

Component Procedures: Navigation System

Table of Contents

1. Parts and Labor (itype_189)
2. Car-Navigation System (Standard Type Audio) (Article 1457738)
3. Car-Navigation System (Bose(R) Type Audio) (Article 1457736)
4. Navigation (Article 16347)
5. Components (itype_32)
6. Removal and Replacement (itype_401)
7. All Technical Service Bulletins (itype_100)
8. Customer Interest Bulletins (itype_109)
9. Repair Tips (itype_110)
10. Component Tests and General Diagnostics (itype_383)
11. Initial Inspection and Diagnostic Overview (itype_377)
12. Troubleshooting Index (Article 1459246)
13. Quick Diagnostic Chart (Article 1459287)
14. No.1 Display Screen Does Not Open Even If the Ignition Switch Is Turned to the Acc Position. (Article 1459279)
15. No.2 Display Screen Changes to Black. (Article 1459280)
16. No.3 Display Screen Changes to White. (Article 1459281)
17. No.4 System Does Not Load the MAP Disc. (Article 1459282)
18. No.5 Vehicle Position Deviates From the Route MAP. (Article 1459283)
19. No.6 Car-Navigation Control Switch Is Inoperative. (Article 1459443)
20. No.7 No Voice Navigation (Article 1459284)
21. No.8 Display Screen Does Not Change to the Night Mode. (Front and Rear Combination Lights Operate Normally.) (Article 1459285)

Component Procedures: Navigation System

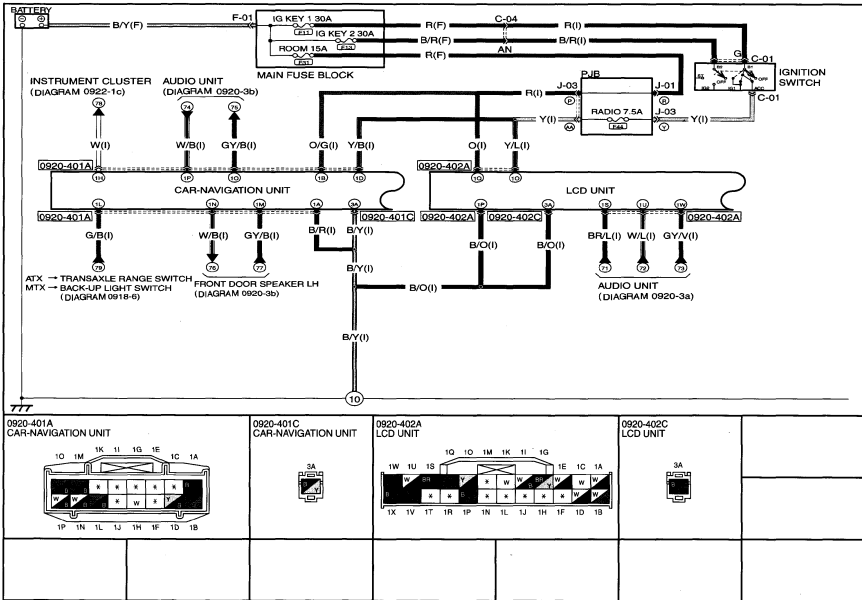
Parts and Labor (itype_189)

