic Function (cont'd)

Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
B-CAN	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), HandsFreeLink control unit 28P connector, audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the gauge control module
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), audio unit connector C (24P) disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the HandsFreeLink control unit
	XM receiver control unit connector B (16P), MICU connector G (6P), door MPCS connector A (40P), rear MICU connector B (34P), combination switch 8P connector, relay control module connector (14P), power seat control unit connector B (40P), immobilizer-keyless control unit 7P connector, power tailgate control unit connector C (14P), gauge control module connector A (12P), HandsFreeLink control unit 28P connector disconnected	Check for continuity between the No. 5 terminals of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the audio unit
Navi	XM receiver control unit connector A (20P) and navigation unit connector F (5P) disconnected	Check for continuity between the No. 3 terminal of XM receiver unit connector A (20P) and the No. 1 terminal of the navigation unit connector F (5P): There should be continuity.	An open in the wire
		Check for continuity between the No. 13 terminal of XM receiver unit connector A (20P) and the No. 2 terminal of the navigation unit connector F (5P): There should be continuity.	An open in the wire
		Check for continuity between the No. 4 terminal of XM receiver unit connector A (20P) and the No. 3 terminal of the navigation unit connector F (5P): There should be continuity.	An open in the wire
		Check for continuity between the No. 14 terminal of XM receiver unit connector A (20P) and the No. 4 terminal of the navigation unit connector F (5P): There should be continuity.	An open in the wire
		Check for continuity between the No. 3 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the wire



Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
Navi	XM receiver control unit connector A (20P) and navigation unit connector F (5P) disconnected	Check for continuity between the No. 1 and No. 3 terminals of XM receiver unit connector A (20P): There should be no continuity.	A short in the wire
		Check for continuity between the No. 13 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 and No. 13 terminals of XM receiver unit connector A (20P): There should be no continuity.	A short in the wire
		Check for continuity between the No. 4 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 and No. 4 terminals of XM receiver unit connector A (20P): There should be no continuity.	A short in the wire
		Check for continuity between the No. 14 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 and No. 14 terminals of XM receiver unit connector A (20P): There should be no continuity.	A short in the wire
	Navigation unit connector F (5P) disconnected	Check for continuity between the No. 3 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the XM receiver unit
		Check for continuity between the No. 13 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the XM receiver unit
		Check for continuity between the No. 4 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the XM receiver unit
		Check for continuity between the No. 14 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the XM receiver unit
	XM receiver control unit connector A (20P) disconnected	Check for continuity between the No. 3 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the navigation unit
		Check for continuity between the No. 13 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the navigation unit
		Check for continuity between the No. 4 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the navigation unit
		Check for continuity between the No. 14 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the navigation unit

(cont'd)

Self-diagnostic Function (cont'd)

Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
HFL	XM receiver control unit connector B (16P) and HandsFreeLink control unit 28P connector disconnected	Check for continuity between the No. 8 terminal of XM receiver unit connector B (16P) and the No. 22 terminal of the HandsFreeLink control unit 28P connector: There should be continuity.	An open in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector B (16P) and the No. 23 terminal of the HandsFreeLink control unit 28P connector: There should be continuity.	An open in the wire
		Check for continuity between the No. 7 terminal of XM receiver unit connector B (16P) and the No. 9 terminal of the HandsFreeLink control unit 28P connector: There should be continuity.	An open in the wire
		Check for continuity between the No. 15 terminal of XM receiver unit connector B (16P) and the No. 8 terminal of the HandsFreeLink control unit 28P connector: There should be continuity.	An open in the wire
		Check for continuity between the No. 8 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 terminal of XM receiver unit connector A (20P) and the No. 8 terminal of the XM receiver unit connector B (16P): There should be no continuity.	A short in the wire
		Check for continuity between the No. 16 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 terminal of XM receiver unit connector A (20P) and the No. 16 terminal of the XM receiver unit connector B (16P): There should be no continuity.	A short in the wire
		Check for continuity between the No. 7 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 terminal of XM receiver unit connector A (20P) and the No. 7 terminal of the XM receiver unit connector B (16P): There should be no continuity.	A short in the wire



Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
HFL	XM receiver control unit connector B (16P) and HandsFreeLink control unit 28P connector disconnected	Check for continuity between the No. 15 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 terminal of XM receiver unit connector A (20P) and the No. 15 terminal of the XM receiver unit connector B (16P): There should be no continuity.	A short in the wire
	HandsFreeLink control unit 28P connector disconnected	Check for continuity between the No. 8 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the XM receiver unit
		Check for continuity between the No. 16 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the XM receiver unit
		Check for continuity between the No. 7 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the XM receiver unit
		Check for continuity between the No. 15 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the XM receiver unit
	XM receiver control unit connector A (20P) disconnected	Check for continuity between the No. 8 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the HandsFreeLink control unit
		Check for continuity between the No. 16 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the HandsFreeLink control unit
		Check for continuity between the No. 7 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the HandsFreeLink control unit
		Check for continuity between the No. 15 terminal of XM receiver unit connector B (16P) and body ground: There should be no continuity.	A short in the HandsFreeLink control unit
Audio	XM receiver control unit connector A (20P) and audio unit connector D (14P) disconnected	Check for continuity between the No. 7 terminal of XM receiver unit connector A (20P) and the No. 9 terminal of the audio unit connector D (14P): There should be continuity.	An open in the wire
		Check for continuity between the No. 17 terminal of XM receiver unit connector A (20P) and the No. 10 terminal of the audio unit connector D (14P): There should be continuity.	An open in the wire
		Check for continuity between the No. 7 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the wire

(cont'd)

Self-diagnostic Function (cont'd)

Red color indicate device	Test condition	Test: Desired result	Possible cause if result is not obtained
Audio	XM receiver control unit connector A (20P) and audio unit connector D (14P) disconnected	Check for continuity between the No. 1 and No. 7 terminals of XM receiver unit connector A (20P): There should be no continuity.	A short in the wire
		Check for continuity between the No. 17 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the wire
		Check for continuity between the No. 1 and No. 17 terminals of XM receiver unit connector A (20P): There should be no continuity.	A short in the wire
	Audio unit connector D (14P) disconnected	Check for continuity between the No. 7 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the XM receiver unit
		Check for continuity between the No. 17 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the XM receiver unit
	XM receiver control unit connector A (20P) disconnected	Check for continuity between the No. 7 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the audio unit
		Check for continuity between the No. 17 terminal of XM receiver unit connector A (20P) and body ground: There should be no continuity.	A short in the audio unit

NOTE: If the XM antenna connection condition is faulty, "XM ANTENNA" will be indicated on the audio-HVAC subdisplay-clock.

9. If the indication does not go away, confirm DTCs, and refer to the relevant system troubleshooting and input tests.

Canceling the Self-diagnostic Function

1. Use the interface dial, select the "Exit Diag". Press the interface dial to cancel the self-diagnostic function.



DTC Troubleshooting

DTC B2202: AcuraLink Control Unit EEPROM Error

1. Connect the HDS to the DLC.
2. Turn the ignition switch ON (II).
3. Check for DTCs with the HDS and DTC log data in the navigation system diagnostic mode (see page 23-158).

Is DTC B2202 indicated with HDS and on the navigation display?

YES—Intermittent failure. The system is OK at this time. Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver). ■

NO—Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver). If all connections are OK, replace the AcuraLink control unit (XM receiver) (see page 23-96). ■

DTC B2204: B-CAN Communication Line Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-112).

1. Connect the HDS to the DLC.
2. Turn the ignition switch ON (II).
3. Check for DTCs with the HDS and DTC log data in the navigation system diagnostic mode (see page 23-158).

Is DTC B2204 indicated with HDS and on the navigation display?

YES—Intermittent failure. B-CAN communication line is OK at this time. Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver). ■

NO—Go to step 4.

4. Turn the ignition switch OFF.
5. Disconnect the AcuraLink control unit (XM receiver) connector B (16P) and gauge control module connector A (12P).

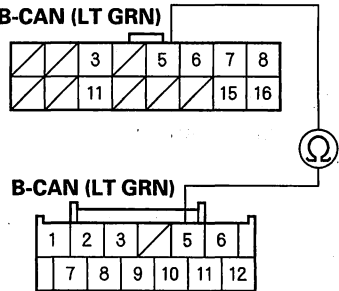
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DTC Troubleshooting (cont'd)

- 6. Check for continuity between the AcuraLink control unit (XM receiver) connector B (16P) No. 5 terminal and gauge control module connector A (12P) No. 5 terminal.

ACURALINK CONTROL UNIT (XM RECEIVER)
CONNECTOR B (16P)

Wire side of female terminals



GAUGE CONTROL MODULE CONNECTOR A (12P)

Wire side of female terminals

Is there continuity?

YES—Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver). If all connections are OK, replace the AcuraLink control unit (XM receiver) (see page 23-96). ■

NO—Repair open in the wire between AcuraLink control unit (XM receiver) and the gauge control module. ■

DTC B2205: F-CAN Communication Line Error

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-112).

1. Connect the HDS to the DLC.
2. Turn the ignition switch ON (II).
3. Check for DTCs with the HDS and DTC log data in the navigation system diagnostic mode (see page 23-158).

Is DTC B2205 indicated with HDS and on the navigation display?

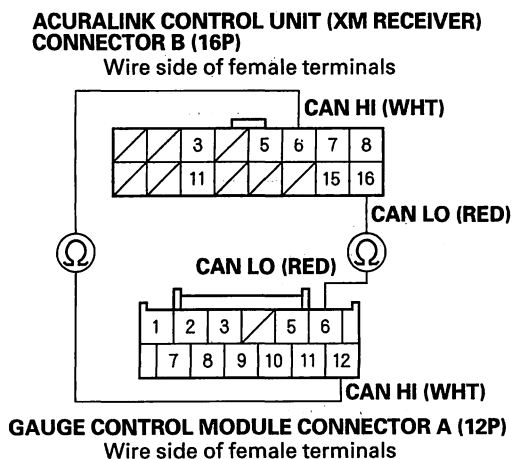
YES—Intermittent failure. F-CAN communication line is OK at this time. Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver). ■

NO—Go to step 4.

