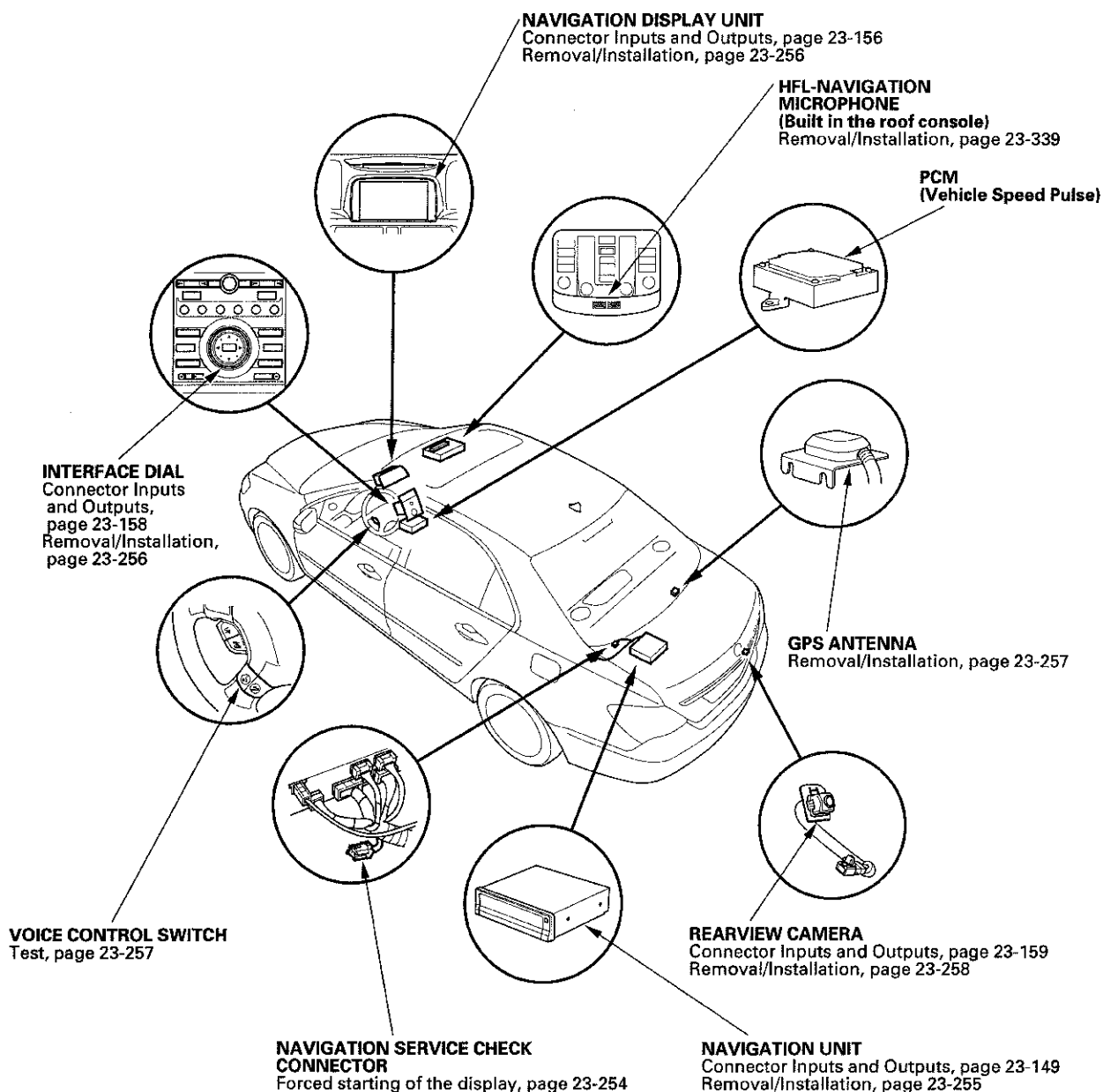


Navigation System



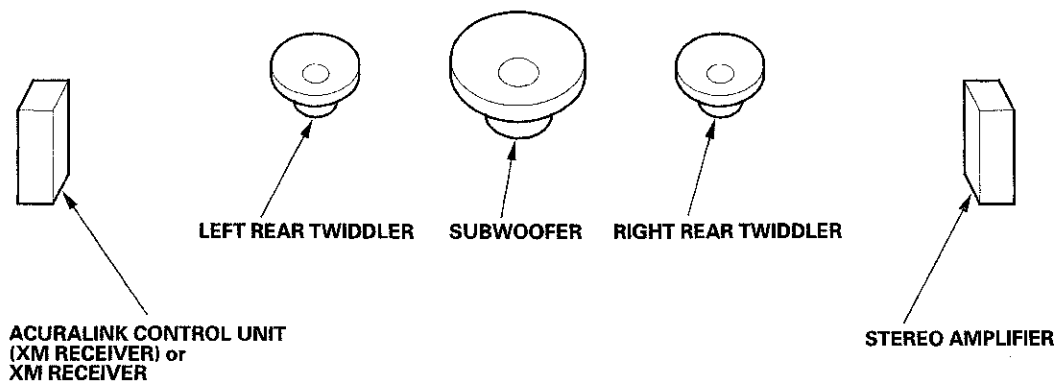
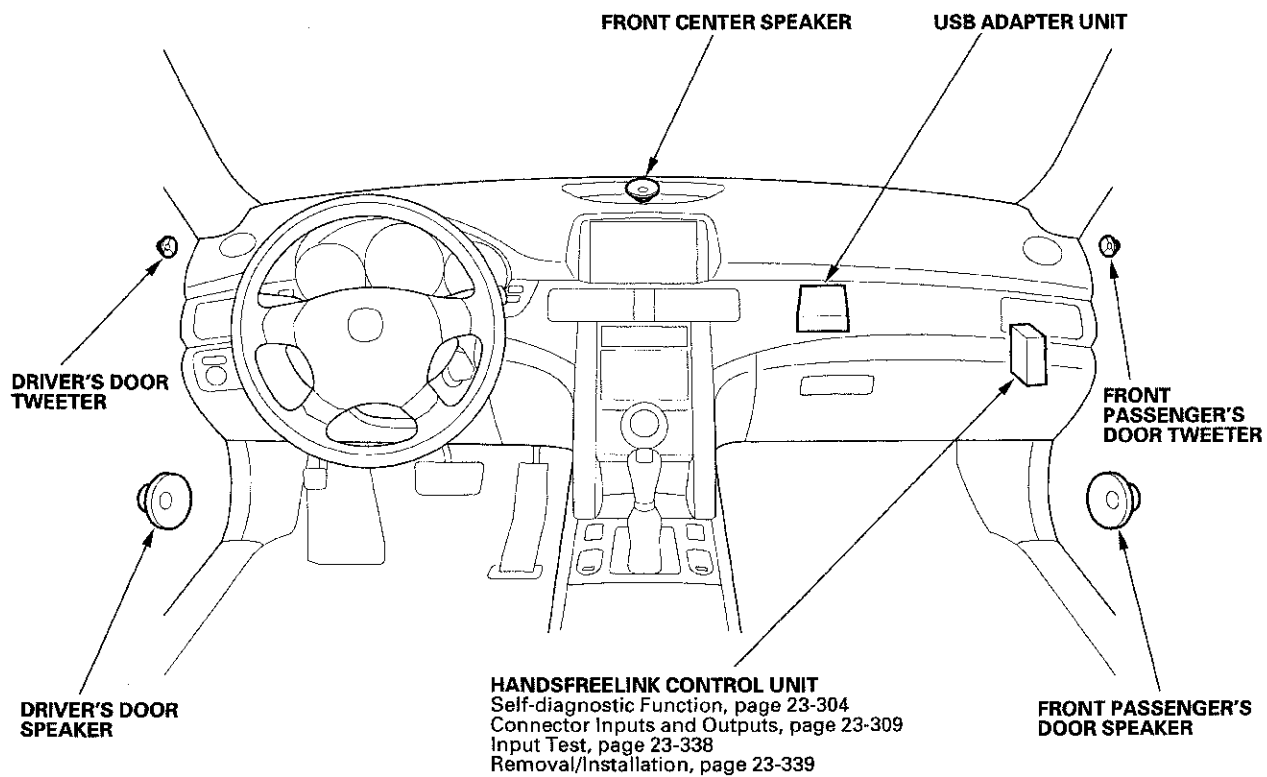
Component Location Index



(cont'd)

Navigation System

Component Location Index (cont'd)



cardiagn.com



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. Make sure you have the anti-theft security code before:

- Disconnecting the battery.
- Disconnecting the navigation unit 8P connector.
- Removing the No. 5 (7.5 A) fuse from the driver's under-dash fuse/relay box.

After service, reconnect power to the navigation unit, and turn the ignition switch to 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 one of the ECU Info diagnostic screens (see page 23-174). Alternatively, you can find the serial number on the underside label which is located on the navigation unit in the trunk.

When replacing the navigation unit, be sure to give the client 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 discrepancies between the vehicle's actual position and the indicated vehicle's 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's 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 process 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 there is no satellite signal output (signal output is sometimes stopped for satellite servicing).
- 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.

(cont'd)

Navigation System

General Troubleshooting Information (cont'd)

The accuracy of the GPS is reduced during these instances:

- Metallic window tinting above the GPS antenna.
- When only three or less satellite signals are received (Four satellite signals are required for accurate positioning).
- When driving near high tension power lines.
- When the satellite control centers are experiencing problems.

Muting Logic

Whenever the navigation system is giving guidance, the front speakers are muted. When the voice control system is being used, all of the speakers are muted. If the Acuralink or HandsFreeLink is in use, the voice control system is unavailable and a message appears onscreen.

LCD 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 be noticeable. Clean the screen with a soft, damp cloth. You may use a mild cleaner intended for eye glasses or computer screens. To avoid scratching the panel, do not rub too hard or use abrasive cleaners or shop towels.

Symptom Duplication

- When the symptom can be duplicated, verify that it is not a characteristic of the system. Review the navigation system 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, 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 duplication 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.

NOTICE

When troubleshooting navigation system problems, ensure that the known-good vehicle is the same software version year and model as the vehicle being serviced. Mixing incompatible navigation DVDs or other system components can delay the troubleshooting process by creating symptoms or issues causing effects unrelated to the original problem.



Service Precautions

- If you need to replace the navigation unit, you can back-up the navigation data and transfer it to a new navigation unit. See Save users memory (see page 23-180).
- When the battery is disconnected, the internal GPS clock is reset to 0:00. The clock resets to the correct time after the system finishes GPS initialization.
- Before disconnecting the battery, make sure you have the anti-theft codes for the audio system and the navigation system. Also obtain any PGM-FI or transmission DTCs and freeze frame data (which are lost when the PCM loses power).
- After reconnecting the battery, you have to wait to get the initial signal from the satellite. It will take from 10 to 45 minutes.
- Adjust the setup clock settings (time zone and daylight savings) in the navigation system.
- Before returning the vehicle to the client, enter the anti-theft codes for the audio system and the navigation system.

System Initialization

If the navigation system loses power (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 the Security Code

Any time the navigation system loses power, you need to enter the 4-digit anti-theft code on the navigation system display. This 4-digit code is located on a small code card that was given to the client. Enter the 4-digit code, then select Done.

If the navigation system anti-theft code is missing, use the interactive Network (iN) to look it up. You need the serial number for the navigation unit to do this. You can view the serial number by entering the diagnostic mode. Select Unit Check from the main menu, then the ECU info diagnostic screen. This gives you the serial number without removing the navigation unit.

The iN may display more than one code for a given serial number. This is because serial numbers are not unique. You may have to try more than one 4-digit code. If no code is shown, or if the code(s) given do not work in the navigation unit, contact the Automobile Warranty department. If the code 0000 works, replace the navigation unit.

When replacing the navigation unit or audio unit, make sure you give the client the new anti-theft security code.

GPS Initialization

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

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

The navigation system lost power and is acquiring its location from the GPS satellites. This usually takes less than 10 minutes.

- * Start the engine.
- * Park the vehicle in an open area away from trees, power lines, and tall buildings.
- * Remove loose articles, cell phones, or electrical accessories located near the GPS antenna.
- * If this screen is displayed repeatedly when starting the vehicle, see your dealer.

(cont'd)

Navigation System

General Troubleshooting Information (cont'd)

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 the vehicle should be 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.

Something is interfering with the system's ability to acquire its location. Check the following:

- * The vehicle must be in an open area with a clear view of the sky.
- * Remove sources of GPS interference like metallic window tint above antenna, or electrical items near antenna(see owner's manual for details).
- * Check GPS antenna cable connection.
- * Restart the engine and repeat the GPS acquire procedure. If the problem persists, see your dealer.

If this screen appears, turn off the engine, then restart the vehicle and move it to a different location. If the Disclaimer screen appears, 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 23-230).
- Skip to a CSF screen by pushing the MENU and INFO buttons at the same time and you can move to a System Links screen.

Map Matching

This part of the initialization matches the GPS coordinates with a road on the map screen. To do this part of the procedure, make sure that the navigation system displays a map, and 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.acuranavi.com.

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, orange, light blue label and the older versions with a white 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

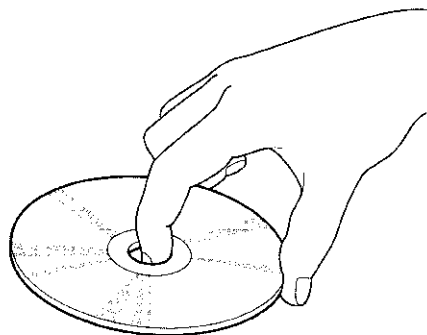
NOTE:

- Map matching must be done any time the DVD is removed or replaced.
- Always order navigation DVDs on an as-needed basis. During a typical model year, each color DVD may undergo a half a dozen software only version upgrades to fix minor issues on some or all models the DVD supports. This is normal. Usually only the letter at the end of the version number changes, while the database (maps and POIs) remain unchanged.
- Never promise your client future free updates. There are no free programs for updating the navigation DVD. Update DVDs are generally available for purchase each fall. The online DVD order site provides information when an update for a particular color DVD is available.
- Damaged discs are not covered by warranty unless they have been damaged by the navigation system.

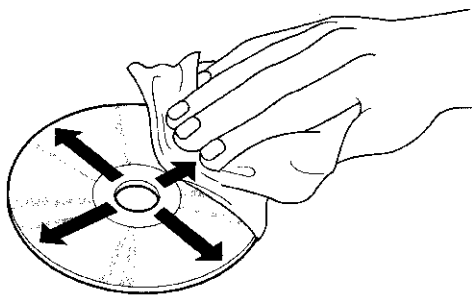


DVD Handling and Cleaning

To avoid damaging or leaving fingerprints on the DVD, always handle it by the edges and place it in a jewel case whenever it is outside the navigation unit. Deep scratches or fingerprints on the back of the DVD can cause intermittent rebooting or other system errors.



Smudges and fingerprints can be carefully removed using a mild cleaner and tissues designed to clean eyeglasses. To clean a DVD, use a clean soft cloth. Very gently wipe across the DVD from the center to the outside edge, never in a circular motion.



Do not place stabilizer rings or labels on the DVD.

Earliest DVD Version Application for Each Model

Each navigation system DVD contains a map/POI (point of interest) database and the navigation system software for each model that it supports. Inserting an older DVD can cause problems since it lacks the software to provide the specific features needed for that model. Unfortunately, the navigation software does not detect or warn you that the version is outdated, and it may even appear to operate.

NOTE: Replacing a DVD just because the version number is higher is not always warranted. A higher software version does not necessarily mean it contains newer software for your model. The DVD contains software for all models that use the same color DVD, and a revised number may or may not have software fixes or upgrades for the model in question.

Typical warning symptoms that an outdated or incorrect DVD is being used include:

- The Acura model navigation screen may display a Honda logo while booting up.
- A newly introduced model feature or current accessory may not display properly, and Extension displays instead.

NOTE: Extension may be displayed when using Music Link, but should never be displayed when XM is selected.

- The current street (the street being driven on) does not appear properly at the bottom of the map screen display when the vehicle is driven on a main road.

NOTE: If necessary, compare the operation to the navigation system of the same model and year vehicle that has a current DVD.

(cont'd)

Navigation System

General Troubleshooting Information (cont'd)

How to Identify Navigation DVD Versions, and How to Inspect A DVD for Damage

To determine the navigation version on a particular model, start the engine, then locate the navigation unit. Open the DVD door, and push the eject button to eject the DVD. Hold the DVD by the edges, and check for these items:

- Check any official Honda service website for more service information about the navigation DVDs.
- The DVD label color.
- Read the DVD version on the label, and note it on the repair order. The version number is near the bottom of the label text (for example, ver: 4.23A). You will need this version number:
 - To verify that the DVD version is appropriate for the vehicle. Check any official Honda service website for more service information.
 - Any time you call Tech Line regarding a navigation system issue.
 - To answer client inquiries concerning update or coverage issues.

NOTE: Clients may obtain DVDs from sources outside the normal ordering process. If you determine this is the case, recommend that your client purchase the appropriate DVD from the Acura Disc Fulfillment Center (see ORDERING A DVD).

- Check the underside of the DVD for signs of mishandling. Deep or random scratches, light swirl marks, or fingerprints can cause random lock-ups, reboots, erratic voice response, erratic positioning errors, and DVD read or format errors.

NOTE: A damaged DVD is not covered under warranty unless the disc is damaged by the navigation unit. Damage by the navigation unit typically appears as circular scratches caused by something rubbing against the DVD as it spins. The damage may appear as arcs or complete circles on the DVD reading surface.

- Verify that the underside of the DVD is silver, and not a copy with a blue color. Copies will not work properly and can cause other symptoms that mimic hardware problems.

- Incorrectly colored DVDs being put into navigation vehicles. This causes the system to either display error messages, or causes system malfunctions that mimic a hardware problem. This results in the client leaving with a malfunctioning navigation system.
- The DVD version provided to the client is out-of date or incompatible with a particular model. This inconveniences your client by delaying the repair, or by causing additional (and unnecessary) returns to your dealership.
- The client experiences bugs or other issues that have already been resolved in later versions currently available at the fulfillment desk.

If the DVD is defective, or has any of the issues mentioned above, return the vehicle to your client and recommend that they order the proper DVD from the Acura Disc Fulfillment Center.

NOTE: Navigation DVDs do not come with replacement navigation units. If you are replacing a navigation unit because it is defective (following appropriate service manual troubleshooting), and the DVD does not eject, order a DVD from the Acura Disc Fulfillment Center.



How to Answer Client Questions About Navigation Coverage

Some clients may ask questions regarding a city, address, or POI (point of interest) covered by the navigation system. It is better to verify a coverage question on an actual vehicle than to disappoint your client by promising coverage that may be incomplete or missing in their area. The following suggestions can be used to answer coverage inquiries from your client.

Is my address covered by the navigation system?

Using a current production vehicle (of the same model), enter the client's address (street first) to see if their area is covered. Always enter the street first, because sometimes their city may be included in a neighboring township, or under some larger metropolitan city name. If the address is shown in a later year vehicle, but not your client's vehicle, you might recommend that your client purchase an update.

Is my city covered by the navigation system?

For general questions about whether a city is covered, view the map coverage link on the DVD order site. On the site, select a year, and select a model, then click on the Coverage link. You then select a state or province, and the cities are listed. This does not guarantee that the client's road or address is in the system. Verifying on an actual production vehicle is always the best guarantee that your information is accurate.

The gas station on my corner is now a restaurant. Why is it still incorrect in the navigation system?

For POI-related client questions, explain that businesses are constantly moving, and there can be a considerable lag in updating the millions of POIs in the system. The database is updated annually, and the best way to verify whether the POI is accurate is verify the inquiry on a current production vehicle.

Answers to these and other questions regarding coverage can be found in these locations:

- In the Frequently Asked Questions section of the navigation system manual.
- At the online DVD order site, www.acuranavi.com, by clicking on the FAQs link.

How do I find the local address of a business that is part of a national chain (for example, Starbucks)?

There are three ways to find the local address to businesses:

- If you know the phone number of the business, select Phone Number and enter the 10 digit phone number (area code plus seven digit number).
- Select Category, then Restaurant. Enter the keyword Star. The resulting list includes all restaurants that have the letters Star anywhere in the name.
- Select Name and enter Starbucks. For more common business names, like McDonalds, you may have to search through a list that includes other businesses like McDonalds Welding, McDonalds Automotive, etc.

Why are some features different or missing compared to my previous Acura vehicle?

Hardware and software continually go through updates and improvements. Features may change or disappear over time based on the navigation system development.

(cont'd)

Navigation System

General Troubleshooting Information (cont'd)

Precaution on Customer "Sneak Previews"

Your client might request a look (or sneak preview) at features in the latest navigation software. You should never preview a navigation DVD in a client's vehicle. Inserting newer DVD installs the latest software from the DVD into the memory of the client's navigation system. When the original DVD is reinstalled, the newer software remains in memory and is often incompatible with the client's original DVD Map and POI database, or software.

If your client wishes to see the latest navigation coverage or software features, demonstrate it on an in-stock vehicle that already has the latest DVD version.

If a newer version is loaded, either by the dealer or the client, the only remedy is to enter the navigation diagnostic mode's Version screen and do a forced download. Check any official Honda service website for more information about what patches may need reinstalling.

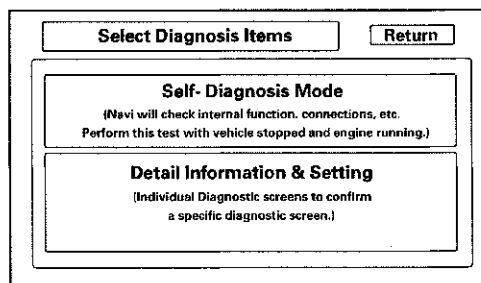
How to Check Error History

Map type

NOTE: The navigation DTCs cannot be retrieved with the HDS.

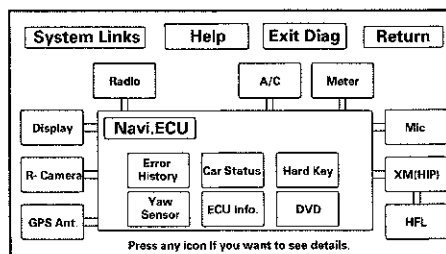
The Error History feature is to record intermittent navigation issues that occur while the client is using the system. Sometimes the client complaint cannot be duplicated. The error history may record the information needed to diagnose the problem. To check the error history:

1. Start the engine.
2. Press and hold the MAP/GUIDE+MENU+CANCEL buttons for 3 seconds, or connect the SCS service connector to the navigation service connector located in the trunk (see page 23-254).
3. When the Select Diagnosis Items menu is displayed, select Detail Information & Setting.



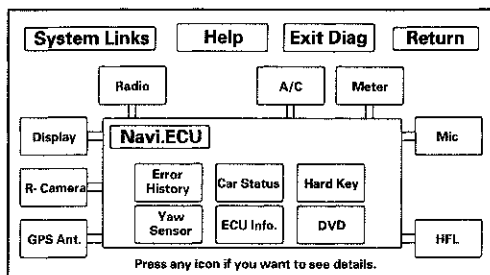
4. When the navigation unit has hard codes, the Error History icon appears yellow when the Self Diagnosis mode (System links) screen is displayed. When no hard errors are stored, the icon appears gray. To view the errors with their DTC codes, select the error history icon.

USA models

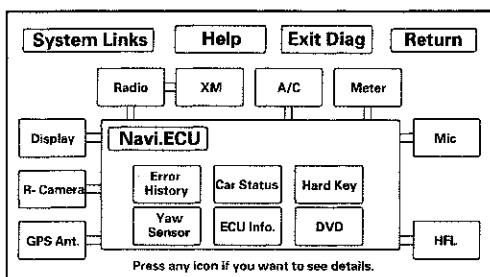




Hawaii models

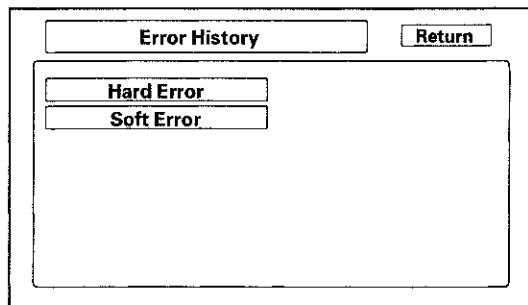


Canada models



5. Select Hard Error.

NOTE: Soft errors are for factory use only.



Hardware Error History

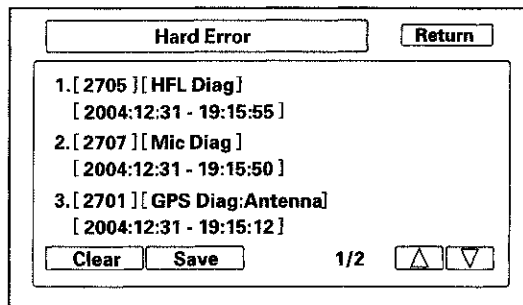
6. The Hard Error screen displays the following information for each error:

- The DTC trouble code for the error
- A brief description of the DTC code
- The date and time when the error occurred.

NOTE:

- To see additional errors, use the interface dial to select UP or DOWN.
- Select Clear to delete the error history. The Save feature is for factory use only.

7. Use the DTC Symptom Troubleshooting table to troubleshoot the error.



8. Clear the DTCs.

9. Select Return to exit the error history.

Software Error (Soft Error) History

Software errors are not available. They are for factory use only.

(cont'd)

Navigation System

General Troubleshooting Information (cont'd)

How to Clear Error History

1. Do the steps in How to check Error History.
2. Select Clear in the error menu.

NOTE:

- By selecting Clear, all software and hardware errors stored in history are erased at the same time.
- Save is for factory use only.

Hard error history is displayed

Hard Error [Return]

1.[2705][HFL Diag]
[2004:12:31 - 19:15:55]

2.[2707][Mic Diag]
[2004:12:31 - 19:15:50]

2.[2707][GPS Diag:Antenna]
[2004:12:31 - 19:15:12]

[Clear] [Save] 0/0 [Up] [Down]

Soft error history is displayed (Soft errors are for factory use only)

Soft Error [Return]

1.[APPLI] [31000001] (2004:12:31 - 19:15:08)
00000000 00000000 00000000 00000000

2.[APPLI] [31000001] (2007:03:01 - 10:53:54)
00000000 00000000 00000000 00000000

3.[APPLI] [12004100] (2004:12:31 - 19:15:12)
00000001 00000105 fffff2c 00000000

[Clear] [Save] 0/0 [Up] [Down]

3. After selecting Clear, then selecting Yes, both Hard Error history and Soft Error history are cleared at the same time.

Hard error history clear

Hard Error [Return]

Clear Error History ?

[Yes] [No]

[Clear] [Save] 0/0 [Up] [Down]

Soft error history clear (Soft errors are for factory use only)

Soft Error [Return]

Clear Error History ?

[Yes] [No]

[Clear] [Save] 0/0 [Up] [Down]

4. Press Return to exit.



DTC Troubleshooting Index

DTC	Description	Circuit	Failure Detection	Page	Also Check For
1001	FROM System Info Error	Flash ROM management	Navigation unit internal data error.	(see page 23-192)	Low or weak battery
1101	Media Bus Send Error	Media condition monitoring	Navigation unit internal media error.	(see page 23-192)	Low or weak battery
1201	DVD High Temp	DVD drive	Navigation unit temperature above the upper limit. Failure in navigation unit fan circuit.	(see page 23-193)	• Low or weak battery • High trunk temperature
1202	DVD Low Temp	DVD drive	Navigation unit temperature below the lower limit.	(see page 23-193)	• Low or weak battery • Low trunk temperature
1301	GPS Antenna Error	GPS Antenna	GPS Antenna circuit malfunction.	(see page 23-194)	Low or weak battery
1302	GPS Receiver Error 1	GPS Receiver	GPS Antenna circuit malfunction. Navigation unit internal GPS receiver malfunction.	(see page 23-195)	Low or weak battery
1303	GPS Receiver Error 2	GPS Receiver	Navigation unit internal GPS receiver malfunction.	(see page 23-196)	Low or weak battery
1304	Gyro Error 1	Gyro	Navigation unit internal Gyro malfunction.	(see page 23-196)	Low or weak battery
1305	Gyro Error 2: ECU Temp XX °C	Gyro	Navigation unit internal Gyro malfunction.	(see page 23-197)	Low or weak battery
1306	Vehicle Speed Pulse	Vehicle Speed Pulse	VPS circuit malfunction.	(see page 23-197)	FCAN DTCs
1307	DVD Read Error	DVD disc	Scratched/dirty DVD or navigation unit internal DVD ROM drive.	(see page 23-198)	Low or weak battery
1403	Audio Error 3	Display	Mechanical malfunction with navigation display unit.	(see page 23-198)	Low or weak battery
1404	Audio Error 4	DVD	Mechanical malfunction in the CD-DVD player (audio unit).	(see page 23-199)	Low or weak battery
1409	Audio Error 9	XM	XM antenna/circuit malfunction.	(see page 23-202)	Low or weak battery

(cont'd)

Navigation System

DTC Troubleshooting Index (cont'd)

DTC	Description	Circuit	Failure Detection	Page	Also Check For
1701	R-Camera Error	Rear Camera	Communication error between rearview camera and navigation unit (open/short).	(see page 23-199)	
1801	HIP Error	HIP	HIP communication error, open in the wire, or HIP unconnected.	(see page 23-200)	
2601	Display Diag: Connect	Display	GA-NET Bus circuit malfunction open/short. ECU Bus circuit malfunction open/short.	(see page 23-206)	
2602	Display Diag: ROM	Display	Navigation display unit internal malfunction.	(see page 23-209)	
2603	Display Diag: RAM	Display	Navigation display unit internal malfunction.	(see page 23-210)	
2605	H/U Diag: Connect	H/U	GA-NET Bus circuit malfunction open/short.	(see page 23-210)	
2607	XM Diag	XM	GA-NET Bus circuit malfunction open/short. XM antenna circuit malfunction.	(see page 23-212)	
2608	R-Camera Diag	Rear Camera	Rearview camera internal malfunction.	(see page 23-199)	
2609	VRAM Diag	ECU VRAM	Navigation unit internal VRAM malfunction.	(see page 23-213)	
2610	DRAM Diag	ECU DRAM	Navigation unit internal DRAM malfunction.	(see page 23-214)	
2701	GPS Diag: Antenna	GPS	GPS antenna malfunction.	(see page 23-214)	
2702	GPS Diag: Receiver in Navi	GPS	GPS antenna malfunction.	(see page 23-215)	
2703	Aircon Diag	Aircon	Communication Error between climate control unit and navigation unit (open/short).	(see page 23-203)	Check for B-CAN DTCs
2704	HIP Diag	HIP	HIP/HFL COMM1 thru HIP/HFL COMM4 Bus circuit malfunction open/short	(see page 23-215)	Check for B-CAN DTCs
2705	HFL Diag	HFL	HandsFreeLink Control unit internal malfunction.	• With AcuraLink (see page 23-217) • Without AcuraLink (see page 23-219)	Check for B-CAN DTCs
2706	Gyro Diag: ECU Temp XX °C	Gyro	Navigation unit internal malfunction.	(see page 23-220)	
2707	Mic Diag	Mic	Mic circuit malfunction open/short.	(see page 23-221)	



Symptom Troubleshooting Index

NOTE: Many problems are caused because the remotes have not been "linked." When troubleshooting a complaint, make sure the remotes are linked first.