Labor

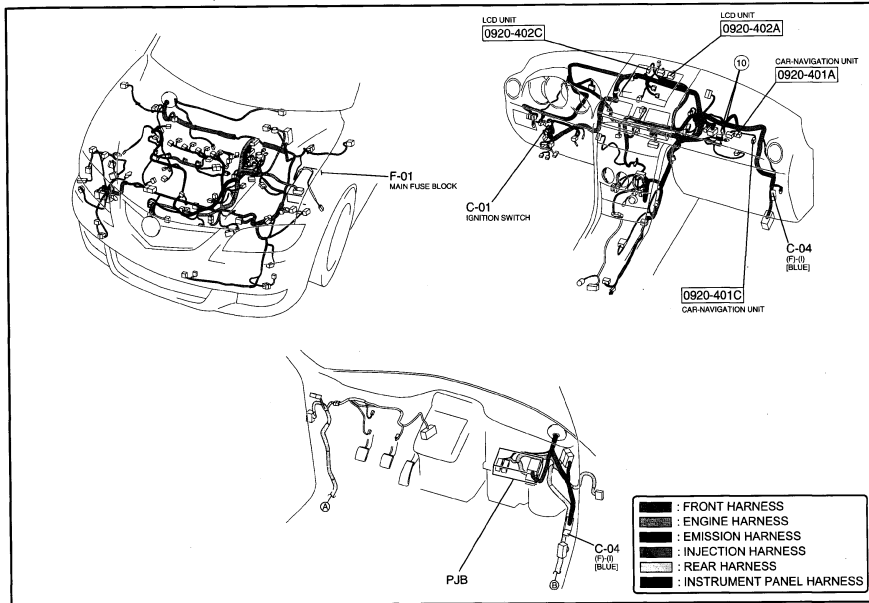
Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Replace	Antenna	B	0.4	0.0

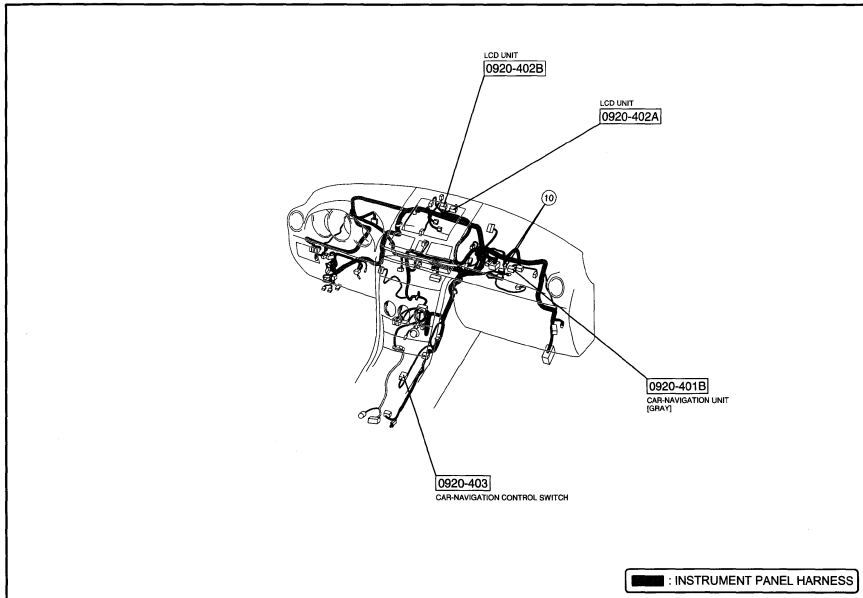
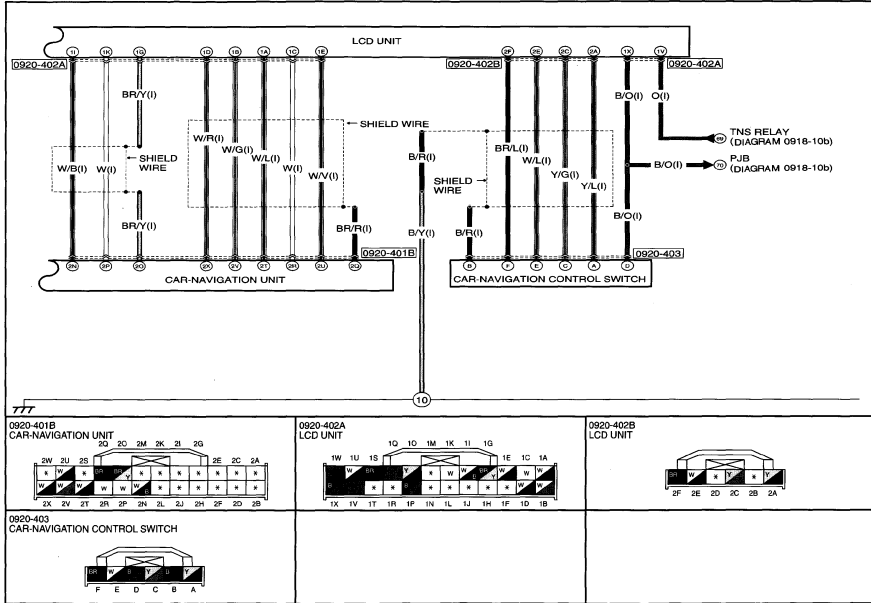
Car-Navigation System (Standard Type Audio) (Article 1457738)

