#### Navigation System Diagnostic Mode

NOTE:

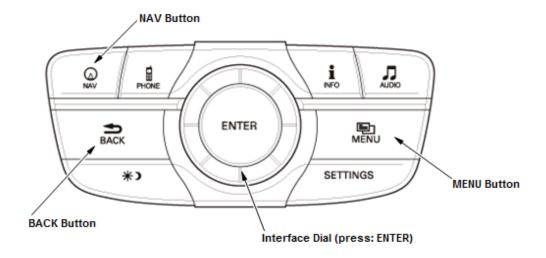
- Check the vehicle battery condition first.
- The screens detail indicated may change depending on equipment or specification.

## Start-Up Procedure and Diagnostic Menu

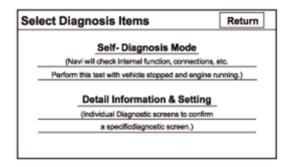
- 1. Press the engine start/stop button to select the ON mode. If needed, start the engine.
- 2. At any screen, use the center switch panel/interface dial buttons:

Press and hold the MENU button, the NAV button, and the BACK button for about 3 seconds or more. The center display unit and the ODMD<sup>(TM)</sup> (touch screen) goes directly to the diagnosis items menu shown:

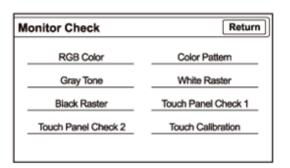
- Center display unit screen:
  - Self-Diagnosis Mode (runs the automatic diagnosis of the navigation system)
  - Detail Information & Setting (Can help you to manually diagnose the navigation system)
- ODMD<sup>(TM)</sup> (touch screen) screen:
  - Monitor Check (Can help you to manually diagnose the ODMD<sup>(TM)</sup> (touch screen))



#### CENTER DISPLAY UNIT



ODMD<sup>(TM)</sup>



# System Links

1. Select the Self-Diagnosis Mode from the Select Diagnosis Items menu. The message at the bottom of the screen flashes indicating "Diagnosis in progress..." While the diagnosis is running, do not press the engine start/stop button to select the OFF mode.

NOTE: The system cannot complete a full diagnosis unless the engine is running.

The diagnosis tests the following:

- Most of the links connecting the navigation components are shown in the block diagram.
- The results from the various components shown in the block diagram.
- The audio-navigation unit outputs the "Ba Ba Bong" sound produced by the audionavigation unit from the speakers when the diagnosis is started. This requires that the audio system be operating normally.

System Links	Help	Exit Diag	Return
CDDVD Mach F-CAN B-CAN Navi.Et B-CAN Hard Kay SXM Hard Kay Ramota Tunar	Enor History	Rear Camera ECU Inft. Yew Sensor Status u want to see detail	Mic HFL TCU GPS Art. Display

2. When the diagnosis finishes, the icons turn different colors based on their test status.

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

lcon Colors	Description
Green	The system ran a diagnosis and the results are OK.
Red <sup>*</sup>	Errors that require replacement of hardware or harness. Examples are connection error or memory diagnosis errors. Check for hard error codes.
Yellow	<ul> <li>Errors that do not require hardware replacement, such as leaving the vehicle in the ACC mode or because of a missing accessory.</li> </ul>
	• When the audio-navigation unit detects a failure, and stores DTC, the Error History icon turns yellow.
White	The diagnosis is running. The screen functions are locked out while the diagnosis runs.

lcon Colors	Description
Gray	<ul> <li>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 screen, the gray icon turns green.</li> </ul>
	<ul> <li>The Car Status icon anytime shows gray.</li> </ul>

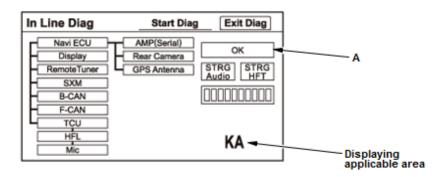
\*:The F-CAN icon and the B-CAN icon turns red when the vehicle is in the ACC mode. Check the System Links with the engine running, and if the F-CAN icon and the B-CAN icon turns green, the system is OK at this time.

3. Rotate the interface dial to select the icon when you want to diagnose. Press in the interface dial knob to see the details of that diagnostic function.

The icon colors 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 diagnosis.

# Factory Diagnostic Screen In Line Diag and Linking

If the vehicle left the factory in the factory diagnostic mode, you will see this screen every time you press the engine start/stop button to select the ON mode. Sometimes this screen also appears after you replace the audio-navigation unit with a new or remanufactured unit. Normally the factory does the steps necessary to verify proper operation and terminate the factory diagnosis. Until the proper confirmation sequence is done, the screen appears every time you press the engine start/stop button to select the ON mode.



NOTE: The system cannot complete a full diagnosis unless vehicle is in the ON mode.

 Select the Start Diag icon to check the connection between the audio-navigation unit and related components. When the connection diagnosis is in progress, the icon (A) indicates Detecting..., and each icon turns white. If the connection is OK, the icon turns green. If the connection is NG, the icon turns red. Check for connection between the audio-navigation unit and related unit on the failure connection line.

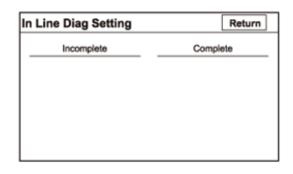
NOTE: When the item is a variation equipment, the icon shows yellow, and it is not reflected in diagnosis.

- 2. If the connection diagnosis is finished, press any of the audio remote switch buttons, and press any of the HFL switch buttons to check the audio remote-HFL switch connection. As each button is pressed, the corresponding icon on the display should turn green.
- 3. Press the TALK button, and within 6 seconds in a normal voice say "testing". The Mic Level indicator on the screen should momentarily turn green.
- 4. If all the diagnosis are OK, the icon (A) indicates OK. Select the Exit Diag icon to exit the diagnostic mode. The In Line Diag should not appear again.