4. Turn the ignition switch OFF.
5. Disconnect the AcuraLink control unit (XM receiver) connector B (16P) and gauge control module connector A (12P).



6. Check for continuity between the AcuraLink control unit (XM receiver) connector B (16P) No. 6, No. 16 terminals and gauge control module connector A (12P) No. 6, No. 12 terminals.



Is there continuity?

YES—Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver). If all connections are OK, replace the AcuraLink control unit (XM receiver) (see page 23-96). ■

NO—Repair open in the wire between AcuraLink control unit (XM receiver) and the gauge control module. ■

DTC B2207: Navigation Unit Lost Communication With AcuraLink Control Unit

1. Connect the HDS to the DLC.
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF, then turn it ON (II) and wait 30 seconds or more.
4. Check for DTC with the HDS.

Is DTC B2207, B2208 indicated?

YES—Check the battery condition (see page 22-76). If the system OK, replace the AcuraLink control unit (XM receiver). ■

NO—

- If the B2207 is not indicated, Intermittent failure, system OK at this time. Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver). ■
- If the B2208 is not indicated, go to Step 5.

5. Turn the ignition switch OFF.
6. Disconnect the AcuraLink control unit (XM receiver) connector A (20P) and navigation unit connector F (5P).

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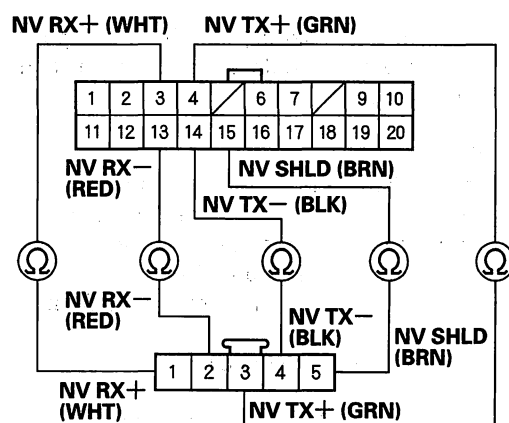
DTC Troubleshooting (cont'd)

7. Check for continuity between the following terminals of the AcuraLink control unit (XM receiver) connector A (20P) and navigation unit F (5P).

20P	5P
No. 3	No. 1
No. 4	No. 3
No. 13	No. 2
No. 14	No. 4
No. 15	No. 5

ACURALINK CONTROL UNIT (XM RECEIVER) CONNECTOR A (20P)

Wire side of female terminals



NAVIGATION UNIT CONNECTOR F (5P)

Wire side of female terminals

Is there continuity?

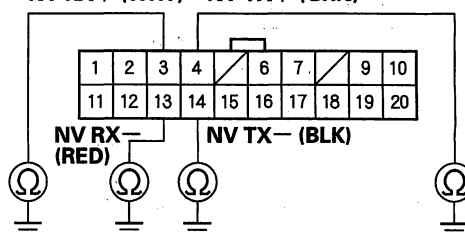
YES—Go to Step 8.

NO—Repair open in the wire(s) between AcuraLink control unit (XM receiver) and the navigation unit. ■

8. Check for continuity between body ground and AcuraLink control unit (XM receiver) connector A (20P) terminals No. 3, 4, 13 and 14 individually.

ACURALINK CONTROL UNIT (XM RECEIVER) CONNECTOR A (20P)

NV RX+ (WHT) NV TX+ (GRN)



Wire side of female terminals

Is there continuity?

YES—Repair short to body ground in the wire(s) between the AcuraLink control unit (XM receiver) and the navigation unit. ■

NO—Go to Step 9.

9. Check for continuity between the terminals of AcuraLink control unit (XM receiver) connector A (20P) as follows.

From terminal	To terminals
A3	A4, A13, A14, A15
A4	A13, A14, A15
A13	A14, A15
A14	A15

Is there continuity between any of the terminals?

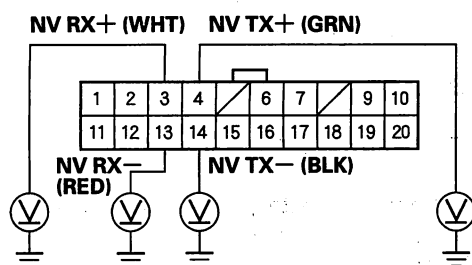
YES—Repair short in the wire(s) between the AcuraLink control unit (XM receiver) and the navigation unit (replace the appropriate shield harness). ■

NO—Go to Step 10.



10. Turn the ignition switch ON(II).
11. Measure the voltage between body ground and AcuraLink control unit (XM receiver) connector A (20P) terminals No. 3, 4, 13 and 14 individually.

**ACURALINK CONTROL UNIT (XM RECEIVER)
CONNECTOR A (20P)**



Wire side of female terminals

Is there any voltage?

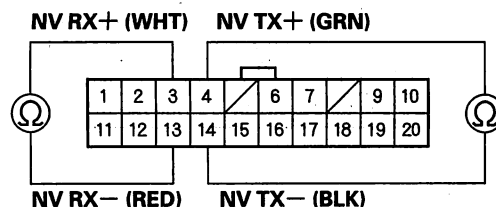
YES—Repair short to power in the wire(s) between the AcuraLink control unit (XM receiver) and the navigation unit. ■

NO—Go to Step 12.

12. Turn the ignition switch OFF.
13. Reconnect the Acuralink control unit (XM receiver) connector A (20P).

14. Measure the resistance between AcuraLink control unit (XM receiver) connector A (20P) terminals No. 3, No. 4, and No. 13, No. 14.

**ACURALINK CONTROL UNIT (XM RECEIVER)
CONNECTOR A (20P)**



Wire side of female terminals

Is there less than about 100kΩ ?

YES—AcuraLink control unit (XM receiver) is faulty, replace the AcuraLink control unit (XM receiver). ■

NO—Go to Step 15.

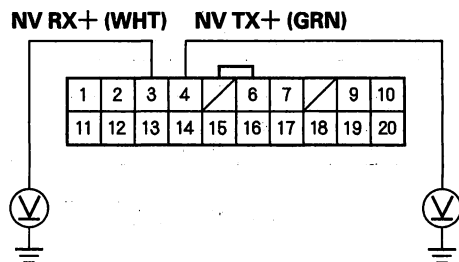
15. Reconnect the navigation unit connector F (5P).
16. Turn the ignition switch ON(II).

(cont'd)

DTC Troubleshooting (cont'd)

17. Measure the voltage between the body ground and the AcuraLink control unit (XM receiver) connector A (20P) terminals No. 3, No. 4 individually.

ACURALINK CONTROL UNIT (XM RECEIVER) CONNECTOR A (20P)



Wire side of female terminals

Is there less than about 3.5V?

YES—AcuraLink control unit (XM receiver) is faulty, replace the AcuraLink control unit (XM receiver). ■

NO—Navigation unit is faulty, replace the navigation unit. ■

DTC B2208: HandsFreeLink Control Unit Lost Communication With AcuraLink Control Unit

1. Connect the HDS to the DLC.
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF, then turn it ON (II) and wait 30 seconds or more.
4. Check for DTC with the HDS.

Is DTC B2207, B2208 indicated?

YES—Check the battery condition (see page 22-76). If the system OK, replace the AcuraLink control unit (XM receiver). ■

NO—

- If the B2208 is not indicated, Intermittent failure, system OK at this time. Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver). ■
- If the B2207 is not indicated, go to Step 5.

5. Turn the ignition switch OFF.
6. Disconnect the AcuraLink control unit (XM receiver) connector B (16P) and HandsFreeLink control unit 28P connector.

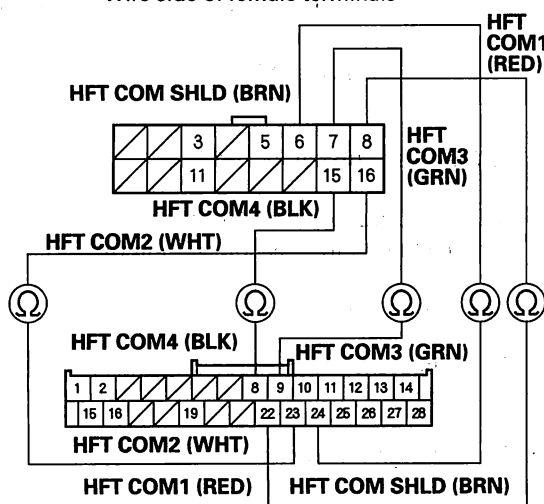


7. Check for continuity between the following terminals of the AcuraLink control unit (XM receiver) connector B (16P) and HandsFreeLink control unit 28P connector.

16P 28P
 No. 6 No. 24
 No. 7 No. 9
 No. 8 No. 22
 No. 15 No. 8
 No. 16 No. 23

**ACURALINK CONTROL UNIT (XM RECEIVER)
 CONNECTOR B (16P)**

Wire side of female terminals



HANDSFREELINK CONTROL UNIT 28P CONNECTOR

Wire side of female terminals

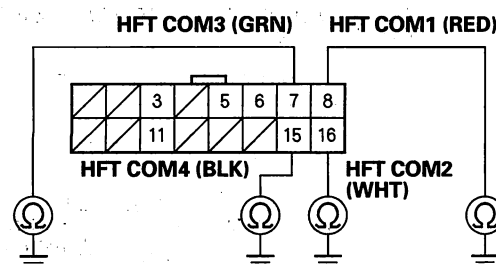
Is there continuity?

YES—Go to Step 8.

NO—Repair open in the wire(s) between AcuraLink control unit (XM receiver) and the HandsFreeLink control unit. ■

8. Check for continuity between body ground and AcuraLink control unit (XM receiver) connector B (16P) terminals No. 7, 8, 15 and 16 individually.

**ACURALINK CONTROL UNIT (XM RECEIVER)
 CONNECTOR B (16P)**



Wire side of female terminals

Is there continuity?