CAR-NAVIGATION SYSTEM (STANDARD TYPE AUDIO) 0920-4a



CAR-NAVIGATION SYSTEM (STANDARD TYPE AUDIO) 0920-4a

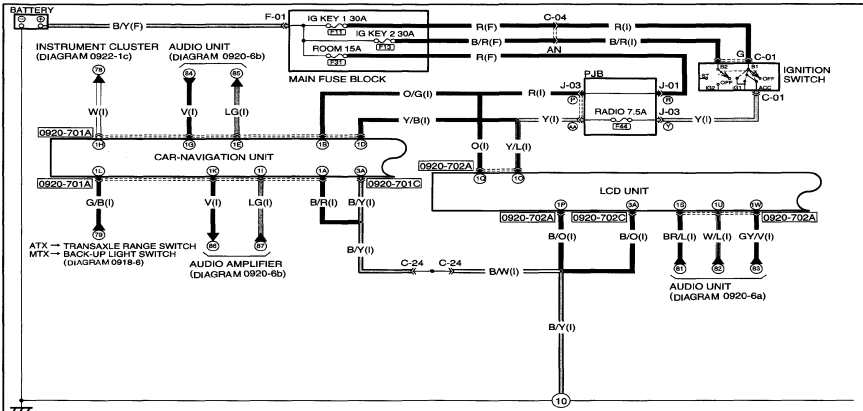




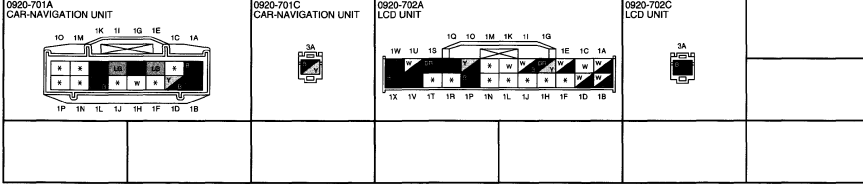
Car-Navigation System (Bose(R) Type Audio) (Article 1457736)

CAR-NAVIGATION SYSTEM (Bose® TYPE AUDIO)