Symptom	Diagnostic procedure	Also check for
Navigation system stays on the GPS initialization screen	System Initialization (see page 23-121)	- Navigation unit - Low battery voltage - Wrong colored disc installed - GPS antenna/cable - Aftermarket metallic window tint - Harness/fuses/switches
No picture is displayed	Symptom Troubleshooting (see page 23-223)	- Navigation unit - Low battery voltage - Aftermarket accessories connected to the system - Navigation display unit - The wrong color DVD is installed - The DVD is damaged or dirty - Harness/fuses/switches
Vehicle position icon constantly leaves road, moves erratically, or is displayed very far from actual vehicle position	Symptom Troubleshooting (see page 23-225)	- Navigation unit - GPS antenna/cable - Aftermarket metallic window tint - PCM (speed and fuel pulses) - Harness/fuses/switches
Picture is missing a color or tone or is an odd color	Symptom Troubleshooting (see page 23-225)	- Navigation unit - The wrong color DVD is installed - The DVD is damaged or dirty - Navigation display unit - Harness/fuses/switches - Aftermarket accessories connected to the system
Picture has lines or rolls	Symptom Troubleshooting (see page 23-227)	- Navigation unit - Display unit - Harness/fuses/switches
Interface dial buttons do not work	Symptom Troubleshooting (see page 23-228)	- Navigation unit - Navigation display unit - Interface dial - The wrong color DVD is installed - The DVD is damaged or dirty - Harness/fuses/switches
GPS icon is white or not shown	Symptom Troubleshooting (see page 23-230)	- Navigation unit - Aftermarket accessories connected to the system - The DVD is damaged or dirty - GPS antenna/cable - The wrong color DVD is installed - The DVD is damaged or dirty - Aftermarket metallic window tint - Harness/fuses/switches
Voice guidance cannot be heard, is broken up, or there is static	Symptom Troubleshooting (see page 23-230)	- Navigation unit - Volume or Voice feedback settings (see Owner's manual for details) - Audio unit/amplifier - Harness/fuses/switches
Voice control does not work/respond	Symptom Troubleshooting (see page 23-231)	- Navigation unit - Microphone/voice control switch - The wrong color DVD is installed - The DVD is damaged or dirty - Harness/fuses/switches
DVD read error messages	Symptom Troubleshooting (see page 23-234)	- Navigation unit - Low battery voltage - Wrong colored disc installed - Damaged DVD - Navigation display unit - The wrong color DVD is installed - The DVD is damaged or dirty
Navigation cannot control HVAC by voice command	Symptom Troubleshooting (see page 23-234)	- HVAC control unit - Navigation display unit - The wrong color DVD is installed - The DVD is damaged or dirty - Harness/fuses/switches

(cont'd)

Navigation System

Symptom Troubleshooting Index (cont'd)

Symptom	Diagnostic procedure	Also check for
Display day/night mode does not work or does not work properly	Symptom Troubleshooting (see page 23-235)	- Navigation display unit - HVAC control unit - Display brightness set to High - Gauge control module (CAN communication) - The wrong color DVD is installed - The DVD is damaged or dirty - Harness/fuses/switches
System locks up or freezes constantly	Symptom Troubleshooting (see page 23-236)	- Navigation unit - Low battery voltage - Harness/fuses/switches - Wrong colored disc installed - Damaged DVD - The wrong color DVD is installed - The DVD is damaged or dirty
Vehicle icon wanders across the map when driving (does not follow a displayed road) or map or vehicle ICON spins	Symptom Troubleshooting (see page 23-236)	- Navigation unit - GPS antenna/cable - Aftermarket metallic window tint - PCM - Wrong colored disc installed
Navigation system does not Map Match	Refer to troubleshooting for vehicle icon wanders across the map when driving (see page 23-236).	
Navigation system does not accept security code	Symptom Troubleshooting (see page 23-237)	
Navigation display stays on with ignition switch in LOCK (0)	Symptom Troubleshooting (see page 23-238)	
Navigation cannot control audio system	Symptom Troubleshooting (see page 23-239)	- Harness/fuses/switches - Low battery voltage - The wrong color DVD is installed - The DVD is damaged or dirty - Aftermarket accessories connected to the system
Navigation cannot control XM radio	Symptom Troubleshooting (see page 23-239)	- Display unit - Wrong colored disc installed - The wrong color DVD is installed - The DVD is damaged or dirty - Harness
Navigation frequently asks for anti-theft code and/or needs GPS initialization	Symptom Troubleshooting (see page 23-240)	- Navigation unit - Low battery voltage - Harness/fuses/switches
Traffic or Weather information is not shown on map screen	Symptom Troubleshooting (see page 23-241)	- AcuraLink (XM) - Navigation unit - Harness
Trip computer-no distance	Symptom Troubleshooting (see page 23-247)	- PCM (speed and fuel pulses) - Harness/fuses/switches
Trip computer-no fuel information	Symptom Troubleshooting (see page 23-247)	- Gauge control module (CAN communication) - Harness/fuses/switches
Rearview camera image does not come on or work properly	Symptom Troubleshooting (see page 23-248)	- Software for the latest up-dates - Low battery voltage - No backup signal - Wrong disc installed in navigation unit
Navigation does not call using the HFL	Symptom Troubleshooting (see page 23-251)	The wrong colored DVD or version is installed
A POI cannot be found	See How to answer client questions about navigation coverage (see page 23-124)	The DVD is scratched or dirty
A specific city cannot be found	See How to answer client questions about navigation coverage (see page 23-124)	The DVD is scratched or dirty
Address cannot be found or system gives poor routing	Verify proper operation using the owner's manual	- Compare to another like vehicle - Wrong colored disc installed
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.	
The map will not display the Southern portion of the U.S. or the Northern parts of Canada	North American coverage is different for U.S./Canada markets. See the Version Diagnostic Screen (see page 23-186) for details on coverage differences.	
Time is not correct	Reset Time Adjustment in set-up.	
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.	
Navigation unit will not eject or accept the navigation DVD	Symptom Troubleshooting (see page 23-253)	



System Description

Overview

The navigation system is a highly-sophisticated, hybrid locating system that uses satellites and a map database to show where the vehicle is 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 display is set to Auto. When the instrument panel is set to night and the 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 bus passes information back and forth between the display panel control unit, the navigation unit and the audio system. The information passed on this bus are audio and climate control settings directed by the navigation unit.

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

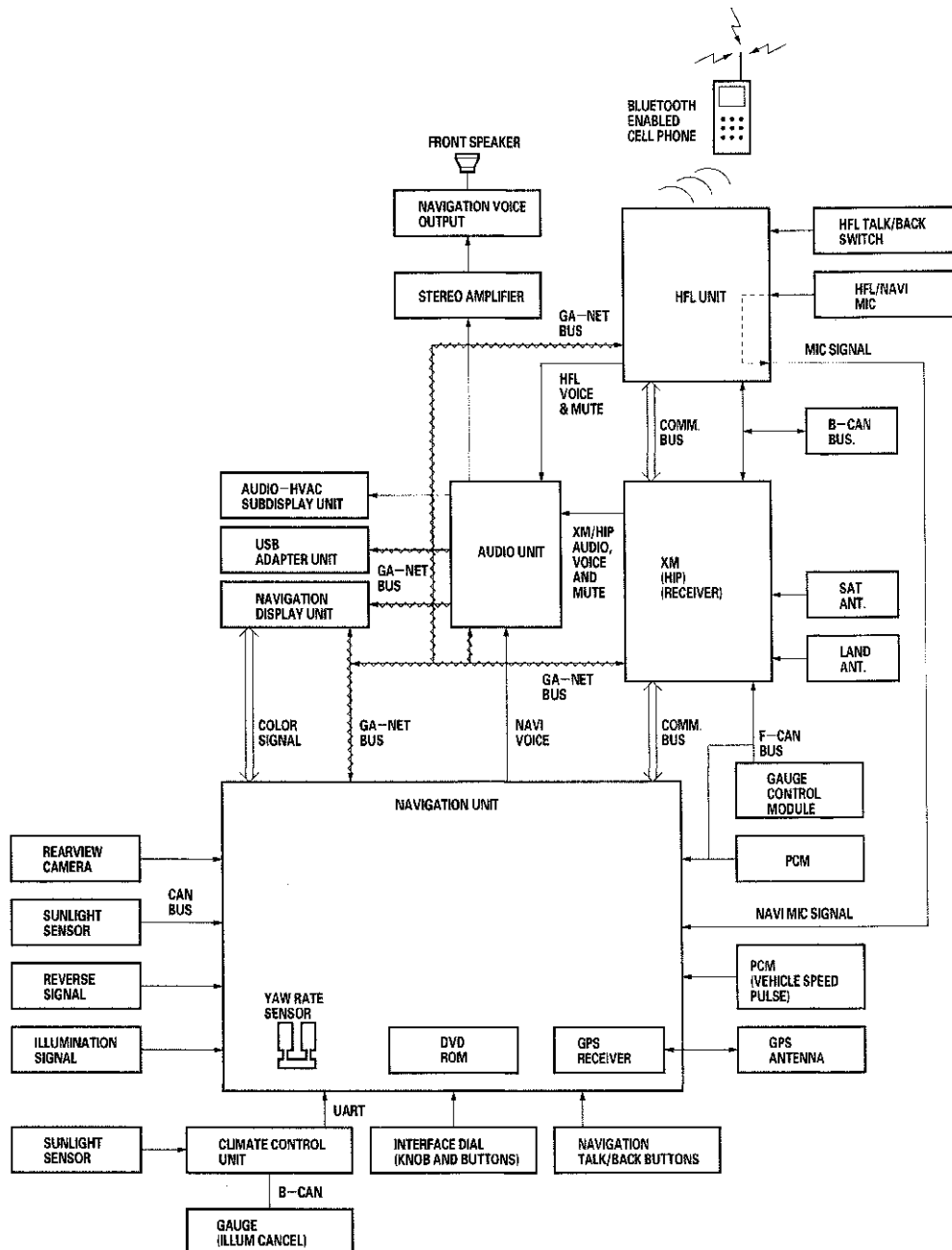
- The navigation control unit receives traffic, weather and message information from the AcuraLink Control unit.
- If a POI phone number is available, the navigation control unit sends the phone number (Calculate route to screen) to the HFL for dialing.
- If vehicle problems are detected, and the client's cellular contract includes data service (the vehicle must also have an approved bluetooth phone paired and configured correctly), then the HFL 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 HFL, to the AcuraLink Control unit, and finally to the navigation unit for display.

(cont'd)

Navigation System

System Description (cont'd)

System Diagram



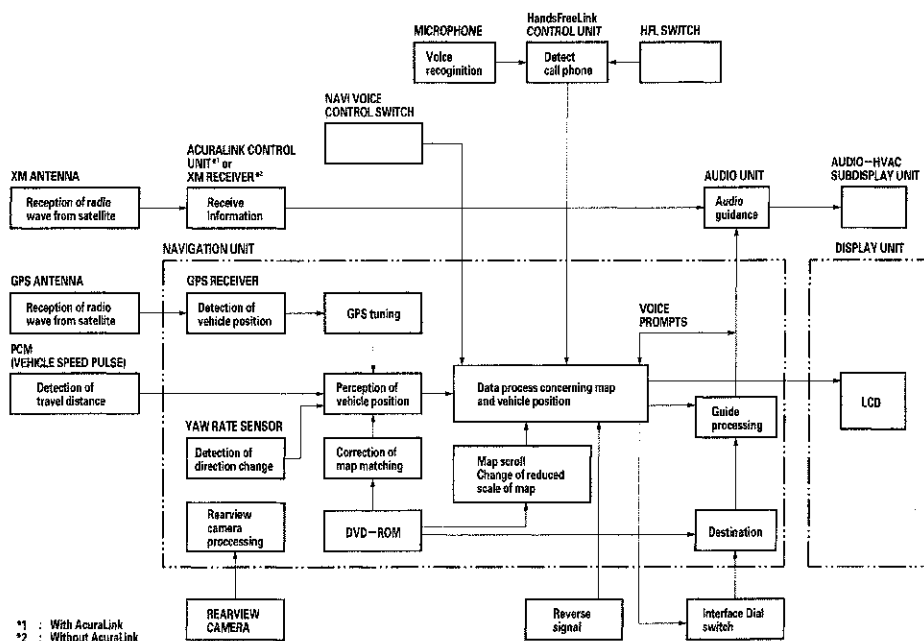
cardiagn.com



Navigation Function

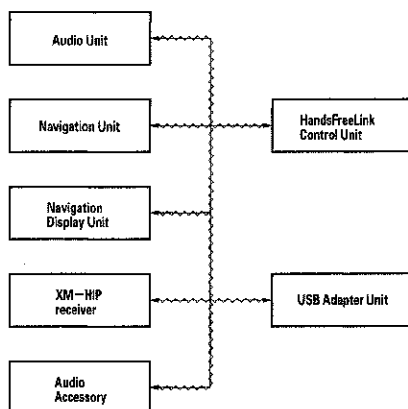
The navigation system is composed of the navigation unit, the PCM (vehicle speed signal), the GPS antenna, the microphone, the voice control switch, the audio unit, the audio-HVAC sub display unit.

Function Diagram



GA-Net Bus Configuration

The GA-Net bus passes audio and navigation commands throughout the navigation and 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.



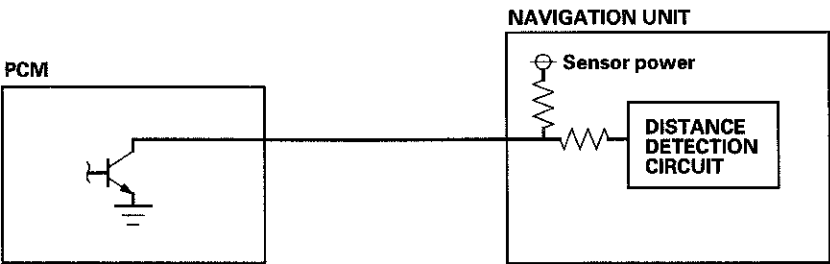
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Navigation System

System Description (cont'd)

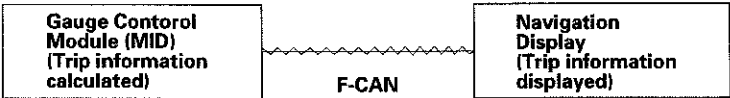
Vehicle Speed Pulse

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.



Trip Computer

The navigation system displays trip computer information that is calculated by the gauge assembly and sent to the navigation unit via F-CAN bus. The navigation system dose not calculate or track any trip computer functions, it only displays the information.





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

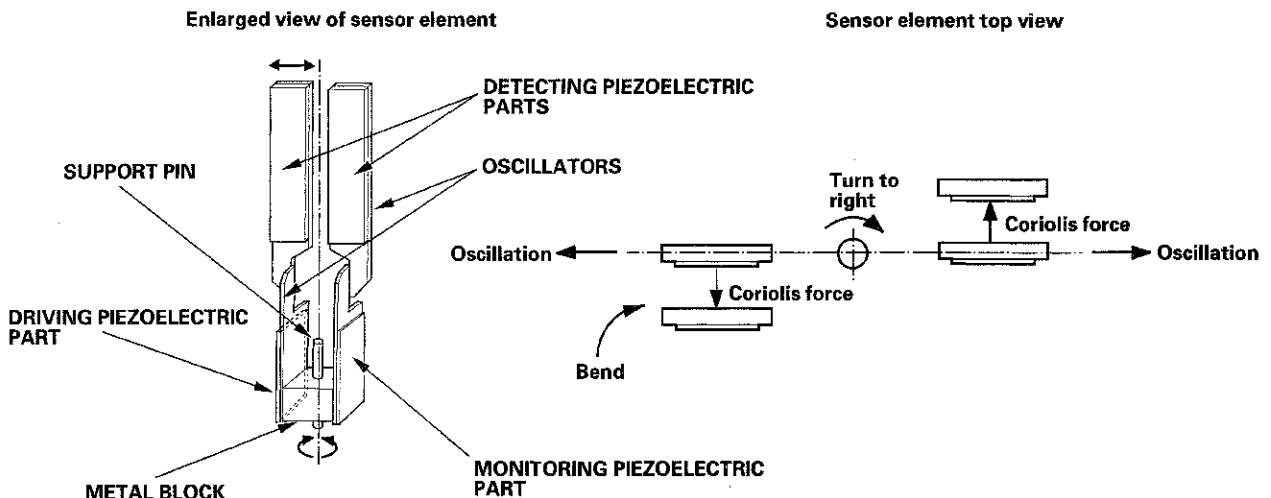
The sensor element is shaped like a tuning fork, and it consists of the piezoelectric parts, the metal block, and the support pin. There are four piezoelectric parts: one to drive the oscillators, one to monitor and maintain the oscillation at a regular frequency, and two to detect angular velocity. 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)

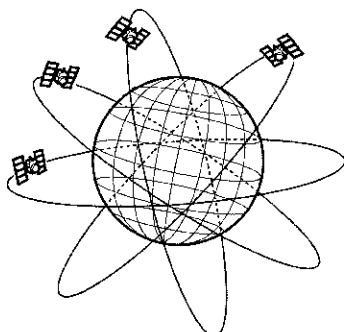
Navigation System

System Description (cont'd)

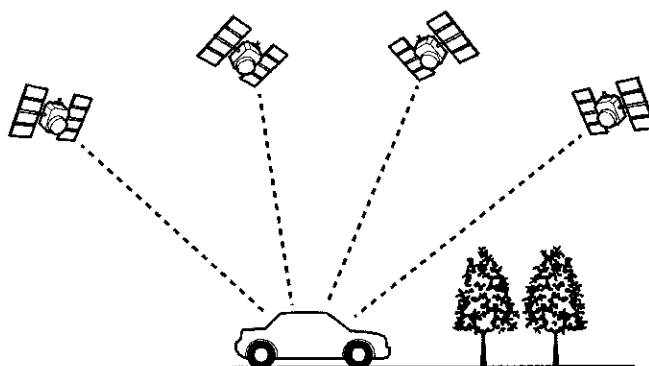
Global Positioning System (GPS)

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 accuracy is indicated by the color and shape of the GPS icon shown on the display.

GPS ICON COLOR	NUMBER OF SATELLITES	CONDITION	DESCRIPTION
No GPS icon	None	Faulty reception	The GPS can't be utilized due to a faulty GPS receiver, open in the wire, or other fault or interference.
	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.
White GPS icon	3	Vehicle position detectable in 2 dimensions	The longitude and latitude of the vehicle position can be detected. (Less precise than detection in three dimensions)
Green GPS icon	4 or more	Vehicle position detectable in 3 dimensions (elevation displayed)	The longitude, latitude and the altitude of the vehicle position can be detected. (More precise than detection in two dimensions)

GPS Antenna

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

GPS Receiver and Clock

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 is transmitted from the GPS receiver to the navigation control unit to adjust vehicle position. The clock in the subdisplay uses the clock information sent from the navigation unit.



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 tuning is accomplished by indicating the vehicle position on the roads on the map. 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 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.

Traffic Information

The Acura navigation system's real-time traffic feature helps you avoid traffic by providing up to the minute traffic information in 77 major metropolitan areas across the 48 contiguous states in the USA. Color coded freeways appear on the navigation screen, displaying current traffic flow, and/or the locations of accidents and traffic conditions affected by construction and weather. The information is aggregated by NAVTEQ™ from multiple sources, including highway patrol accident reports and transportation departments. It is then transmitted by XM® Radio satellites to the Acura RL and continuously updated. Real-time traffic data services are offered on a subscription basis for a nominal fee following the 90-day free trial period.

Weather Information

The Acura navigation system's weather information option allows you to view the weather forecast, warning list, and warning map.

(cont'd)

Navigation System

System Description (cont'd)

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. This is not selectable (button grayed out) for trips greater than 100 miles.
- **Minimize Toll Roads**—Calculate a route that avoids, or minimizes travel on toll roads. This is not selectable (button grayed out) for trips greater than 100 miles.
- **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 front speakers.

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

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:

HFL has the highest priority, followed by navigation, and finally the radio/CD-DVD player. The priority is passed by HFL 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 audio front speaker is muted, and the navigation voice is heard in the front speakers.

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

Solar Angle

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

Off Road Tracking (bread-crumbs)

Off road tracking dots that can be followed on the map 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.



DVD-ROM

The DVD includes:

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

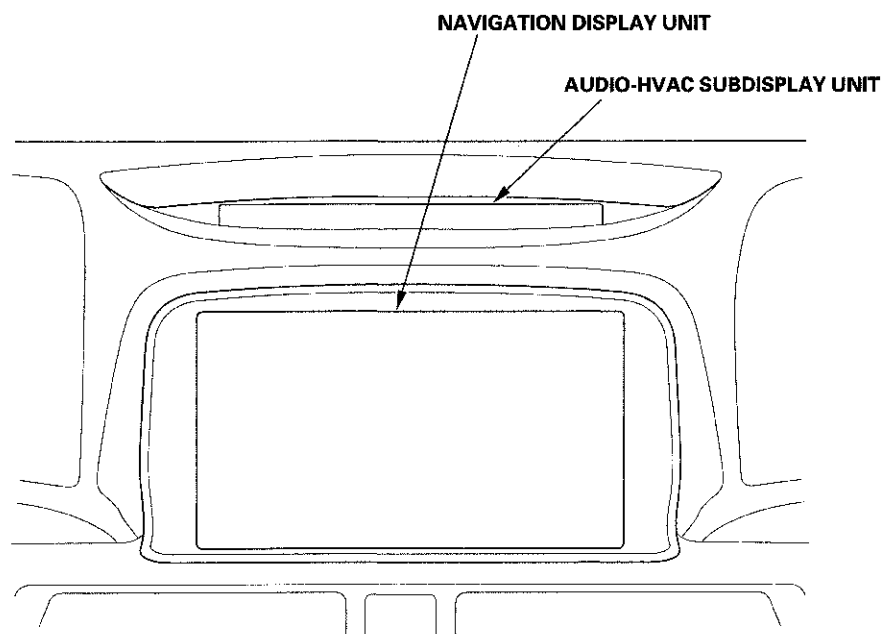
Audio Unit

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

NOTE: If the navigation volume and/or voice feed back 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), strip type with 336,960 picture elements. The color film and fluorescent light are laid out on the back of the liquid crystal film.



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Navigation System

System Description (cont'd)

Microphone (Mic)

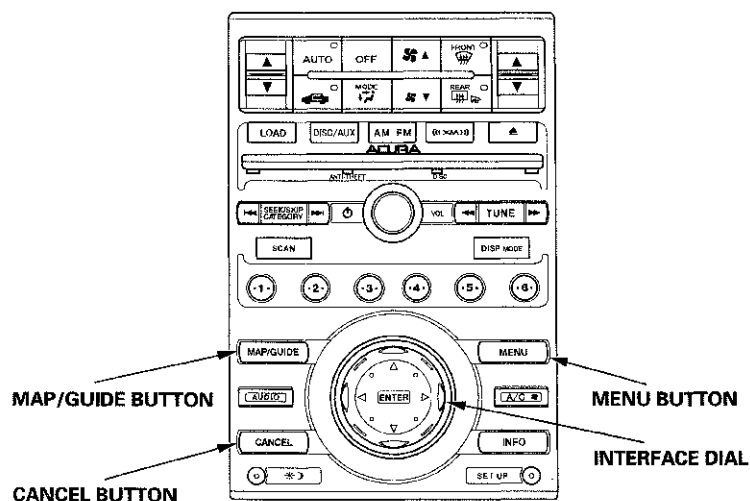
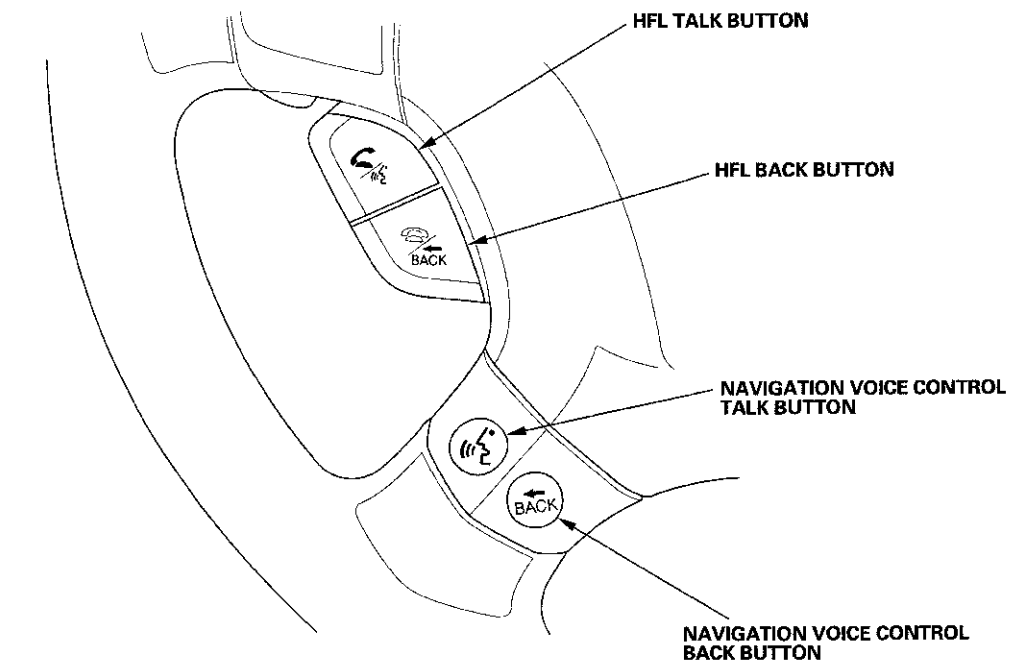
Receives voice commands and transmits them to the navigation unit or HandsFreeLink control unit or active noise cancellation (ANC) for interpretation. These systems share the same microphone.

NAVIGATION TALK Button

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

NAVIGATION BACK Button

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





Glossary

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

NOTE: All item may not apply to this vehicle. See the navigation system manual for more information.

Item	Definition
AcuraLink	This device receives information from the XM satellites and passes XM audio information to the audio unit. In addition, traffic and weather information is sent to the navigation unit.
ANC (Active Noise Cancellation)	See audio section.
Address Book	The HFL system can import a copy of the phone book from an approved HFL compatible phone and can display the imported phone book on the navigation screen as the address book. See the Owner's Manual for more information.
B-CAN	Body CAN Bus (see CAN)
Bluetooth	Bluetooth is a short-range wireless technology intended to replace cables connecting portable devices (like cell phones) to the audio system (Bluetooth audio) or the HFL (Hands free phone use).
Bluetooth audio	See audio section
Bread-crumbs (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 ECM/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 ECM/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 Owner's manual for a list of these areas.
DTC	Diagnostic Trouble Codes. Use the 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 displays, "Not on a digitized road", and after 1/2 mile, the breadcrumbs appear.
Disclaimer Screen	Screen containing cautionary information. It is meant to be read carefully, and acknowledged by the client when using the navigation system.
DVD or DVD-ROM	Digital Versatile Disc. The navigation program and database resides on this disc. See the Navigation Owner's Manual for information on how to order a replacement or an update DVD.
Dynamic Route Guidance	Uses real-time traffic to change your driving route to help avoid extended traffic delays and incidents. Requires a data package subscription.
ECM	Engine Control Module. Typically referred to as the ECM.
FAQ	Frequently Asked Questions. See the Navigation Owner's Manual for a list of the customer FAQs, and troubleshooting information.
F-CAN	Fast CAN Bus (see CAN)

(cont'd)

Navigation System

System Description (cont'd)

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.
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 in diagnosing vehicle problems. This device can be used to obtain DTC codes for diagnosis of the navigation system and CAN related problems.
HIP (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.
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.
H/U	Head Unit. The navigation system display assembly 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.
Jog Dial	See interface dial.
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 displays the current street name in the bottom-shaded area.
Mic	Abbreviation for the microphone used for receiving voice commands. The ANC unit may also use it to check its turning (if equipped). It is located near the map light in the ceiling.
MID	Multi-Information Display
MP3 music files	MP3 is an audio coding format. MP3 is popular audio compression format on the internet and computers. CDs and PC cards MP3 music files can be played on some vehicle audio systems.
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 displays "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 items, if opened, an error message is displayed on the screen (if equipped).
PCM	Powertrain Control Module. This unit supplies the navigation system speed signal, and charge signal via the F-CAN network. Also referred to as ECM.
PCMCIA	A computer industry defined term referring to the PC Card slot standard.