# Forced Completing of In Line Diag and Linking

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

- 1. While displaying the In Line Diag screen, press and hold the MENU button, the NAV button, and the BACK button for about 3 seconds or more. The Select Diagnosis Items screen appears.
- 2. While displaying the Select Diagnosis Items menu screen, press and hold the NAV button until the In line Diag Setting screen appears.



3. Set the In Line Diag Setting to Complete, then select the Return icon twice to exit the diagnostic mode. The In Line Diag should not appear again.

# **Detail Information & Setting**

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

Select the item you want to check, and the test begins. To return to the previous screen, select the Return icon.

- Monitor Check
- Unit Check
- Functional Setup
- Diag. CRM (with AcuraLink)
- GPS Information
- Yaw Rate
- Guideline Setup
- Version

il Information & Se	tting Return
Monitor Check	GPS Information
Unit Check	Yaw Rate
Functional Setup	Guideline Setup
Diag.CRM	Version

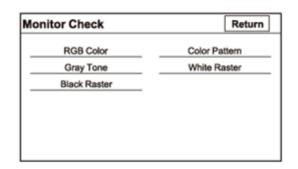
# **Monitor Check**

Overview of the center display unit.

The center display unit communicates with the audio-navigation unit over its own GA-Net bus. Display information sent by the audio-navigation unit to the center display unit via the video data bus (GVIF).

These screens allow you to troubleshoot the center display unit. Select the item you want to troubleshoot, and follow the diagnostic instructions.

- RGB Color
- Gray Tone
- Black Raster
- White Raster
- Color Pattern

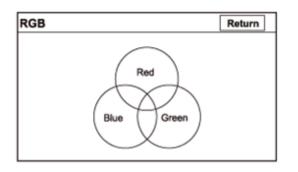


#### **RGB** Color

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

This screen verifies that the display 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.

The diagnostic screen is displayed in full screen mode when you press the NAV button. To return to the previous screen, press the NAV button again.

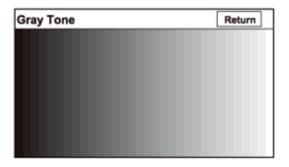


#### **Gray Tone**

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

This screen checks problems with contrast in 32 gradations. 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.

The diagnostic screen is displayed in full screen mode when you press the NAV button. To return to the previous screen, press the NAV button again.



#### **Black Raster**

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

This screen checks for pixels that may be stuck on. The entire display must be black.

The diagnostic screen is displayed in full screen mode when you press the NAV button. To return to the previous screen, press the NAV button again.

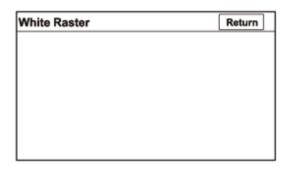


#### White Raster

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

This screen checks for pixels that may be dead (off). The entire display must be white.

The diagnostic screen is displayed in full screen mode when you press the NAV button. To return to the previous screen, press the NAV button again.



## **Color Pattern**

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

The screen 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 diagnosis.

The diagnostic screen is displayed in full screen mode when you press the NAV button. To return to the previous screen, press the NAV button again.

or	Patte	ern						Retu	ırn
_	-	гт	-						_
	+	++	+			_	_		
Ħ									
$\vdash$	-	++	-			_	_		
$\vdash$	+	++	+						
									_
$\square$									

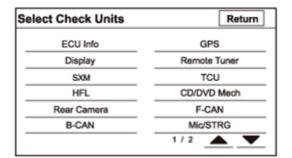
# **Unit Check**

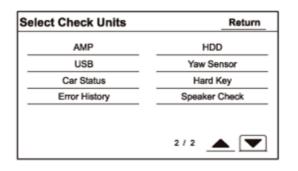
Some of the tests and screens that are displayed under the Unit Check are different from the more detailed checks listed under other menu options.

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

- ECU Info
- Display
- SXM<sup>\*</sup>
- HFL
- Rear Camera
- B-CAN
- GPS
- Remote Tuner
- TCU<sup>\*</sup>
- CD/DVD Mech
- F-CAN
- Mic/STRG
- AMP
- USB
- Car Status
- Error History
- HDD
- Yaw Sensor
- Hard Key
- Speaker Check

\*: With AcuraLink





#### ECU Info

This diagnosis checks for problems in the navigation ECU. When you start this diagnosis, the audio-navigation unit may freeze or delay up to a minute while the diagnosis runs.

- D-RAM: Displays the result of the access to the D-RAM (OK/NG).
  - To check the D-RAM, select D-RAM Check, then select Yes on the confirmation screen. While checking, do not press the engine start/stop button to select the ACC mode or the OFF mode. The system resets automatically.
  - Recheck the ECU Info diagnosis. If D-RAM shows NG, replace the audio-navigation unit.
- Program (Flash, HDD, DVD): Displays the version of the each software.
- Serial No.: Displays the audio-navigation unit serial number. That should be the same as the serial number found on the upper side of the audio-navigation unit.

NOTE: If the serial number displayed does not match the serial number found on the upper side of the audio-navigation unit, the annual navigation map update activation key may not work when updating the navigation map. In order for a navigation map update activation key to work, both number must match.

- DB Version: Displays the version of the database in the HDD.
- HDD Version: Displays the version of the HDD.
- Flash: Displays the result of the access to the flash memory (OK/NG). If NG, replace the audio-navigation unit.
- Model: For this vehicle and trim level, the field should begin with TX4.
- Coverage: Displays the destination market of the audio-navigation unit.

ECU Info			Return
D-RAM	0K (N/A)	Flash	ок
Program		Model	****
Flash	0.30.2286	Coverage	**
HDD	0.30.2286		
DVD			
Serial No.	CDB28000013		
DB Version	UX037.00.04		
HDD Version	4.008.014.1202	D-RAN	I Check

## Display

This diagnosis does additional checks on the GA-Net bus between the audio-navigation unit and the center display unit. This test also checks the internal electronic functions.

- If Connection shows NG, <u>Check for hard error codes</u>.
- Version: Displays the software version of the center display unit.
- If ROM or RAM shows NG, replace the center display unit.