0920-7a

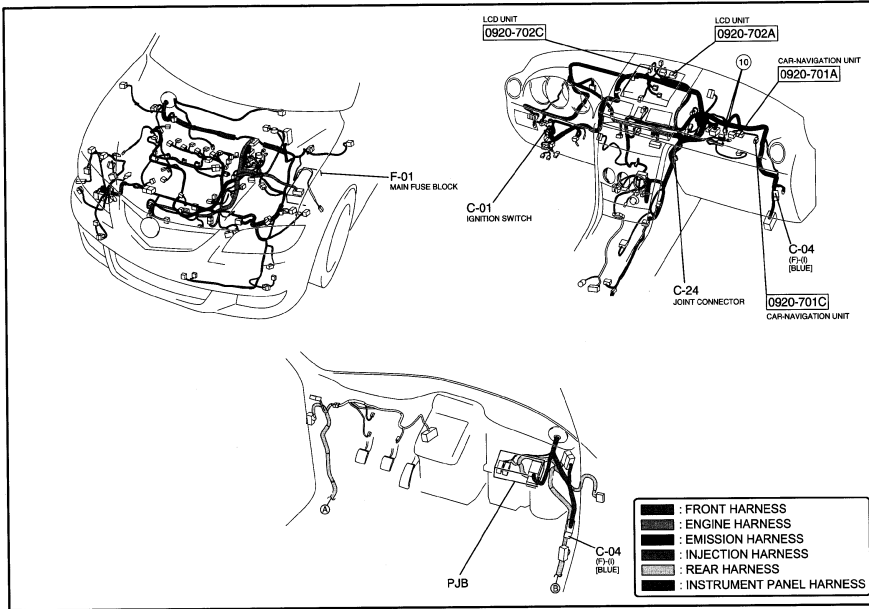


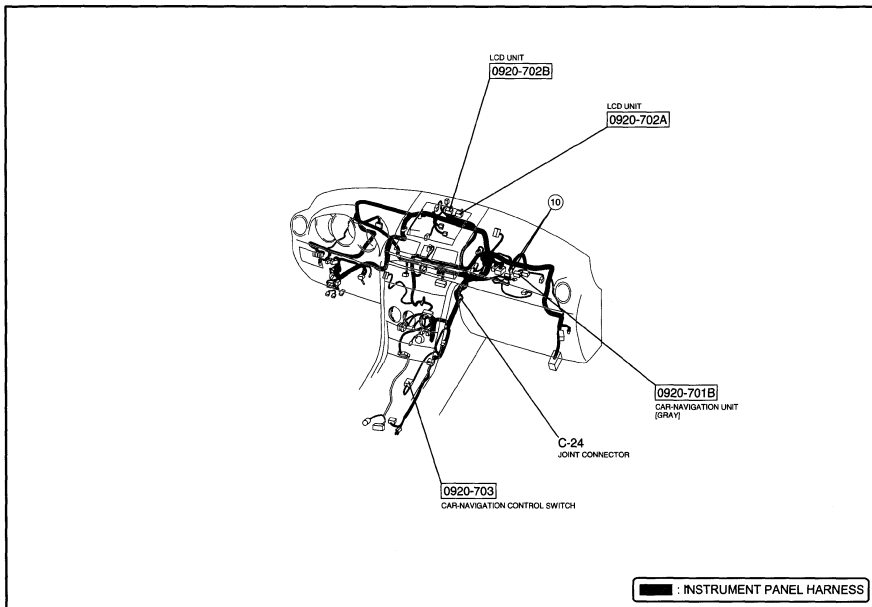
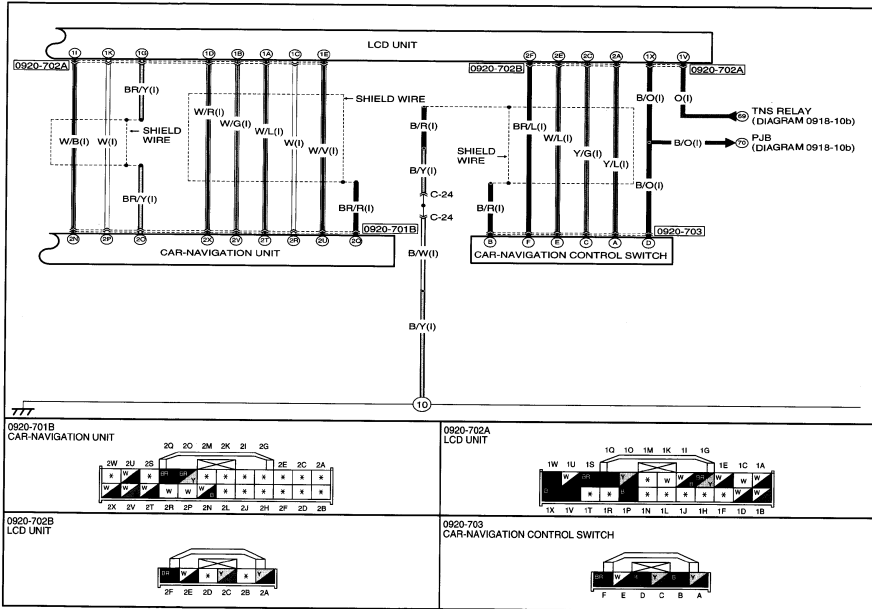
777