YES—Repair short to body ground in the wire(s) between the AcuraLink control unit (XM receiver) and the HandsFreeLink control unit. ■

NO—Go to Step 9.

9. Check for continuity between the terminals of AcuraLink control unit (XM receiver) connector B (16P) as follows.

From terminal	To terminals
B7	B8, B15, B16, B6
B8	B15, B16, B6
B15	B16, B6
B16	B6

Is there continuity between any of the terminals?

YES—Repair short in the wire(s) between the AcuraLink control unit (XM receiver) and the HandsFreeLink control unit (replace the appropriate shield harness). ■

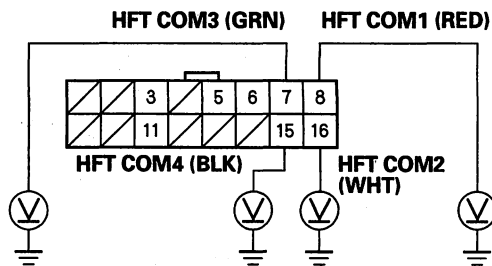
NO—Go to Step 10.

(cont'd)

DTC Troubleshooting (cont'd)

10. Turn the ignition switch ON(II).
11. Measure the voltage between body ground and AcuraLink control unit (XM receiver) connector B (16P) terminals No. 7, 8, 15 and 16 individually.

ACURALINK CONTROL UNIT (XM RECEIVER) CONNECTOR B (16P)



Wire side of female terminals

Is there any voltage?

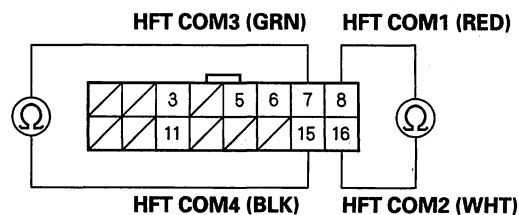
YES—Repair short to power in the wire(s) between the AcuraLink control unit (XM receiver) and the HandsFreeLink control unit. ■

NO—Go to Step 12.

12. Turn the ignition switch OFF.
13. Reconnect the AcuraLink control unit (XM receiver) connector B (16P).

14. Measure the resistance between AcuraLink control unit (XM receiver) connector B (16P) terminals No. 7, No. 8, and No. 15, No. 16.

ACURALINK CONTROL UNIT (XM RECEIVER) CONNECTOR B (16P)



Wire side of female terminals

Is there less than about 100k Ω ?

YES—AcuraLink control unit (XM receiver) is faulty, replace the AcuraLink control unit (XM receiver). ■

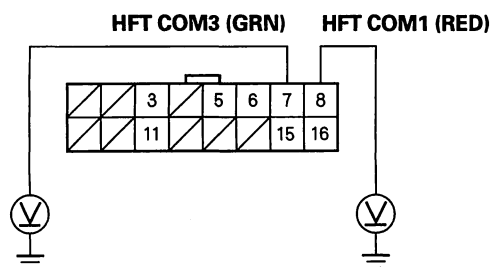
NO—Go to Step 15.

15. Reconnect the HandsFreeLink control unit 22P connector.
16. Turn the ignition switch ON(II).



17. Measure the voltage between the body ground and the AcuraLink control unit (XM receiver) connector B (16P) terminals No. 7, No. 8 individually.

**ACURALINK CONTROL UNIT (XM RECEIVER)
CONNECTOR B (16P)**



Wire side of female terminals

Is there less than about 3.5V?

YES—AcuraLink control unit (XM receiver) is faulty, replace the AcuraLink control unit (XM receiver). ■

NO—HandsFreeLink control unit is faulty, replace the HandsFreeLink control unit. ■

DTC B2209: AcuraLink Control Unit Internal Error

1. Connect the HDS to the DLC.
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF, then turn it ON (II) and wait 30 seconds or more.
4. Check for DTC with the HDS.

Is DTC B2209 indicated?

YES— AcuraLink control unit (XM receiver) is faulty, replace the AcuraLink control unit (XM receiver). ■

NO—Intermittent failure, system OK at this time. ■

DTC Troubleshooting (cont'd)

DTC B2240: XM Antenna Error

1. Connect the HDS to the DLC.
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF, then turn it ON (II) and wait 30 seconds or more.
4. Check for DTC with the HDS.

Is DTC B2240 indicated?

YES—Go to Step 5.

NO—Intermittent failure, XM antenna is OK at this time. Check for poor connections or loose terminals at the AcuraLink control unit (XM receiver) and XM antenna. ■

5. Check the XM antenna lead connection at the AcuraLink control unit (XM receiver) and at the XM antenna.

Is it connected properly?

YES—Go to Step 6.

NO—Reconnect the connector, and recheck the DTC. ■

6. Disconnect the AcuraLink control unit (XM receiver) connector C (1P).
7. Turn the ignition switch ON(II).

8. Measure the voltage between the body ground and the AcuraLink control unit (XM receiver) terminal C (1P) No. 1 terminal.

ACURALINK CONTROL UNIT (XM RECEIVER) TERMINAL C (1P)



Terminal side of male terminals

Is there about 4.5 V?

YES—Go to Step 9.

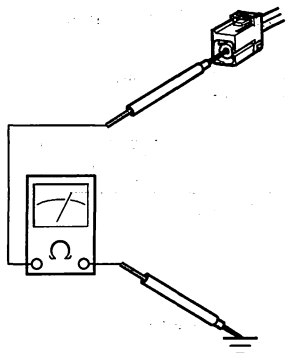
NO—AcuraLink control unit (XM receiver) is faulty, replace the AcuraLink control unit (XM receiver). ■

9. Turn the ignition switch OFF.
10. Disconnect the XM antenna 1P connector.



11. Check for continuity between body ground and XM antenna 1P connector No. 1 terminal.

XM ANTENNA 1P CONNECTOR



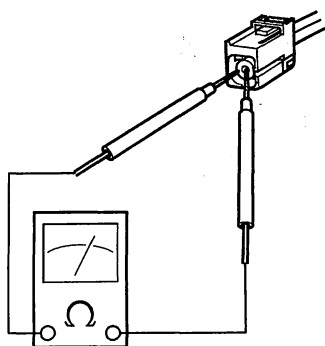
Is there continuity?

YES—Replace the antenna lead between the AcuraLink control unit (XM receiver) and XM antenna. ■

NO—Go to Step 12.

12. Check for continuity between the core and the outside of the feeder antenna at XM antenna 1P connector terminal No. 1.

XM ANTENNA 1P CONNECTOR



Is there continuity?

YES—Replace the antenna lead between the AcuraLink control unit (XM receiver) and XM antenna. ■

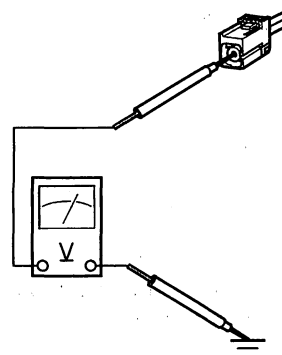
NO—Go to Step 13.

13. Reconnect the AcuraLink control unit C (1P) connector.

14. Turn the ignition switch ON(II).

15. Measure the voltage between the body ground and the XM antenna 1P connector No. 1 terminal.

XM ANTENNA 1P CONNECTOR



Is there about 4.5V?

YES—XM antenna is faulty, replace the XM antenna. ■

NO—Replace the antenna lead between the AcuraLink control unit (XM receiver) and the XM antenna. ■

Symptom Troubleshooting

AcuraLink service application does not work

NOTE: In order for the AcuraLink service to work, the client must have an activated account with XM (receives all channels).

1. Check the No. 21 (7.5 A) fuse and No. 32 (10 A) fuse in the under-dash fuse/relay box.

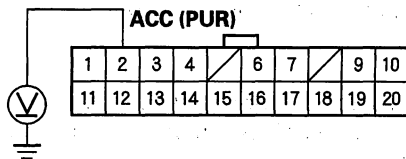
Are the fuses OK?

YES—Go to step 2.

NO—Replace the fuse(s), and recheck. ■

2. Turn the ignition switch to ACC (I).
3. Measure the voltage between the No. 2 terminal of the AcuraLink control unit (XM receiver) connector A (20P) and body ground.

ACURALINK CONTROL UNIT (XM RECEIVER)
CONNECTOR A (20P)



Wire side of female terminals

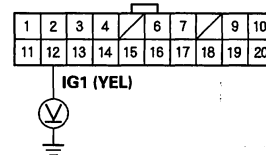
Is there battery voltage?

YES—Go to step 4.

NO—Repair open in the wire(s) between the AcuraLink control unit and the No. 32 (10 A) fuse in the under-dash fuse/relay box. ■

4. Turn the ignition switch ON (II).
5. Measure the voltage between the No. 12 terminal of the AcuraLink control unit (XM receiver) connector A (20P) and body ground.

ACURALINK CONTROL UNIT (XM RECEIVER)
CONNECTOR A (20P)



Wire side of female terminals

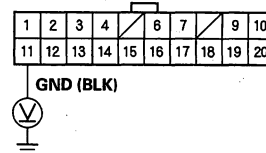
Is there battery voltage?

YES—Go to step 6.

NO—Repair open in the wire(s) between the AcuraLink control unit (XM receiver) and the No. 21 (7.5 A) fuse in the under-dash fuse/relay box. ■

6. Turn the ignition switch OFF.
7. Measure the voltage between the No. 11 terminal of the AcuraLink control unit (XM receiver) connector A (20P) and body ground.

ACURALINK CONTROL UNIT (XM RECEIVER)
CONNECTOR A (20P)



Wire side of female terminals

Is there less than 0.5 V?