Item	Definition
PIN	Personal Identification Number, a random 4 digit number created by the client 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. Refer to 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 service 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.
Touch Screen Buttons or Touch Sensor	Audio-HVAC display panel has 2 layers of clear film on the screen panel. If you touch the screen panel, the film layers engage and the display unit detects the touch point.
Tuning	A continual update of internal navigation system scaling factors. See the individual sensor tuning discussions under either System Description, or System Diagnostic Mode (see page 23-164) in this manual.
Unverified Streets	These streets have not been verified for turn restrictions, one-way, etc. They appear 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.
USB jack	Allows the client to play data such as input audio recording from portable audio devices (such as i-pod) or data from USB flash memory.
Verified Streets	These streets consist of the detailed metropolitan coverage areas, and all other inter-town connection roads. These roads are shown in black on the map.
VP	Vehicle Position. When in map mode, this circular icon shows the vehicle position on the map. Touch this icon to show the latitude, longitude, and elevation of your current position.
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 front speakers. 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.
Weather Information	The navigation system receives and displays weather information.
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 (see AcuraLink).
Yaw Sensor	This device is located in the navigation 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.

(cont'd)

Navigation System

System Description (cont'd)

Diagnostic System Diagram

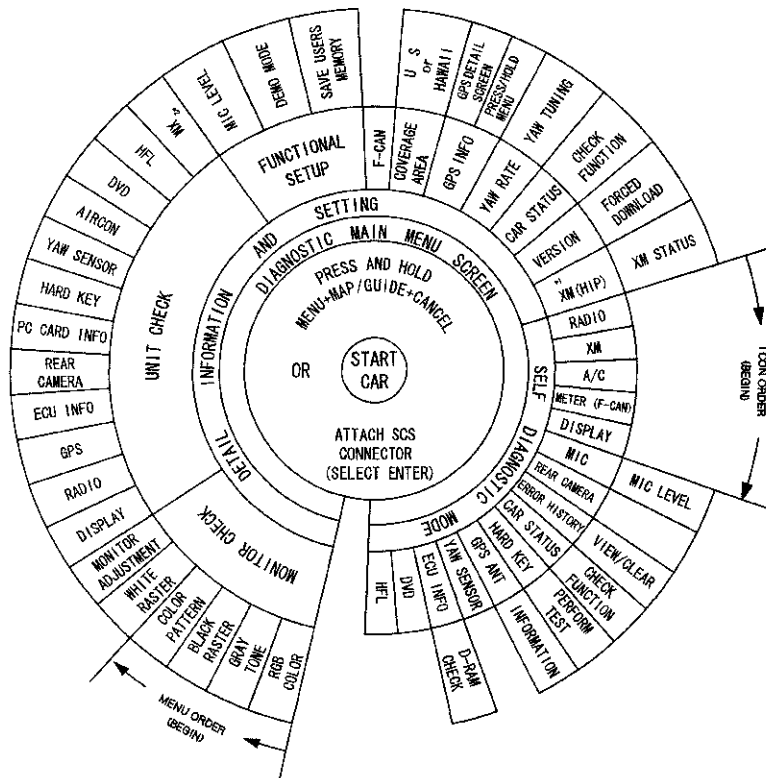
This diagram below shows all of the navigation diagnostic features available for system troubleshooting. The diagram starts at the center, and works outward in layers.

Access to the diagnostic features begins by starting the vehicle. This is necessary so the system can check the other systems connected by various busses. After starting the vehicle you can enter the diagnostic mode either by pressing and holding MENU + MAP/GUIDE + CANCEL, or by connecting the 2-PIN SCS connector.

The main menu screen allows 2 checking modes - one automatic, and one manual:

- The automatic diagnostic check starts when you select "SELF DIAGNOSTIC MODE". The system runs for several seconds, and reports any issues with Red icons. Rotate the interface dial and select the icon you wish obtain the problem details.
- The manual diagnostic check is selected from the main menu by selecting "DETAIL INFORMATION AND SETTING". The traditional diagnostic menu is displayed. This allows you to obtain additional details as instructed in the troubleshooting procedures.

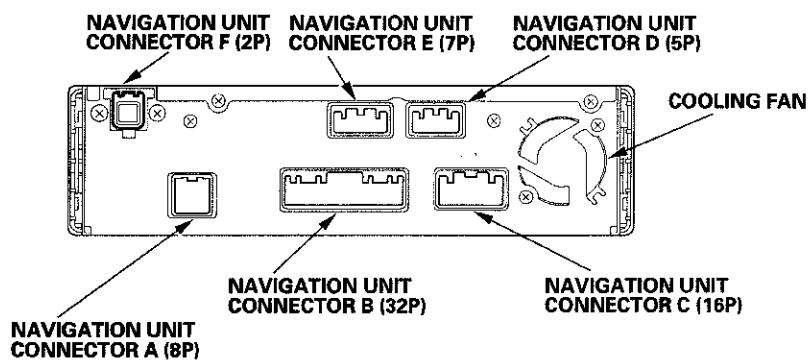
NOTE: Do not clear or change settings unless specified by either the Service Manual troubleshooting procedures or by the factory. Otherwise, you may accidentally delete customer information, or remove the latest flash software version installed by the factory.



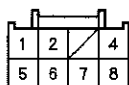
*1: With AcuraLink
*2: Without AcuraLink



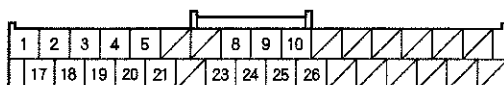
Navigation unit connectors



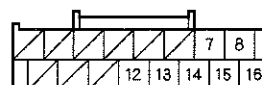
NAVIGATION UNIT
CONNECTOR A (8P)



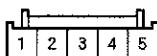
NAVIGATION UNIT
CONNECTOR B (32P)



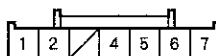
NAVIGATION UNIT
CONNECTOR C (16P)



NAVIGATION UNIT
CONNECTOR D (5P)



NAVIGATION UNIT
CONNECTOR E (7P)



NAVIGATION UNIT
CONNECTOR F (2P)



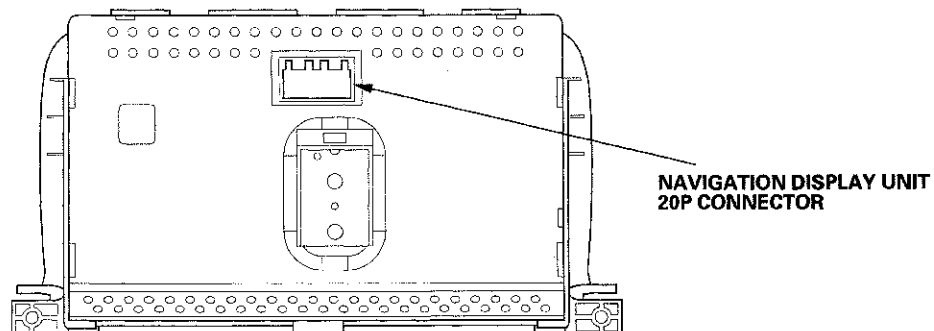
All connectors show wire side of female terminals

(cont'd)

Navigation System

System Description (cont'd)

Navigation display unit 20P connector

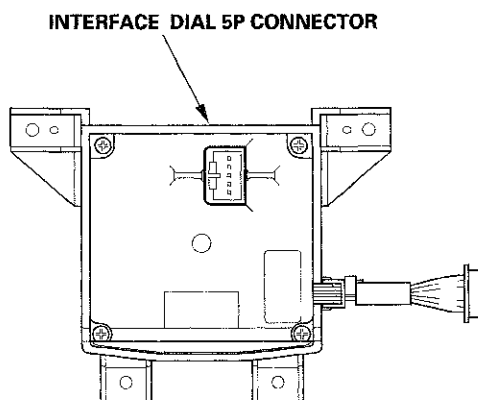


NAVIGATION DISPLAY UNIT 20P CONNECTOR

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

Wire side of female terminals

Interface dial 5P connector



INTERFACE DIAL 5P CONNECTOR

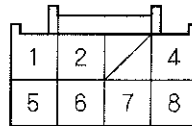
1	2	3	4	/
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Wire side of female terminals



Navigation Unit Inputs and Outputs

NAVIGATION UNIT CONNECTOR A (8P)



Wire side of female terminals

Navigation Unit Connector A (8P)

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 (7.5 A) in the driver's 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 driver's under-dash fuse/relay box.
4	BLK	GND (Ground) (G602)	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	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 (10 A) in the driver's under-dash fuse/relay box.
6	BLU	VSP (Vehicle speed pulse)	Vehicle speed pulse signal from PCM	0—5 V pulses average 2.5 V (Depending on bus traffic)	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	GRN	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.

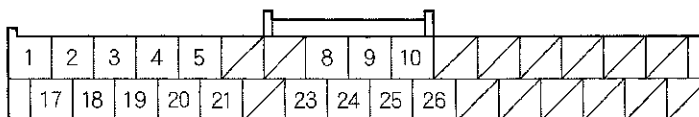
(cont'd)

Navigation System

System Description (cont'd)

Navigation Unit Inputs and Outputs

NAVIGATION UNIT CONNECTOR B (32P)



Wire side of female terminals

Navigation Unit Connector B (32P)

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	WHT	R SIG 1 (Red signal)	Red color signal	0.7 V AC average in RGB color diagnostic mode	If open: Red color missing (see RGB Color diagnostic). If short to ground: Red color missing (see RGB Color diagnostic).
2	RED	G SIG 1 (Green signal)	Green color signal	0.7 V AC average in RGB color diagnostic mode	If open: Green color missing (see RGB Color diagnostic). If short to ground: Green color missing (see RGB Color diagnostic).
3	GRY	SH SIG 1 (Shield signal)	Shield for terminals No. 1, 2, 17, 18, 19	0 V	If open: No change to display. If short to ground: No change to display.
4	ORN	AC-SI (Air conditioner serial in)	Communication signal for climate control unit	—	HVAC will not respond to navigation commands.
5	GRY	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: Blows No. 4 (15 A) fuse in under-hood fuse/relay box.
8	WHT	CAN-H (CAN high)	F-CAN bus communication	Pulses 2.5—6 V average 2.5 V (depends on F-CAN communication traffic)	If open: 1) System Links FI-ECU, and Meter both show NG. 2) F-CAN diagnostic = NG. 3) B-CAN diagnostic = NG. 4) Car status CHG (CAN) = 0. 5) Functional Setup, Trip info, FUP & Sampled FL = 0. If short to ground: Same diagnostic conditions as when open, and also sets the following DTCs. • B1168 Gauge Control Module loss of Comm. (Engine) • B1169 Gauge Control Module loss of Comm. (A/T) • B1178 F-CAN communication Circuit error. • U0073 (F-CAN bus off) • U0155 (F-CAN Gauge control module) • U0121 (F-CAN VSA control)
9	GRY	SH ECU BUS (Shield display bus)	Shield for display bus No. 10, 26 terminal	0 V	If open: No change to display. If short to ground: No change to display.
10	GRN	ECU BUS+ (Display bus positive)	Data 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.

* : The shielded wires have a heat-shrink tube insulating the outside of the wire.
The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.



Navigation Unit Connector B (32P)

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
17	YEL	B SIG 1 (Blue signal)	Blue color signal	0.2 V AC average in RGB color diagnostic mode	If open: Blue color missing (see RGB Color diagnostic). If short to ground: Blue color missing (see RGB Color diagnostic).
18	BRN	C SIG 1 (Composite signal)	Composite video (vertical/horizontal) Synchronizing signal	0.2 V AC average in RGB color diagnostic mode	If open: Picture rolls horizontally, colors still visible. If short to ground: Picture rolls horizontally, colors still visible.
19	BLU	GND SIG 1 (Ground signal)	Ground for color signal	0 V	If open: No change to display. If short to ground: No change to display.
20	PUR	AC-SO (Air conditioner serial out)	Communication signal for climate control unit	—	HVAC will not respond to navigation commands.
21	BRN	AC-CLK (Air conditioner clock)	Check signal for climate control unit	—	HVAC will not respond to navigation commands.
23	WHT	JOG (Interface dial Jog)	Interface dial operation signal	0—5 V pulses	If open: You cannot operate navigation system If short to ground: You cannot operate navigation system
24	RED	CAN-L (CAN low)	F-CAN bus communication	Pulses 2.5—6 V 2.5 V average (depends on bus traffic)	If open: 1) System Links PCM, and Gauge Control Module both show NG. 2) F-CAN diagnostic = NG. 3) B-CAN diagnostic = NG. 4) Car status CHG (CAN) = 0. 5) Functional Setup, Trip info, FUP & Sampled FL = 0. If short to ground: Same diagnostic conditions as when open, and also sets the following DTCs. • B1168 Gauge Control Module loss of Comm. (Engine) • B1169 Gauge Control Module loss of Comm. (A/T) • B1178 F-CAN communication Circuit error. • U0073 (F-CAN bus off) • U0155 (F-CAN Gauge control module) • U0121 (F-CAN VSA control)
25	GRY	SH JOG (Interface dial Shield jog)	Shield for interface dial signal	—	—
26	RED	ECU BUS— (Display bus negative)	Data bus—	0—5 V pulses 2.5 V average (depends on bus traffic)	If open: Navigation buttons do not work. If short to ground: Hard buttons work OK.

* : The shielded wires have a heat-shrink tube insulating the outside of the wire.
The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.

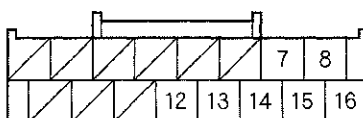
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Navigation System

System Description (cont'd)

Navigation Unit Inputs and Outputs

NAVIGATION UNIT CONNECTOR C (16P)



Wire side of female terminals

Navigation Unit Connector C (16P)

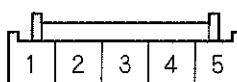
Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
7	RED	RG-L+ (Route guidance voice left positive)	Left audio signal of voice guidance, and Voice Recognition (VR) prompts	Audio signal 0.004—0.04 V	If open: If voice activated, radio speakers buzz; if voice off, no effect. If short to ground: If voice activated, radio speakers buzz; if voice off, no effect.
8	GRN	MIC SIG+ (HFL mic signal positive)	Microphone output signal positive	4—5 V (navigation TALK button pressed)	If open: microphone signal shown as red in diagnostic screens: System Links and Functional Setup Mic Level. If short to ground: microphone signal shown as red in diagnostic screens: System Links and Functional Setup Mic Level.
12	PUR	STRG SW (Navigation remote switches)	Steering switch output	4—5 V (navigation TALK button pressed) 2.5—3 V (navigation BACK button pressed)	If open: Steering wheel navigation TALK and navigation BACK buttons do not work. If short to ground: Steering wheel navigation TALK, and navigation BACK buttons do not work.
13	GRY*	RG-L SH (Route guidance shield)	Shield for terminals No. 7, 14	0 V	If open: No effect on voice output. If short to ground: No effect on voice output.
14	GRN	RG-L 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.
15	GRY*	SH MIC (HFL mic signal shield)	Shield for terminals No. 8, 16	0 V	If open: No effect on voice control. If short to ground: No effect on voice control.
16	RED	MIC SIG— (HFL mic signal negative)	Ground for microphone signal	0 V	If open: microphone signal shown as red in diagnostics: System Links and Functional Setup Mic Level. If short to ground: No effect on voice recognition.

*: The shielded wires have a heat-shrink tube insulating the outside of the wire.
The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.



Navigation Unit Inputs and Outputs

NAVIGATION UNIT CONNECTOR D (5P)



Wire side of female terminals

Navigation Unit Connector D (5P) (with AcuraLink)

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	WHT	HIP/HFL COMM3 (HFL communication 3)	Communication signal for HFL	5 V DC	Solid red HFL icon in Navi System Link. Phone icon in Route To screen is grayed out.
2	RED	HIP/HFL COMM4 (HFL communication 4)	Communication signal for HFL	4.5 V DC	Solid red HFL icon in Navi System Link. Phone icon in Route To screen is grayed out.
3	GRN	HIP/HFL COMM1 (HFL communication 1)	Communication signal for HFL	5 V DC	HFL icon in Navi System Link changes between red and green. Phone icon in Route To screen is grayed out.
4	BLK	HIP/HFL COMM2 (HFL communication 2)	Communication signal for HFL	4.5 V DC	HFL icon in Navi System Link changes between red and green. Phone icon in Route To screen is grayed out.
5	GRY*	HIP/HFL COMM SH (shield HFL)	Shield for terminals No.1, 2, 3, 4	0 V	

* : The shielded wires have a heat-shrink tube insulating the outside of the wire.
The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.

Navigation Unit Connector D (5P) (without AcuraLink)

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

* : The shielded wires have a heat-shrink tube insulating the outside of the wire.
The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.

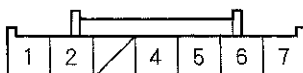
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Navigation System

System Description (cont'd)

Navigation Unit Inputs and Outputs

NAVIGATION UNIT CONNECTOR E (7P)



Wire side of female terminals

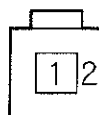
Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	WHT	RC VCC	Power source for rearview camera	8 V	If open: No rearview camera image in reverse. If short to ground: No rearview camera image in reverse.
2	BLK	RC GND	Ground for rearview camera	0 V	If open: No rearview camera image in reverse.
4	RED	CAMERA GND	Ground for rearview camera video signal	0 V	If open: No rearview camera image in reverse.
5	YEL	CAMERA V	Video signal for rearview camera	0.3 V AC	If open: No rearview camera image in reverse. If short to ground: When put into reverse, navigation screen goes black (display backlight still operative).
6	GRY	CAMERA SH	Shield for terminals No. 1, 2, 4, 5, 7		If open: No rearview camera image in reverse. If short to ground: No rearview camera image in reverse.
7	GRN	CAMERA (ADPT)	Control signal for rearview camera	0—1 V	If open: No rearview camera image in reverse. If short to ground: No rearview camera image in reverse.

* The shielded wires have a heat-shrink tube insulating the outside of the wire. The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.



Navigation Unit Inputs and Outputs

NAVIGATION UNIT CONNECTOR F (2P)



Wire side of female terminals

Navigation Unit Connector F (2P)

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	—	SIG (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	—	SH (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.

(cont'd)

Navigation System

System Description (cont'd)

Navigation Display Unit Inputs and Outputs

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

Navigation Display Unit 20P Connector

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 driver's 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 driver's under-dash fuse/relay box.
3	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 buttons and touch screen do not work. If short to ground: Navigation buttons do not work.
4	GRY	GA-NET BUS SH (GA-NET)	Shield for terminals No. 3, 13	0 V	If open: No change to display. If short to ground: No change to display.
5	GRN	ECU BUS+ (Display bus positive)	Data 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.
6	LT GRN	SECURITY+	Security signal to rear screen	0 V	If open: The security system will set, and will not trip when screen is removed. If short to ground: The security system will set, and will not trip when screen is removed.
8	WHT	R SIG 1 (Red signal)	Red color signal	0.7 V AC	If open: Red color missing (see RGB Color diagnostic). If short to ground: Red color missing (see RGB Color diagnostic).
9	RED	G SIG 1 (Green signal)	Green color signal	0.7 V AC	If open: Green color missing (see RGB Color diagnostic). If short to ground: Green color missing (see RGB Color diagnostic).
10	BLK	GND (Ground) (G501)	Ground for display unit	0 V	If open: No change to display. If short to ground: No change to display.

* : The shielded wires have a heat-shrink tube insulating the outside of the wire.
The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.



Navigation Display Unit 20P Connector

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
11	LT BLU	ILL+ (Illumination positive)	Parking light on signal from dash and console lights	Battery voltage if lights on; otherwise 0 V	If open: When brightness=Auto, night mode for the display is inoperative when lights on. If short to ground: Blows fuse No. 7 (7.5 A) in the passenger's under-dash fuse/relay box.
13	RED	GA-NET BUS— (GA-NET bus negative)	Data 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: Hard buttons work OK.
14	GRY*	SH ECU BUS (Shield ECU bus)	Shield for display bus terminals No. 5, 15	0 V	If open: No change to display. If short to ground: No change to display.
15	RED	ECU BUS— (Display bus negative)	Data bus— GA-Net	0—5 V pulses average 2.5 V depends on bus traffic	If open: Navigation buttons and touch screen do not work. If short to ground: Hard and touch buttons work OK.
16	BRN	SECURITY—	Security signal from CD changer	0 V	If open: The security system sets, but does not trip when screen is removed. If short to ground: The security system sets, but does not trip when screen is removed.
17	BLU	GND SIG 1 (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 1 (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).
19	BRN	C SIG 1 (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.
20	GRY*	SH SIG 1 (Shield signal)	Shield for terminals No. 8, 9, 17, 18, 19	0 V	If open: No change to display. If short to ground: No change to display.

*: The shielded wires have a heat-shrink tube insulating the outside of the wire.
The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.

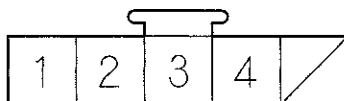
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Navigation System

System Description (cont'd)

Interface Dial Inputs and Outputs

INTERFACE DIAL 5P CONNECTOR



Wire side of female terminals

Interface Dial 5P Connector

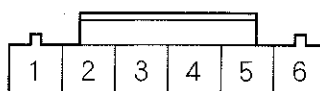
Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	WHT	JOG (jog)	Interface dial operation signal	0–5 V pulses	If open: You can not operate navigation system. If short to ground: You can not operate navigation system.
2	GRY*	SH JOG (Shield jog)	Shield for interface dial signal	—	—
3	BLK	GND (Ground) (G506)	Ground for interface dial	0 V	If open: You can not operate navigation system. If short to ground: No effect on navigation system operate.
4	PUR	ACC (Accessory)	Power source for interface dial	Battery voltage at ACC (I)	If open: You can not operate navigation system. If short to ground: Blows fuse No. 32 (10 A) in the driver's under-dash fuse/relay box.

* : The shielded wires have a heat-shrink tube insulating the outside of the wire.
The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.



Rearview Camera Inputs and Outputs

REARVIEW CAMERA 6P CONNECTOR



Wire side of female terminals

Rearview Camera 6P Connector

Terminal Number	Wire Color	Terminal Name	Description	Voltage (about)	Symptom
1	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, the navigation screen goes black (display backlight still operative).
2	BLK	RC GND (Ground camera)	Ground for camera signal	0 V	If open: No change to rearview camera image. If short to ground: No change to rearview camera image.
3	RED	CAMERA GND (Ground)	Ground for rearview camera	0 V	If open: No change to rearview camera image. If short to ground: No change to rearview camera image.
4	YEL	VIDEO (Video camera)	Video signal for rearview camera	0.3 V	If open: No change to rearview camera image. If short to ground: No change to rearview camera image.
5	GRY	CAMERA SH (Shield camera)	Shield for terminals No. 1, 2, 3, 4, 6	0 V	If open: No change to rearview camera image. If short to ground: No change to rearview camera image.
6	GRN	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.

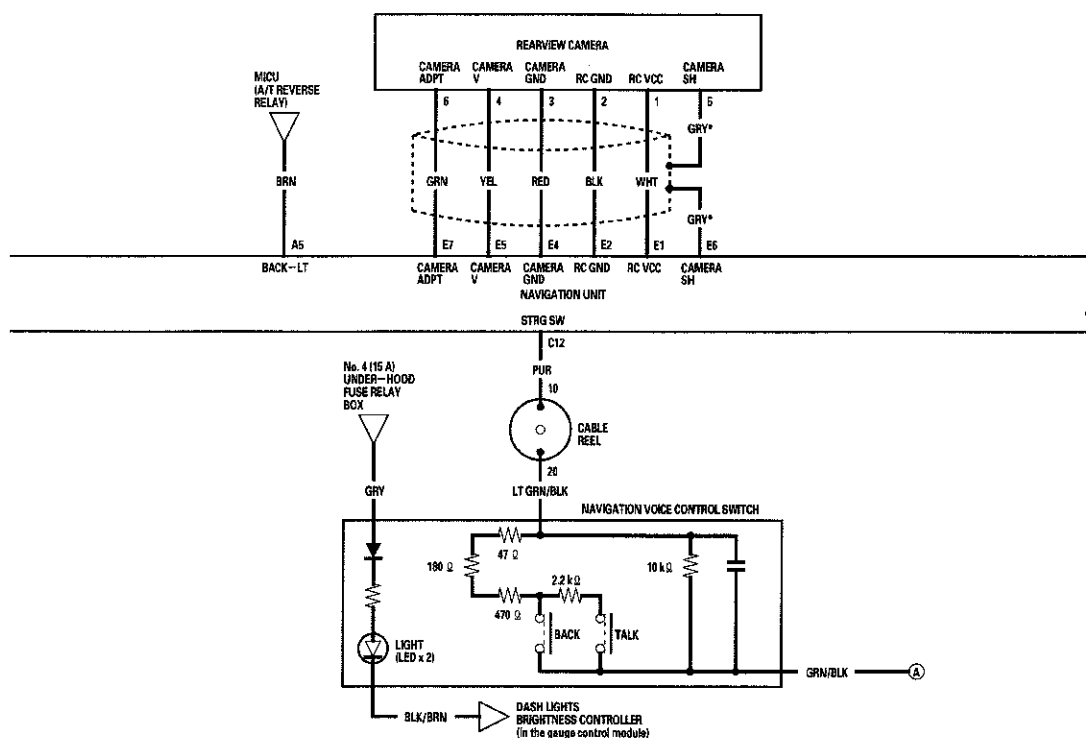
*: The shielded wires have a heat-shrink tube insulating the outside of the wire. The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.