CAR-NAVIGATION SYSTEM (Bose® TYPE AUDIO)

0920-7a



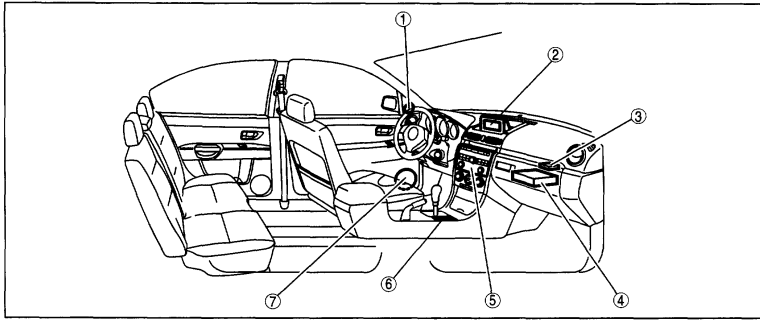


Navigation (Article 16347)

Navigation
Page 1 of 1

Components (itype_32)

Car-navigation System



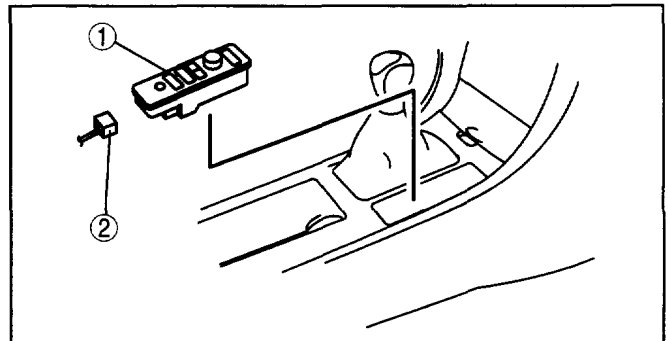
c3u0920w104

1	Front tweeter
2	LCD unit
3	GPS antenna
4	Car-navigation unit

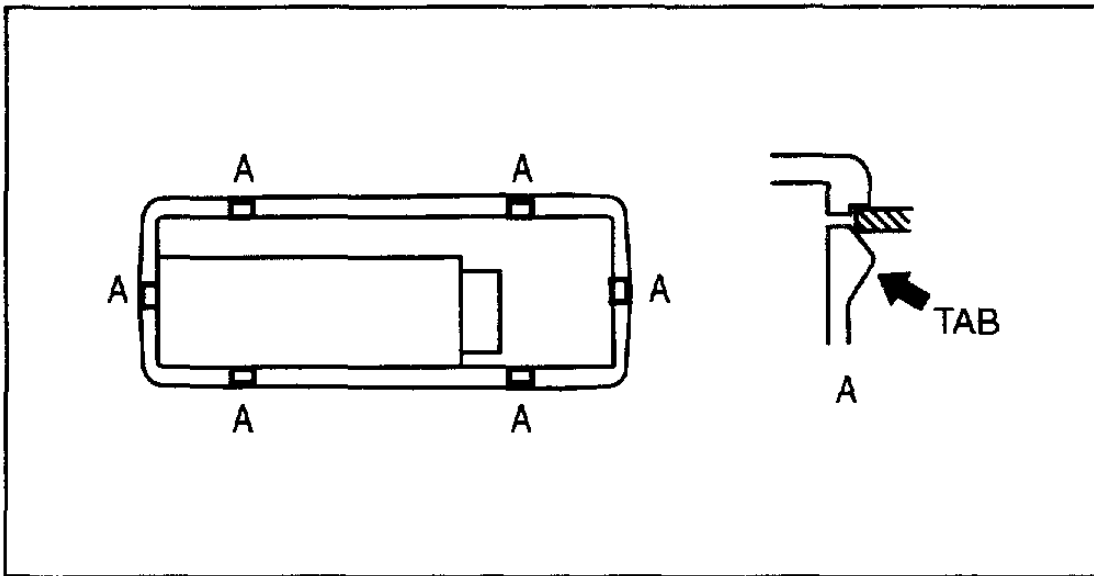
5	Center panel module
6	Car-navigation control switch
7	Front door speaker