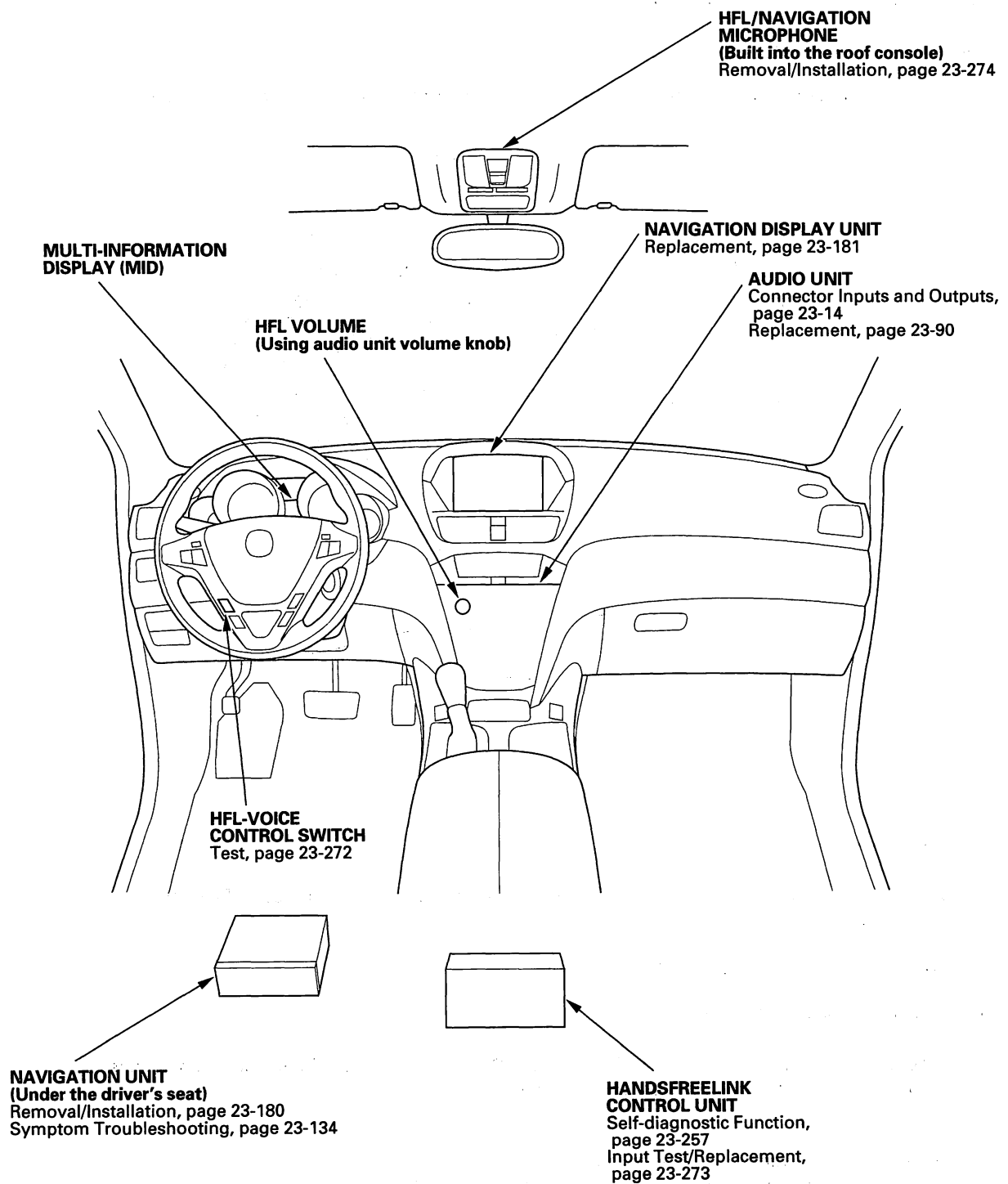
YES—Check for loose wires or poor connections at the AcuraLink control unit (XM receiver) connector A (20P). If the connections are good, substitute a known-good AcuraLink control unit (XM receiver), and recheck. If the symptom goes away, replace the original AcuraLink control unit (XM receiver). ■

NO—Check for an open in the wire between the AcuraLink control unit (XM receiver) and body ground. If the wire is OK, check for poor ground at G606 (see page 22-38). ■



HandsFreeLink System

Component Location Index

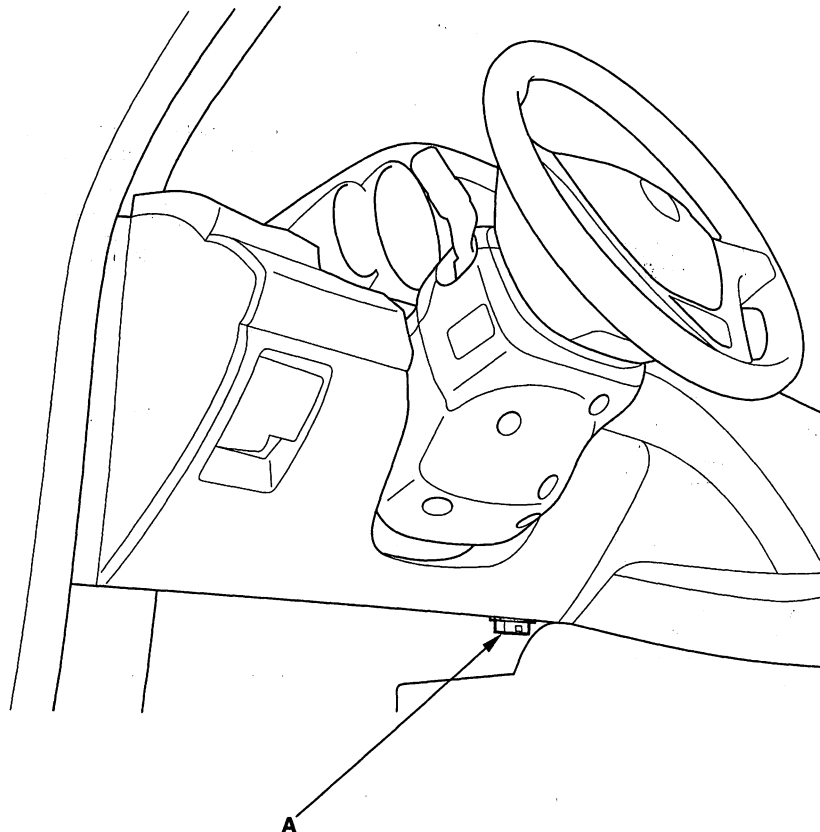


HandsFreeLink System

General Troubleshooting Information

How to Check for DTCs with the HDS

1. Make sure the ignition switch is OFF.
2. Connect the HDS to the data link connector (DLC) (A) located under the driver's side of the dashboard.



3. Turn the ignition switch ON (II).
4. Make sure the HDS communicates with the vehicle and the HandsFreeLink control unit. If it doesn't, troubleshoot the DLC circuit (see page 11-223).
5. Select HandsFreeLink in the BODY ELECTRICAL menu.
6. Select DTCs in the HandsFreeLink menu.
7. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting. If no DTCs are indicated, refer to symptom troubleshooting.

NOTE:

- After troubleshooting, clear the DTCs with the HDS.
- For specific operations, refer to the user's manual that came with the HDS.



General Operation

The HandsFreeLink (HFL) works only with an approved Bluetooth enabled cell phones with the Hands Free Profile. If you are not sure if your cell phone is compatible with the HFL — and not all phones are — Acura has a dedicated call center and web-site to answer your questions. On the web, go to www.handsfreelink.com, or dial 888-528-7876 for further assistance. The call center is open Monday thru Friday from 6:00 a.m. to 6:00 p.m. CST, Saturday from 7:00 a.m. to 6:00 p.m. CST, and Sunday from 8:00 a.m. to 6:00 p.m. CST.

The HFL gives the user the convenience of hands-free operation. It can't control the phone's performance (call quality and signal strength). To avoid performance problems, don't put the phone in a metal briefcase or in a purse under the seat.

This guide shows you just a few of the HFL's many features. You will see how to pair your phone to the HFL and then make and receive calls, all using simple voice commands. If you want a complete description of this system, please refer to the owner's manual and quick start guide.

Voice Control Tips

To give any voice command, press and release the TALK button. Always wait for the beep, then give your command in a clear, natural voice. The HFL microphone is on the ceiling, by the front spotlights.

If the HFL doesn't recognize your voice command, you'll hear "Pardon." If after repeating your command, it still doesn't recognize it, you'll hear "Please repeat." If after repeating your command again, it still doesn't recognize it, the HFL sends you to the Help menu.

To hear a list of available options at any time, say "Hands free help."

You can give many voice commands together. For example, you can say "Dial 123-456-7890."

To give a string of numbers in a call or dial voice command, you can say them all at once, or separate them into blocks of 3, 4, 7, 10, or 11.

To skip a voice prompt, press and release the TALK button while the HFL is speaking. The HFL begins listening for your next voice command.

To go back a step in a voice command sequence, press and release the Back button, or say "Go back."

If you don't say anything while the HFL is listening for your voice command, it will time out and stop its voice recognition. The next time you press and release the TALK button, the HFL begins listening from the point where it timed out.

To stop a voice command sequence at any time, press and hold the Back button, or press and release the TALK button, wait for the beep, and say "Cancel." The next time you press and release the TALK button, the HFL begins from its main menu. You'll see MAIN on the multi-information display (MID) in the instrument panel.

When you're done with a voice command sequence, the HFL goes back to its main menu. The next time you press and release the TALK button, you'll be at the main menu and you'll see MAIN on the MID.

Remember to press and hold the Back button until you exit the main menu, otherwise, the audio system stays muted.

The HFL may have problems with some voices. To improve voice recognition:

- Close the windows and moonroof.
- Set the fan speed to low (1 to 2).
- Adjust the air flow vents so that they do not blow against the microphone on the ceiling.
- Speak in a clear and natural voice. If the system cannot recognize your command, speak louder.
- If the microphone picks up voices other than yours, the system may not interpret your voice commands correctly.
- If you speak with something in your mouth, or your voice is too husky, the system may misunderstand your command.