Circuit Diagram





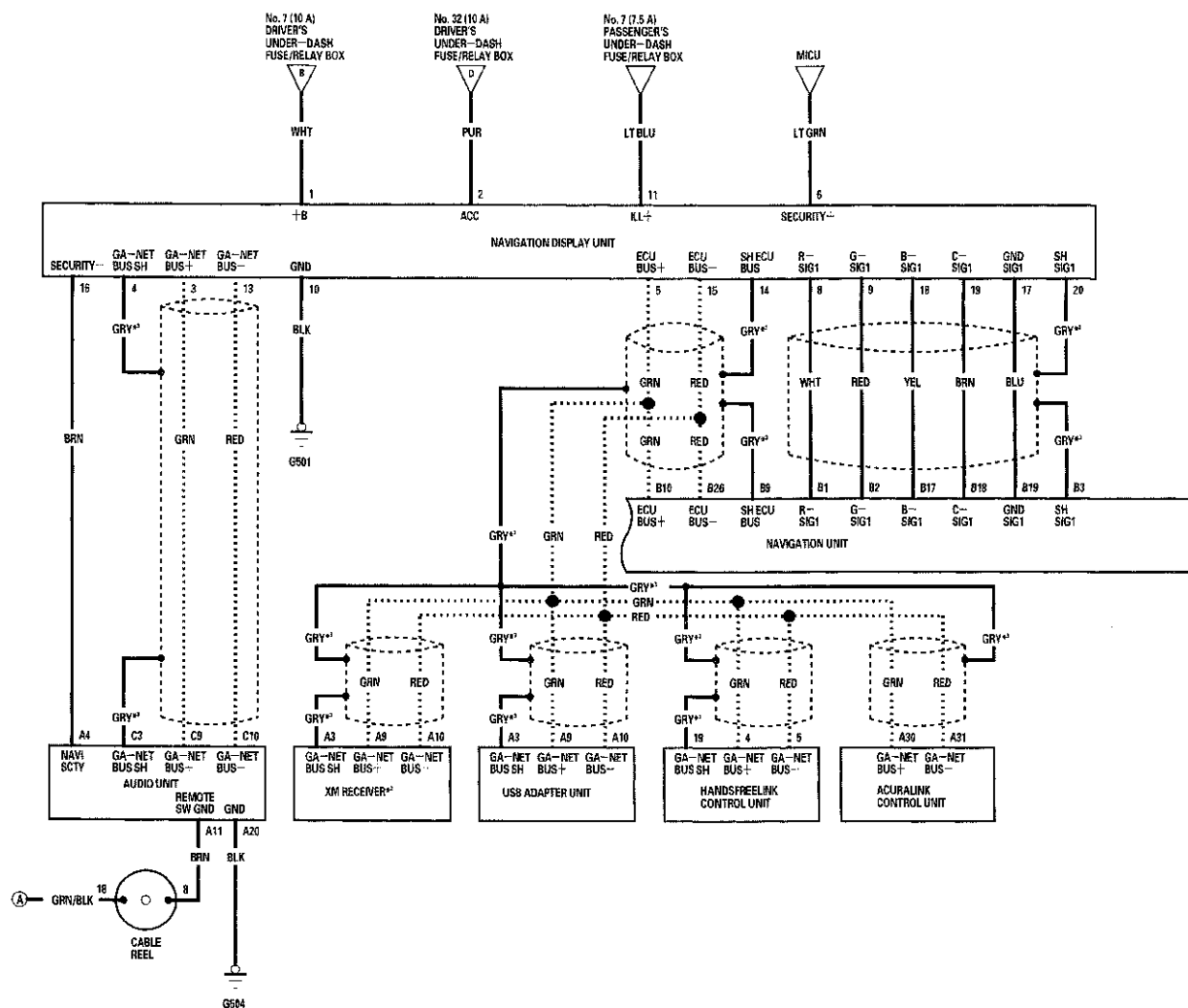
*: The shielded wires have a heat-shrink tube insulating the outside of the wire. The color of the insulating tube, typically black or dark gray, may not match the color of the wire shown on the circuit diagram.
 : Other communication line
 ----- : Shielding

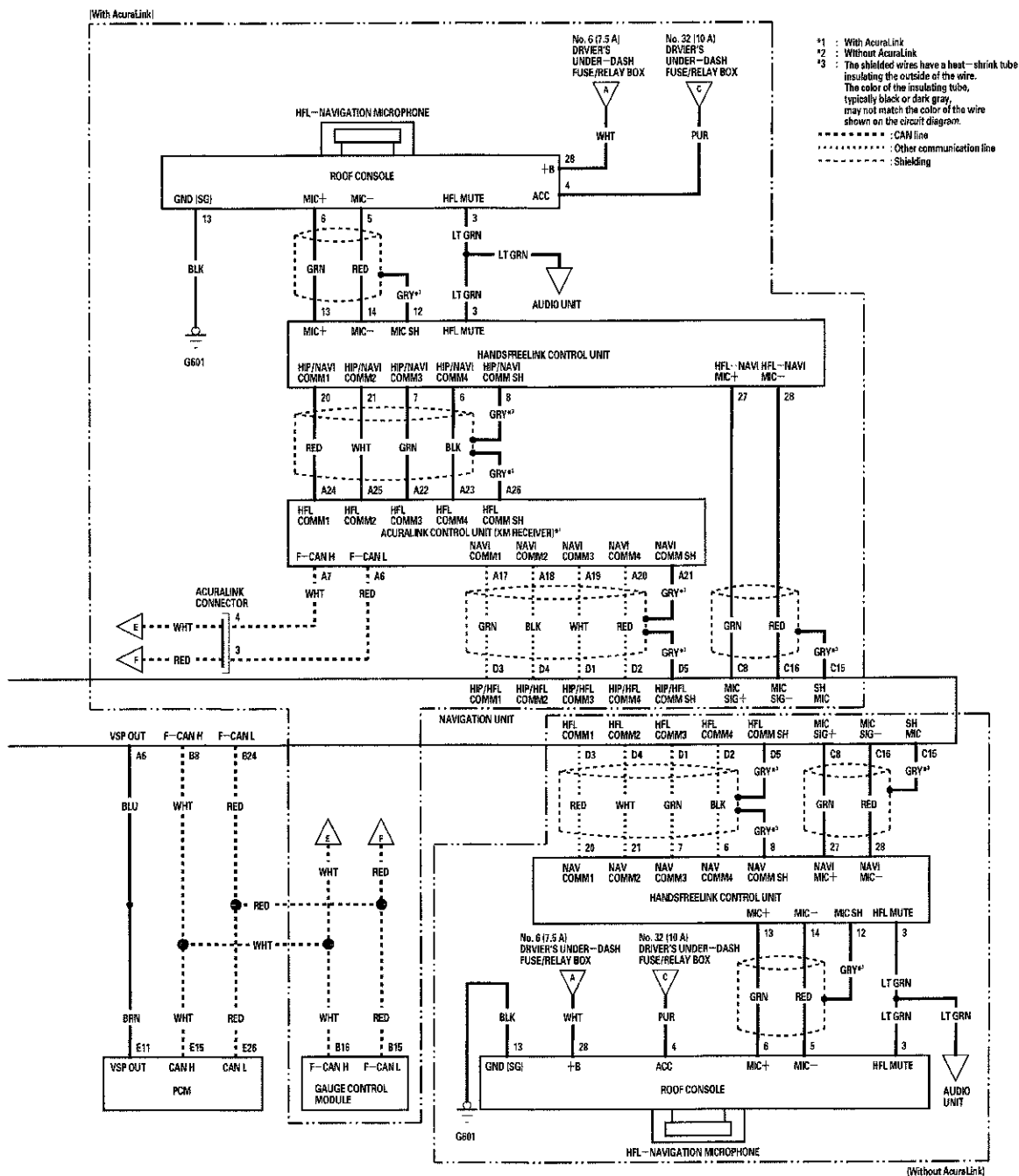


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Navigation System

Circuit Diagram (cont'd)





Navigation System

System Diagnostic Mode

Start-up procedure and Diagnostic Menu

Compass type

There are two ways to enter the diagnostic mode:

Mode 1:

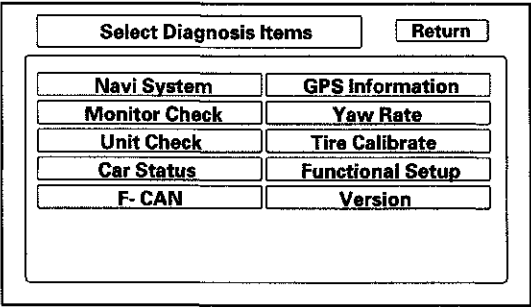
Connect the SCS connector (see page 23-254) to the navigation service connector located in the trunk. Turn the ignition switch to the ON (II) position. The display goes directly to the diagnostic menu screen shown below.

NOTE: When finished troubleshooting, make sure to remove the SCS connector.

Mode 2:

Turn the ignition switch ON (II). Use the navigation display hard buttons as described below:

Press and hold the MENU, MAP/GUIDE, and CANCEL buttons for about 5 seconds. The display screen goes directly to the Select Diagnosis Items menu shown below.



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
- F-CAN (System link)
- GPS Information
- Yaw Rate
- Tire Calibrate
- Functional Setup
- Version



Navi System Link

Compass type

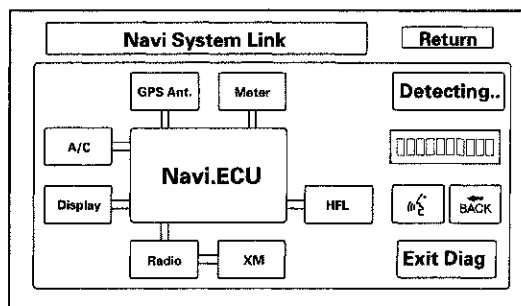
- This diagnostic tests the cables connecting the navigation components. Ensure that the ignition switch is in the ON (II) position. When the diagnostic begins you hear a bong sound. The system is in a Detecting mode, and is waiting for all items in white to be tested. This includes the navigation voice control (navigation 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 Cancel 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 to red, and the screen shows 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:

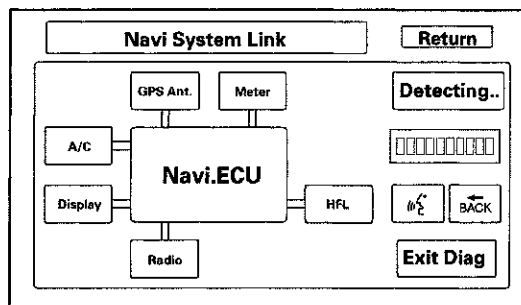
- Green boxes and a green OK indicate that the communications lines (cables) are intact. This diagnostic does not necessarily imply that the individual components are functioning properly. For instance, the GPS antenna wire may be crushed, but still show as green. A road test, or other diagnostic may be necessary to find the problem.

- Select Return to return to the Diagnosis Menu.

USA models



Alaska models



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, or see XM (HIP) diagnostic screen.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Start-up procedure and Diagnostic Menu

Map type

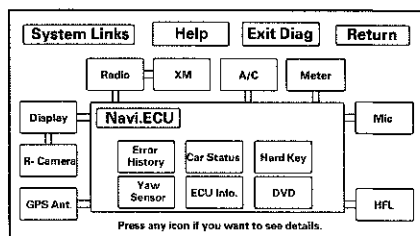
NOTE: Check the vehicle battery condition first (see page 22-90).

There are two ways to enter the diagnostic mode:

Mode 1:

Start the vehicle. When the globe screen appears, connect the SCS service connector (see page 23-254) to the navigation service connector located behind the navigation unit in the trunk. The screen changes to the System Links screen and automatically begins running the self diagnostic. See the System Links section for more information.

NOTE: When finished troubleshooting, make sure to remove the SCS service connector.

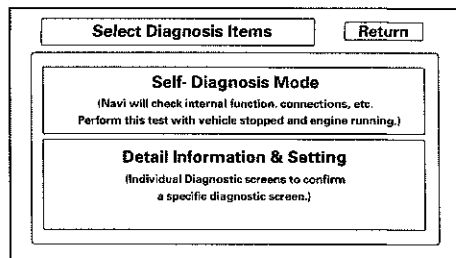


Mode 2:

Start the vehicle, and at the disclaimer screen use the navigation display hard buttons as described below:

Press and hold the MAP/GUIDE, MENU, and CANCEL buttons for about 3 seconds. The display screen goes directly to the Select Diagnosis Items menu shown below.

- Self-Diagnosis Mode (runs the automatic diagnosis of the navigation system)
- Detail Information & Setting (allows you to manually diagnose the navigation system)



System Links

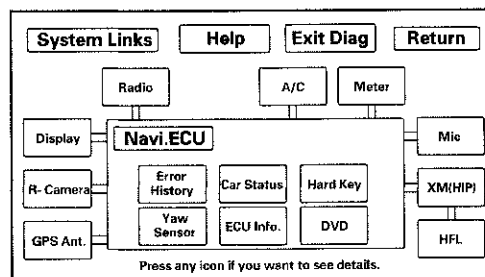
Map type

1. Enter this screen by connecting the SCS connector or by selecting Self Diagnosis Mode from the navigation screen main menu. The message at the bottom of the screen flashes indicating the diagnostic is running. Make sure you enter the audio anti-theft code.

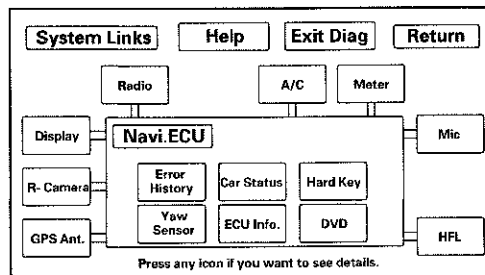
NOTE:

- The system cannot complete a full diagnosis unless the engine is running.
- DTC 1501 and/or 2703 can be stored when the ignition switch is at ACCESORY (I). With the ignition switch in ACCESORY (I), the A/C unit is turned off and the navigation unit loses communication and stores DTCs. Therefore, there is a possibility that the system is normal even though DTC 2703 is stored. Check system links with the engine running, and if it appears normal, the system is OK at this time.

USA models

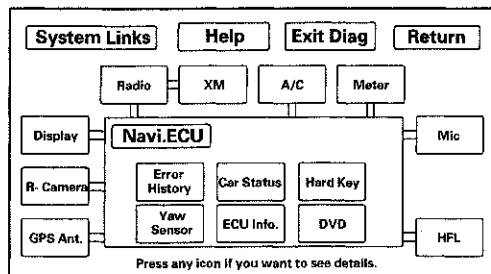


Hawaiian models





Canada models



2. Rotate the interface dial to select the icon you want to diagnose. Push in the selector to see the details of that diagnostic function.

The System Links function runs automatically and displays a flashing message at the bottom of the screen reminding you to have the engine running for the test. The diagnostic tests the following:

- Most of the wires connecting the navigation components are shown in the block diagram.
- The results from the various components shown in the block diagram.
- The microphone is tested by listening to the bong sound produced by the navigation unit from the speakers when the diagnostic is started. This requires that the audio system be operating normally.

When the diagnostic finishes, the icons turn different colors based on their test status. The color definitions are shown below and can also be seen by selecting Help on the System Links screen.

The indication on the screen may not change until you exit and reenter the Self-Diagnosis mode. In some cases, you may have to restart the engine for the indication to change. After you repair the affected component or harness, repeat this diagnostic.

Each icon color is explained in the table below.

Icon Colors	Description
Green	The system ran a diagnosis and the results are OK.
Red	Errors that require replacement of hardware or harness. Examples are connection error or memory diagnosis errors. Troubleshoot for DTCs.
Yellow	Errors that doesn't require hardware replacement, such as an open display cover, an incorrect DVD leaving the vehicle in ACC (I), or because of a missing accessory, like the rear view camera.
White	The diagnosis is running. The screen functions are locked out while the diagnosis is runs.
Gray	The system cannot automatically check this function. You have to select the diagnosis item and manually do additional testing, like checking the navigation buttons in the Hard Key test. When you complete the Hard Key test and return to the System Links menu, the gray icon turns green.

NOTE: By selecting the HELP icon, you can see a description for each color.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Icon Color Information

Icon	Icon Color				
	GREEN	RED	YELLOW	WHITE	GRAY
Display	Result of "Connection" under the "Display" diagnosis menu is OK.	Result of "Connection" under the "Display" diagnosis menu is NG.	_____	Executing (Not completed)	_____
Radio	Result of "Connection" under the "Radio" diagnosis menu is OK.	Result of "Connection" under the "Radio" diagnosis menu is NG.	_____	Executing (Not completed)	_____
XM (HIP)* ¹	Result of AcuraLink control unit (XM receiver) and Navigation unit connection is OK.	Result of AcuraLink control unit (XM receiver) and Navigation unit connection is NG.	_____	Executing (Not completed)	_____
XM* ²	Result of "Connection" under the "XM" diagnosis menu is OK.	Result of "Connection" under the "XM" diagnosis menu is NG.	_____	Executing (Not completed)	_____
GPS Ant.	All result of "Antenna" and "Receiver in NAVI ECU" is OK.	Any result of "Antenna" and "Receiver in NAVI ECU" is NG.	_____	Executing (Not completed)	_____
R-Camera	Result of "Connection" under the "R-Camera" diagnosis menu is OK.	Result of "Connection" under the "R-Camera" diagnosis menu is NG.	_____	Executing (Not completed)	_____
A/C* ³	Result of "Connection" under the "Aircon" diagnosis menu is OK while "Ignition" is ON.	Result of "Connection" under the "Aircon" diagnosis menu is NG while "Ignition" is ON.	While "Ignition" is OFF.	Executing (Not completed)	_____

* 1: With AcuraLink

* 2: Without AcuraLink

* 3: DTC 2703 can be stored when the ignition switch is at ACC (I). With the ignition switch in ACC (I), the climate control unit is turned off and the navigation unit loses communication and stores DTCs. It is possible that the system is normal with DTC 2703 stored. Check the system links with the engine running, and if it shows normal, the system is OK at this time.



Icon	Icon Color				
	GREEN	RED	YELLOW	WHITE	GRAY
Meter (F-CAN)	All result of F-CAN related units are OK.	Any result of F-CAN related units are NG.	_____	Executing (Not completed)	_____
HFL	Result of "Connection" under the "HFL" diagnosis menu is OK.	Result of "Connection" under the "HFL" diagnosis menu is NG.	_____	Executing (Not completed)	_____
Mic	The microphone detects the sound "Pi-Pi-Pon" at the system link menu.	The microphone could not detect the sound "Pi-Pi-Pon" at the system link menu.	_____	Executing (Not completed)	_____
ECU Info.	Both V-RAM or D-RAM is OK, and all "Program Flash", "Serial No.", "Model" is available, and the DVD lid is closed.	Either the V-RAM or D-RAM is NG, or any of the "Program Flash", "Serial No.", "Model" is unavailable.	DVD lid is opened	Executing (Not completed)	_____
Hard Key	All buttons are pressed and are detected under "Hard key" menu.	All buttons are not pressed or pressed but not detected under "Hard key" menu, or exit from "Hard key" menu without the button not detected.	_____	_____	Until changing to "Hard key" menu.
Error History	_____	_____	"Hard Error" or "Soft Error" is detected under "Error History" menu.	Executing (Not completed)	"Hard Error" or "Soft Error" is not detected under "Error History" menu.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Icon	Icon Color				
	GREEN	RED	YELLOW	WHITE	GRAY
DVD	DVD mechanism is normal and the proper DVD is installed.	_____	Improper DVD is installed, or DVD is not installed, or can not identify software version from the DVD or internal mechanism failure.	Executing (Not completed)	_____
Yaw Sensor	Result of the "Yaw Sensor" diagnosis menu is OK.	Result of the "Yaw Sensor" diagnosis menu is NG.	Result of the "Zero Point Output" under the "Yaw Sensor" diagnosis menu is NO CHECK.	Executing (Not completed)	_____
Car Status	_____	_____	_____	_____	Check these systems manually.



Factory diagnostic screen In Line Diag

NOTE: If the vehicle left the factory in the factory diagnostic mode, you will see this screen every time you turn on the ignition. You may also see this screen if you recently replaced the navigation unit.

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) appears. Normally the factory does the steps necessary to verify proper operation and terminate the factory diagnostic. Until the proper confirmation sequence is done, the screen appears every time the vehicle is started.

Map type (USA models)

In Line Diag		Start Diag	Exit Diag	
Navi ECU				
GPS Antenna				
Display				
Rear Camera				
A/C				
Radio				
F- CAN				
XM (HIP)				
HFL				
KA				
		1	2	3
		4	5	6
		7	8	9
		Delete	0	Done

Map type (Hawaiian models)

In Line Diag		Start Diag	Exit Diag	
Navi ECU				
GPS Antenna				
Display				
Rear Camera				
A/C				
Radio				
F- CAN				
HFL				
Hawaii				
		1	2	3
		4	5	6
		7	8	9
		Delete	0	Done

Map type (Canada models)

In Line Diag		Start Diag	Exit Diag	
Navi ECU				
GPS Antenna				
Display				
Rear Camera				
A/C				
Radio				
F- CAN				
XM				
HFL				
KC				
		1	2	3
		4	5	6
		7	8	9
		Delete	0	Done

Compass type (USA models)

In Line Diag		Start Diag	Exit Diag	
Navi ECU				
GPS Antenna				
Display				
A/C				
Radio				
F- CAN				
XM				
HFL				
NO MAP BASE				
		1	2	3
		4	5	6
		7	8	9
		Delete	0	Done

Compass type (Alaska models)

In Line Diag		Start Diag	Exit Diag	
Navi ECU				
GPS Antenna				
Display				
A/C				
Radio				
F- CAN				
HFL				
NO MAP AK				
		1	2	3
		4	5	6
		7	8	9
		Delete	0	Done

Follow the steps below to prevent the screen from appearing in the future:

- Press and hold the MENU, MAP/GUIDE, and CANCEL buttons for about 3 seconds. The Select Diagnosis.
- Press and hold the MAP/GUIDE button for about 5—10 seconds. A screen with a Complete button, appears.
- Press Complete, then Return, and then shut 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 In Line 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)

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.

Monitor Check		Return
RGB Color	Color Pattern	
Gray Tone	White Raster	
Black Raster	Monitor Adjustment	

Detailed Information & Settings

This section allows you to run a specific diagnostic and allows additional setting choices for some screens that are not shown when selecting an icon from the System Links screen.

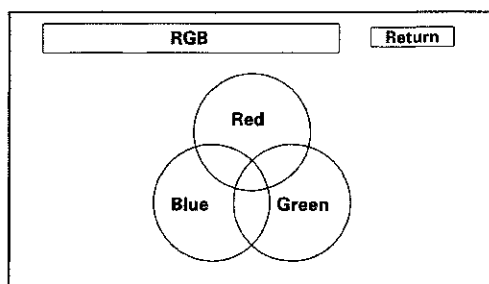
When you select the Item Detail Information & Setting menu, the main diagnosis menu appears.

Select Diagnosis Items	Return
Self-Diagnosis Mode (Navi will check internal function, connections, etc. Perform this test with vehicle stopped and engine running.)	
Detail Information & Setting (Individual Diagnostic screens to confirm a specific diagnostic screen.)	



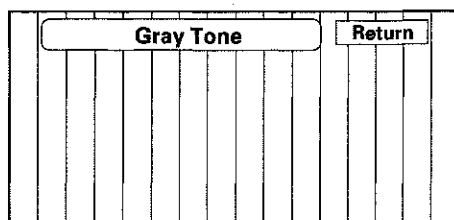
RGB Color

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 appear 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 23-225). If the picture has lines in it or scrolls horizontally, or vertically, troubleshoot for a Composite sync problem (see page 23-227).



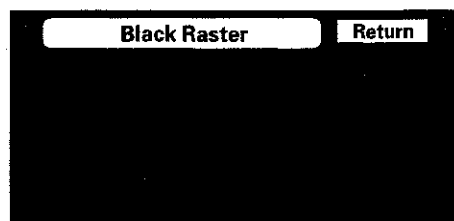
Gray Tone

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. If you can't see changes from bar to bar, replace the navigation unit.



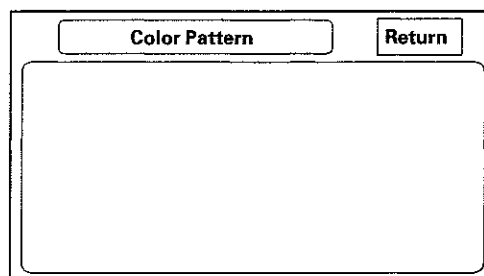
Black Raster

This diagnostic screen checks for pixels that may be stuck on. The entire display must be black. If pixels are stuck on, replace the navigation unit.



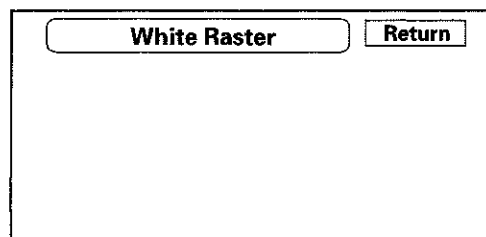
Color Pattern

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.



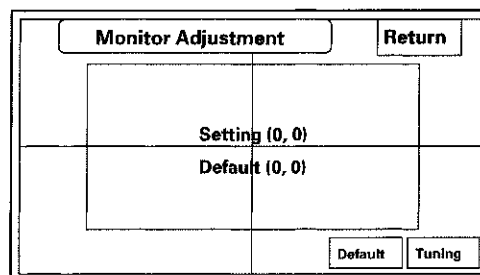
White Raster

This diagnostic screen checks for pixels that may be dead (off). The entire display must be white. If there are dead pixels, replace the navigation unit.



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.



(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Unit Check (Quick Check)

Some of the tests and screens that are displayed under the Unit Check are different from the more detailed checks listed in other areas of this service manual.

To start the test, select the item you want to check.

- Display
- Radio
- GPS
- ECU Info.
- Rear Camera
- PC Card Info.
- Hard Key
- Yaw Sensor
- DVD
- Aircon
- HFL
- XM (Canada models)
- Smart Card

USA and Hawaiian models

Select Check Units		Return
Display	PC Card Info	
Radio	Hard Key	
GPS	Yaw Sensor	
ECU Info.	DVD	
Aircon	Rear Camera	
Smart Card	HFL	

Canada models

Select Check Units		Return
Display	PC Card Info	
Radio	Hard Key	
GPS	Yaw Sensor	
ECU Info.	DVD	
Aircon	Rear Camera	
Smart Card	HFL	
XM		

Display

This diagnostic does additional checks on the communication bus between the control unit and the display. This test also checks the internal electronic functions.

- 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
Connection	OK	
ROM	OK	
RAM	OK	
Version	xxxxxx	



Radio

This test checks connection between the audio unit and the navigation system. If NG is indicated, check for loose audio unit connectors.

NOTE: If the XM link appears red, but the radio link appears green in the navigation system link, refer to audio system symptom troubleshooting.

Radio		Return
Connection	OK	

GPS

If GPS indicates NG (ANT), then check the entire GPS antenna wire from the navigation unit to the antenna only. If the wire is crushed or damaged, try a known-good antenna. If the diagnostic then reads OK, replace the original GPS antenna. If the diagnostic still reads NG (ANT), replace the navigation unit. Select information to see the GPS satellite details.

GPS		Return
Antenna	OK	
Receiver in Navi ECU	OK	
		Information

ECU Info.

This screen looks for problems in the navigation unit. When you initiate this diagnosis, the navigation unit may freeze or 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, replace the navigation unit.
- DVD lid displays the state of DVD Lid of navigation unit.
- Program Flash: Displays the version of the navi software in memory.
- Program on DVD: If displayed, this value represents the version of the navi software on the navi DVD.
- DVD version 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 clear the client's settings, personal information, GPS orbital data, and anything else stored in memory.

ECU Info.		Return
V - RAM	OK	D - RAM
DVD Lid	Close	
Program Flash	1.40.11	
Program on DVD	1.30.11	
DVD Version	20050830	Mem Clear
Serial No.	0987654321	
Model	SJAX	D - RAM Check

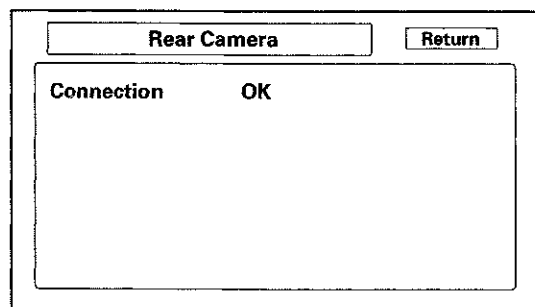
(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Rear Camera

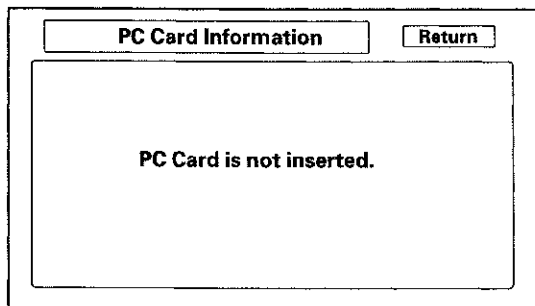
- This tests whether rearview camera is connected to the navigation unit.
- When connection is shown NG, check the rearview camera signal line.



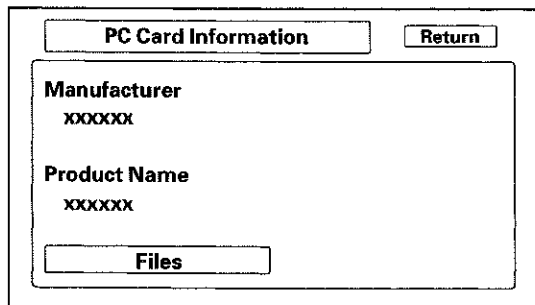
PC Card info.

There is no PC Card in the PC slot, and the screen should display, "PC Card is not inserted".

NOTE: Do not insert any card or object into the slot.



If the factory provides a PC card and instructs you to insert it, the screen displays the Manufacturer, and Product Name as shown in the following screen.



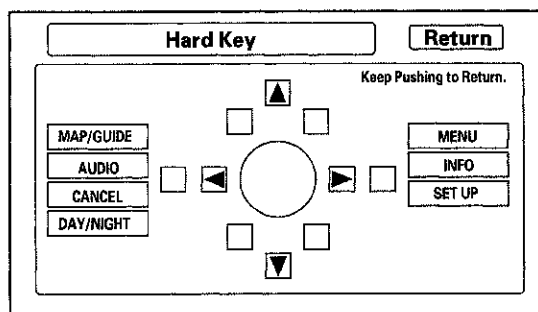
Hard Key

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.

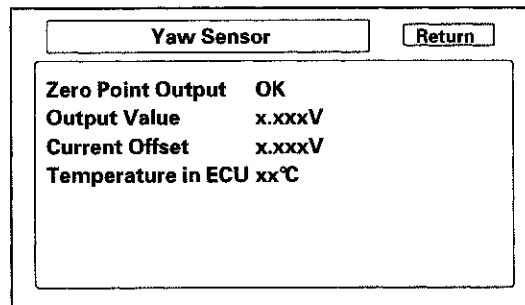
To exit, push in and hold the selector knob.

NOTE: You cannot use the onscreen return button to exit this function



Yaw Sensor

This screen gives a quick test of the yaw sensor functionality based on the two voltages Sensor and Offset. For more information see the Yaw Rate Diagnostic.





DVD

This diagnostic tests the navigation DVD reader.

DVD		Return
Error Detail	-	
Version	xxxxxxxx	
Maker ID	0x01	
Navi Platform	0x01	

Aircon

This diagnostic tests the climate bus connection (AC-SI and AC-SO) between the navigation unit and climate control unit. This test does not check the system components, only the connections. Make sure the engine is running for this test.

NOTE: If this test is run with the ignition switch in ACC (I), the result will be NG.

Aircon		Return
Connection	OK	
ignition	OK	
Aircon Diag		

HFL

This checks the 4 wire communication bus between the HFL and the navigation unit. This test does not check the system components, only the connections.

HFL		Return
Connection	OK	

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

XM (Without AcuraLink)

- This checks the GA-NET Bus line to the XM receiver.
- When connection is shown with NG, check the connection between the XM receiver and the audio unit.

XM		Return
Connection	OK	

Smart Card

If the remotes are linked to the vehicle, you can check the remote card condition on the this screen.

Smart Card		Return
USER1	ON	
USER2	OFF	
GUEST	OFF	

Functional Setup

Select the item you want to check.