Display		Return
Connection	ок	
Version	111216	
ROM	OK	
RAM	OK	

#### SXM (With AcuraLink)

This diagnosis checks the GA-Net bus between the audio-navigation unit and the tuner unit. the XM receiver has been integrated with the tuner unit.

If the GA-Net bus connection is OK, the system checks the XM antenna connection.

- If GA-NET shows NG, <u>check for hard error codes</u>.
- If XM Antenna shows NG, go to Error code: Check Antenna is displayed troubleshooting.

	Return
ок	
ок	

#### HFL

This diagnosis checks first whether the telematics control unit or the HandsFreeLink control unit is connecting to the audio-navigation unit via the GA-Net bus. With AcuraLink, HandsFreeLink control unit is built into the telematics control unit.

- If HFL shows B1792, go to the HFL DTC B1792 troubleshooting.
- If HFL and GA-NET shows NG, go to HFL does not respond troubleshooting.
- If USB shows NG:

NOTE: USB in this instance is referring to the HFT USB communication bus protocol between the telematics control unit or the HandsFreeLink control unit and the audio-navigation unit. It is not related to the USB port for the audio-navigation unit.

- Without AcuraLink, go to Phone book, TXT/E-mail does not work troubleshooting.
- With AcuraLink, <u>check for hard error codes</u>.
- Physical Address: Displays the telematics control unit or the HandsFreeLink control unit physical address (8E).
- S/W Version: Displays the telematics control unit or the HandsFreeLink control unit software version.
- Part Number: Displays the telematics control unit or the HandsFreeLink control unit parts number.

Check any official Honda service website to see if there are any updates available for the telematics unit or the HandsFreeLink control unit. If there are software updates available, <u>do the</u> Telematics Control Unit Update or the HandsFreeLink Control Unit Update.

HFL	Return
HFL	ок
GA-NET	ок
USB	ок
Physical Address	8E
S/W Version	00.04.003
Part Number	39770********
	Reflash

#### **Rear Camera**

This diagnosis checks the rearview camera connection.

- If Connection shows NG, <u>check for hard error codes</u>.
- If Connection shows OK, press the AUDIO button to display the rearview camera image. To
  return to the previous screen, press the AUDIO button again.

Rear Camera		Return
Connection	ок	

#### **B-CAN**

NOTE: This diagnosis must have the engine running.

This diagnosis checks whether the audio-navigation unit has received specific B-CAN data. If ERROR STATUS shows NO ERROR, an error is not detected between the B-CAN bus and the audio-navigation unit.

- If ERROR STATUS shows RAM ERROR, replace the audio-navigation unit.
- If the audio-navigation unit detects the B-CAN data reception error, ERROR Status shows RX ERROR.
- If ERROR STATUS shows TIME OUT, There is a possibility that some items are NG (red icon). When all the items from each transmitting unit is NG, check for B-CAN DTCs with the HDS. If DTCs not detected, check for continuity in the B-CAN lines between the audionavigation unit and the transmitting unit.

Target ID for Connection Check	Transmitting Unit
ACINFO	Climate control unit
MICU_ICU	MICU
ILLUMI	Gauge control module

B-CAN		Return
ERROR STATUS	NO ERROR	
KLDOORLOCK_SM/	A	F812
MVC_CAM_SW2		F887
MVC_STATUS		F8AB
ACSTATE		F97B
ACPRESET		F980
Must have eng	1 / 6 gine running for this te	

### GPS

This diagnosis checks the GPS antenna connection and the GPS receiver condition.

- If Antenna shows NG, <u>check for hard error codes</u>.
- If Receiver in Navi ECU shows NG, replace the audio-navigation unit.
- Select Information to see the GPS satellite details.

GPS	Return
Antenna	ок
Receiver in Navi ECU	OK
FirmWare Version	7.110- 090703
	Information

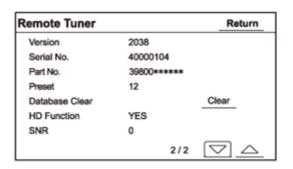
#### **Remote Tuner**

NOTE: For factory use only. Do not alter any settings unless directed.

This diagnosis shows the external radio tuner (AM/FM) status.

- Current Frequency can be changed by selecting TUNE.
- Source can be changed in this order: FM→AM→FM by selecting Change.
- Electric Field Intensity: Displays radio reception sensitivity (dBµV).
- ANT +B: Changes the AM/FM antenna power status ON or OFF.
- RDS BER: Displays the number of RDS error that is receiving.
- F-Check: Changes the station list automatic updating operation status ON or OFF.
- Antenna: If the vehicle has a diversity antenna, you can select the radio antenna function from Auto, Main, Sub, or PD (diversity).
- Version: Displays the tuner unit software version.
- Serial No.: Displays the tuner unit serial number.
- Part No.: Displays the tuner unit parts number.
- Database Clear: The Station list in the tuner unit can be cleared by selecting Clear.
- HD Function: Changes the HD Radio<sup>(TM)</sup> function status YES or NO.

Remote Tuner		Return	n
Current Frequency	810 kHz	- TUNE +	
Source	AM	Change	٦
Electric Field Intensity	-0.8 dBuV	- SEEK +	
ANT +B	ON	ON OFF	
RDS BER	0%		_
F-Check	OFF	ON OFF	_
Antenna	Auto	Auto Main Sub	PD
		1/2 🗢 🛆	2



## TCU (With AcuraLink)

This diagnosis shows the telematics control unit information via the USB between the audionavigation unit and the telematics control unit.

- Drawing Number: Displays the telematics control unit drawing number.
- Serial Number: Displays the telematics control unit serial number. That should be the same as the serial number found on the upper side of the telematics control unit.
- S/W Version: Displays the telematics control unit software version.
- VIN: Displays the VIN number that received from the B-CAN.
- IMSI: Displays the International Mobile Subscriber Identity (MAX 15 digits)
- Phone Module: Displays the phone module status (Active or Deactive)
- PRL Version: Displays the Preferred Roaming List version

These diagnosis checks the telematics control unit status.