(cont'd)

HandsFreeLink System

General Troubleshooting Information (cont'd)

Pairing Your Cell Phone (A One Time Procedure)

You must pair an approved Bluetooth compatible phone to the HFL before you can make and receive calls. The following steps show you what you need to do. For a current list of approved phones and specific phone pairing instructions, go to www.acura.com. You can also refer to the phone's operating manual or call the phone retailer. Make sure the vehicle is stationary when you pair the phone;

NOTE:

- You cannot pair a phone if the vehicle is moving.
- Your phone must be in its Discovery mode.
- Up to six Bluetooth compatible phones can be paired by the HFL.
- Not all Bluetooth phones are compatible with the HFL. For a current list of approved Bluetooth phones, visit www.acura.com.

1. Turn on your phone, and follow the prompts to activate Bluetooth.
2. Give these voice commands to the HFL by pressing the TALK button.

You say	You'll hear
"Phone setup"	"Phone setup options are status, pair, edit, delete, and list."
"Pair"	"The pairing process requires operation of your mobile phone. For safety, only perform this function while the vehicle is stopped. State a four-digit code for pairing. Note this code, it will be requested by the phone."
"1. 2. 3. 4." (This can be any four-digit code you want.)	"1. 2. 3. 4. is this correct?"
"Yes"	"Searching for a Bluetooth phone. Make sure the phone you are trying to pair is in Discovery mode ! "

3. Follow the cell phone manufacturer's instructions to put the phone in its Discovery mode. The phone will search for the HFL. When you see HANDSFREELINK in the device list on the phone, select it.
4. When prompted, enter the four-digit PIN from step 2 into the phone. You will hear the HFL say "A new phone has been found. Would you like to name this phone?"
5. Press and release the TALK button, and say what the phone name will be. For example, say "John's phone". You'll hear "John's phone has been successfully paired, returning to the main menu".
6. To pair another phone, repeat steps 1 thru 5.



Clearing the system

NOTE:

- This operation clears the HFL system of all passcode(s), any paired phone, and all names in the HFL phonebook.
- Clearing the HFL system is recommend before selling the vehicle.

1. Turn on your phone, and follow the prompts to activate Bluetooth.
2. Press and release the TALK button. After the beep, say "Clear" and the HFL will respond, "This process will clear all paired phones, clear all entries in the phonebook, and clear the passcode. Is this what you would like to do?"
3. Press and release the TALK button. After the beep, say "Yes" and the HFL respond. "Preparing to clear all paired phones, all phonebook entries, and the passcode. This may take up to 2 minutes to complete".
4. Press and release the TALK button. After the beep, say "OK" to proceed, or say "Go back" or "Cancel".
5. If you said "OK" after a short period of time, the HFL respond, "System has been cleared. Returning to the main menu", and the clearing HFL system is complete.

Self-diagnostic Function

NOTE: This procedure should be used only if HDS is unavailable.

To run the self-diagnostic function, do the following:

1. Turn the ignition switch ACC (I).
2. Press and hold the HFL BACK button for more than 5 seconds.
3. When the HandsFreeLink system enters the self-diagnostic function, the following will occur.
 - If the system has not completed testing for DTCs, the HandsFreeLink control unit audibly outputs "The hands free system test is in progress".
 - If there is no DTC, the HandsFreeLink control unit audibly outputs "The hands free system is OK".
 - If there is any DTC, the HandsFreeLink control unit audibly outputs "The hands free system needs to be serviced".

NOTE:

- The self-diagnostic function can only be initiated while the HFL is in its idle state.
- The self-diagnostic function is considered to start once the 5 seconds press and hold is detected, and ends when the unit returns to its idle state.

HandsFreeLink System

Symptom Troubleshooting Index

Symptom	Diagnostic procedure	Also check for
The MID displays an HFL message that does not go away after pressing the HFL button	Symptom Troubleshooting (see page 23-271)	Check and repair all CAN related DTCs
The phone icon in the navigation route to screen is grayed-out	There is no HFL-compatible phone paired to the vehicle. Pair an approved HFL-compatible phone to the vehicle	- The phone must be on the list of approved Bluetooth phones and configured correctly. For a current list of approved phones, go to www.acura.com, or call 888-528-7876 for further assistance. - Check the Diagnostic Menu and use the "Navi System Link"
The approved Bluetooth phone is having problems pairing to the vehicle	HFL Diagnostic mode A	The phone must be on the list of approved Bluetooth phones and configured correctly. For a current list of approved phones, go to www.acura.com , or call 888-528-7876 for further assistance.
The Bluetooth phone cannot use all its functions	HFL Diagnostic mode A	The phone must be on the list of approved Bluetooth phones and configured correctly. For a current list of approved phones, go to www.acura.com , or call 888-528-7876 for further assistance.
The Bluetooth phone does not place or receive calls using the HFL system	HFL Diagnostic mode A	The phone must be on the list of approved Bluetooth phones and configured correctly. For a current list of approved phones, go to www.acura.com , or call 888-528-7876 for further assistance.
The client wants the HFL system reset (all phones and address information cleared from the HFL system)	Clearing the system (see page 23-257)	See the Owner's Manual for additional information.
The HFL system is locked and the pass code has been lost or forgotten	Symptom Troubleshooting (see page 23-272)	
The HFL system does not recognize all voice prompts	Symptom Troubleshooting (see page 23-271)	Also see "Voice control tips" (see page 23-255).
The HFL system speaks in French	See the HFL section in the Owner's Manual for "Changing Language"	



HFL System Troubleshooting

NOTE:

- You must be able to duplicate the client's concern to successfully diagnose the problem.
- Always use the client's phone.
- Make sure the phone is approved and configured correctly. Online, go to www.acura.com, or call the HFL support desk at 888-528-7876 for further assistance.

1. Connect the HDS to the DLC.
2. Turn the ignition switch ON (II).
3. Check for DTCs.

Are any DTCs indicated?

YES—Repair the indicated DTCs and recheck. ■

NO—Go to Step 4.

4. Try to duplicate the problem.

Can you duplicate the problem?

YES—Go to Step 5.

NO—The system is OK at this time. ■

5. Pair the phone to a known-good vehicle (same model, year, and trim), and try duplicate the problem.

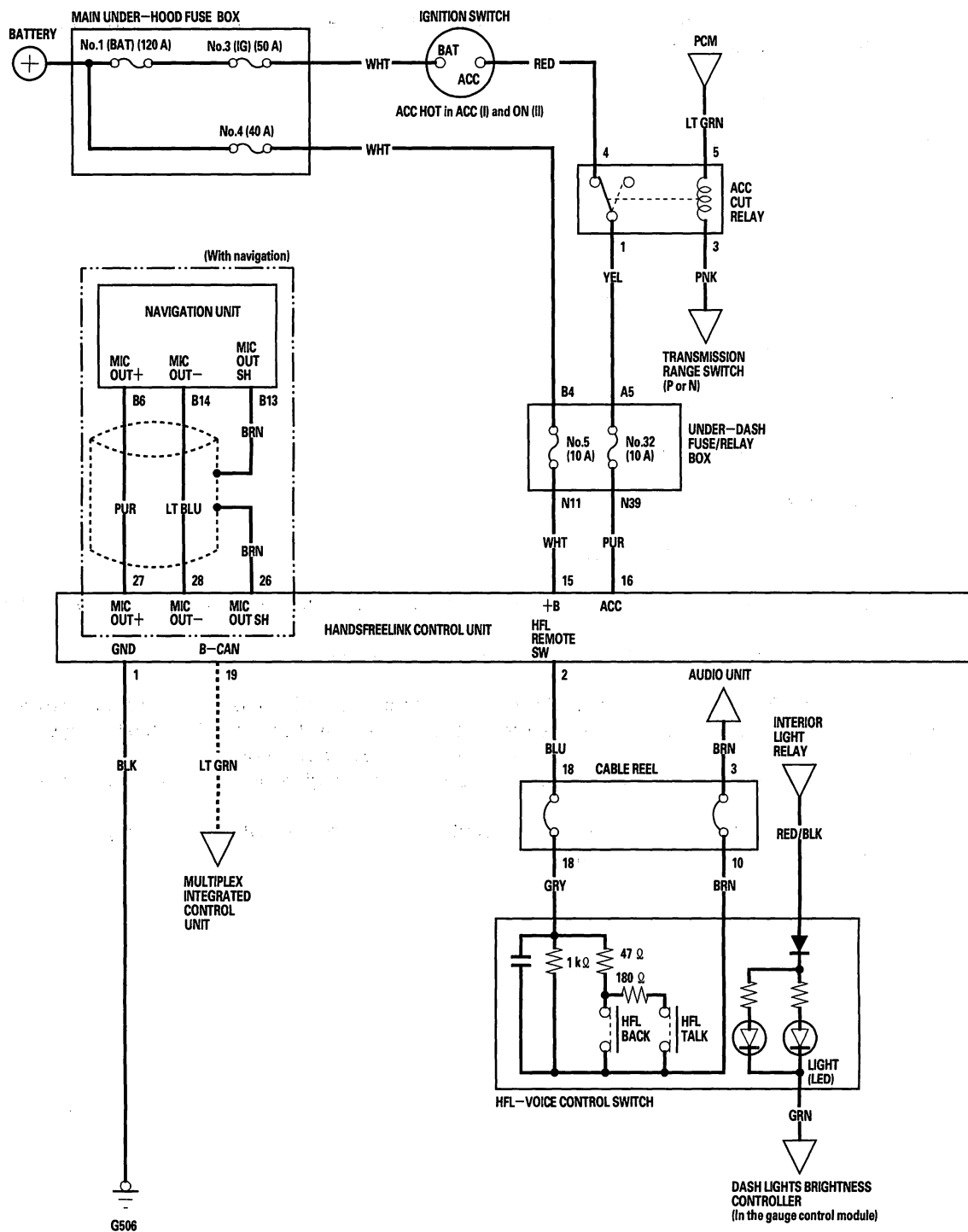
Does the phone have the same problem on the known-good vehicle?