- Save Users Memory
- Demo Mode (Map type)
- Mic Level
- Log Data (Compass type)
- GPS Send Time (Compass type)
- Solar Angle (Compass type)

Map type

Functional Setup		Return
Save Users Memory	Mic Level	
Demo Mode		

Compass type

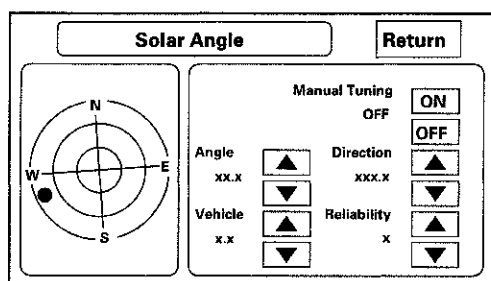
Functional Setup		Return
Log Data	Mic Level	
GPS Send Time	Solar Angle	
	Save Users Memory	



Solar Angle (Compass type)

This screen graphically displays the sun's position as determined by the GPS. The compass system uses the sun's angle, along with the sunlight sensor to control the driver/passenger A/C air flow. The heat that the A/C 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.

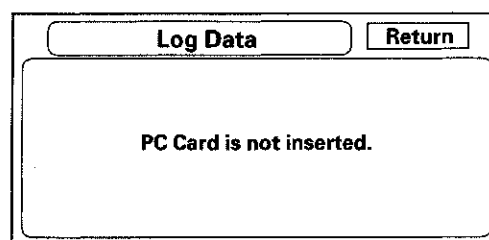
- The screen shows a circular diagram of the sky oriented in the direction that the vehicle is pointing. During daylight hours a red dot is shown, representing the direction and elevation of the sun. The outer circle represents the horizon (0 degrees elevation). The middle circle is 30 degrees, the center 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.



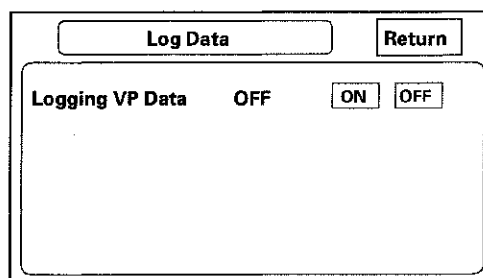
Log Data (Compass type)

This screen allows the factory to select log data to troubleshoot compass system issues.

- Normally there is no card in the PC Card Slot, and the PC slot door should always be closed. The screen should appear as shown.



- However, if the factory provides a PC card and instructs you to insert it into the card slot (label side up). Follow the factory procedure for gathering test data, and properly ending the test.



(cont'd)

Navigation System

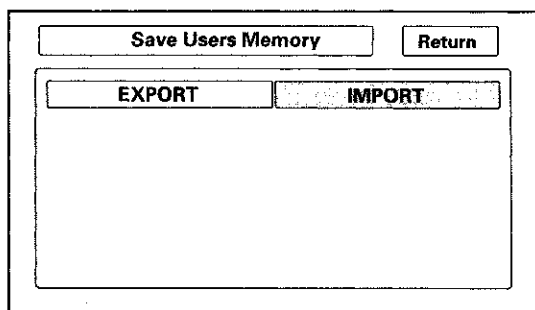
System Diagnostic Mode (cont'd)

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.

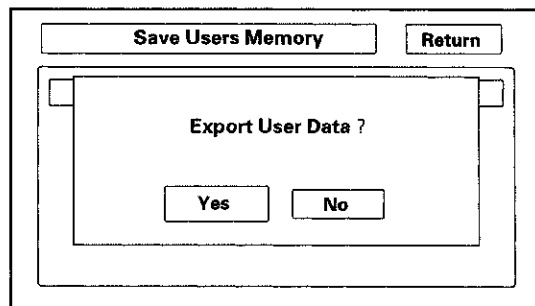
This is similar to saving and entering the client's audio presets when replacing an audio unit. The transferred information includes their Setup settings and personal addresses. The dealer inserts a PC card (like the PC card in the HDS), and then selects the Save Users Memory function. The two functions in this diagnostic screen are Export and Import. Export saves the client's data to the PC card, and Import moves the PC card files to the new navigation core.

See the FAQs below for information regarding PC cards, and how to use this function.



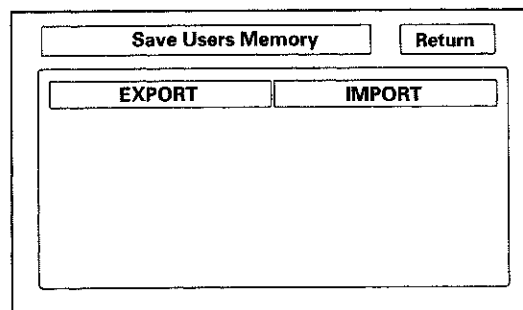
Export

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 files on the card.



Import

After installing the client's original DVD in the new navigation unit, allow the system to boot up. Insert the PC card in the new navigation unit 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 navigation control unit if the Model and the Program Flash shown on the Version screen are the same. These files cannot be transferred from an RL to a TSX, or from an RL with version 1.07.00 to another RL with version 1.32.00.



Demo Mode (Map type)

This screen is for factory use only, and should always be set to OFF. Occasionally the 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 changes the speed of the demo mode.

Mic Level

This diagnostic allows you to independently test the microphone and the navigation 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. The microphone can now isolate the driver's voice even when there is none or other conversations in the vehicle. To properly check the microphones, make sure you are sitting in the driver's seat.

- Press the navigation TALK button on the steering wheel, wait until you hear a beep 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 shown on the screen does not briefly turn green, then check the wiring from the steering wheel navigation 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 HandsFreeLink control unit and the navigation unit. If the wires are OK, the microphone must be faulty; replace the microphone located in roof console (see page 23-339).
- Press the navigation BACK button on the steering wheel. This should cause the Cancel indicator on the screen to momentarily turn green. If it does not briefly turn green, check the wiring from the steering wheel navigation BACK button to the navigation unit.

NOTE: The mic level should reach the 6th bar.

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

F-CAN System Link

F-CAN (Fast Controller Area Network) passes information between processors on the network. For example, the F-CAN network passes trip computer information between the gauge control module and the navigation unit for the trip computer function. The F-CAN network uses a communication protocol that transmits data at 500 Kbps.

- If the diagnostic screen below reads NG with the ignition switch ON (II), then diagnostic trouble codes (DTCs) for the F-CAN can be retrieved with the HDS (Honda Diagnostic System). The data displayed in the ID boxes is irrelevant.
- For more details on troubleshooting the F-CAN, refer to the multiplex system.

F- CAN System LinkReturn

F- CANERROR ACTIVE

UNIT	ID	ID	ID
METER	1F4	2E4	2E7

Must have engine running for this test.

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: When you use this screen for troubleshooting, park the vehicle 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 three or more icons. If not troubleshoot for GPS icon is white or not shown (see page 23-230).
- 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 a time that includes daylight savings and other offsets entered by the customer in Setup screen 2 Adjust Time Zone/Clock.

GPS InformationReturn

Number of Satellites

Current Position

Latitude N xx°xx'xx"

Longitude Exxx°xx'xx"

Elevation xx feet

xxxx.xx.xx xx:xx:xx

NOTE: Pressing the MAP/GUIDE button displays the satellite number on each circle.



GPS Detail

By pressing and holding the MENU button for 2 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.

NOTE: The data shown is an example only.

GPS Detail							Return
TS:xx AS:xx	H Dop:xx.x V Dop:xx.x	Speed:xxKm/h Direction: x°		Date:xxxx.xx.xx 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).

The table of values shown below define the terms at the top of the columns in the GPS Detail screen.

Column	Description	Problem indication
3D	Active satellites (Yellow Dot)	If 3D or 2D is missing when the vehicle is parked outside, follow GPS icon is white or not shown troubleshooting (see page 23-230).
PRN	The satellite ID number	
ST	The status: 0 = cannot view or searching, 2 = acquiring	If all 0, then, follow GPS icon is white or not shown troubleshooting (see page 23-230).
AZI	Azimuth, the angle (0—360) clockwise from north	
EL	Elevation from the horizon (90 deg is overhead)	
C/N	N/A	Normal 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	

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

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 23-137).

- Sensor indicates the voltage output from the yaw rate sensor. It should indicate about 2.500 V when the vehicle is stopped.
- Offset is the reference voltage or standard within the yaw rate sensor. It also should indicate about 2.500 V when the vehicle is 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 V when the vehicle is stopped. If either reads zero, or 5.000 V, replace the navigation unit.
- The yaw rate offset and sensor should be within ± 0.01 V of each other when the vehicle is stopped. The sensor value should change relative to the offset as the vehicle turns while driving. If not, replace the navigation unit.

Example: Vehicle stopped

Normal		Abnormal	
Offset	2.526 V	Offset	2.526 V
Sensor	2.516—2.536 V	Sensor	2.623 V

Example: Vehicle 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)

- 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	x.xxxV	
Offset	x.xxxV	
CCW Factor	x.x%	
CW Factor	x.x%	Tuning



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 functions properly, 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 large problems with the sensor values, the stationary test usually confirms whether the sensor is defective. For yaw rate issues related to driving, do 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.

NOTE: The CCW, CW and Set buttons are disabled and cannot be activated.

Tuning	0.0%	▲	▼	Return
ANG-Disp 0°				
Reset	CCW	CW	Set	

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 A-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.

- BACK-Reverse indication from taillight relay (Pin 5 of A-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]	ILL CANCEL	[0]	
IGNITION	[0]			

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

- **IGNITION-Ignition Switch Position Indication**
(Pin 1 or 2 of A-connector)
Detects if the engine is running using information provided over the F-CAN bus.
 - a) OFF (0) when the ignition switch position is ACCESSORY (I)
 - b) ON (1) when the ignition switch position is ON (II)
- **ILL-Illumination Indication**
(Pin 5 of navigation unit B-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)

ILL CANCEL

This item detects whether the illumination cancel function is in use.

- a) OFF (0) if illumination cancel is not selected
- b) ON (1) if illumination cancel is activated

The illumination cancel function is activated by increasing the dash brightness to MAX. The F-CAN bus passes this information from the gauge assembly to the navigation control unit.

NOTE: This illumination cancel function is turned off when the display mode hard button is used. The button is located below and to the left of the interface dial. The illumination cancel function is turned on when you cycle the key.

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 SJA.
- **Download:** Do not touch, unless instructed by the factory.

Check any official Acura service website for more service information about navigation DVDs.

Version		Return
Program Flash	x.xx.xxKA	
Program Disc	-	
IPL	x.xxx.xxx	
APL	-	
DBOOT	x.x.xxx	
System uCom	x.xxx.	
Model	SJAX	Download

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, Hawaii, 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.



Tire Calibrate

Compass type

As the vehicle moves, the compass 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.

Coverage Area

This screen allows the dealer to select the area that applies to their location. The choice is US (continental) or Hawaii. The default is US. Select the choice (the system may reboot), exit the diagnostic mode, and restart the vehicle.

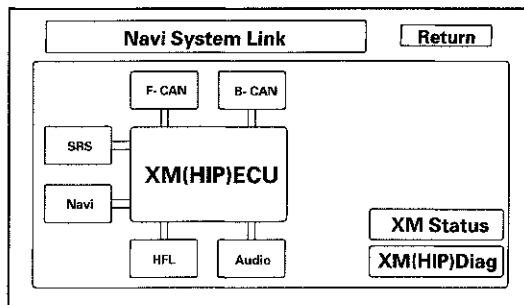
NOTE: This function is designed to operate only when the vehicle is physically located in the coverage area you select.

XM (HIP) (USA models)

These screens allow troubleshooting on XM or HIP (AcuraLink) problems. Select the item you want to troubleshoot, and follow the diagnostic instructions.

XM (HIP) System Link

This diagnostic tests the wires connecting the XM (HIP) components.



XM Status

You can check the XM status in this screen.

Items	Condition Indicated
XM Reception	• Receiving • Check Antenna • No Signal • Loading • Expired
Traffic Signal Reception	• Receiving • Check Antenna • No Signal • Loading • Expired

(cont'd)

Navigation System

System Diagnostic Mode (cont'd)

Items	Condition Indicated
Traffic Indicator	• TRF (green icon): Traffic information is available. • TRF (white icon): Flow or incident data is not available. • TRF (red icon): No traffic available (flow and incident).
Traffic Data	• OK • Invalid
Traffic Last Update	Last update time and date indicated.
Weather Signal Reception	• Receiving • Check Antenna • No Signal • Loading • Expired
Weather Data	• OK • Invalid
Weather Last Update	Last update time and date indicated.

XM Status
Return

XM Reception: Check Antenna

Traffic:

Signal Reception: Check Antenna

Indicator: TRF

Data: OK

Last Update: 2007.03.28.03:22

Weather

Signal Reception: Check Antenna

Data: OK

Last Update: 2007.03.28.03:20

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 and asking for the activation 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.

Select a diagnosis item

▲

▼

DOWN

- 1 AcuraLink self-diagnosis
- 2 DTC logdata
- 3 Diagnostic Info
- 4
- 5
- 6 Data reset

Telematics Self-Diagnosis

This screen used to do self-diagnosis for the XM (HIP).

AcuraLink self-diagnosis

Main CPU SW ver: xxxxx.xx.xxxxx

Data: xxxxx

Sub CPU SW ver: xx.xx

HIPECU_ID: xxxxxxx

VIN: xxxxxxxxxxxxxxxxx

Activation: OFF

Program ID: xxxxx-xxx-xxxx

DTC Log Data

You can check the DTC log data in this screen.

Select the DTC logdata

▲

▼

DOWN

- 1 DTC logdata # 1
- 2 DTC logdata # 2
- 3 DTC logdata # 3
- 4 DTC logdata # 4
- 5 DTC logdata # 5

NOTE: When DTC B2200-B2249 is displayed, it is an engineering mode, and is not for trouble diagnosis.



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. You can purchase them at a computer, or office supply store. The card is 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. You can purchase an adapter and flash memory card at a computer or office supply store.
Should the dealer have a dedicated PC card for the Export and Import navigation function?	Yes, treat the PC card as a dedicated special tool that you can use any time you need to transfer the navi personal files to a new navi unit on '08 or later vehicles.
What device can I use to maintain the PC card, and delete files	Any computer store sells USB style PC card readers that accept the card, and allow you to do file maintenance on your card. Most laptops also accept the card.
Can we move the customer's data to different models (like moving RL navi data to a TSX)?	No, the files are model specific and will only load into a navigation ECU with the same part number.
Can we move the client's data to the same vehicle with a different software version (Like moving from version 4.41 version 4.51)?	The client's files can only be transferred to a new navigation control unit if the Model and the Program Flash shown on the Version screen are the same. Files cannot be transferred from a RL to a TSX (different model code), or '08 to '09 RL (different versions)
Why is the Export button grayed out?	• 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.
Why is the Import button grayed out?	• 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 navigation ECU. • The version of the files from the original navi ECU are not the same as the version in the new navigation 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 navigation unit when doing 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 personal data?	After the transfer of personal data to the new navigation control unit, the files remain on the card. Since this is confidential information, Acura recommends deleting these files after the transfer. Please note that each time you export navigation files of the same model and version, the files are overwritten. If you do not delete the file after use, over time the PC card accumulates two files for each version of the Honda navigation equipped models.
If the memory card needs formatting, what format should I use?	It is unlikely that the card will ever need formatting, however, if it does, use the FAT (file allocation table) file system.
I can't enter the navi diagnostic mode to do the Export/Import function. How can I transfer the personal data?	Some internal navigation 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 damage the pins in the rear of the slot. • The card may not contain files that are recognized by the new navigation unit. Navigation data can only be transferred between navigation units with the same Model code, and with the same navigation 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 prevent a known-good card from being recognized. 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 using 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 doing the import function, ensure that the original navigation DVD is loaded into the new navigation unit and working properly.
Are there any error messages to tell me what is wrong?	There are no error messages associated with the Import/Export feature. Follow the troubleshooting steps above.



Error Message Table

Screen Error Message	Solution
Navigation system is unable to acquire a proper GPS signal.	Make sure there is nothing on the rear shelf blocking the GPS antenna. If not, move the vehicle to an open space away from tall buildings, trees, etc. Aftermarket metallic window tinting and other aftermarket 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 correct color and version navigation DVD is installed with the label side up.
Display temp is too high. System will shut down until display cools down.	This message appears briefly when the display temperature is too high, and then the display turns off until the temperature cools down. The system turns 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. Check any official Honda service website for more service information about the navigation system and software updates.
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 interface dial.

Navigation System

DTC Troubleshooting

DTC 1001: FROM System Info Error

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Turn the ignition switch to LOCK (0), and then back to ON (II).
2. Check for the hard error code (see page 23-126).

Is DTC 1001 indicated?

YES—Replace the navigation unit (see page 23-255), because there is an internal problem with the Flash-ROM. ■

NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit (see page 23-255). ■

DTC 1101: Media Bus Send Error

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for the hard error code (see page 23-126).

Is DTC 1101 indicated?

YES—Replace the navigation unit (see page 23-255). ■

NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit (see page 23-255). ■



DTC 1201: DVD High Temp

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- This code sets when the internal temperature of the ECU rises above 158 °F (70 °C). The unit is designed to shut down to protect the ECU. This could be caused by an inoperative ECU fan or if the trunk temperature exceed the maximum. Do the troubleshooting when the unit is within the allowable temperature range.

1. Check that the temperature is below 158 °F (70 °C) in the trunk.
2. Clear the hard error code (see page 23-128).
3. Turn the ignition switch to LOCK (0), and then back to ON (II).
4. Check for the hard error code (see page 23-126).

Is DTC 1201 indicated?

YES—Replace the navigation unit (see page 23-255). ■

NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

DTC 1202: DVD Low Temp

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- This code sets when the internal temperature of the ECU falls below -4 °F (-20 °C). The unit is designed to shut down to protect the ECU. This is usually caused by very cold exterior temperatures. Do the troubleshooting when the unit is within the allowable temperature range.

1. Check that the temperature is above -4 °F (-20 °C) in the trunk.
2. Clear the hard error code (see page 23-128).
3. Turn the ignition switch to LOCK (0), and then back to ON (II).
4. Check for the hard error code (see page 23-126).

Is DTC 1202 indicated?

YES—Replace the navigation unit (see page 23-255). ■

NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

Navigation System

DTC Troubleshooting (cont'd)

DTC 1301: GPS Antenna Error

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- Make sure the vehicle is parked outside, away from buildings.
- Aftermarket metallic window tint or electronic devices located near the navigation unit or GPS antenna can potentially interfere with the operation of the navigation system.

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for the hard error code (see page 23-126).

Is DTC 1301 indicated?

YES—Go to step 4.

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

4. Turn the ignition switch to LOCK (0).
5. Check for poor connections or loose terminals at navigation unit connector E (2P).
6. Clear the hard error code.
7. Turn the ignition switch to LOCK (0), and then back to ON (II).
8. Check for the hard error code.

Is DTC 1301 indicated?

YES—Replace the GPS Antenna (see page 23-257), then retest. If the DTC does not clear, replace the navigation unit. ■

NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit (see page 23-255). ■



DTC 1302: GPS Receiver Error 1

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- Make sure the vehicle is parked outside, away from buildings.
- Aftermarket metallic window tint or electronic devices located near the navigation unit or GPS antenna can potentially interfere with the operation of the navigation system.

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for the hard error code (see page 23-126).

Is DTC 1302 indicated?

YES—Go to step 4.

NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

4. Turn the ignition switch to LOCK (0).
5. Check for poor connections or loose terminals at navigation unit connector E (2P).
6. Clear the hard error code.
7. Turn the ignition switch to LOCK (0), and then back to ON (II).
8. Check for the hard error code.

Is DTC 1302 indicated?

YES—Replace the GPS Antenna (see page 23-257), then retest. If the DTC does not clear, replace the navigation unit. ■

NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

Navigation System

DTC Troubleshooting (cont'd)

DTC 1303: GPS Receiver Error 2

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- Make sure the vehicle is parked outside, away from buildings.
- Aftermarket metallic window tint or electronic devices located near the navigation unit or GPS antenna can potentially interfere with the operation of the navigation system.

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for the hard error code (see page 23-126).

Is DTC 1303 indicated?

YES—Replace the navigation unit (see page 23-255).



NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

DTC 1304: Gyro Error 1

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- Make sure the vehicle is parked outside, away from buildings.
- Aftermarket metallic window tint or electronic devices located near the navigation unit or GPS antenna can potentially interfere with the operation of the navigation system.

1. Clear hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for the hard error code (see page 23-126).

Is DTC 1304 indicated?

YES—Replace the navigation unit (see page 23-255).



NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■



DTC 1305: Gyro Error 2: ECU Temp XX °C

NOTE:

- Check the vehicle battery condition first (see page 22-90).
 - Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
 - Make sure the vehicle is parked outside and away from buildings.
 - Aftermarket metallic window tint or electronic devices located near the navigation unit or GPS antenna can potentially interfere with the operation of the navigation system.
1. Check that the trunk temperature is between -4°F (-20°C) and 158°F (70°C).
 2. Clear hard error code (see page 23-128).
 3. Turn the ignition switch to LOCK (0), and then back to ON (II).
 4. Check for the hard error code (see page 23-126).

Is DTC 1305 indicated?

YES—Replace the navigation unit (see page 23-255). ■

NO—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

DTC 1306: Vehicle Speed Pulse

NOTE:

- Check the vehicle battery condition first (see page 22-90).
 - Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
1. Clear the hard error code (see page 23-128).
 2. Turn the ignition switch to LOCK (0), and then start the engine.
 3. Check for the hard error code (see page 23-126).
- Is DTC 1306 indicated?*
- YES**—Go to step 4.
- NO**—Intermittent failure, the system is OK at this time. ■
4. Go into the Self-Diagnosis Mode, and use the Car Status test (see page 23-185) to check the vehicle speed pulse.
 5. Drive the vehicle, and watch the VSP signal (see page 23-185).

Does the VSP signal change from [0] to [1] as you drive?

YES—Replace the navigation unit (see page 23-255). ■

NO—Do the symptom troubleshooting for vehicle position icon constantly leaves road, moves erratically or is very far from actual position (see page 23-225). ■

Navigation System

DTC Troubleshooting (cont'd)

DTC 1307: DVD Read Error

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check any official Honda service website for more information about the navigation system and software updates.
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Check the navigation DVD.

Is the navigation DVD the correct color and version for the vehicle and is it scratch free?

YES—Go to step 2.

NO—Replace the navigation DVD, and retest. ■

2. Turn the ignition switch to ON (II).

Is there a DVD error message?

YES—Go to DVD read error messages (see page 23-234). ■

NO—Go to step 3.

3. Clear the hard error code (see page 23-128).
4. Turn the ignition switch to LOCK (0), then back to ON (II).
5. Check for the hard error code (see page 23-126).

Is DTC 1307 indicated?

YES—Replace the navigation unit (see page 23-255). ■

NO—Intermittent failure, the system is OK at this time see How to identify navigation DVD versions, and how to inspect a DVD for damage (see page 23-124). If the unit repeatedly comes back with the DTC, replace the navigation unit. ■

DTC 1403: Audio Error 3

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for a hard error code (see page 23-126).

Is DTC 1403 indicated?

YES—Replace the navigation display unit (see page 23-256). ■

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



DTC 1404: Audio Error 4

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for a hard error code (see page 23-126).

Is DTC 1404 indicated?

YES—Replace the audio unit (see page 23-106). ■

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

DTC 1701: R-Camera Error

DTC 2608: R-Camera Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
4. Check the System Links.

Is the Rear camera icon red?

YES—Go to step 5.

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

5. Check for poor connection(s) or loose terminal(s) at the rearview camera 6P connector and the navigation unit connector E (7P).

Are the connections OK?

YES—Go to step 6.

NO—Repair poor connection(s) or loose terminal(s). ■

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

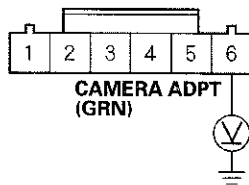
(cont'd)

Navigation System

DTC Troubleshooting (cont'd)

7. Disconnect the rearview camera 6P connector.
8. Turn the ignition switch to ON (II).
9. Measure the voltage between the rearview camera 6P connector terminal No. 6 and body ground.

REARVIEW CAMERA 6P CONNECTOR



Wire side of female terminals

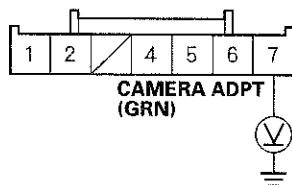
Is there about 3.0 V?

YES—Replace the rearview camera (see page 23-258). ■

NO—Go to step 10.

10. Measure the voltage between navigation unit connector E (7P) terminal No. 7 and body ground.

NAVIGATION UNIT CONNECTOR (7P)



Wire side of female terminals

Is there about 3.0 V?

YES—There is an open in the wire between the navigation unit and the rearview camera. Replace the affected shielded harness. ■

NO—Replace the navigation unit (see page 23-255). ■

DTC 1801: HIP Error

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- Check for and resolve any B-CAN DTCs before troubleshooting.
- Check any official Honda service website for any service information about the AcuraLink or software updates.

With AcuraLink

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for a hard error code (see page 23-126).

Is DTC 1801 indicated?

YES—Go to step 4.

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

4. Turn the ignition switch to LOCK (0).
5. Check for poor connections or loose terminals at AcuraLink control unit connector A (32P), and navigation unit connector D (5P).

Are the connections OK?

YES—Go to step 6.

NO—Repair poor connections or loose terminals. ■

6. Turn the ignition switch to ON (II).
7. Check for XM (HIP) communication with the HDS.

Is the communication OK?

YES—Go to step 8.

NO—Do the AcuraLink control unit Troubleshooting. ■



8. Turn the ignition switch to LOCK (0).
9. Disconnect AcuraLink control unit connector A (32P) and navigation unit connector D (5P).
10. Check for continuity between terminals of AcuraLink control unit connector A (32P) according to the table.

From terminal	To terminals
No. 21 (GRY)	No. 17 (GRN), No. 18 (BLK), No. 19 (WHT), No. 20 (RED)

ACURALINK CONTROL UNIT CONNECTOR A (32P)



Wire side of female terminals

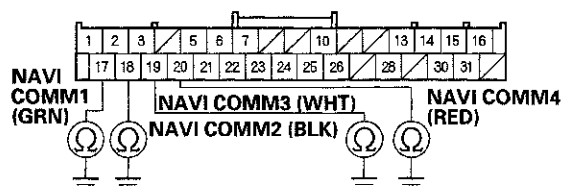
Is there continuity between any of terminals?

YES—There is a short in the wire(s) between the AcuraLink control unit and the navigation unit. Replace the affected shielded harness. ■

NO—Go to step 11.

11. Check for continuity between body ground and AcuraLink control unit connector A (32P) terminals No. 17, No. 18, No. 19, and No. 20 individually.

ACURALINK CONTROL UNIT CONNECTOR A (32P)



Wire side of female terminals

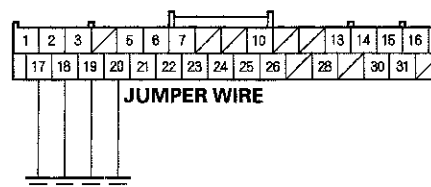
Is there continuity?

YES—There is a short in the wire(s) between AcuraLink control unit connector A (32P) and body ground. Replace the affected shielded harness. ■

NO—Go to step 12.

12. Connect the AcuraLink control unit connector A (32P) terminals No. 17, No. 18, No. 19, and No. 20 to body ground with a jumper wire.

ACURALINK CONTROL UNIT CONNECTOR A (32P)



Wire side of female terminals

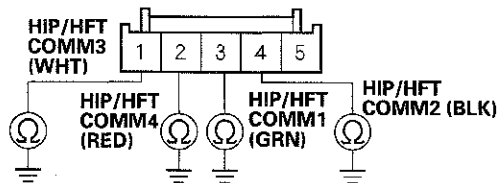
(cont'd)

Navigation System

DTC Troubleshooting (cont'd)

13. Check for continuity between body ground and navigation unit connector D (5P) terminals No. 1, No. 2, No. 3, and No. 4 individually.

NAVIGATION UNIT CONNECTOR D (5P)



Wire side of female terminals

Is there continuity?

YES—Replace the navigation unit (see page 23-255). ■

NO—There is an open in the wire(s) between AcuraLink control unit connector A (32P) and navigation unit connector D (5P). Replace the affected shielded harness. ■

DTC 1409: Audio Error 9

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Check for a hard error code (see page 23-126).

Is DTC 1409 indicated?

YES—Check for poor connections or loose terminals at the XM antenna, if they are OK, do the diagnosis for the XM antenna in the audio system. ■

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



DTC 2703: Aircon Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check for B-CAN DTCs and resolve them before troubleshooting.
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- When the ignition switch is in ACCESSORY (I), the A/C unit is turned off. The navigation loses communication with the A/C unit and stores DTC 2703. Therefore, there is a possibility that the system is normal even though DTC 2703 is stored. Check system links (see page 23-166) with the engine running, and if it appears OK, the system is OK at this time. If it is NG, do the troubleshooting.

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then quickly back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
4. Check the System Links.

Is the Aircon icon red?

YES—Go to step 5.

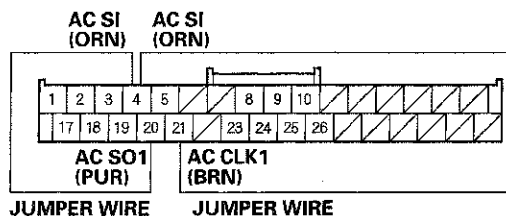
NO—Intermittent failure, the system is OK at this time. ■

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

6. Disconnect navigation unit connector B (32P).

7. Connect navigation unit connector B (32P) terminal No. 4 to terminals No. 20, and No. 21 with jumper wires.

NAVIGATION UNIT CONNECTOR B (32P)



JUMPER WIRE

JUMPER WIRE

Wire side of female terminals

8. Turn the ignition switch to ON (II).
9. Do the A/C Self-Diagnostic Mode (see page 23-166).

Are both HEAT/VENT indicators solid with the remaining icons blinking?