- DTCs: Checks the telematics system DTCs. <u>Go to AcuraLink General Troubleshooting</u> <u>Information</u>.
- TEL Info: Displays the phone module information.
- Log: Displays the event log data (Type, Data, Time, Code) of the telematics control unit.
- Test: Checks the SMS function. Go to AcuraLink Self-Diagnostic Function.
- Reflash: Do not use this selection on this vehicle.

TCU Status	Return
Drawing Number	39770********
Serial Number	TAA2274133001T0B
SW Version	00.04.003
VIN	JH4KC1F99DC000027
IMSI	310009139464555
Phone Module	Active
PRL Version	55555
DTCs TEL Info	Log Test Reflash

#### **TEL Info**

TCU TEL Info		Return
Signal Strength	3	
BTS ID	3506	
SID	12305	
GPS LON	E	

## TCU Log

TCU Log		Return
Event	Date Time	Туре
SOC Rprt	07/27/12 06:32:09	SMS
SOC Rprt	07/27/12 06:32:09	SMS
SOC Rprt	07/27/12 06:32:08	SMS
SOC Rprt	07/27/12 06:32:08	
SOC Rprt	07/27/12 06:32:08	SMS
SOC Rprt	07/27/12 06:32:08	SMS
Call Estab	07/27/12 06:32:07	Data
Call Out	07/27/12 06:32:07	Data

#### **CD/DVD Mech**

This diagnosis checks the audio-navigation unit internal CD/DVD player mechanism.

Version shows CD/DVD mech version. When the audio-navigation unit can read the version number, Connection shows OK. If the version number cannot be read, Connection shows NG.

- Inserting the CD/DVD mech update disc allows you to select Download. Otherwise it is grayed out.
- To update the CD/DVD mech, you must insert the update disc before selecting this screen. If you insert the update disc when you are on this diagnosis, the DownLoad stays grayed out. In this case, exit the CD/DVD Mech screen and start the diagnosis again.

CD/DVD Mech		Return
Connection	ок	
Version	2.940	DownLoad

## **F-CAN**

NOTE: This diagnosis must have the engine running.

This diagnosis checks whether the audio-navigation unit has received specific F-CAN data. If ERROR STATUS shows NO ERROR, an error is not detected between the F-CAN bus and the audio-navigation unit.

- If ERROR STATUS shows RAM ERROR, replace the audio-navigation unit.
- If the audio-navigation unit detects the F-CAN data reception error, ERROR Status shows RX ERROR.
- If ERROR STATUS shows TIME OUT, There is a possibility that some items are NG (red icon). When all the items from each transmitting unit is NG, check for F-CAN DTCs with the HDS. If DTCs not detected, check for continuity in the F-CAN lines between the audionavigation unit and the transmitting unit.

Target ID for Connection Check	Transmitting Unit
METER_MID_INFO	Gauge control module

F-CAN	Return
ERROR STATUS NO ERROR	
ACC_FREEZE_LEVEL	439
EAT_DTC_HIGH	403
EAT_FREEZE_LEVEL	40F
ENG_ENG_SPEED	17C
ENG_ENG_COOLANT_TEMP	324
1 / 7 Must have engine running for this test.	

## Mic/STRG SW

This diagnosis checks whether the microphone is connecting to the telematics control unit or the HandsFreeLink control unit, and checks whether the HFL switch is communicating with the audio-navigation unit.

- If Mic shows HFL DTCs (B1775 or B1776), go to the indicated HFL DTC troubleshooting.
- If Mic shows NG, the GA-net bus connection may be open or short. <u>Check for hard error</u> <u>codes</u>.
- If STRG SW shows HFT DTCs (B1779 or B1780), go to the indicated HFT DTC

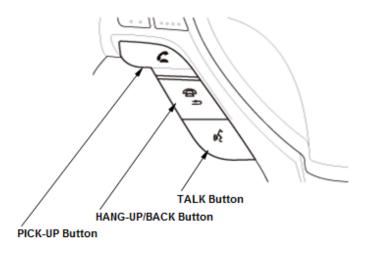
troubleshooting.

When Mic shows OK, press the PICK-UP, HANG-UP/BACK, and TALK buttons. As each button is pressed, the corresponding icon on the display should turn green.

- If any icon does not briefly turn green, <u>replace the audio remote-HFL switch</u>, and recheck.
- If all the icons do not turn green, <u>check for HFL DTCs</u>.

If you check the Mic Level, press the TALK button on the steering wheel, wait until Now Recording! is indicated, and in a normal voice say "testing". The Mic Level indicator on the screen should momentarily turn green. If there is no Mic Level movement when you speak, check for hard error codes.

Mic/STRG SW		Return
Mic	ок	
STRG SW	ок	
Steering Swite	h •	
Mic Level		



#### AMP

This diagnosis checks the stereo amplifier connection.

If Connection shows NG, go to No sound is heard from all the speakers (display is normal) troubleshooting.

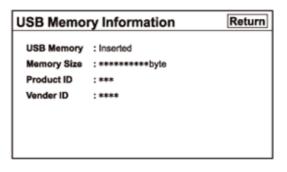
AMP		Return
Connection	ОК	

#### **USB Memory Information**

NOTE: Not all USB drives are compatible. See the Owner's Manual for more information.

This diagnosis displays the USB memory status that is connected to the audio-navigation unit.

If the USB memory is connected to the USB port, the screen displays the connection status (Inserted/Not Inserted), the USB memory size, and the Product ID, Vender ID.