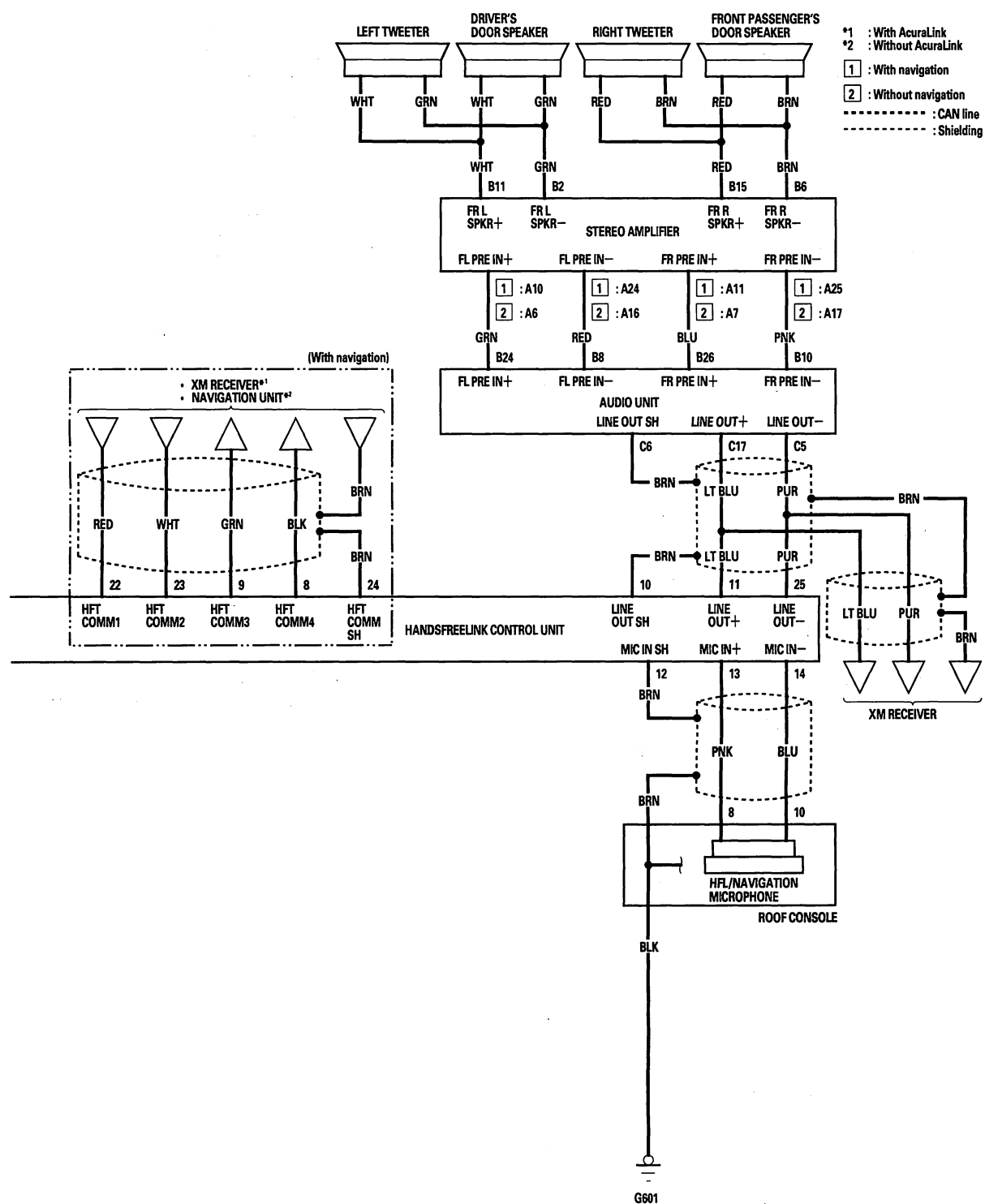
YES—Call the HFL support desk at 888-528-7876 to make sure the phone is configured correctly and has the correct software. If the phone is configured correctly, it is either a characteristic of the HFL system, or a characteristic of the particular approved phone being used. Explain to your client that this is a system characteristic. Another phone from the approved phone list may give more favorable results. ■

NO—Substitute a known-good HandsFreeLink control unit and recheck. If the problem goes away, replace the original HandsFreeLink control unit. ■

HandsFreeLink System

Circuit Diagram





HandsFreeLink System

DTC Troubleshooting

DTC B1775: Microphone Input/Output Short to Power/Open

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN system diagnosis test mode A (see page 22-112).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Check for DTCs with the HDS.

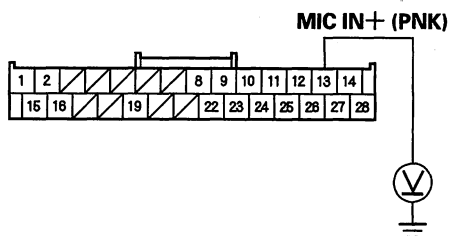
Is DTC B1775 indicated?

YES—Go to step 4.

NO—Intermittent failure, the system is OK at this time. ■

4. Turn the ignition switch OFF.
5. Remove the roof console (see page 20-101) and the console rear trim (see page 20-110).
6. Disconnect the 20P connector from the roof console and the 28P connector from the HandsFreeLink control unit.
7. Turn the ignition switch ON (II).
8. Measure the voltage between HandsFreeLink control unit the 28P connector terminal No. 13 and body ground.

HANDSFREELINK CONTROL UNIT 28P CONNECTOR



Wire side of female terminals

Is there battery voltage?

YES—Replace the faulty harness between the HandsFreeLink control unit and the roof console. ■

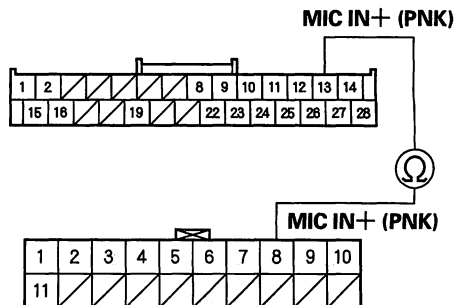
NO—Go to step 9.

9. Turn the ignition switch OFF.

10. Check for continuity between HandsFreeLink control unit 28P connector terminal No. 13 and roof console 20P connector terminal No. 8.

HANDSFREELINK CONTROL UNIT 28P CONNECTOR

Wire side of female terminals



ROOF CONSOLE 20P CONNECTOR

Wire side of female terminals

Is there continuity?

YES—Substitute a known-good HandsFreeLink control unit, then recheck. If the symptom goes away, replace the original HandsFreeLink control unit. ■

NO—Replace the faulty harness between the HandsFreeLink control unit and the roof console. ■



DTC B1776: Microphone Input/Output Short to Ground/Open

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN system diagnosis test mode A (see page 22-112).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Check for DTCs with the HDS.

Is DTC B1776 indicated?

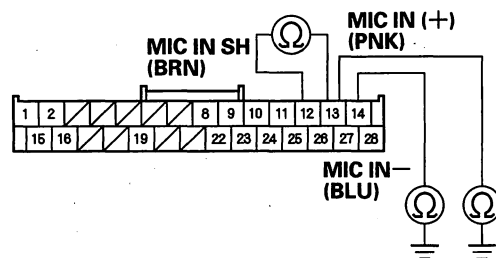
YES—Go to step 4.

NO—Intermittent failure, the system is OK at this time. ■

4. Turn the ignition switch OFF.
5. Remove the roof console (see page 20-101) and the glove box (see page 20-125).
6. Disconnect the 20P connector from the roof console and the 28P connector from the HandsFreeLink control unit.

7. Check for continuity between body ground and the No. 13 and No. 14 terminals of the HandsFreeLink control unit 28P connector individually, then between terminals No. 12 and No. 13.

HANDSFREELINK CONTROL UNIT 28P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Replace the faulty harness between the HandsFreeLinks control unit and the roof console. ■

NO—Go to step 8.

(cont'd)

HandsFreeLink System

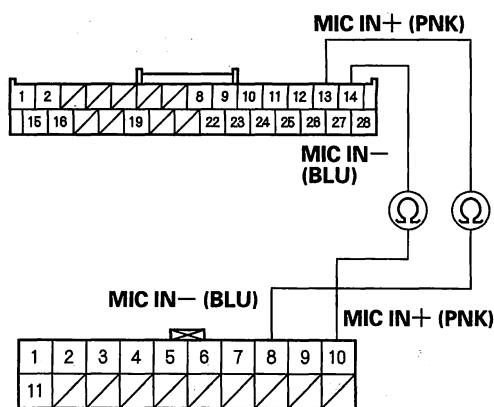
DTC Troubleshooting (cont'd)

8. Check for continuity between the following terminals of the HandsFreeLink control unit 28P connector and the roof console 20P connector.

28P: 20P:
No. 13 No. 8
No. 14 No. 10

HANDSFREELINK CONTROL UNIT 28P CONNECTOR

Wire side of female terminals



ROOF CONSOLE 20P CONNECTOR

Wire side of female terminals

Is there continuity?

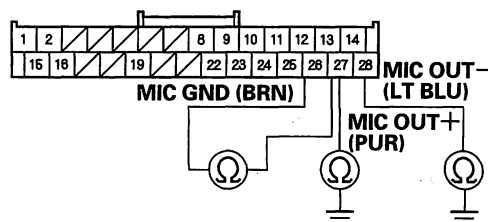
YES—Go to step 9.

NO—Replace the faulty harness between the HandsFreeLinks control unit and the roof console. ■

9. Disconnect the 14P connector from the navigation unit.

10. Check for continuity between body ground and the No. 27 and No. 28 terminals of the HandsFreeLink control unit 28P connector individually, then between terminals No. 26 and No. 27.

HANDSFREELINK CONTROL UNIT CONNECTOR (28P)



Wire side of female terminals

Is there continuity?