YES—Replace the navigation unit (see page 23-255).



NO—Go to step 10.

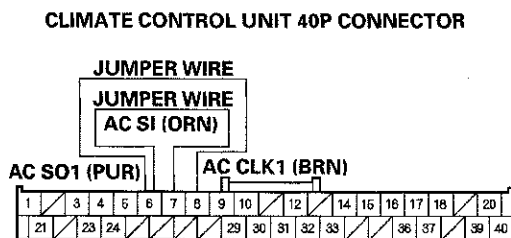
10. Turn the ignition switch to LOCK (0), then disconnect the jumper wire.
11. Disconnect climate control unit connector B (12P).

(cont'd)

Navigation System

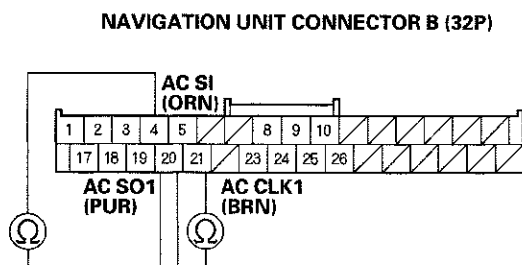
DTC Troubleshooting (cont'd)

12. Connect the climate control unit 40P connector terminal No. 6 to terminals No. 7, and No. 8 with jumper wires.



Wire side of female terminals

13. Check for continuity between navigation unit connector B (32P) terminals No. 20 and No. 4, and between terminals No. 20 and No. 21.



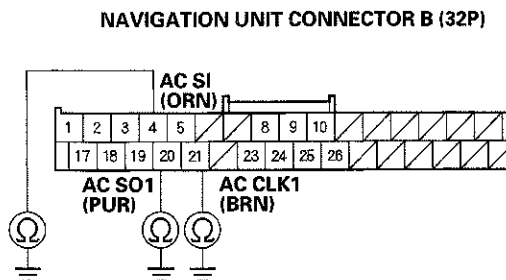
Wire side of female terminals

Is there continuity?

YES—Go to step 14.

NO—Repair an open in the wire(s) between the navigation control unit and the climate control unit. ■

14. Disconnect the jumper wires from the climate control unit 40P connector.
15. Check for continuity between body ground and navigation unit connector B (32P) terminals No. 4, No. 20, and No. 21 individually.



Wire side of female terminals

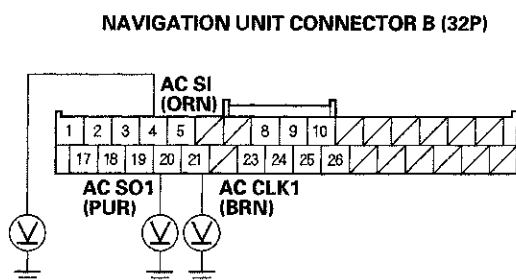
Is there continuity?

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

NO—Go to step 16.



16. Turn the ignition switch to ON (II).
17. Measure the voltage between body ground and navigation unit connector B (32P) terminals No. 4, No. 20, and No. 21 individually.



Wire side of female terminals

Is there more than 0.2 V?

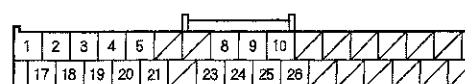
YES—Repair a short to power in the wire(s) between the navigation control unit and the climate control unit. ■

NO—Go to step 18.

18. Turn the ignition switch to LOCK (0).
19. Check for continuity between the terminal of navigation unit connector B (32P) according to the table.

From terminal	To terminals
B4 (ORN)	B20 (PUR), B21 (BRN)
B20 (PUR)	B21 (BRN)

NAVIGATION UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there continuity?

YES—There is a short in the wire(s) between the navigation control unit and the climate control unit. Replace the affected shielded harness. ■

NO—Replace the climate control unit (see page 21-84). ■

Navigation System

DTC Troubleshooting (cont'd)

DTC 2601: Display Diag: Connect

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check for B-CAN DTCs and resolve them before troubleshooting.
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
4. Check the System Links.

Is the Display icon red?

YES—Go to step 5.

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

5. Check for poor connections or loose terminals at navigation unit connector B (32P), AcuraLink control unit connector A (32P), USB adapter unit connector A (14P), HandsFreeLink control unit 28P connector and XM receiver connector A (14P).

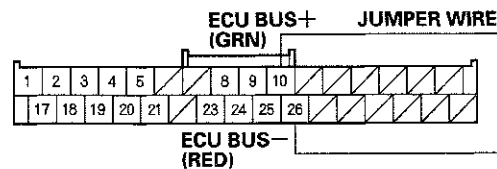
Are the connections OK?

YES—Go to step 5.

NO—Repair poor connections or loose terminals, and recheck the Self-Diagnosis Mode (see page 23-166). ■

6. Turn the ignition switch to LOCK (0).
7. Disconnect navigation unit connector B (32P) and the navigation display unit 20P connector.
8. Connect navigation unit connector B (32P) terminals No. 10 and No. 26 with a jumper wire.

NAVIGATION UNIT CONNECTOR B (32P)

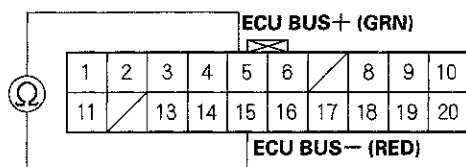


Wire side of female terminals



9. Check for continuity between navigation display unit 20P connector terminals No. 5 and No. 15.

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

Is there continuity?

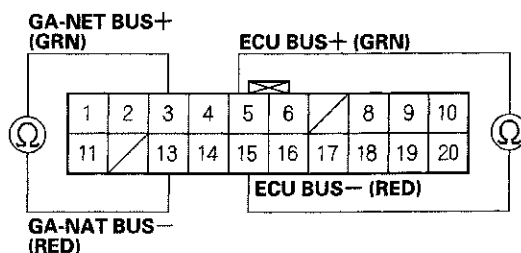
YES—Go to step 10.

NO—There is an open in the wire between the navigation unit and the navigation display unit. Replace the affected shielded harness. ■

10. Disconnect the jumper wire.
11. Disconnect the AcuraLink control unit connector A (32P) USB adapter unit connector A (14P), the HandsFreeLink control unit 28P connector and XM receiver A (14P) connector.

12. Check for continuity between navigation display unit 20P connector terminals No. 3 and No. 13, and terminals No. 5 and No. 15.

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

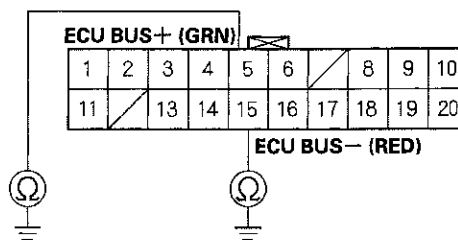
Is there continuity?

YES—There is a short in the wire(s). Replace the affected shielded harness. ■

NO—Go to step 13.

13. Check for continuity between body ground and navigation display unit 20P connector terminals No. 5 and No. 15 individually.

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

Is there continuity?

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

NO—Go to step 14.

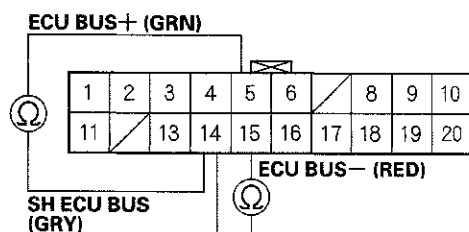
(cont'd)

Navigation System

DTC Troubleshooting (cont'd)

14. Check for continuity between navigation display unit 20P connector terminals No. 5 and No. 15 to No. 14.

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Short in the wire(s). Replace the affected shielded harness. ■

NO—Go to step 15.

15. Reconnect the all connectors, then turn the ignition switch to ON (II).
16. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).

17. Check the System Links.

Is the Display icon red?

YES—Go to step 18.

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

18. Turn the ignition switch to LOCK (0).
19. Disconnect audio unit connector C (14P), and then turn the ignition switch to ON (II).
20. Go into the Diagnostic Menu and Select the Self-Diagnosis Mode in the Select Diagnosis Items Menu (see page 23-166).

21. Select the Display.

Is the Display icon red?

YES—Go to step 22.

NO—Internal short circuit of in the audio unit. Replace the audio unit (see page 23-106). ■

22. Turn the ignition switch to LOCK (0).
23. Connect the audio unit connector C (14P).
24. Disconnect the AcuraLink control unit connector A (32P) or XM receiver connector A (14P), and then turn the ignition switch to ON (II).
25. Go into the Diagnostic Menu, and Select the Self-Diagnosis Mode in the Select Diagnosis Items Menu (see page 23-166).

26. Select the Display.

Is the Display icon red?

YES—Go to step 27.

NO—Replace the AcuraLink control unit (XM receiver) (see page 23-111), or XM receiver unit (see page 23-112). ■



27. Turn the ignition switch to LOCK (0).
28. Connect the AcuraLink control unit connector A (32P) or XM receiver unit connector A (14P).
29. Disconnect the USB adapter unit connector A (14P), and then turn the ignition switch to ON (II).
30. Go into the Diagnostic Menu, and Select the Self-Diagnosis Mode in the Select Diagnosis Items Menu (see page 23-166).
31. Select the Display.
Is the Display icon red?
YES—Go to step 32.
NO—Replace the USB adapter unit (see page 23-114). ■
32. Turn the ignition switch to LOCK (0).
33. Connect the USB adapter unit connector A (14P).
34. Disconnect the HandsFreeLink control unit 28P connector, and then turn the ignition switch to ON (II).
35. Go into the Diagnostic Menu, and Select the Self-Diagnosis Mode in the Select Diagnosis Items Menu (see page 23-166).
36. Select the Display.
Is the Display icon red?
YES—Replace the navigation display unit (see page 23-256). ■
NO—Replace the HandsFreeLink control unit (see page 23-339). ■

DTC 2602: Display Diag: ROM

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check for B-CAN DTCs and resolve them before troubleshooting.
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
4. Select the Display.

Is the ROM NG?

YES—Replace the navigation display unit (see page 23-256). ■

NO—Intermittent failure, the system is OK at this time. If the unit repeatedly comes back with the DTC, replace the navigation display unit. ■

Navigation System

DTC Troubleshooting (cont'd)

DTC 2603: Display Diag: RAM

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check for B-CAN DTCs and resolve them before troubleshooting.
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).

4. Select the Display.

Is the RAM NG?

YES—Replace the navigation display unit (see page 23-256). ■

NO—Intermittent failure, the system is OK at this time. If the unit repeatedly comes back with the DTC, replace the navigation display unit. ■

DTC 2605: H/U Diag: Connect

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check for B-CAN DTCs and resolve them before troubleshooting.
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back ON (II).
3. Check the Error History (see page 23-126).

Is Hard Error 2601 indicated?

YES—Do the 2601 troubleshooting.

NO—Go to step 4.

4. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
5. Select the System Links.

Is the Radio icon red?

YES—Go to step 6.

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

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



7. Check for poor connections or loose terminals at audio unit connector C (14P), and the navigation display unit 20P connector.

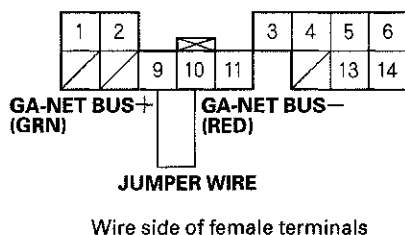
Are there connections OK?

YES—Go to step 8.

NO—Repair poor connections or loose terminals, and recheck the Self-Diagnosis Mode (see page 23-166). ■

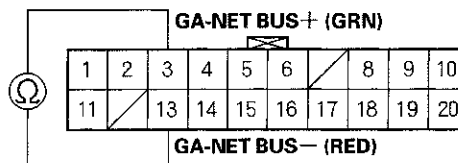
8. Disconnect audio unit connector C (14P), and the navigation display unit 20P connector.
9. Connect the audio unit connector C (14P) terminals No. 9 and No. 10 with a jumper wire.

AUDIO UNIT CONNECTOR C (14P)



10. Check for continuity between the navigation display unit 20P connector terminals No. 3 and No. 13.

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Do the Audio unit troubleshooting. ■

NO—There is an open in the wire(s) between the audio unit and the navigation display unit. Replace the affected shielded harness. ■

Navigation System

DTC Troubleshooting (cont'd)

DTC 2607: XM Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back ON (II).
3. Check the Error History (see page 23-126).

Is Hard Error 2601 indicated?

YES—Do the 2601 troubleshooting.

NO—Go to step 4.

4. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
5. Check the System Links.

Is the XM (HIP) or XM icon red?

YES—Go to step 6.

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

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

7. Check for poor connections or loose terminals at AcuraLink control unit (XM receiver) connector, or XM receiver unit connector, satellite signal antenna connector, and the navigation display unit 20P connector.

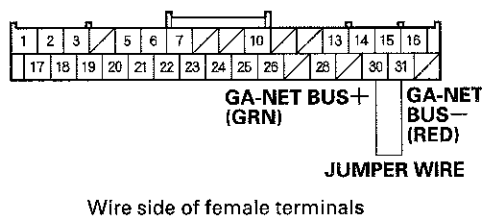
Are there connections OK?

YES—Go to step 8.

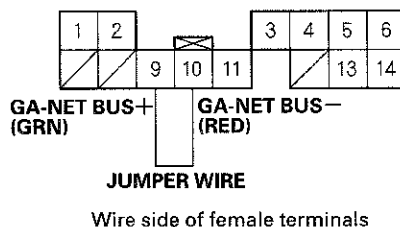
NO—Repair poor connections or loose terminals. ■

8. Disconnect AcuraLink control unit (XM receiver) connector A (32P) or XM receiver unit connector A (14P), and the navigation display unit 20P connector.
9. Connect AcuraLink control unit (XM receiver) connector A (32P), or XM receiver unit connector A (14P) terminals No. 30 [or No. 9] and No. 31 [or No. 10] with a jumper wire.
[] : Without AcuraLink

ACURALINK CONTROL UNIT (XM RECEIVER) CONNECTOR A (32P)



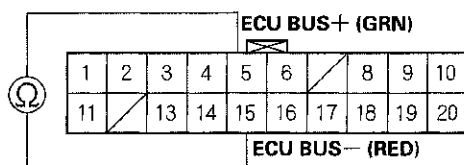
XM RECEIVER CONNECTOR A (14P)





10. Check for continuity between navigation display unit 20P connector terminals No. 5 and No.15.

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Do the AcuraLink control unit (XM receiver), or XM receiver troubleshooting. ■

NO—There is an open in the wire between the navigation display unit and the AcuraLink control unit (XM receiver), or the XM receiver. Replace the affected shielded harness. ■

DTC 2609: VRAM Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis items menu (see page 23-166).
4. Select the System Links, then select the ECU Info.

Is V-RAM OK indicated?

YES—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

NO—Replace the navigation unit (see page 23-255). ■

Navigation System

DTC Troubleshooting (cont'd)

DTC 2610: DRAM Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
 - Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
1. Clear the hard error code (see page 23-128).
 2. Turn the ignition switch to LOCK (0), and then back to ON (II).
 3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis items menu (see page 23-166).
 4. Select the System Links, then select the ECU Info.

Is D-RAM OK indicated?

YES—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

NO—Replace the navigation unit (see page 23-255).
■

DTC 2701: GPS Diag: Antenna

NOTE:

- Check the vehicle battery condition first (see page 22-90).
 - Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
 - Make sure the vehicle is parked outside, away from buildings.
 - Check for electronic aftermarket accessories (possibly hidden) mounted near the GPS antenna or the navigation unit.
 - Check for aftermarket metallic window tint.
1. Clear the hard error code (see page 23-128).
 2. Turn the ignition switch to LOCK (0), and then back to ON (II).
 3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis items menu (see page 23-166).
 4. Select the System Links, then select the GPS Ant.

Is Antenna OK indicated?

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

NO—Go to step 5.

5. Turn the ignition switch to LOCK (0).
6. Check for poor connections at navigation unit connector F (2P).

Is the connection OK?

YES—Replace the GPS antenna. ■

NO—Repair poor connection. ■



DTC 2702: GPS Diag: Receiver in Navi

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).
- Make sure the vehicle is parked outside, away from buildings.
- Check for electronic aftermarket accessories (possibly hidden) mounted near the GPS antenna or the navigation unit.
- Check for aftermarket metallic window tint.

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis items menu (see page 23-166).
4. Select the System Links, then select the GPS Ant.

Is Receiver in Navi ECU OK indicated?

YES—Intermittent failure, the system is OK at this time. If the vehicle repeatedly comes back with the DTC, replace the navigation unit. ■

NO—Replace the navigation unit (see page 23-255). ■

DTC 2704: HIP Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
4. Check the System Links.

Is the XM (HIP) icon red?

YES—Go to step 5.

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

5. Turn the ignition switch to LOCK (0).
6. Check for XM (HIP) communication with the HDS.

Is the communication OK?

YES—Go to step 7.

NO—Do the AcuraLink control unit troubleshooting (B-CAN system diagnosis test mode A) (see page 22-131). ■

(cont'd)

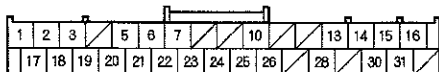
Navigation System

DTC Troubleshooting (cont'd)

7. Turn the ignition switch to LOCK (0).
8. Disconnect AcuraLink control unit connector A (32P) and navigation unit connector D (5P).
9. Check for continuity between the terminals of AcuraLink control unit connector A (32P) according to the table.

From terminal	To terminals
No. 21 (GRY)	No. 17 (GRN), No. 18 (BLK), No. 19 (WHT), No. 20 (RED)

ACURALINK CONTROL UNIT CONNECTOR A (32P)



Wire side of female terminals

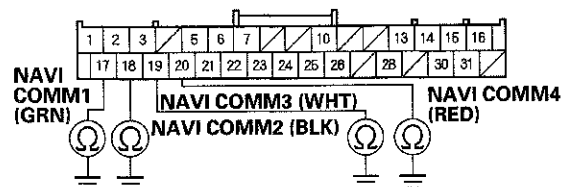
Is there continuity between any of terminals?

YES—There is a short in the wire(s) between the AcuraLink control unit and navigation unit. Replace the affected shielded harness. ■

NO—Go to step 10.

10. Check for continuity between body ground and AcuraLink control unit connector A (32P) terminals No. 17, No. 18, No. 19 and No. 20 individually.

ACURALINK CONTROL UNIT CONNECTOR A (32P)



Wire side of female terminals

Is there continuity?

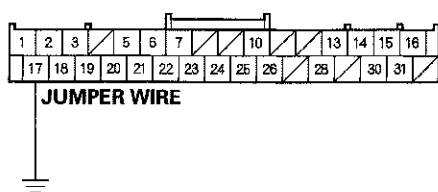
YES—There is a short in the wire(s) between AcuraLink control unit connector A (32P) and body ground. Replace the affected shielded harness.

NO—Go to step 11.



11. Disconnect navigation unit connector D (5P).
12. Connect the AcuraLink control unit connector A (32P) terminal No. 17 to body ground with a jumper wire.

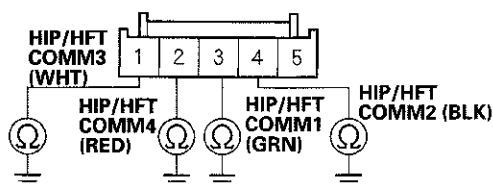
ACURALINK CONTROL UNIT CONNECTOR A (32P)



Wire side of female terminals

13. Check for continuity between body ground and navigation unit connector D (5P) terminals No. 1, No. 2, No. 3 and No. 4 individually.

NAVIGATION UNIT CONNECTOR D (5P)



Wire side of female terminals

Is there continuity?

YES—Replace the navigation unit (see page 23-255). ■

NO—There is a short in the wire(s) between AcuraLink control unit connector A (32P) and navigation unit connector D (5P). Replace the affected shielded harness. ■

DTC 2705: HFL Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

With AcuraLink

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
4. Check the System Links.

Is the XM (HIP) icon red?

YES—Go to DTC 2704 troubleshooting (see page 23-215). ■

NO—Go to step 5.

5. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).

6. Check the System Links.

Is the HFL icon red?

YES—Go to step 7.

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

7. Turn the ignition switch to LOCK (0).
8. Turn the ignition switch to ON (II).
9. Check for HFL DTCs with the HDS.

Are there any HFL DTCs indicated?

YES—Do the HFL DTC troubleshooting. ■

NO—Go to step 10.

(cont'd)

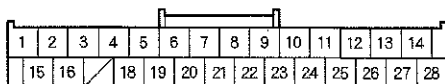
Navigation System

DTC Troubleshooting (cont'd)

10. Turn the ignition switch to LOCK (0).
11. Disconnect the HandsFreeLink control unit 28P connector and AcuraLink control unit connector A (32P).
12. Check for continuity between the terminals of the HandsFreeLink control unit 28P connector according to the table.

From terminal	To terminals
No. 8 (GRY)	No. 6 (BLK), No. 7 (GRN), No. 20 (RED), No. 21 (WHT)

HANDSFREELINK CONTROL UNIT 28P CONNECTOR



Wire side of female terminals

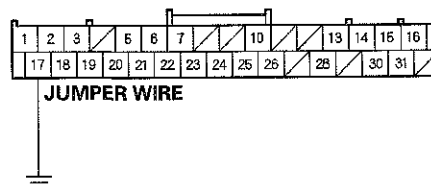
Is there continuity between any of the terminals?

YES—There is a short in the wire(s) between the HandsFreeLink control unit and the AcuraLink control unit. Replace the affected shielded harness. ■

NO—Go to step 13.

13. Connect AcuraLink control unit connector A (32P) terminal No. 17 to body ground with a jumper wire.

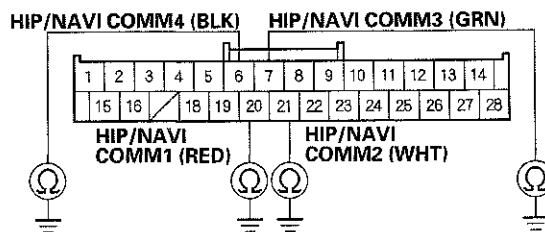
ACURALINK CONTROL UNIT CONNECTOR A (32P)



Wire side of female terminals

14. Check for continuity between body ground and HandsFreeLink control unit 28P connector terminals No. 6, No. 7, No. 20 and No. 21 individually.

HANDSFREELINK CONTROL UNIT 28P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—There is a short in the wire(s) between AcuraLink control unit connector A (32P) and the HandsFreeLink control unit 28P connector. ■

NO—Replace the HandsFreeLink control unit (see page 23-339). ■



DTC 2705: HFL Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

Without AcuraLink

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis Items menu (see page 23-166).
4. Check the System Links.

Is the HFL icon red?

YES—Go to step 5.

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

5. Turn the ignition switch to LOCK (0).
6. Turn the ignition switch to ON (II).
7. Check for DTCs with the HDS.

Are there any HFL DTCs indicated?

YES—Do the HFL DTC troubleshooting. ■

NO—Go to step 8.

8. Disconnect the HandsFreeLink control unit 28P connector and navigation unit connector D (5P).

9. Check for continuity between terminals of the HandsFreeLink control unit 28P connector according to the table.

From terminal	To terminals
No. 8 (GRY)	No. 6 (BLK), No. 7 (GRN), No. 20 (RED), No. 21 (WHT)

HANDSFREELINK CONTROL UNIT 28P CONNECTOR

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 terminals?

YES—There is a short in the wire(s) between the HandsFreeLink control unit and the navigation unit. Replace the affected shielded harness. ■

NO—Go to step 10.

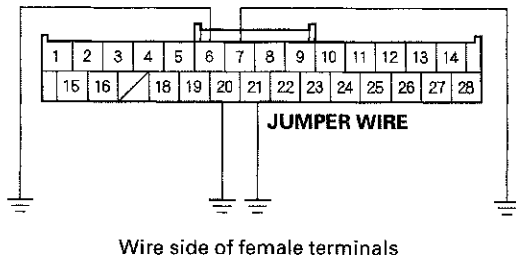
(cont'd)

Navigation System

DTC Troubleshooting (cont'd)

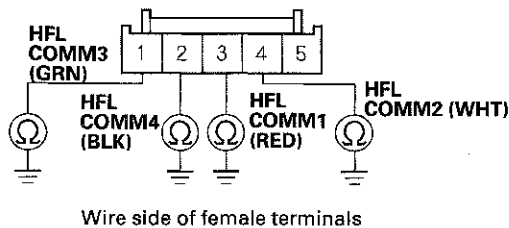
10. Connect the HandsFreeLink control unit 28P connector terminals No. 6, No. 7, No. 20, and No. 21 to body ground with a jumper wire.

HANDSFREELINK CONTROL UNIT 28P CONNECTOR



11. Check for continuity between body ground and navigation unit connector D (5P) terminals No. 1, No. 2, No. 3, and No. 4 individually.

NAVIGATION UNIT CONNECTOR D (5P)



Is there continuity?

YES—There is a short in the wire(s) between navigation unit connector D (5P) and the HandsFreeLink control unit 28P connector. Replace the affected shielded harness. ■

NO—Replace the navigation unit (see page 23-255). ■

DTC 2706: Gyro Diag: ECU Temp XX °C

NOTE: Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Check that the trunk temperature is between -4°F (-20°C) and 158°F (70°C).
2. Clear the hard error code (see page 23-128).
3. Turn the ignition switch to LOCK (0), and then back ON (II).
4. Check for the hard error code (see page 23-126).

Is DTC 2706 indicated?

YES—Replace the navigation unit (see page 23-255). ■

NO—Intermittent failure, the system is OK at this time. If the unit repeatedly comes back with the DTC, replace the navigation unit. ■



DTC 2707: Mic Diag

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Before you troubleshoot, make sure to follow the general troubleshooting information (see page 23-119).

1. Clear the hard error code (see page 23-128).
2. Turn the ignition switch to LOCK (0), and then back to ON (II).
3. Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis items menu (see page 23-166).
4. Select the System Links.

Is the Mic icon red?

YES—Go to step 5.

NO—Go to step 8.
5. Turn the ignition switch to LOCK (0).
6. Check for poor connections or loose terminals at the HandsFreeLink control unit 28P connector, the roof console 28P connector, and navigation control unit connector D (5P).

Are the connections OK?

YES—Go to step 7.

NO—Repair poor connections or loose terminals. ■

7. Check for DTCs with the HDS.

Is DTC B1775 or B1776 indicated?

YES—Troubleshooting the indicated DTC. ■

NO—Go to step 10.

8. Select the Mic in the System Links.
9. Press the HFL TALK button on the steering wheel, then check the Mic Level (see page 23-181).

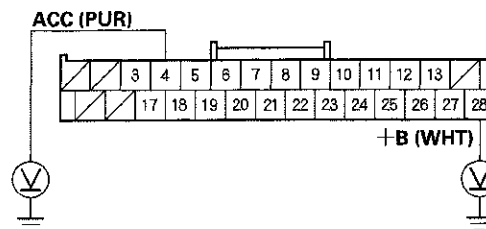
Is the microphone level OK?

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

NO—Replace the HFL-navigation microphone (see page 23-339). ■

10. Measure the voltage between body ground and the roof console 28P connector terminals No. 4 and No. 28 individually.

ROOF CONSOLE 28P CONNECTOR



Wire side of female terminals

Is there battery voltage?

YES—Go to step 11.

NO—Repair open in the wire(s). ■

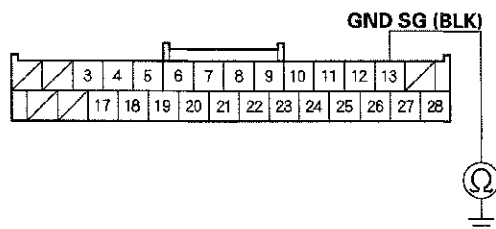
(cont'd)

Navigation System

DTC Troubleshooting (cont'd)

11. Turn the ignition switch to LOCK (0).
12. Check for continuity between the roof console 28P connector terminal No. 13 and body ground.

ROOF CONSOLE 28P CONNECTOR



Wire side of female terminals

Is there continuity?

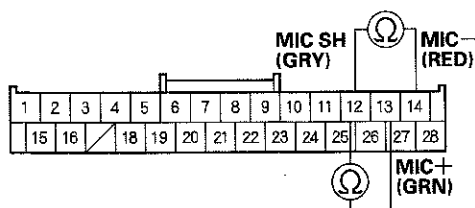
YES—Go to step 13.

NO—Repair open in the ground wire to G601. ■

13. Disconnect the roof console 28P connector and the HandsFreeLink control unit 28P connector.

14. Check for continuity between HandsFreeLink control unit 28P connector terminals No. 13 and No. 14 to terminal No. 12.

HANDSFREELINK CONTROL UNIT 28P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—There is a short in the harness. Replace the affected shielded harness. ■

NO—Replace the HFL/navigation microphone (see page 23-339). ■



Symptom Troubleshooting

No picture is displayed

Diagnostic Test: Self-Diagnosis Mode

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check if button has been pressed, and turned off the display (see owner's manual for more information).
- Check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have the anti-theft code for the navigation system.
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.