## **Car Status**

Use this screen to confirm that the audio-navigation unit is properly receiving input signals. The displayed value changes each time according to the state of input signal.

ltem	Input	Description
VSP	VSP line	<ul> <li>1: When the vehicle speed pulse is received from the PCM</li> </ul>
		<ul> <li>0: When the vehicle speed pulse is not received from the PCM</li> </ul>
ILL	B-CAN lines	<ul> <li>1: When parking lights, or headlights are on</li> </ul>
	(from gauge control module)	<ul> <li>0: When parking lights, or headlights are off</li> </ul>
PARK	B-CAN lines	<ul> <li>1: When the parking brake is applied</li> </ul>
		<ul> <li>0: When the parking brake is not applied</li> </ul>
IGNITION	B-CAN lines	<ul> <li>1: When the vehicle is in the ON mode</li> </ul>
		<ul> <li>0: When vehicle is in the ACC mode</li> </ul>
BACK	BACK LT line	<ul> <li>1: When the transmission is shifted to R position/mode</li> </ul>
		<ul> <li>0: When the transmission is shifted to any position/mode other than R position/mode</li> </ul>

## Navigation System Diagnostic Mode 5190

ltem	Input	Description
ILL CANCEL	B-CAN lines	<ul> <li>1: When the dashlights brightness control is more than 90 % brightness with the parking lights turned on</li> </ul>
		<ul> <li>0: When the dashlights brightness control is less than 90 % brightness with the parking lights turned on</li> </ul>
REAR DEF	B-CAN lines	<ul> <li>1: When the rear window defogger is working</li> </ul>
		<ul> <li>0: When the rear window defogger is not working</li> </ul>
ILL DUTY	B-CAN lines (from gauge control module)	With the parking lights on, use the dashlights brightness control to dim and brighten the gauge. The value changes from 1 (max low) to 22 (max high).
FOB	B-CAN lines	0 to 2 (display notification ID)
RECEIVED VIN NO	B-CAN lines	This item indicates the VIN that received from the PCM.
INTERNAL REGISTRATION VIN NO	B-CAN lines	This item indicates the initial registration VIN that is saved in the audio- navigation unit.
ADDITIONAL REGISTRATION VIN NO	B-CAN lines	This item indicates the additional registration VIN when the audio-navigation unit is substituted into another vehicle, or when a PCM is substituted or replaced into this vehicle.

Car Status			Return
VSP	[0]	ILL CANCEL	[0]
ILL	[1]	REAR DEF	[1]
PARK	[1]	ILL DUTY	[15]
IGNITION	[1]	FOB	[1]
BACK	[1]		
RECEIVED VI	N NO		*******
INITIAL REGIS	STRATION VI	N NO	•••••
ADDITIONAL	REGISTRATIO	ON VIN NO	•••••

## **Error History**

If you select Hard Error or Soft Error, you can see the error information. <u>Refer to How to Check</u> for Error History to use this diagnosis.

Error History	Return
Hard Error	
Soft Error	

## HDD

This diagnosis checks the HDD mount error and the HDD temperature, and displays a list of total and free capacities of each partition.

If HDD Status shows NG, check for hard error codes.

NOTE: If HDD Status shows NG, the screen may not show the free and total capacities of each partition and the temperature.

HDD		Return
HDD Status OK	HDD Temp.	51°C
Partition Size	Free (byte)	Total (byte)
Part00:	23605851136 (49%)	47244653568
Part01:	1073761792 (99%)	1073769984
Part02:	2903793152 (67%)	4294983168
Part03:	4258205184 (99%)	4294983168
Part04:	Unmount	
Part05:	Unmount	
Part06:	1073765888 (99%)	1073769984
Part07:	7756446720 (90%)	8589966336
Part08:	7756446720 (90%)	8589966336
	Save	Error History

## Yaw Sensor

This diagnosis checks the gyro functionality based on the two voltages Sensor and Offset. For more information, see the Yaw Rate diagnosis.

Yaw Sensor		Return
Zero Point Output	ок	
Output Value	2,509 V	
Current Offset	2,500 V	
Temperature in ECU	36 *C	

### Hard Key

This diagnosis tests the interface dial, the center switch panel buttons that surround it, and the audio remote-HFL switch.

To complete the each test, control the audio remote-HFL switch, press the center switch panel buttons, and move the interface dial to each indicated position. As each function is tested, the corresponding button on the display should highlight. To exit, press in and hold the interface dial knob.

If the test cannot be completed, the corresponding icon on the Hard Key menu screen shows red.

- Steering Key: Checks the audio remote-HFL switch buttons.
- Hard Key: Checks the center switch panel buttons and the interface dial.

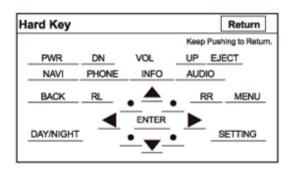
NOTE: You cannot use the onscreen return button to exit this function.

Hard Key	Return		
Steering Key	Hard Key		

#### Select Steering Key

Steering Key	Return
CH UP VOL UP MODE VOL DOWN CH DOWN OFF HOOK ON HOOK Talk SW	

### **Select Hard Key**



#### **Speaker Check**

NOTE: While doing the diagnosis, the fader and the balance positions are set to the center.

This diagnosis checks the audio speakers individually.

Selects NEXT or BACK to select Speaker. A tone should sound from the speaker.

When you select NEXT, the system checks the speakers in this order:  $1 \rightarrow 2 \rightarrow 3 \rightarrow 4 \rightarrow 5 \rightarrow 6 \rightarrow 7 \rightarrow 3 \rightarrow 9 \rightarrow 1 \rightarrow 1$ 

When you select BACK, the system checks the speakers in this order:  $1 \rightarrow 1 \rightarrow 1 \rightarrow 1 \rightarrow 1 \rightarrow 3 \rightarrow 7 \rightarrow 6 \rightarrow 5 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1$ 

Navigation System Diagnostic Mode 5190

	Display Message	Vehicle Test Condition
1	FR L	You should hear a tone from the driver's door speaker
2	CNT	You should hear a tone from the front center speaker
2	FR R	You should hear a tone from the front passenger's door speaker
Ū.	RR R	You should hear a tone from the right rear door speaker
5	SWF	You should hear a tone from the subwoofer
6	RR L	You should hear a tone from the left rear door speaker
0	FRTW L	You should hear a tone from the left tweeter
8	FRTW R	You should hear a tone from the right tweeter
8	SUR L	You should hear a tone from the left satellite speaker
10	SUR R	You should hear a tone from the right satellite speaker
10	ALL	You should hear a tone from all speakers

Speaker Check		Return
Check Speaker	FRL	
	NEXT	BACK

# **Functional Setup**

Select the item you want to check.