YES—Replace the faulty harness between the HandsFreeLinks control unit and the navigation unit. ■

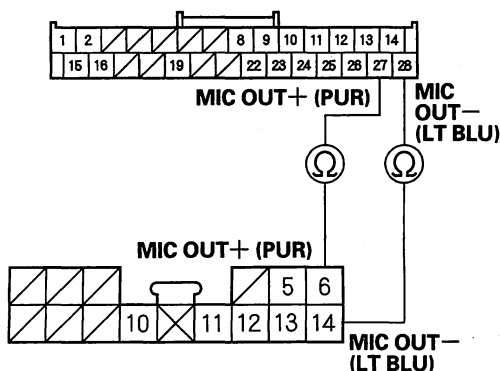
NO—Go to step 11.



11. Check for continuity between the following terminals of the HandsFreeLink control unit 28P connector and the navigation unit connector B (14P).

28P: 14P:
No. 27 No. 6
No. 28 No. 14

HANDSFREELINK CONTROL UNIT 28P CONNECTOR
Wire side of female terminals



NAVIGATION UNIT CONNECTOR B (14P)
Wire side of female terminals

Is there continuity?

YES—Substitute a known-good HandsFreeLink control unit, then recheck. If the symptom goes away, replace the original HandsFreeLink control unit. If the symptom does not go away, replace the faulty navigation unit. ■

NO—Replace the faulty harness between the HandsFreeLink control unit and the navigation unit. ■

DTC B1779: HFL Switch or HFL-Voice Control Switch (HFL TALK/HFL BACK Buttons) Circuit Open/Short

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN system diagnosis test mode A (see page 22-112).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, then start the vehicle and turn the steering wheel back and forth several times.

3. Check for DTCs with the HDS.

Is DTC B1779 indicated?

YES—Go to step 4.

NO—Intermittent failure, the system is OK at this time. ■

4. Turn the ignition switch OFF.
5. Do the HFL voice control switch test (see page 23-272).

Is the switch OK?

YES—Go to step 6.

NO—Replace the cable reel subharness (see page 17-23). ■

6. Remove the glove box (see page 20-125).
7. Disconnect the 28P connector from the HandsFreeLink control unit.
8. Disconnect the 20P connector from the cable reel subharness.
9. Turn the ignition switch ON (II).
10. Check for voltage on the cable reel subharness 20P connector terminal No. 18.

Is there voltage?

YES—Repair a short to power on BLU wire.

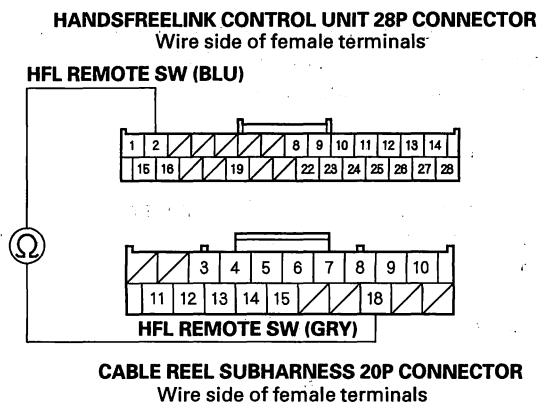
NO—Go to step 11.

(cont'd)

HandsFreeLink System

DTC Troubleshooting (cont'd)

11. Check for continuity between the HandsFreeLink control unit 28P connector terminal No. 2 and cable reel subharness 20P connector terminal No. 18.

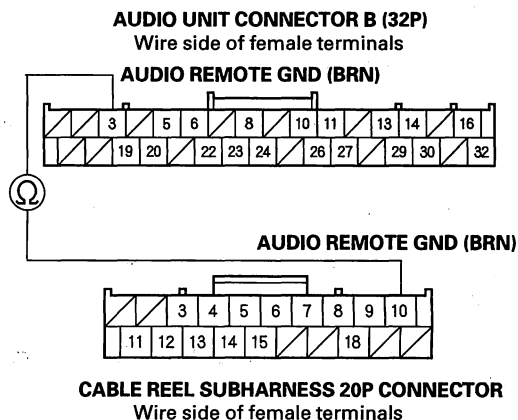


Is there continuity?

YES—Go to step 12.

NO—Repair open in the GRY wire between the switch, cable reel, and HandsFreeLink control unit. ■

12. Check for continuity between the cable reel subharness 20P connector terminal No. 10 and the audio unit connector B (32P) terminal No. 3.



Is there continuity?

YES—Check for loose or poor connections at the audio unit, HandsFreeLink control unit, and HFL-voice control switch. If the connections are OK, substitute a known-good HandsFreeLink control unit. If the problem is gone, replace the original control unit. ■

NO—Repair open in the wire between the switch, cable reel, and the audio unit. ■

DTC B1780: HFL-Voice Control Switch (HFL TALK/HFL BACK Buttons) Circuit Short

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN system diagnosis test mode A (see page 22-112).

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, then start the vehicle and turn the steering wheel back and forth several times.
3. Check for DTCs with the HDS.

Is DTC B1780 indicated?

YES—Go to step 4.

NO—Intermittent failure, the system is OK at this time. ■

4. Turn the ignition switch OFF.
5. Do the HFL-voice control switch test (see page 23-272).

Is the switch OK?

YES—Go to step 6.

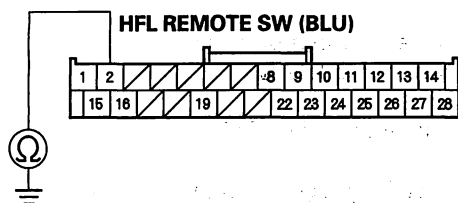
NO—Replace the cable reel subharness (see page 17-23). ■

6. Turn the ignition switch OFF.
7. Remove the glove box (see page 20-125).
8. Disconnect the 28P connector from the HandsFreeLink control unit.
9. Disconnect the 20P connector from the cable reel subharness.



10. Check for continuity between the HandsFreeLink control unit 28P connector terminal and body ground.

HANDSFREELINK CONTROL UNIT 28P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Repair short in the wire. ■

NO—Replace the HandsFreeLink control unit. ■

DTC B1785: Incorrect Configuration (VEHINFO Frame)

1. Connect the HDS to the DLC.
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF, then turn it ON (II) and wait 6 seconds or more.
4. Check for DTC with the HDS.

Is DTC B1785 indicated?

YES—Gauge control module is faulty, replace the gauge control module. ■

NO—Intermittent failure. VEHINFO frame is OK at this time. Check for poor connections or loose terminals at the HandsFreeLink control unit. ■

HandsFreeLink System

DTC Troubleshooting (cont'd)

DTC B1786: HandsFreeLink Control Unit Lost Communication with Gauge Control Module (VEHINFO Frame)

NOTE: If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN System Diagnosis Test Mode A (see page 22-112).

1. Connect the HDS to the DLC.
2. Clear the DTC with the HDS.
3. Turn the ignition switch OFF, then turn it ON (II) and wait 6 seconds or more.
4. Check for DTC with the HDS.

Is DTC B1786 indicated?

YES—Go to step 5.

NO—Intermittent failure. VEHINFO frame is OK at this time. Check for poor connections or loose terminals at the HandsFreeLink control unit. ■

5. Check for DTC with the HDS.

Is DTC B1011, B1032, B1060, B1061, B1205, B1206, B1207, B1906, B1956, B2157, B2160 indicated?

YES—Go to step 6.

NO—HandsFreeLink control unit is faulty, replace the HandsFreeLink control unit. ■

6. Select the UNIT INFORMATION MENU from the HDS, and do the CONNECTED UNIT.

7. Check the AVAILABLE/NOT AVAILABLE information of the gauge control module in the CONNECTED UNIT.

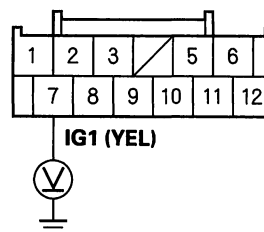
Is the information indicator NOT AVAILABLE?

YES—Go to step 8.

NO—Gauge control module is faulty, replace the gauge control module. ■

8. Turn the ignition switch OFF.
9. Disconnect the gauge control module connector A (12P).
10. Turn the ignition switch ON (II).
11. Measure the voltage between body ground and gauge control module connector A (12P) terminals No. 7.

GAUGE CONTROL MODULE CONNECTOR A (12P)



Wire side of female terminals

Is there battery voltage?

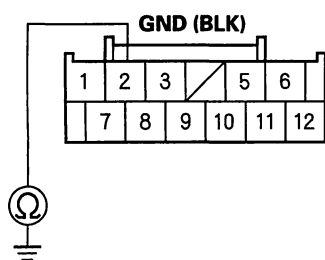
YES—Go to step 12.

NO—Check the No. 21 (7.5 A) fuse in the under-dash fuse/relay box. If the fuse are good, repair open in the wire between the No. 21 fuse in the under-dash fuse/relay box and the gauge control module. ■



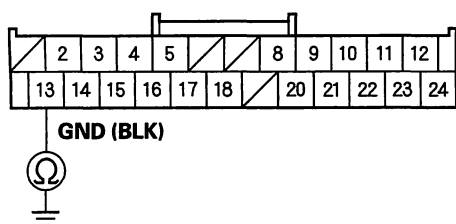
12. Turn the ignition switch OFF.
13. Disconnect the gauge control module connector B (24P).
14. Check for continuity between body ground and gauge control module connector A (12P) terminal No. 2 and gauge control module connector B (24P) terminal No. 13 individually.

GAUGE CONTROL MODULE CONNECTOR A (12P)



Wire side of female terminals

GAUGE CONTROL MODULE CONNECTOR B (24P)



Wire side of female terminals

Is there continuity?

YES—Go to step 15.

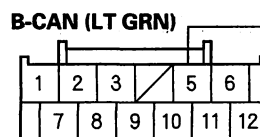
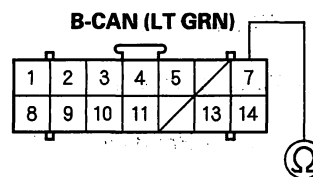
NO—Repair open in the wire(s) between body ground and the gauge control module. ■

15. Disconnect the power tailgate control unit connector C (14P).

16. Check for continuity between the power tailgate control unit connector C (14P) terminal No. 7 and gauge control module connector A (12P) terminal No. 5.