Removal and Replacement (itype_401)

1	Car-navigation control switch
2	Connector



am3uuw000084



am3uuw000084

All Technical Service Bulletins (itype_100)

Tsbs

- Navigation System - Display Standard For Failed Pixels (0908109, 2009/12/21)
- Navigation System - Displays Incorrect Map or No Map (0900308, 2008/01/16)
- Navigation System - Beep Sound From Dash While Driving (MTIP-08-12-6, 2008/12/01)

Customer Interest Bulletins (itype_109)

Tsbs

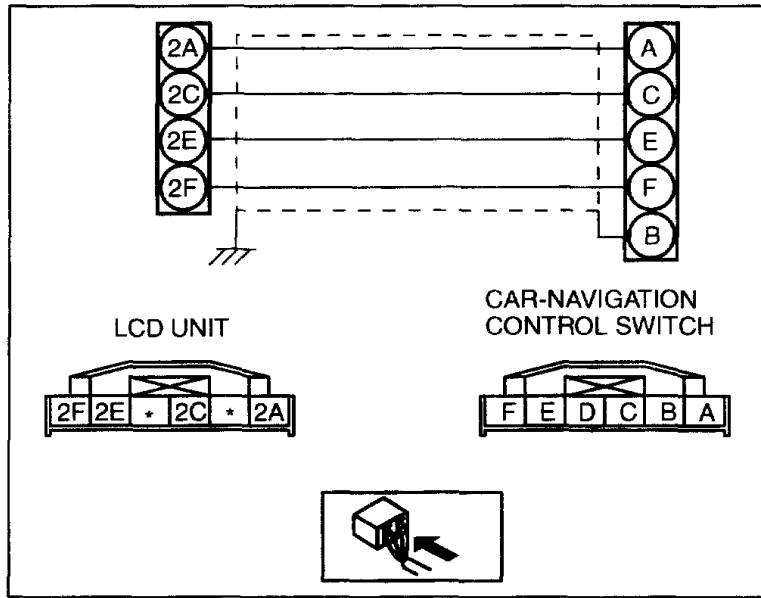
- Navigation System - Displays Incorrect Map or No Map (0900308, 2008/01/16)

Repair Tips (itype_110)

Tsbs

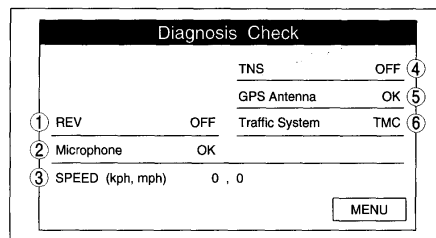
- Navigation System - Display Standard For Failed Pixels (0908109, 2009/12/21)
- Navigation System - Beep Sound From Dash While Driving (MTIP-08-12-6, 2008/12/01)

Component Tests and General Diagnostics (itype_383)



c3u0920w112

Initial Inspection and Diagnostic Overview (itype_377)



am3uuw000016

No.	Display item	Description
1	REV	Indicate Reverse signal state. • ON: Reverse • OFF: Others
2	Microphone	Indicate the connection state of a microphone. • OK: Connect • NCON: Disconnect
3	Speed*	Indicate the present vehicle speed by kph/mpg (a maximum of 3 digits).
4	TNS*	Indicate TNS signal state. • ON: Turn TNS ON • OFF: Turn TNS OFF
5	GPS Antenna*	Indicate the connection state of a GPS antenna. • OK: Connect • NCON: Disconnect
6	Traffic System	Indicate the RDS-TMC system availability on the vehicle. • None: Not equip.