- Mic/STRG SW<sup>\*</sup>
- HDD Rec. Deterrent
- All Clear
- Pandora Setting (USA models)
- Save User Memory
- Demo Mode

\*: Refer to the Unit Check for details.

nctional Setup	Return	
Mic / STRG SW	Pandora Setting	
HDD Rec. Deterrent	Save User Memory	
All Clear	Demo Mode	

# HDD Rec. Deterrent

This setting allows you to enable or disable recording CDs to the audio-navigation unit HDD. Refer to the Owner's Manual for more information about recording music to the HDD.

NOTE: If the HDD Rec. Deterrent is set to on, and the client tries to rip a CD to the HDD, an error message appears on the screen.

IDD Record Det	D Record Deterrent Setting		Return	
Deterrent Setting	OFF	ON	OFF	

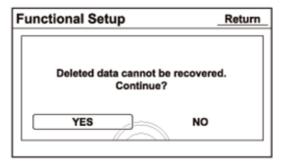
# All Clear

The all clear function deletes the all the ripped music, the images, and the previous destinations from the audio-navigation unit HDD.

If you select the YES icon, the second Confirmation screen appears.

Functional Setup	Return
All Clear?	
YES	NO

When the YES icon is selected, the system restarts after performing the All Clear process. After the restart, a normal start-up process occurs and needs GPS initialization.



# **Demo Mode**

This screen is for factory use only, and should always be set to OFF. Occasionally DEMO setting is turned ON when vehicles are being used at auto shows or similar events. Turning this feature on allows the navigation system to automatically follow a route to a destination when the vehicle is stationary. Speed Rate changes the speed of the demo mode.

Demo Mode			Return
Demo	OFF	ON	OFF
Repeat	OFF	ON	OFF
Speed Rate			
MotorWay		75	mile / hour
FerryWay		43	mile / hour
TollWay		62	mile / hour
OtherWay		43	mile / hour

## Save User's Memory

NOTE: If the HDD is good, transfer it to the new audio-navigation unit. If the HDD is NG, try this procedure to see if you can recover some information.

When replacing the audio-navigation unit, this function allows the dealer to transfer the client's personal data to the new audio-navigation unit. The transferred information includes their Setup settings, and personal addresses. The dealer inserts a USB memory device into the USB adapter, and then selects the Save User's Memory function. The two functions in this diagnostic screen are Export and Import. Export saves the client's data to the USB memory device, and Import moves the USB memory device files to the new audio-navigation unit.

Save User's Memory	Return
Export	Import

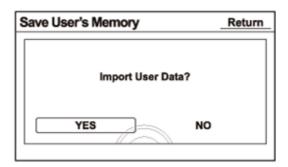
1. Select Export button to move the client's data from the original audio-navigation unit to the USB memory. Select the YES icon on the Export User Data Confirmation screen. The process takes only a couple of seconds. The system stores .DAT files on the USB memory.

NOTE: If Export button is grayed out, check the USB adapter connector.

Save User's Memory	Return
Export User Data?	
YES NO	

- 2. After replacing the new audio-navigation unit, allow the system to boot up. Insert the USB memory device into the USB adapter and enter the Save User's Memory in the navigation system diagnostic mode.
- 3. Select Import button to move the two files stored by the Export process from the USB memory device to the new audio-navigation unit. Select the YES icon on the Import User Data Confirmation screen. When the transfer is finished (a few seconds) the system automatically reboots. After the system reboots, remove the USB memory device from the USB adapter.

NOTE: If Import button is grayed out, check if the Model and the Program Flash shown on the Version screen are the same.



# Pandora Setting (USA models)

This screen allows you to enable or disable the Pandora function. Refer to the Owner's Manual for more information about the Pandora function.

If you enable or disable Pandora function, the settings are effective the next time the audionavigation unit is started-up next time.

Pandora Se	andora Setting		
PANDORA	Enable	Enable	Disable

# Diag. CRM (With AcuraLink)

This diagnosis allows you to clear the stored vehicle's DTCs in the audio-navigation unit. For more information, <u>go to AcuraLink General Troubleshooting Information</u>.

Diag.CRM	Return
DTC Log data	
Diagnostic Info	
Clear DTC Log	

## **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 GPS 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.

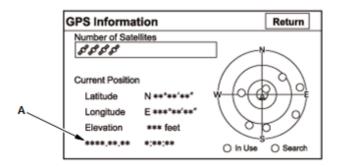
NOTE: When you use this screen for troubleshooting, park the vehicle outside, away from

http://tor.in.honda.com/Rjanisis/pubs/sm/1/2/Contents/enu/61TX4D/TRS/SCT/SC/SYS/T005190\_enu/web/html/T005190\_enu\_Print.html

Navigation System Diagnostic Mode 5190

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 GPS satellites (maximum of 13). It should contain three or more icons.
- 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 (A) shows the current date and time that is received from the GPS satellite.



NOTE: Pressing the NAV button displays the GPS satellite number on each circle.

## **GPS** Detail

On the GPS Information screen, by pressing and holding the MENU button for 3 seconds, a GPS Detail screen appears. This screen displays real time incoming GPS 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 D	)etail						Return
-00000000000000000000000000000000000000	PRN 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ST 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	AZI 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EL000000000000000000000000000000000000	<sup>N</sup> OOOOOOOOOOOOOOOO	ACC 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	TS: # AS: # HDop: # VDop: # Speed: 0.0 Mi/h Direction: 0.0° Date: 2007.01.07 Time: 0:01:07

- The box TS/AS and HDop (horizontal dilution of precision)/VDop (vertical dilution of precision) is for factory use.
- The Speed and the Direction information is updated in real time when driving.
- The Date/Time Information is received from the GPS satellite.
- 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.
- 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 GPS satellite on the circular diagram.