1. Check the No. 5 (7.5 A), No. 7 (10 A) fuse and No. 32 (10 A) fuse in the driver's 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 ACCESSORY (I).
3. Operate the radio, and listen to the audio.

Can you hear the audio?

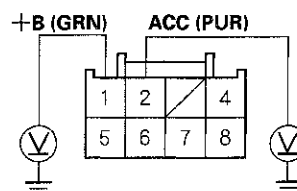
YES—Go to step 4.

NO—Check the ACC circuit or refer to the audio system troubleshooting. ■

4. Turn the ignition switch to ON (II).

5. Measure the voltage between body ground and navigation unit connector A (8P) terminals No. 1 and No. 2 individually.

NAVIGATION UNIT CONNECTOR A (8P)



Wire side of female terminals

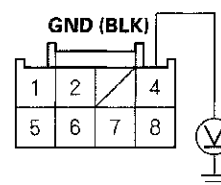
Is there battery voltage?

YES—Go to step 6.

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

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

NAVIGATION UNIT CONNECTOR A (8P)



Wire side of female terminals

Is there less than 0.2 V?

YES—Go to step 7.

NO—Repair an open or high resistance in the wire between the navigation unit and body ground (G602) (see page 22-42). ■

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

7. Do the forced starting of the display (see page 23-254).

Is the diagnosis menu of the picture diagnosis displayed?

YES—Go into Self-Diagnosis Mode (see page 23-166) 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.).

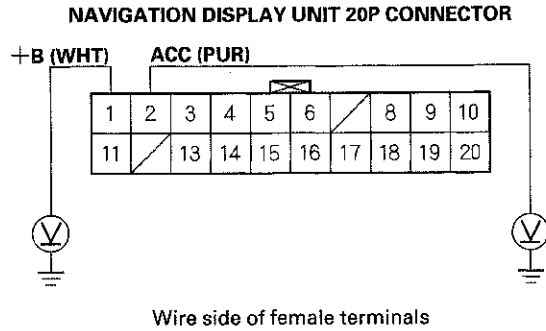
Can you see the back light?

YES—Replace the navigation unit (see page 23-255), and retest. If the problem is still present, replace the navigation display unit (see page 23-256). ■

NO—Go to step 9.

9. Turn the ignition switch to ON (II).

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



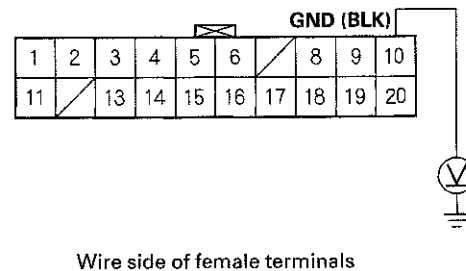
Is there battery voltage?

YES—Go to step 11.

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

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

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Is there less than 0.2 V?

YES—Replace the navigation display unit. ■

NO—Repair an open or poor connections between the navigation display unit and body ground (G501) (see page 22-32). ■



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

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check that the GPS antenna is plugged in.
- 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 metallic window tinting or other objects that can block the GPS signal. Always do the Map matching (see page 23-122) before proceeding with the troubleshooting.
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.
- Check the GPS signal reception in an open area.

1. Check the GPS icon on the navigation screen.

Is the GPS icon white?

YES—Do the troubleshooting for GPS icon is white or not shown (see page 23-230). ■

NO—Go to step 2.

2. Go into the Self-Diagnosis Mode, and use the Yaw Rate test (see page 23-184) to check the yaw rate sensor.

3. Go into the Self-Diagnosis Mode, and use the Car Status test (see page 23-185) to check the vehicle speed pulse.

Are the yaw rate sensor and vehicle speed pulse OK?

YES—The condition may be normal. Check to see if the condition occurs in the same place in a known-good vehicle. 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 23-255). 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 23-255). ■

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

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check the connectors for poor connections or loose terminals.
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.
- Check the navigation screen settings for brightness, contrast, and black level, and check the color screen for map color and menu color.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.
- Check for aftermarket accessories that may interfere with the navigation system.

1. Go into the Detail Information & Settings select Monitor Check, and use RGB Color test under Monitor Check (see page 23-172).

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 LOCK (0).
3. Disconnect navigation unit connector B (32P) and the navigation display unit 20P connector.
4. Check for loose terminals at navigation unit connector B (32P) and the navigation display unit 20P connector.

Are there loose terminals?

YES—Repair the terminal. ■

NO—Go to step 5.

(cont'd)

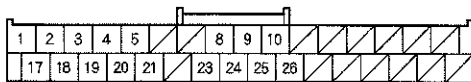
Navigation System

Symptom Troubleshooting (cont'd)

5. Check for continuity between the terminals of navigation unit connector B (32P) and the navigation display unit 20P connector according to the table.

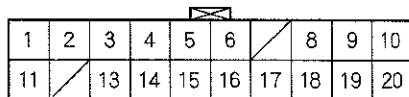
From terminal		To terminals	
Navigation unit	Navigation display unit	Navigation unit	Navigation display unit
B3 (GRY)	20 (GRY)	B1 (WHT)	8 (WHT)
		B2 (RED)	9 (RED)
		B17 (YEL)	18 (YEL)
		B18 (BRN)	19 (BRN)
		B19 (BLU)	17 (BLU)

NAVIGATION UNIT CONNECTOR B (32P)



Wire side of female terminals

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

Is there continuity between any of the terminals?

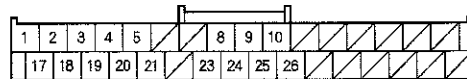
YES—There is a short in the wire(s) between the navigation unit and the navigation display unit. Replace the affected shielded harness. ■

NO—Go to step 6.

6. Check for continuity between the appropriate terminals of navigation unit connector B (32P) and the navigation display unit 20P connector based on the missing color(s).

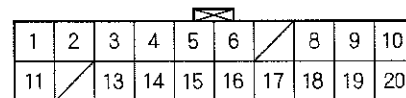
Missing color	Navigation unit connector B (32P)	Navigation display unit 20P connector	Wire color
Blue	B17	18	YEL
Green	B2	9	RED
Red	B1	8	WHT

NAVIGATION UNIT CONNECTOR B (32P)



Wire side of female terminals

NAVIGATION DISPLAY UNIT 20P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Go to step 7.

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 the navigation unit. If a poor connection or loose terminal is found, replace the affected shielded harness. ■



7. Check for continuity between the appropriate terminals of navigation unit connector B (32P) and the navigation display unit 20P connector based on the missing color(s).

Missing color	Navigation unit connector B (32P)	Navigation display unit 20P connector
Blue	B17	10, 20
Green	B2	10, 20
Red	B1	10, 20

NAVIGATION 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

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 (see page 23-256). ■

Picture has lines or rolls

Diagnostic Test: Monitor Check

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Always compare the screen image to a known-good vehicle. If the screen looks the same, inform the client that it is a characteristic of the system.
- Check the connectors for poor connections or loose terminals.
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.
- Check the navigation screen settings for brightness, contrast, and black level, and check the color screen for map color and menu color.
- Before troubleshooting, make sure you have anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the 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 screen.

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 B (32P) terminal No. 18 to navigation display unit 20P connector terminal No. 19. Also check for a short to ground between the navigation display unit 20P connector terminals No. 19 and No. 20. ■

NO—Go to step 3.

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

3. Go into the Detail Information & Settings select Monitor Check, and use RGB Color diagnostic under Monitor Check (see page 23-172).

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 23-225). ■

NO—Go to step 4.

4. Turn the ignition switch to LOCK (0).
5. Substitute a known-good navigation display unit (see page 23-256), and recheck.

Is the picture OK?

YES—Check for loose connections, then replace the original navigation display unit (see page 23-256). ■

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 23-255), and recheck. If the problem is gone, replace the original navigation unit (see page 23-255). ■

Interface dial buttons do not work

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Confirm the correct DVD color and version disc is installed in the navigation unit (see page 23-123) as the wrong DVD or software version can cause a hardware malfunction.
- Check the connectors for poor connections or loose terminals.
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.

1. Start the vehicle.
2. Go into the Detail Information & Settings select Unit Check, and use Hard Key test under Unit Check (see page 23-174).

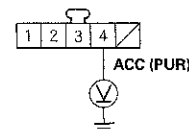
Do the interface dial buttons work properly?

YES—The system is OK at this time. ■

NO—Go to step 3.

3. 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?

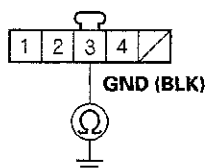
YES—Go to step 4.

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



4. Turn the ignition switch to LOCK (0).
5. Check for continuity between the interface dial 5P connector terminal No. 3 and body ground.

INTERFACE DIAL 5P CONNECTOR



Wire side of female terminals

Is there continuity?

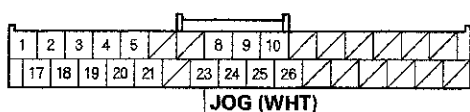
YES—Go to step 6.

NO—Repair open in the wire between the interface dial and body ground (G506) (see page 22-38). ■

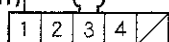
6. Check for continuity between navigation unit connector B (32P) terminal No. 23 and interface dial 5P connector terminal No. 1.

NAVIGATION UNIT CONNECTOR B (32P)

Wire side of female terminals



JOG (WHT)



INTERFACE DIAL 5P CONNECTOR

Wire side of female terminals

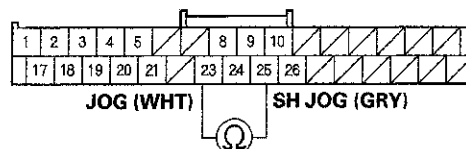
Is there continuity?

YES—Go to step 7.

NO—There is an open in the circuit between the interface dial and the navigation unit. Replace the affected shielded harness. ■

7. Check for continuity between navigation unit connector B (32P) terminals No. 23 and No. 25.

NAVIGATION UNIT CONNECTOR B (32P)



Wire side of female terminals

Is there continuity?

YES—There is a short in the wire. Replace the affected shielded harness. ■

NO—Go to step 8.

8. Substitute a known-good interface dial (see page 23-256), and recheck.

Is the system OK?

YES—Replace the original interface dial (see page 23-256). ■

NO—Replace the navigation unit (see page 23-255). ■

Navigation System

Symptom Troubleshooting (cont'd)

GPS icon is white or not shown

Diagnostic Test: Self-Diagnosis Mode

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- With good reception, the icon is normally green.
- Make sure the GPS antenna is plugged in.
- Check for any aftermarket accessories or metallic window tinting that may be interfering with the GPS signal.
- Make sure the vehicle is parked outside, away from buildings.
- Refer to GPS Information (see page 23-182) for real-time satellite reception display.

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

Is there aftermarket metallic window tint or electronic accessories?

YES—Remove tint or the accessories, and recheck. ■

NO—Go to step 2.

2. Turn the ignition switch to ON (II).
3. Go into the Self-Diagnosis Mode, and use the System Links diagnostic (see page 23-166) 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 (see page 23-257). ■

NO—Check that nothing is blocking the GPS antenna located under the package 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 23-255).

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

Diagnostic Test: Self-Diagnosis Mode

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check the navigation volume level (see Owner's Manual).
- Check the connectors for poor connections or loose terminals.
- If the Hard Error Code stored, check the Hard Error Code troubleshooting first.
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.

1. Turn the ignition switch to ON (II).

2. Press the SET-UP button.

3. 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 4.

4. Check the audio system operation.

Can you hear the audio system?

YES—Go to step 5.

NO—Troubleshoot the audio system. ■



5. Select the Self-Diagnosis mode.
6. Check for error code to the Error History.

Is the Hard Error Code stored?

YES—Refer to the Hard Error Code troubleshooting. ■

NO—Go to step 7.

7. Substitute and a known-good audio unit, and recheck.

Is the system OK?

YES—Replace the audio unit (see page 23-106). ■

NO—Replace the navigation unit (see page 23-255). ■

Voice control does not work/respond

Diagnostic Test: Mic Level

NOTE:

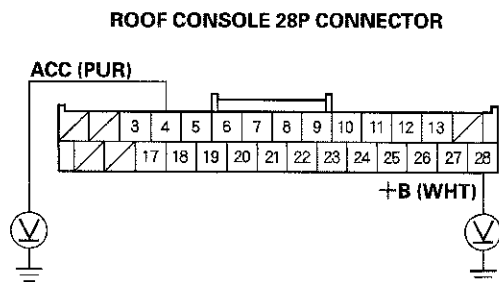
- Check the vehicle battery condition first (see page 22-90).
- Make sure that the correct DVD color and version are installed.
- Check any official Honda service website for more service information about the navigation system.
- Before assuming that a voice complaint is hardware related, ensure that the voice control system is being operated correctly.
 - Make sure you are on the correct screen when trying to issue a voice command. For instance, the command “Find the nearest Italian Restaurant” only works on Map screen. (See the Navigation System manual for a complete list of allowed voice commands for the information being displayed).
 - Close the windows and sunroof.
 - Set the fan speed to low (1 or 2).
 - Adjust the air flow from the air conditioning vents so that they do not blow against the microphone on the ceiling.
 - Pause after pressing the navigation TALK button then give a voice command clearly in a natural speaking voice.
If the system cannot recognize your command, speak louder.
 - If you speak a command with something in your mouth, or your voice is too husky, or high-pitched, the system may misunderstand your command.
- Check the connectors for poor connections or loose terminals.
- Check for a loose roof console microphone; if it's loose, tighten it.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.
- Determine if the problem only happens to one person, or everyone who uses the system.
- If the system only has a problem with one person's voice, this should be considered a system limitation.

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

1. Turn the ignition switch to ON (II).
2. Measure the voltage between body ground and roof console 28P connector terminals No. 4 and No. 28 individually.



Wire side of female terminals

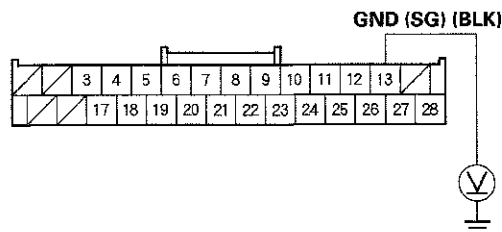
Is there battery voltage?

YES—Go to step 3.

NO—If the +B wire does not have voltage, repair open in the wire between the driver's under-dash fuse/relay box and the roof console 28P connector. If the ACC wire does not have voltage, repair open in the wire between the driver's under-dash fuse/relay box and the roof console 28P connector. ■

3. Measure the voltage between roof console 28P connector terminal No. 13 and body ground.

ROOF CONSOLE 28P CONNECTOR



Wire side of female terminals

Is there less than 0.2 V?

YES—Go to step 4.

NO—Repair an open or high resistance in the wire between the roof console and body ground (G601) (see page 22-40). ■

4. Go into the Self-Diagnosis Mode select Mic Icon Menu, and use the Mic Level test under Functional Set-up (see page 23-181) to check the operation of the Talk and Back buttons.

Are the navigation TALK and BACK buttons operational?

YES—Go to step 5.

NO—Check for an open or short to ground on navigation unit connector C (16P) No. 12 terminal. ■

5. Use the Mic Level diagnostic under Functional Set-up (see page 23-181) to check the operation of the microphone.

Is the microphone operational?

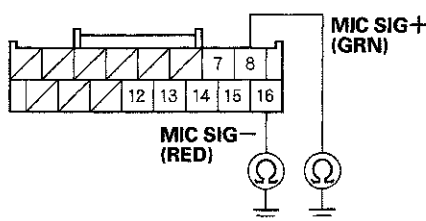
YES—Check the operation of the voice control system (see the Navigation System Manual). ■

NO—Go to step 6.



6. Turn the ignition switch to LOCK (0).
7. Disconnect the HFL control unit.
8. Disconnect navigation unit connector C (16P).
9. Check for continuity between body ground and navigation unit connector C (16P) terminals No. 8 and No. 16 individually.

NAVIGATION UNIT CONNECTOR C (16P)



Wire side of female terminals

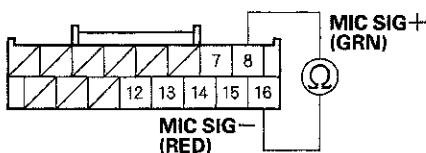
Is there continuity?

YES—Replace the affected shielded harness. ■

NO—Go to step 10.

10. Check for continuity between navigation unit connector C (16P) terminals No. 8 and No. 16.

NAVIGATION UNIT CONNECTOR C (16P)



Wire side of female terminals

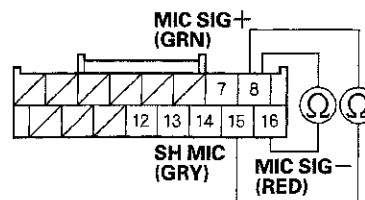
Is there continuity?

YES—Replace the affected shielded harness. ■

NO—Go to step 11.

11. Check for continuity between navigation unit connector C terminals No. 8 and No. 15, and between terminals No. 8 and No. 16.

NAVIGATION UNIT CONNECTOR C (16P)



Wire side of female terminals

Is there continuity?

YES—Replace the affected shielded harness. ■

NO—Substitute known-good components in this order until the problem goes away: ■

- Microphone
- HFL unit
- Navigation Unit

Navigation System

Symptom Troubleshooting (cont'd)

DVD read error messages

Diagnostic Test: Car Status

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Confirm the correct DVD color and version disc is installed in the navigation unit (see page 23-124).
- Refer to General Troubleshooting for a list of common DVD screen error messages and the probable causes (see page 23-191).
- Check any official Honda service website for more service information about the navigation system.
- Go into the Diagnostic mode and use the ECU Info diagnostic (see page 23-174) to check the status of the DVD cover.
- Inspect the navigation DVD for scratches or damage.
- The following troubleshooting is for the error message shown on the error messages table (see page 23-191).

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 23-254). ■

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 23-255). ■

Navigation cannot control HVAC by voice command

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check the connectors for poor connections or loose terminals.
- Check for and resolve all CAN DTCs before troubleshooting the navigation system.
- If the Hard Error Code stored, check the Hard Error Code troubleshooting first.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.
- Verify that the correct navigation unit is installed for this model. Go into the Diagnostic mode and use Version (see page 23-186).
- Make sure that the correct DVD color and version are installed.
- Check any official Honda service website for more service information about the navigation system.

1. Connect the HDS to the DLC. Check for B-CAN or F-CAN DTCs in the data list.

Are there any DTCs in the B-CAN or F-CAN systems?

YES—Troubleshoot and repair all CAN related DTCs, then retest. ■

NO—Go to step 2.

2. Turn the ignition switch to ON (II).
3. Select the Self-Diagnosis mode.
4. Check for error code to the Error History.

Is there a Hard Error Code stored?

YES—Refer to the Hard Error Code troubleshooting. ■

NO—Go to step 5.



5. Substitute a known-good climate control unit. Reconnect connector, and retest.

Does the symptom go away?

YES—Replace the original climate control unit (see page 21-84). ■

NO—Replace the navigation unit (see page 23-255). ■

Display day/night mode does not work or does not work properly

NOTE:

- Turn the headlight on, and check that the dash brightness setting is not set to high.
- Check the connectors for poor connections or loose terminals.
- Always check for and resolve all CAN DTCs before troubleshooting the navigation system.
- Verify that the correct navigation unit is installed for this model. Go into the Diagnostic mode and use Version (see page 23-186).
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.

1. Turn the headlights on, and adjust the dash brightness up and down, then 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. Cover the sunlight sensor on the dash, then turn the headlights on and off.

Does the navigation display dim and brighten normally?

YES—The system is OK at this time. ■

NO—Check the ILL+ circuit for an open or short to ground between the navigation display to the gauge control module. If OK, substitute known-good units in this order and recheck the system: ■

- Navigation unit
- Climate control unit
- Gauge control module

Navigation System

Symptom Troubleshooting (cont'd)

System locks up or freezes constantly

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Always check for and resolve all CAN DTCs before troubleshooting the navigation system.
- Verify that the correct navigation unit is installed for this model. Go into the Diagnostic mode, and use Version (see page 23-186).
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.
- Check the DVD for damage or scratches.
- Check the connectors for poor connections or loose terminals.

1. Turn the ignition switch to ON (II).

2. Remove the DVD, and check the DVD 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 23-254) and recheck. ■

NO—Go to step 2.

3. Turn the ignition switch to LOCK (0), and then back to ON (II).

Does the system reboot, lock up, or freeze?

YES—Replace the navigation unit. ■

NO—The system is OK at this time. Go into the Diagnostic mode, and use the Unit Check diagnostic (see page 23-174) to check the navigation unit and display panel control unit status. If any status are NG, replace the affected units. ■

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

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- 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 23-122) before proceeding with the troubleshooting.
- Always check for and resolve all CAN DTCs before troubleshooting the navigation system.
- Verify that the correct navigation unit is installed for this model. Go into the Diagnostic mode, and use Version (see page 23-186).
- Make sure that the correct DVD color and version are installed.
- Check for aftermarket metallic window tinting.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.
- Check the DVD for damage or scratches.
- Check the connectors for poor connections or loose terminals.

1. Check the GPS icon on the navigation screen.

Is the GPS icon white or missing?

YES—Do the troubleshooting for GPS icon is white or not shown (see page 23-230). ■

NO—Go to step 2.

2. Go into the Self-Diagnostic Mode, and use the Yaw Rate diagnostic (see page 23-184) to check the yaw rate sensor.

Is the yaw rate sensor OK?

YES—Go to step 3.

NO—Replace the navigation unit (see page 23-255). ■



3. Go into the Diagnostic mode, and use the Car Status diagnostic (see page 23-185) to check the vehicle speed pulse (VSP) and the BACK signals.

Are the vehicle speed pulse and the BACK signals OK?

YES—The symptom may be a characteristic of the system. Check to see if the symptom occurs in the same place in a known-good vehicle. If it does, the problem could be in the database. Go to step 4.

NO—

- If the problem is the vehicle speed pulse, troubleshoot the vehicle speed signal circuit. BRN wire for open or short. If OK, swap a known-good PCM. If the problem or symptom goes away, replace the original PCM.
 - If the BACK signal is indicated ON (II), when in any shift lever position other than reverse, troubleshoot the MICU. ■
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 and should be considered a characteristic of the system. Report the problem according to the Navigation System Manual under Reporting Errors, and look for improvements in future databases. ■

NO—Replace the navigation unit (see page 23-255). ■

Navigation system does not accept security code

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- The system does 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 on ISIS, under Job aids, and can be printed out for recording this information. This information will help the remain facility determine what caused the failure.
- Always check for and resolve all CAN DTCs before troubleshooting the navigation system.
- Verify that the correct navigation unit is installed for this model. Go into the Diagnostic mode, and use Version (see page 23-186).
- Check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.

1. Go into the Diagnostic mode, and use the ECU Info under the Unit Check diagnosis (see page 23-174). A brief diagnostic runs for 20 seconds, and the serial number is displayed.

Is the serial number displayed?

YES—Go to step 4.

NO—Go to step 2.

2. Remove the navigation unit (see page 23-255).
3. Check the serial number on the label on the underside of the navigation unit.

Is the serial number confirmed on the underside of the navigation unit?

YES—Go to step 4.

NO—Replace the navigation unit (see page 23-255). ■

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

4. 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 on the screen?

YES—Go to step 5.

NO—Call the Warranty Department to obtain the code (the telephone number is in the PDI service bulletin). Then go to step 5.

5. Check that the obtained code works to bypass the code screen in the navigation system.

Does the code work?

YES—The system is OK at this time. Return the vehicle to the customer and give them the anti-theft code. ■

NO—Go to step 6.

6. Try entering four zeros (0000) as the code.

Do the four zeros work to bypass the code screen?

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

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

Navigation display stays on with ignition switch in LOCK (0)

NOTE:

- Check for aftermarket accessories that may interfere with the navigation system.
- Check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and 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 connector A. If a jumper harness is present, remove it, and return it to Tech Line.

1. Remove the key from the ignition.

Does the navigation screen stay on?

YES—Go to step 2.

NO—The system is OK at this time. ■

2. Check for battery voltage on navigation unit connector A (8P) terminal No. 2.

Is there battery voltage?

YES—Troubleshoot a short to battery voltage on the ACC circuit. ■

NO—Replace the navigation unit (see page 23-255). ■



Navigation cannot control audio system

Diagnostic Test: System Links

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Check for and resolve all CAN DTCs before troubleshooting the navigation system.
- Verify that the correct navigation unit is installed for this model. Go into the Diagnostic mode, and use Version (see page 23-186).
- Check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.
- Make sure that the correct DVD color and version are installed.
- Inspect the DVD for dirt or damage.
- Check any official Honda service website for more service information about the navigation system.

1. Turn the ignition switch to ON (II).
2. Make sure the anti-theft code for the audio system is entered.
3. Go into the Diagnostic mode, and use the use the Self-Diagnosis Mode diagnostic (see page 23-166).

Is the Radio icon red?

YES—Do the troubleshooting for the voice guidance cannot be heard (see page 23-230). ■

NO—Go to step 4.

4. Substitute a known-good navigation unit (see page 23-255), and recheck.

Can the navigation system control audio/disc functions?

YES—Replace the navigation unit (see page 23-255). ■

NO—Do the audio system troubleshooting. ■

Navigation cannot control XM radio

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Make sure that the correct DVD color and version are installed.
- Check any official Honda service website for more service information about the navigation system.

1. Start the vehicle.
2. Make sure the anti-theft code for the audio system is entered.
3. Go into the Diagnostic mode, and use the System Links diagnosis (see page 23-166).

Is the XM icon red?

YES—Do the troubleshooting for the voice guidance cannot be heard (see page 23-230). ■

NO—Go to step 3.

4. Substitute a known-good navigation unit (see page 23-255).

Can the navigation control XM radio functions?

YES—Replace the navigation unit (see page 23-255). ■

NO—Replace the AcuraLink control unit (XM receiver) (see page 23-111) or XM receiver (see page 23-112). ■

Navigation System

Symptom Troubleshooting (cont'd)

Navigation frequently asks for anti-theft code and/or needs GPS initialization

NOTE:

- This is often caused by a loss of battery power, a low or poor battery condition, or a poor ground.
- Make sure that the correct DVD color and version are installed.
- Check any official Honda service website for more service information about the navigation system.

1. Turn the ignition switch to LOCK (0).
2. Disconnect navigation unit connector A (8P), and check for loose terminals.

Are any of the terminals loose?

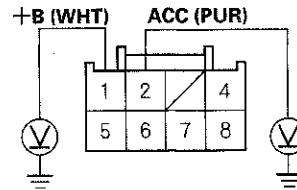
YES—Repair or replace the loose terminal(s). ■

NO—Go to step 3.

3. Reconnect navigation unit connector A (8P).
4. Turn the ignition switch to ON (II).

5. Measure the voltage between body ground and navigation unit connector A (8P) terminals No. 1 and No. 2 individually.

NAVIGATION UNIT CONNECTOR A (8P)



Wire side of female terminals

Is there battery voltage?

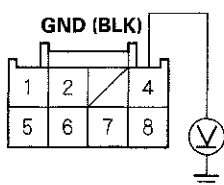
YES—Go to step 6.

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



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

NAVIGATION UNIT CONNECTOR A (8P)



Wire side of female terminals

Is there less than 0.1 V?

YES—Replace the navigation unit (see page 23-255).

NO—Repair an open or high resistance in the wire between the navigation unit and body ground (G602) (see page 22-42). ■

Traffic or Weather information is not shown on map screen

If your client complains that traffic and/or weather is not displayed, it could be because a traffic and/or weather setting is not correct.

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Always check for and resolve all CAN DTCs before troubleshooting the navigation system.
- 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.
- Verify that correct navigation unit is installed for this model. Go into the diagnostic mode, and use version (see page 23-186).
- Always make sure that the correct DVD color and version are installed.
- Check any official Honda service website for more service information about the navigation system.
- A marginal battery or poorly performing charging system may cause the XM/HIP unit to malfunction.
- The vehicle is equipped with an auto start feature that keeps the starter motor engaged, even when you release the ignition switch. Due to the ignition design, if a client releases the ignition switch before the engine starts, the XM/HIP unit may receive unusually low voltage. This may cause the XM/HIP to malfunction. When starting the vehicle, hold the ignition switch in the START (III) position until the motor starts.

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

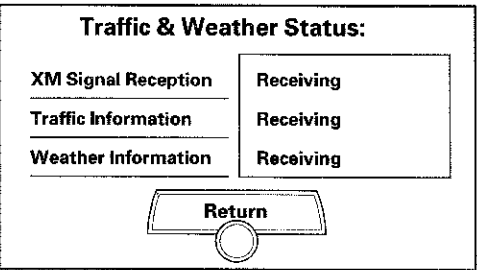
1. Test the battery condition (see page 22-90).

Is the battery in good condition?

YES—Go to step 2.

NO—Troubleshoot the battery and/or charging system, and recheck. ■

2. Park the vehicle outside where you have a clear view of the southern sky.
3. Turn the ignition switch to ON (II).
4. Check to see if the vehicle is receiving an XM signal. Select Setup, then select more, then select Traffic/Weather.



5. Make sure that you are receiving the applicable signal that you are troubleshooting. For example, if the client complains that they do not receive real-time traffic and account is Expired, you need to contact XM to confirm the account is active. Refer to the table for the message status and action.

NOTE: This check confirms the customer account, but does not check the XM signal reception. The XM radio continues to tune XM channels 000, 001, 174, or 247, even if the XM account is expired.