POWER TAILGATE CONTROL UNIT CONNECTOR C (14P)

Wire side of female terminals



GAUGE CONTROL MODULE CONNECTOR A (12P)

Wire side of female terminals

Is there continuity?

YES—Gauge control module is faulty, replace the gauge control module. ■

NO—Repair open in the wire between power tailgate control unit and the gauge control module. ■

HandsFreeLink System

DTC Troubleshooting (cont'd)

DTC B1792: HandsFreeLink Control Unit Internal Error

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then back ON (II).
3. Check for DTCs with the HDS.

Is DTC B1792 indicated?

YES—Replace the HandsFreeLink control unit. ■

NO—Intermittent failure, the system is OK at this time. ■



Symptom Troubleshooting

The MID displays an HFL message that does not go away after pressing the HFL button

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then ON (II).
3. Check for DTCs.

Are there any DTCs indicate?

YES—Repair the indicated DTCs. ■

NO—Go to step 4.

4. Turn the ignition switch OFF.
5. Substitute a known-good HandsFreeLink control unit, then turn the ignition switch ON (II) and recheck the MID.

Are the messages cleared?

YES—Replace the original HandsFreeLink control unit. ■

NO—Replace the gauge control module. ■

The HFL system does not recognize all voice prompts

1. Clear the DTCs with the HDS.
2. Turn the ignition switch OFF, and then ON (II).
3. Check for DTCs.

Are there any DTCs indicate?

YES—Repair the indicated DTCs. ■

NO—Go to step 4.

4. Check if the problem is duplicated.

Can the client's problem be duplicated?

YES—Go to step 5.

NO—The system is OK at this time. Ask the client to demonstrate the problem. ■

5. Check if the navigation system can recognize for voice prompts.

Can the voice prompts be recognized?

YES—Go to step 6.

NO—Refer to the navigation system troubleshooting. ■

6. Pair the client's phone to a known-good vehicle and try to duplicate the problem.

Can you duplicate the problem?

YES—Call the HFL support desk at 888-528-7876, and inquire if there are any known issues for the problem. If there are no known issues, explain to the client this is a system characteristic and cannot be improved at this time. ■

NO—Substitute a known-good HFL/navigation microphone. If the problems still present, substitute a known-good HandsFreeLink control unit. If the problem goes away, replace the original HFL/navigation microphone. ■

HandsFreeLink System

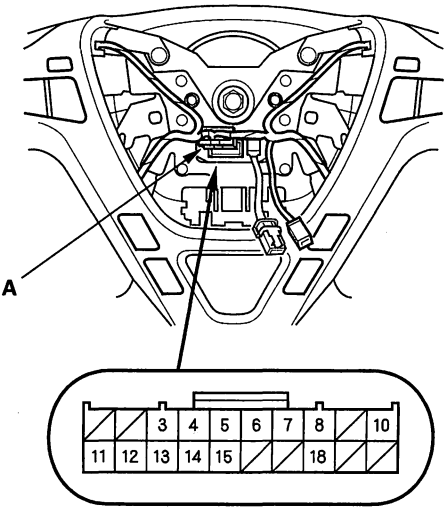
Symptom Troubleshooting (cont'd)

The HFL system is locked and the pass code has been lost or forgotten

- 1. Connect the HDS to the DLC.
- 2. Turn the ignition switch ON (II).
- 3. From the "Body Electrical menu", then select "HandsFreeLink".
- 4. Select "Miscellaneous Tests", then select "Pass code reset".
- 5. Follow the HDS system prompts to reset the pass code.

HFL-Voice Control Switch Test

- 1. Remove the driver's airbag (see page 24-137).
- 2. Disconnect the 20P connector (A).



- 3. Measure the resistance between the No. 18 and No. 10 terminals in each switch position according to the table.

HFL-Voice Control Switch

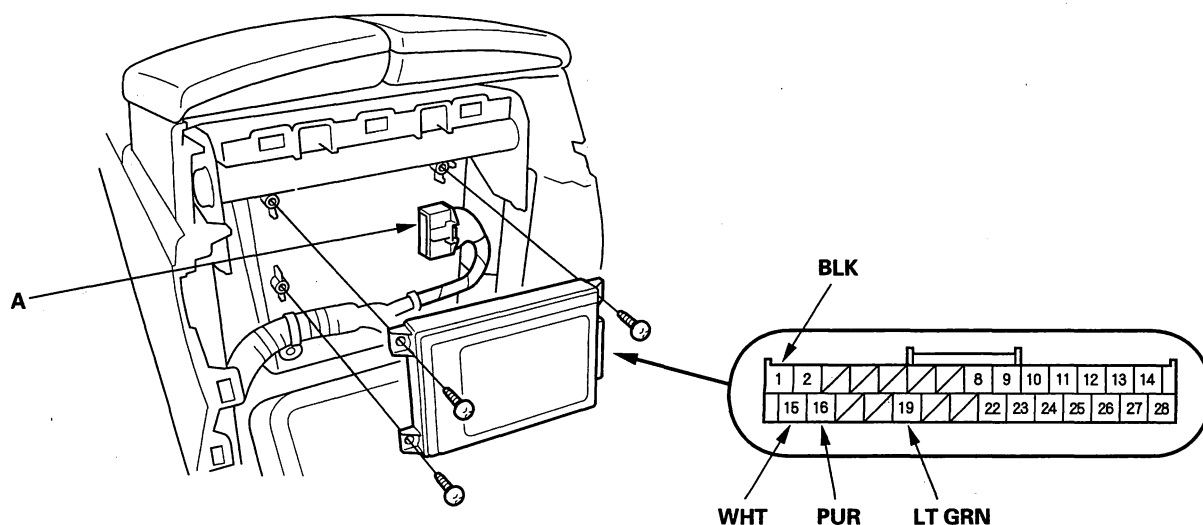
Position	Resistance
OFF	About 1 k Ω
HFL TALK button pressed	About 185 Ω
HFL BACK button pressed	About 45 Ω

- 4. If the resistance is not as specified, replace the switch (see page 17-23).



Control Unit Input Test/Replacement

1. Remove the console rear trim (see page 20-110).
2. Disconnect the 28P connector (A) from the HandsFreeLink control unit (B).



Wire side of female terminals

3. Inspect the connector and socket terminals for a good pinfit to be sure they are all making good contact.
 - If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
 - If the terminals look OK, go to step 4.
4. Reconnect the connector, and make these input tests at the connector.
 - If any test indicates a problem, find and correct the cause, then recheck the system.
 - If all the input tests prove OK, go to step 5.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions	Measure the voltage to ground: There should be less than 0.5 V.	• Poor ground (G506) • An open in the wire
15	WHT	Under all conditions	Measure the voltage to ground: There should be battery voltage.	• Blown No. 5 (10 A) fuse in the driver's under-dash fuse/relay box • An open in the wire
16	PUR	Ignition switch ACC (I) or ON (II)	Measure the voltage to ground: There should be battery voltage.	• Blown No. 32 (10 A) fuse in the driver's under-dash fuse/relay box • An open in the wire

5. Disconnect the 28P connector again, and make this input test at the connector.
 - If the test indicates a problem, find and correct the cause, then recheck the system.
 - If the input test proves OK, the HandsFreeLink control unit must be faulty, replace it.

Cavity	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
19	LT GRN	Under all conditions	Check for continuity between No. 19 terminal and the driver's under-dash fuse/relay box connector X (39P) terminal No. 27: There should be continuity.	An open in the wire
		Driver's under-dash fuse/relay box connector X (39P) disconnected	Check for continuity to ground: There should be no continuity.	Short to ground

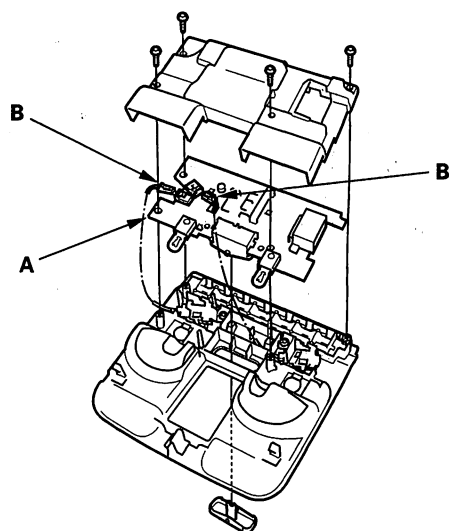
HandsFreeLink System

HFL/Navigation Microphone Removal/Installation

NOTE:

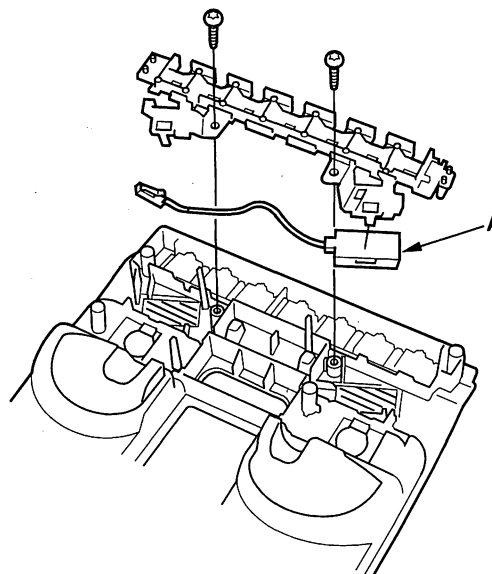
- Put on gloves to protect your hands.
- Take care not to scratch the dashboard and related parts.
- Lay a workshop towel under the parts when working on them to protect the face panel from scratches or other damage.

1. Remove the roof console (see page 20-101).
2. Remove the screws and the printed circuit board (A).



3. Disconnect the connectors (B) from the printed circuit board.

4. Remove the screws and the microphone (A).



5. Install the microphone in the reverse order of removal.