Column	Description	Problem Indication
3D	Active satellites (Yellow Dot)	If 3D or 2D is missing when the vehicle is parked outside, <u>check for</u> <u>hard error codes</u>
PRN	The satellite ID number	
ST	The status: 0 = Cannot view or searching 2 = Tracking 4 = Acquiring (It is not being used for positioning) 8 = Acquiring (It is being used for positioning)	If all 0, <u>check for hard error codes</u>
AZI	Azimuth, the angle $(0-360)$ clockwise from north	
EL	Elevation from the horizon (90 deg is overhead)	
C/N	Receiver sensitivity	Normal signal: 49-52 No signal: 27-33
ACC	Satellite accuracy	

# Yaw Rate

This diagnosis checks the gyro in the audio-navigation unit. This device detects when the vehicle turns, and repositions the vehicle position icon on the map screen.

- Sensor indicates the voltage output from the gyro. It should indicate about 2.300 V-2.700 V when the vehicle is stopped.
- Offset is the reference voltage or standard within the gyro. It also should indicate about 2.300 V -2.700 V when the vehicle is stopped.
- A sensor output voltage HIGHER than the Offset voltage indicates that the vehicle is turning to the right.
- A sensor output voltage LOWER than the Offset voltage indicates that the vehicle is turning to the left.
- The yaw rate offset, and sensor should both indicate about 2.300 V-2.700 V when the vehicle is stopped. If either reads below 2.300 V, or above 2.700 V, replace the audio-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 audio-navigation unit.
- CCW Factor and CW Factor are all for factory use.
- Tuning: Allows you to graphically display problems with the gyro.

Yaw Rate		Return
Sensor Offset	2.500V 2.500V	
CCW Factor	0.4%	
CW Factor	- 0.3%	Tuning

## Yaw Rate Tuning

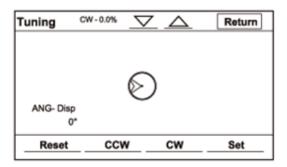
This diagnosis allows you to graphically display problems with the yaw rate sensor.

- The ANG-Disp value accumulates any differences between the offset, and sensor voltages (see Yaw Rate diagnosis). When the sensor functions normally, the random changes in these two voltages generally cancels out, so the value is 0. However if one voltage is consistently higher than the other, then the ANG-Disp value accumulates the constant change.
- The Reset button temporarily clears the angular accumulation (ANG-Disp), and clears the display dots.
- Do not select CCW, CW, or Set. These are used for factory setup only.

Two tests are explained. For gross problems with the sensor, the stationary test usually confirms whether the sensor is defective. For yaw rate issues related to driving, do the road test.

- 1. Stationary test: If the VP icon spins with the vehicle parked and the engine running and the ANG-Disp value slowly increases or decreases, the yaw rate sensor is defective. Replace the audio-navigation unit.
- 2. Road test: Drive the vehicle on a very straight, smooth road. Enter the diagnostic mode, select Yaw rate, and select 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 audio-navigation unit's yaw sensor is defective. To run the test again, select Reset to clear ANG-Disp, and the dotted lines.

If either test above fails, please enter Yaw rate sensor defective for the problem description, on the audio-navigation unit return form.



# **Guideline Setup**

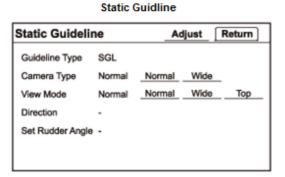
This screen allows you to adjust the static guideline or the dynamic guideline. Select the item you want to adjust.

NOTE: Do not adjust the monitor position unless directed by a service bulletin.

uideline Setup	Return
Static Guideline	Dynamic Guideline

If you select the Static Guideline icon or the Dynamic Guideline icon, the rearview camera mode selection screen appears. Set the view mode and select the Adjust icon.

- Guideline Type
  - SGL: Static Guideline
  - DGL: Dynamic Guideline
- Camera Type
  - Normal: Normal view camera
  - Wide: Wide view camera
- View Mode
  - Normal: Normal view mode
  - Wide: Wide view mode
  - Top: Top down view mode
- Direction (Dynamic Guideline only)
  - L: Guidelines direction to left
  - R: Guidelines direction to right
- Set Rudder Angle (Dynamic Guideline only): The guidelines of selected rudder angle is displayed.

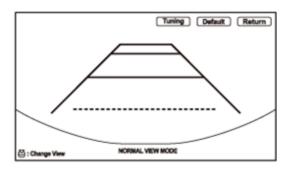


-			
Dyna	mic	Guid	line
- <b>Dyne</b>		oulu	

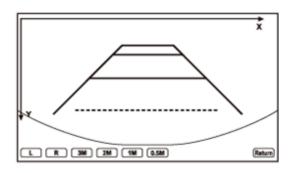
Dynamic Guideline			Return
DGL			
Normal	Normal	Wide	-
Normal	Normal	Wide	Тор
L	L	R	_
Lock End	180°	270°	360°
	450°	540°	Lock End
	DGL Normal Normal L	DGL           Normal         Normal           Normal         Normal           L         L           Lock End         180°	DGL           Normal         Normal         Wide           Normal         Normal         Wide           L         L         R           Lock End         180°         270°

If you select the Adjust icon in the previous screen, the rearview camera guidelines adjustment screen appears. You cannot select the view mode using the interface dial on this screen.

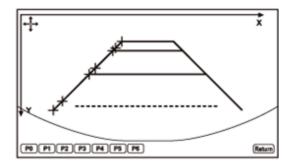
- Default: All guide lines can be reset to the factory specification.
- Return: Returns to the Guide Line Setup main screen.
- Tuning: Adjusts the guide line on the adjustment screen.