Message	Description	Action
Receiving	The system is receiving XM signal, Traffic information and/or weather information.	The system is OK. Go to step 7.
No signal	The signal is not being received.	Make sure you are outside with a clear view of the sky. Go into diagnosis mode check to check system links.
Expired	The account is expired.	Go to step 6.
Loading	The system is searching for the signal or receiving an update.	Give the system a few minutes to finish loading. If the loading message does not go away, go into diagnosis mode check to check system links.
Check antenna	There is a problem with the XM antenna.	Check the XM antenna for damage or loose connections, then recheck using the system links in the diagnosis mode check.

6. Make sure the client's XM NavTraffic and/or XM weather information account status is active. These accounts are separate from the regular XM radio subscription, and they have separate fees. For the 2010 Acura RL, real-time traffic and weather are free for the first 3 months.

To check the XM NavTraffic and weather account status:

- Call XM® Satellite Radio at 800-852-9696.
- Make sure you have:
 - The VIN
 - The XM radio ID (shown on channel 000)
- From the automated phone menu, select tech support.
- Tell the agent that you are working on an Acura vehicle, and ask them to check the XM NavTraffic and XM weather account(s) status. Have the agent confirm that the XM NavTraffic and XM weather subscription(s) applies to the vehicle VIN you are working on.

NOTE: A client may own more than one vehicle capable of displaying real-time traffic and XM weather.

Is the XM NavTraffic and XM weather account(s) status active?

YES—Go to step 7.

NO—If the free trial period is expired, return the vehicle to the client, and inform them how to renew their XM NavTraffic and XM weather subscription(s) by calling XM radio at 800-852-9696. ■

If the free trial period has not expired, call XM radio at 800-852-9696 and reactivate the account for the remainder of the free trial period, then request rapid refresh. To do a rapid refresh:

- Park the vehicle outside, in a clear area, with the engine running.
- Turn the audio system on, and tune to an XM radio channel.
- Wait 30 minutes.

If the vehicle now receives real-time traffic information and/or XM weather, return it to the client, otherwise go to step 7.

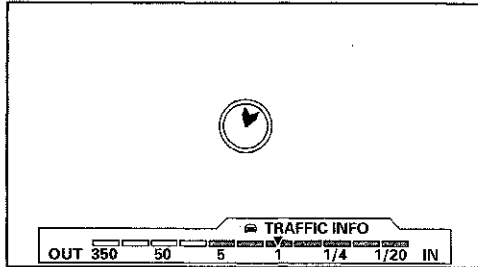
(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

7. Make sure the navigation map is set to any scale from 1/20 mile of a mile to 5 miles. If the scale is not set within this range, rotate the interface dial knob, or use the zoom in buttons to adjust the map to proper scale.

NOTE: XM weather is available on all scales.



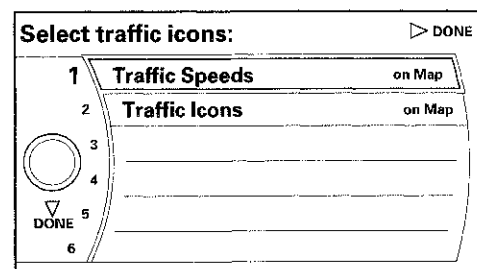
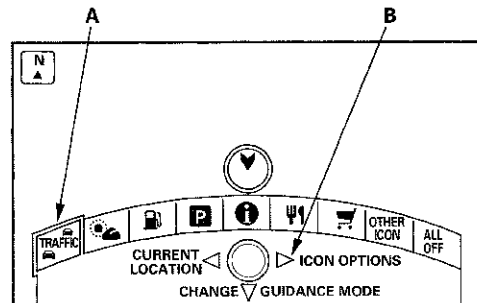
Do you see real-time traffic on the navigation display?

YES—Return the vehicle to the client, and explain the proper settings. ■

NO—Go to step 8.

8. Make sure the real-time traffic settings are correct.

- Press the map/guide button, then select the map menu by pressing in the selector button.
- Select Show Icon on Map by turning the interface dial, then pressing in the selector button.
- Select the Traffic icon (A) from the Icon selection bar at the bottom of the navigation display.
- Select Icon Options (B) by pushing the selector to the right.
- From the Select Category for Icon settings menu, select Traffic.
- Make sure both Traffic Speeds and Traffic Icons are solid blue. If they are not, select Traffic Speeds by pressing in the selector on the Select Traffic Info screen. It should turn solid blue. Turn the interface dial to select Traffic Icons, and press in the selector again. It should turn solid blue. Push the selector to the right (DONE) to complete the process.



Do you see real-time traffic on the navigation display?

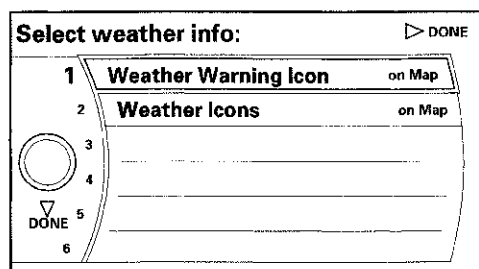
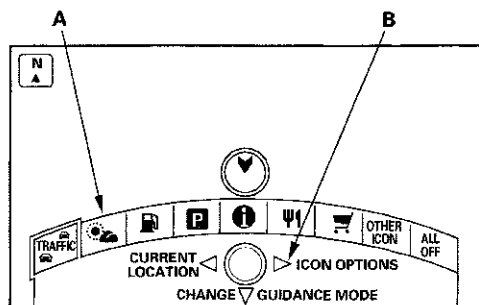
YES—Return the vehicle to the client, and explain the proper settings. ■

NO—Go to step 9.



9. Make sure the XM weather settings are correct.

- From the Show Icon on Map menu, select the Weather icon (A) from the Icon selection bar at the bottom of the navigation display.
- Select Icon Options (B) by pushing the selector to the right.
- From the Select Category for Icon settings menu, select Weather.
- Make sure both Weather Warning Icons and Weather Icons are solid blue. If they are not, select Weather Warning Icon by pressing in the selector on the Select Weather Info screen. It should turn solid blue. Turn the interface dial to select Weather Icons, and press in the selector again. It should turn solid blue. Push the selector to the right (DONE) to complete the process.



Do you see XM weather on the navigation display?

YES—Return the vehicle to the client, and explain the proper settings. ■

NO—Go to step 10.

10. Do the diagnostic mode checks:

- Start the vehicle, and enter the navigation diagnostic mode by pressing and holding the Menu, Map/Guide, and Cancel buttons.
- Go into the Diagnostic Menu, and select the Self-Diagnosis Mode in the Select Diagnosis items menu, and verify that all the icons are green. If any links/icons are red, refer to the applicable service manual section for repair information, then go to step 11.
- Return to the Detail Information & Setting menu and select XM (HIP), then select XM (HIP) System Link, and verify that the links/icons are green. If any links/icons are red, refer to the applicable service manual section for repair information, then go to step 11.

11. Do a VIN status inquiry, and check for any software updates for the AcuraLink control unit.

Are there any applicable product updates or service bulletins?

YES—Do the applicable product updates and service bulletins, then retest the vehicle. If real-time traffic does not work, go to step 12.

NO—Go to step 12.

(cont'd)

Navigation System

Symptom Troubleshooting (cont'd)

12. Reset the AcuraLink control unit.

NOTE: Make sure you have the anti-theft codes for the navigation system.

To reset the AcuraLink control unit:

- Disconnect AcuraLink control unit (XM receiver) connector B (2P) from the AcuraLink control unit.
- Enter the navigation diagnostic mode, select XM (HIP), then select XM (HIP) ECU.
- Select Data Reset to do the reset.
- When the reset is done, press cancel twice to return to the XM (HIP) diagnostic menu.
- Select Return to fully exit the diagnostic mode.
- Turn the ignition switch to LOCK (0).
- Reconnect AcuraLink control unit (XM receiver) connector B (2P).
- Start the vehicle.
- Enter the anti-theft codes for the navigation system.
- Let the navigation system boot, then select one of the traffic scales (5, 1, 1/4, 1/20 miles).
- Park the vehicle outside with a clear view of the southern sky, and verify you are receiving an XM radio signal (see step 4).

Do you see real-time traffic on the navigation display?

YES—Call Acura Client Services to ask for an AcuraLink reactivation. Return the vehicle to the client. ■

NO—Go to step 13.

13. Substitute a known-good AcuraLink control unit (XM receiver) (see page 23-111), and retest the vehicle.

Park the vehicle outside with a clear view of the southern sky, and verify you are receiving an XM radio signal (see step 4).

Do you see real-time traffic on the navigation display?

YES—Replace the original AcuraLink control unit (XM receiver). Register the new AcuraLink control unit with XM radio and Acura Client Services. Return the vehicle to the client. ■

NO—Substitute a known-good navigation unit (see page 23-255). If the problem goes away, replace the original navigation unit. ■



Trip computer-no distance

Diagnostic Test: Car Status

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Always check for and resolve all CAN DTCs before troubleshooting the navigation system.
- Check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the anti-theft codes for the audio system and the navigation system.
- Verify that the correct navigation unit is installed for this model. Go into the Diagnostic mode, and use Version (see page 23-186).
- Always make sure that the correct DVD color and version are installed.
- Check any official Honda service website for more service information about the navigation system.

1. Go into the Self-Diagnosis Mode and use Car Status diagnostic (see page 23-185) to check for a vehicle speed pulse (VSP).

Is there a VSP when the vehicle is moving?

YES—Check the CAN bus wires for an open or short to ground between navigation unit connector B (32P) terminals No. 8 and No. 24 and PCM connector E (31P) terminals No. 15 and No. 26. If OK, replace the navigation unit. ■

NO—Check the VSP wire for an open or short to ground between navigation unit connector A (8P) terminal No. 6 and PCM connector E (31P) terminal No. 11. ■

Trip computer-no fuel information

Diagnostic Test: Self-Diagnosis Mode

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Always check for and resolve all CAN DTCs before troubleshooting the navigation system.
- Check the connectors for poor connections or loose terminals.
- The navigation only displays the trip information. The calculations are done in the gauge control module.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the navigation system anti-theft codes.
- Verify that the correct navigation unit is installed for this model. Go into the diagnostic mode, and use Version (see page 23-186).
- Make sure that the correct DVD color and version are installed.
- Check any official Honda service website for more service information about the navigation system.

Do the System Links check (see page 23-166) to check the communication line between the PCM (FI-ECU) and the navigation unit.

1. Start the engine.
2. Go into the Self-Diagnosis Mode, and use Trip Information diagnostic under System Links (see page 23-166).

Are the values greater than zero?

YES—The system is OK. ■

NO—Check for B or F-CAN DTCs, then troubleshoot them. ■

Navigation System

Symptom Troubleshooting (cont'd)

Rearview camera image does not come on or work properly

NOTE:

- Check the vehicle battery condition first (see page 22-90).
- Always check for and resolve all CAN DTCs before troubleshooting the navigation system.
- Check the connectors for poor connections or loose terminals.
- Before troubleshooting, make sure you have the anti-theft codes for the audio system and the navigation system.
- After troubleshooting, enter the navigation system anti-theft codes.
- Verify that the correct navigation unit is installed for this model. Go into the diagnostic mode and use Version (see page 23-186).
- Make sure that the correct DVD color and version are installed.
- Check any official Honda service website for more service information about the navigation system.

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 23-223). ■

2. Go into the Self-Diagnosis Mode, and use the System Links test (see page 23-166) to check the connection between the navigation unit and the rearview camera.

Is the R-camera link red 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 carstatus, and check the BACK-Reverse indication status (see page 23-186). ■



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

Are the connections OK?

YES—Go to step 5.

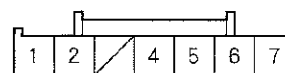
NO—Repair the poor connection, and reconnect the connectors. ■

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

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

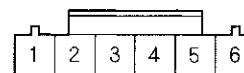
Navigation unit connector	Rearview camera	Wire color
E1	1	WHT
E2	2	BLK
E4	3	RED
E5	4	YEL
E6	5	GRY
E7	6	GRN

NAVIGATION UNIT CONNECTOR E (7P)



Wire side of female terminals

REARVIEW CAMERA 6P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Go to step 7.

NO—Repair an open in the wire between navigation unit connector E (7P) and the rearview camera 6P connector or replace the affected shielded harness. ■

(cont'd)

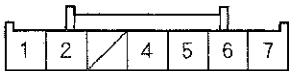
Navigation System

Symptom Troubleshooting (cont'd)

7. Check for continuity between navigation unit connector E (7P) and body ground according to the table. Then check for continuity between navigation unit connector E (7P) terminal No. 6 and rearview camera 6P connector terminal No. 5 and the same terminals.

Navigation unit connector	Wire color
E1	WHT
E2	BLK
E4	RED
E5	YEL
E7	GRN

NAVIGATION UNIT CONNECTOR E (7P)



Wire side of female terminals

Is there continuity?

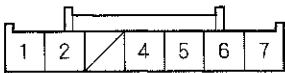
YES—There is a short in the wire between the navigation unit and the rearview camera. Replace the affected shielded harness. ■

NO—Go to step 8.

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

Navigation unit connector	Wire color
E1	WHT
E2	BLK
E4	RED
E5	YEL
E7	GRN
E6	GRY

NAVIGATION UNIT CONNECTOR E (7P)



Wire side of female terminals

Is there 0.1 V or more?

YES—There is a short in the wire between the navigation unit and the rearview camera. Replace the affected shielded harness. ■

NO—Go to step 9.



9. Turn the ignition switch to LOCK (0).
10. Reconnect the rearview camera 6P connector.
11. Substitute and connect a known-good navigation unit, and check the rearview camera image in reverse.

Is the rearview image OK?

YES—Replace the original navigation unit (see page 23-255). ■

NO—Replace the rearview camera (see page 23-258). ■
12. Select the Return in the upper right corner of the screen to return the main menu, then go to Version (see page 23-186).
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 5.

NO—Replace the DVD disc with the correct color. See the Obtaining a Navigation DVD in the General Troubleshooting Information (see page 23-122). ■

Navigation does not call using the HFL

NOTE:

- Always have the client demonstrate their concern. Compare the operation of this feature in a known-good vehicle.
- Review the navigation system manual for the proper operation of this feature. If the navigation database does not have a phone number listed for the POI you are trying to call (for example, a public park), the navigation system cannot place a call through the HFL.
- You must have the client's phone, the phone must be on the list of the HFL approved phones and configured correctly.
- For a current list of HFL approved phones, go to www.acura.com/handsfreelink or call the HFL support desk at 888-528-7876

1. Connect the HDS to the DLC (see page 23-296).
2. Clear the DTCs with the HDS.
3. Turn the ignition switch to LOCK (0), and then back ON (II).
4. Check for B-CAN DTCs in the data list.

Are there any DTCs in the B-CAN systems?

YES—Troubleshoot and repair all CAN related DTCs, and retest. ■

NO—Make sure the cell phone is paired to the HFL (see page 23-298) and working properly. Without AcuraLink, go to step 5.

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

(cont'd)

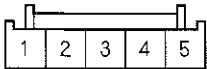
Navigation System

Symptom Troubleshooting (cont'd)

6. Disconnect navigation unit connector D (5P) and the HandsFreeLink control unit 28P connector.
7. Check for continuity between navigation unit connector D (5P) and the HandsFreeLink control unit 28P connector according to the table.

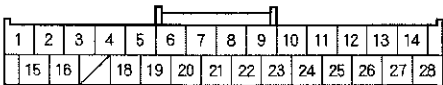
Navigation unit connector	HandsFreeLink control unit connector	Wire color
D1	7	GRN
D2	6	BLK
D3	20	RED
D4	21	WHT
D5	8	GRY

NAVIGATION UNIT CONNECTOR D (5P)



Wire side of female terminals

HANDSFREELINK CONTROL UNIT 28P CONNECTOR



Wire side of female terminals

Is there continuity?

YES—Go to step 8.

NO—There is an open in the wire(s) between the HandsFreeLink control unit and the navigation unit. Replace the affected shielded harness. ■

8. Check for continuity between navigation unit connector D (5P) and body ground according to the table.

Navigation unit connector	Wire color
D1	GRN
D2	BLK
D3	RED
D4	WHT

Is there continuity?

YES—There is a short to body ground in the wire(s) between the HandsFreeLink control unit and the navigation unit. Replace the affected shielded harness. ■

NO—Go to step 9.

9. Check for continuity between the terminals of navigation unit connector D (5P) according to the table.

From terminal	To terminals
D1	D2, D3, D4, D5
D2	D3, D4, D5
D3	D4, D5
D4	D5

Is there continuity between any of the terminals?

YES—There is a short in the wire(s) between the HandsFreeLink control unit and the navigation unit. Replace the affected shielded harness. ■

NO—Substitute a known-good HandsFreeLink control unit, then reconnect all of the connectors and recheck. If the symptom/indication goes away, replace the original HandsFreeLink control unit. If the symptom/indication is still present, replace the navigation unit. ■



Navigation unit will not eject or accept the navigation DVD

1. Check the No. 5 (7.5 A) fuse in the driver's under-dash fuse/relay box and No. 32 (10 A) fuse in the driver's under-dash fuse/relay box.

Are the fuses OK?

YES—Go to step 2.

NO—Replace the blown fuse(s), and recheck. ■

2. Turn the ignition switch to ON (II).
3. Eject the DVD from the navigation unit (see page 23-254).

Does the navigation DVD eject?

YES—Go to step 4.

NO—Go to step 5.

4. Reinsert the navigation DVD into the navigation unit.

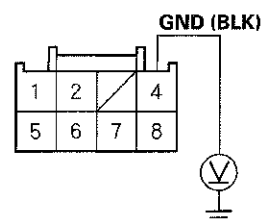
Does the navigation unit accept the navigation DVD?

YES—No problems at this time, the system is normal. Inspect for loose or poor connections at terminals No. 1, No. 2, and No. 4 of navigation unit connector A (8P). ■

NO—Replace the navigation unit (see page 23-255). ■

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

NAVIGATION UNIT CONNECTOR A (8P)



Wire side of female terminals

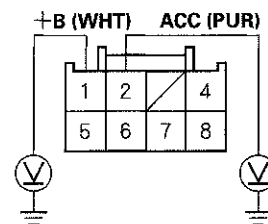
Is there less than 0.2 V?

YES—Go to step 6.

NO—Repair an open or high resistance in the BLK wire between navigation unit connector A (8P) and body ground (G602) (see page 22-42). ■

6. Measure the voltage between body ground and navigation unit connector A (8P) terminal No. 1 and No. 2 individually.

NAVIGATION UNIT CONNECTOR A (8P)



Wire side of female terminals

Is there battery voltage?

YES—Replace the navigation unit. ■

NO—Repair an open in the WHT wire between navigation unit connector A (8P) terminal No. 1 and the No. 5 (7.5 A) fuse in the driver's under-dash fuse/relay box, or between navigation unit connector A (8P) terminal No. 2 and the No. 32 (10 A) fuse in the driver's under-dash fuse/relay box. ■

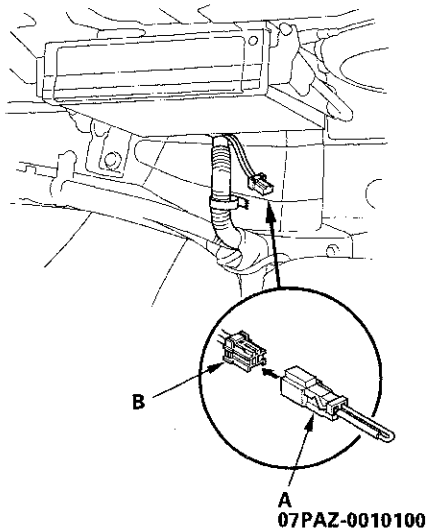
Navigation System

Forced Starting of Display

Special Tools Required

SCS Service Connector 07PAZ-0010100

1. Remove the trunk trim (see page 20-83).
2. Turn the ignition switch to LOCK (0).
3. Connect the SCS service connector (A) to the navigation service connector (B) located behind the navigation unit.



4. Turn the ignition switch to ON (II).
5. Check that the diagnosis menu for the picture diagnosis starts up, and then changes to the system link menu.

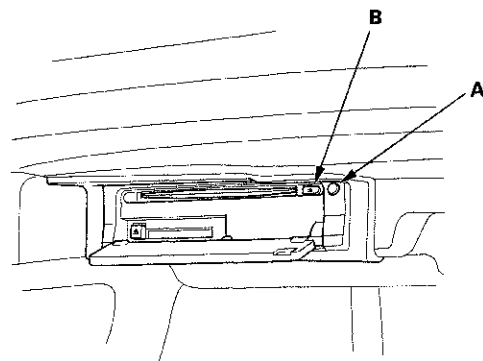
NOTE: If the display fails to display the system link screen, refer to no picture is displayed (see page 23-223).

DVD-ROM/CD-ROM Replacement

NOTE:

- Do not replace the DVD-ROM to give a client a preview of an updated DVD.
- Check any official Honda service website for more service information about the navigation system and software updates.

1. Turn the ignition switch to ON (II).
2. Push the open button (A) of the navigation unit located on the left side of the trunk.



3. Press the EJECT button (B).
4. Remove the DVD-ROM/CD-ROM.
5. Insert the new DVD-ROM/CD-ROM with the white label facing up.
6. Close the front cover. Do not turn the ignition switch to LOCK (0); watch the navigation screen until the data is downloaded to the navigation unit.
7. Do the Map Matching (see page 23-122).

NOTE: After servicing, the front cover and PC card slot door must be closed.

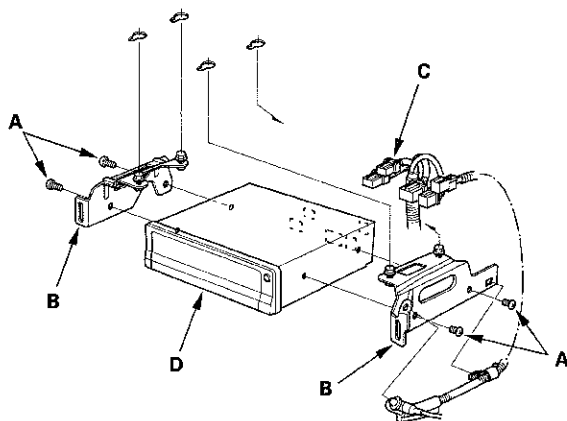


Navigation Unit Removal/Installation

NOTE:

- Before you replace the navigation unit, back-up the client's data using system diagnostic mode save users memory under the functional set-up (see page 23-178).
- If the navigation unit is replaced or disconnected, a Map Matching must be done (see page 23-122).

1. Turn the ignition switch to ON (II).
2. Eject the DVD from the original navigation unit (see page 23-254). To avoid scratching or damaging the DVD, temporarily place the DVD in a jewel case.
3. Turn the ignition switch to LOCK (0).
4. Remove the trunk trim lining (see page 20-83).
5. Remove the four screws (A) from the navigation unit brackets (B).



6. Disconnect the navigation unit connectors (C).
7. Remove the navigation unit (D).
8. Install in the reverse order of removal.

9. Turn the ignition switch to ON (II), then reinstall the client's original DVD, verifying that the DVD is free of scratches or smudges.
10. Check any official Honda service website for more service information about patches for the navigation system. Apply any prescribed patches to the new navigation unit.

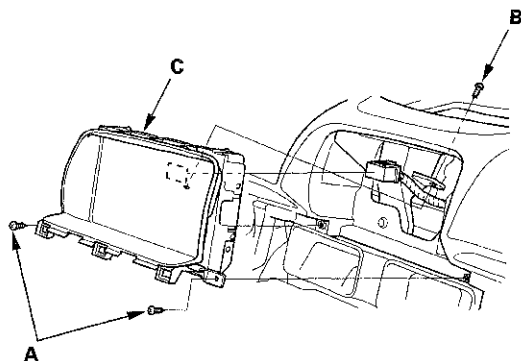
NOTE: Simply transferring the DVD from the original navigation unit to the new navigation unit does not assure the correct software for the vehicle will be loaded into the new navigation unit. Doing the DVD transfer without doing software patches may cause the new navigation unit to appear to be malfunctioning.

11. Enter the new navigation anti-theft code.
12. Park the vehicle outside, and do the GPS initialization (see page 23-121).
13. Give the new navigation anti-theft code to the client.

Navigation System

Navigation Display Unit Removal/Installation

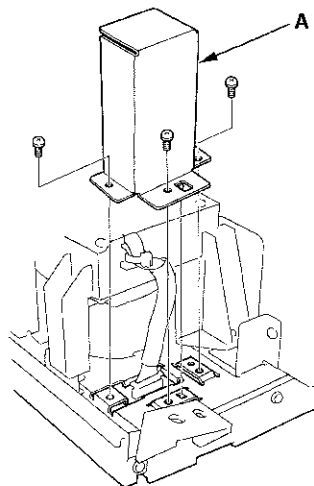
1. Remove the front center speaker (see page 23-110).
2. Remove the three screws (A, B), then remove the display unit (C). The forward screw (B) can be seen through the windshield or with a mirror.



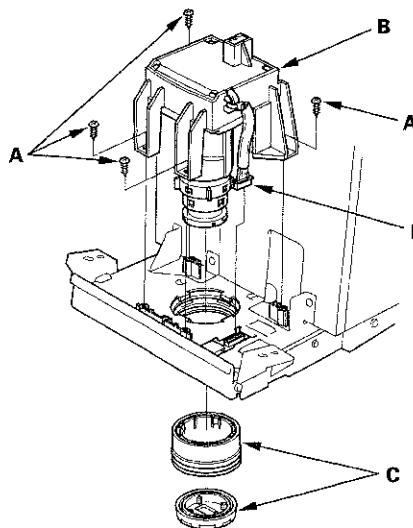
3. Install the unit in the reverse order of removal. Be careful not to drop the forward screw behind the dashboard.

Interface Dial Removal/Installation

1. Remove the audio unit (see page 23-106).
2. Remove the harness cover (A).



3. Remove the screws (A) and the jog dial (B) from the interface dial (C).

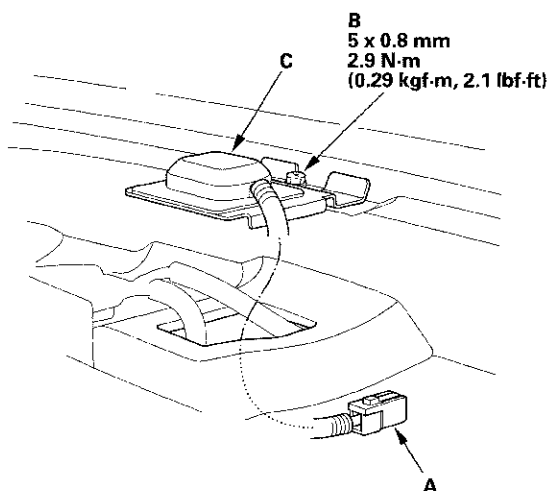


4. Disconnect the connector (D), then remove the interface dial.
5. Install the dial in reverse order of removal.



GPS Antenna Removal/Installation

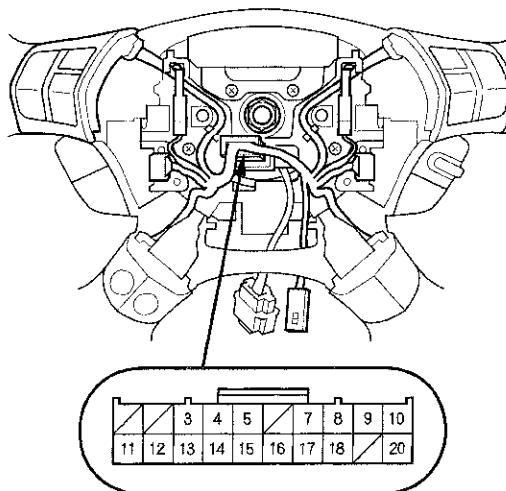
1. Remove the rear shelf (see page 20-80).
2. Remove the trunk trim (see page 20-83).
3. Disconnect the GPS antenna connector (A), and remove the bolt (B).



4. Remove the GPS antenna (C).
5. Install the antenna in the reverse order of removal.

Voice Control Switch Test

1. Remove the driver's airbag assembly (see page 24-197).
2. Remove the 20P connector from the cable reel.



Wire side of female terminals

3. Measure the resistance between the No. 18 and No. 20 terminals in each switch position according to the table.

Position	Resistance
No button pressed	About 10 k Ω
Talk button pressed	About 2.2 k Ω
Back button pressed	About 652 Ω

4. If the resistance is not as specified, replace the remote switch (see page 17-23), and replace the voice control switch (see page 17-23).

(cont'd)

Navigation System

Voice Control Switch Test (cont'd)

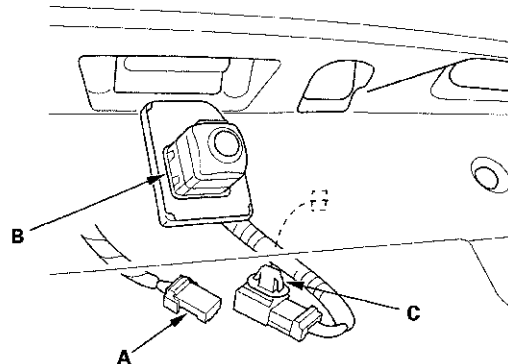
5. Use a diode tester between the terminals in each switch position according to the table.

Terminal	8		9
	○	⊞	○

6. If the diode test is not as specified, replace the remote switch (see page 17-23), and replace the voice control switch (see page 17-23).

Rearview Camera Removal/Installation

1. Remove the trunk lid trim (see page 20-85).
2. Disconnect the 6P connector (A) from the rearview camera (B).



3. Remove the clip (C).
4. Pull out the rearview camera assembly.
5. Install the rearview camera in the reverse order of removal.