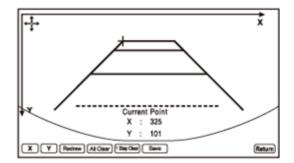
When select the Tuning icon, the guideline setup submenu appears. Select the guideline using the interface dial, then press ENTER.



When the guideline adjust points appears, select the adjust point using the interface dial, then press ENTER.



Select the direction (X or Y), and move the adjust points up/down or left/right, then select the Redraw icon and reflect the change of the guidelines. If you want to keep the setting, select the Save icon.



# Version

This screen shows the current version information for the navigation system.

- Program: Displays the version of the navigation software in the audio-navigation unit.
- ERATO, BU uCom, IPL, DBOOT, HDD, and DSP are all for factory use.
- Model: For this model, the field should begin with TX4.
- Coverage: Displays the destination of the audio-navigation unit.

Version			Return
Program			
SH		IPL.	3.200.221
Flash HDD	0.30.2084	DBOOT	4.013.120
USB		HDD	4.008.013.1201
Disc		DSP	
ERATO		Model	****
IPL.	00.7D.D001	Coverage	**
APP	00.7D.D001		
BU uCom			
APP	00.7C1		DownLoad

If you need to Download (install) an older software version into the audio-navigation unit, do the following:

NOTE: Older software should only be installed when directed by Tech Line.

- 1. Insert the update DVD or USB memory in which the software is installed.
- 2. Select DownLoad in the Version screen.
- 3. If you are loading older software into the audio-navigation unit's memory, a Confirmation screen appears warning you that the version being uploaded is older than the currently loaded software. Select Yes on the Confirmation screen.

Versi	ion	_Return_
	Warning: This will repla software with an older Are you sure you want SH USB Version : 0.00. ERATO USB Version : 0	version. to do this? 5000
	YES	NO

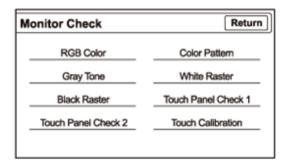
4. The navigation system reboots. Check that the navigation display shows the map properly.

# **Monitor Check**

Overview of the ODMD<sup>(TM)</sup>.

These screens allow you to troubleshoot the ODMD <sup>(1M)</sup> . Select the item you want to
troubleshoot, and follow the diagnostic instructions.

- RGB Color
- Gray Tone
- Black Raster
- Touch Panel Check 2
- Color Pattern
- White Raster
- Touch Panel Check 1
- Touch Calibration

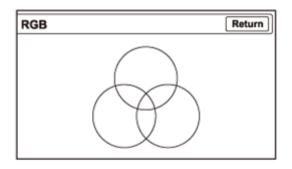


## **RGB** Color

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

This screen verifies that the ODMD<sup>(TM)</sup> is displaying the RGB (Red, Green, and Blue) components properly. The three primary colors should all appear without distortion. The combination of all three should produce a central white section.

The diagnostic screen is displayed in full screen mode when you touch the screen. To return to the previous screen, touch the screen again.

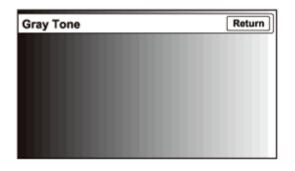


#### **Gray Tone**

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

This screen checks problems with contrast in 32 gradations. 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.

The diagnostic screen is displayed in full screen mode when you touch the screen. To return to the previous screen, touch the screen again.



## **Black Raster**

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

This screen checks for pixels that may be stuck on. The entire display must be black.

The diagnostic screen is displayed in full screen mode when you touch the screen. To return to the previous screen, touch the screen again.



### **Touch Panel Check 2**

If you touch any icons on the screen, the icon color changes while pressing the icon. If any icons on the screen do not respond, <u>replace the ODMD<sup>(TM)</sup> panel</u>.

Đ	⊕ [	Return
⊞	⊞	⊞
ŧ	Ŧ	€

# **Color Pattern**

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

The screen shows the colors being used for the menu screens. This is for factory use only. To check the color signal, use the RGB Color diagnosis.

The diagnostic screen is displayed in full screen mode when you touch the screen. To return to the previous screen, touch the screen again.

olor Patten Return							
			TT	TT			
++	++	++	++	++	++	+	++
++	++	++	++	++	++	+	++
++	++	++	++	++	++	$\rightarrow$	++-
	++	++	++	+		_	++
			+	+ +			
			++				+

#### White Raster

NOTE: Displaying an anomaly in this diagnosis screen is not necessarily a failure.

This screen checks for pixels that may be dead (off). The entire display must be white.

The diagnostic screen is displayed in full screen mode when you touch the screen. To return to the previous screen, touch the screen again.

White Raster	Return

### **Touch Panel Check 1**

The panel touch sensing system consists of a touch sensitive resistive membrane covering the ODMD<sup>(TM)</sup> display. The screen has to be physically touched to make it work. The display has the capability of 800 touch locations (left to right), and 480 touch locations (top to bottom). The upper left hand corner is position (0, 0) and the lower right hand corner is (800, 480) as displayed. Touching anywhere on the screen displays the coordinate of the location, and cause the place you touch to display a + icon. If any area of the screen either does not respond, or responds at some other location when touched, then replace the ODMD<sup>(TM)</sup> panel.

NOTE: A box appears after you touch the screen.

X:0 Y:0		Return
	٠	
		X:375 Y:232 X:800 Y:480

## **Touch Calibration**

The panel touch sensing system consists of a touch sensitive resistive membrane covering the ODMD<sup>(TM)</sup> display. The screen has to be physically touched to make it work. The display screen uses a touch sensitive membrane. This means that every location of the entire surface of the display is touch sensitive. This diagnosis allows alignment of these touch locations with the location of the buttons images on the screen.

This should never need adjustment, and is used only by the factory to adjust the touch locations for parallax (the touch locations appear different when viewed at an angle). If you are directed to make an adjustment by the factory or other service information, follow this procedure:

- The screen consists of the + icons. Select Start, and long press the center of the five + icons on order 1-5.
- To store any changes you make, Select Set.
- Select Return to exit the diagnosis.