* : It is used for symptom troubleshooting. (Troubleshooting index No. 5 and No. 8)

Troubleshooting Index (Article 1459246)

CAR-NAVIGATION SYSTEM [CAR-NAVIGATION SYSTEM]

id0003e8801600

Troubleshooting Index

- Use the chart below and verify the trouble in order to diagnose the appropriate area.

No.	Malfunction symptom
1	Display screen does not open even if the ignition switch is turned to the ACC position.
2	Display screen changes to black.
3	Display screen changes to white.
4	System does not load map disc.
5	Vehicle position deviates from the route map.
6	Car-navigation control switch is inoperative.
7	No voice navigation
8	Display screen does not change to the night mode. (Front and rear combination lights operate normally.)

Quick Diagnostic Chart (Article 1459287)

Quick diagnostic chart

Troubleshooting item	X: Applicable							
	1	2	3	4	5	6	7	8
Open or short circuit in power supply (B+) wiring harness, or burnt fuse	X							
Open or short circuit in power supply (ACC) wiring harness, or burnt fuse	X							
Open or short circuit in GND wiring harness	X							
Short circuit in car-navigation control switch wiring harness	X							
LCD unit malfunction	X	X	X				X	X
Poor connection of LCD unit connector, terminal damage	X	X					X	X
Poor connection of car-navigation unit connector, terminal damage	X						X	X
Car-navigation unit malfunction	X	X	X	X	X	X	X	X
Open or short circuit in feeder line between GPS antenna and car-navigation unit				X				
Improper adjustment of screen contrast			X					
Map disc malfunction			X					
Moisture inside of car-navigation unit			X					
Non-designated disc inserted			X					
Jammed radio signals from after market equipment				X				
Open or short circuit in vehicle speed signal wiring harness				X				
Poor connection of GPS antenna connector, terminal damage				X				
GPS antenna malfunction				X				
Open or short circuit in car-navigation unit (power supply (B+)) wiring harness	X							
Open or short circuit in car-navigation unit (power supply (ACC)) wiring harness	X							
Open or short circuit in car-navigation unit (GND) wiring harness	X							
Car-navigation control switch malfunction						X		
Open or short circuit in remote control signal wiring harness						X		
Poor connection of car-navigation control switch connector, terminal damage						X		
Improper adjustment of NAVI voice volume							X	
Poor connection of driver-side front door speaker connector, terminal damage							X	
Driver-side front door speaker malfunction							X	
Open or short circuit in driver-side front door speaker wiring harness							X	
Improper setting of NAVI map indication								X
Open or short circuit in TNS signal wiring harness								X

am3uw000015

No.1 Display Screen Does Not Open Even If the Ignition Switch Is Turned to the Acc Position. (Article 1459279)

NO.1 DISPLAY SCREEN DOES NOT OPEN EVEN IF THE IGNITION SWITCH IS TURNED TO THE ACC POSITION. [CAR-NAVIGATION SYSTEM]

40952480100

1	<p>Display screen does not open even if the ignition switch is turned to the ACC position.</p> <ul style="list-style-type: none"> Open or short circuit in power supply (B+ or ACC) wiring harness or burnt fuse Open or short circuit in ground wiring harness LCD unit malfunction Poor connection of LCD unit connector, terminal damage Short circuit in car-navigation control switch wiring harness <p>Caution</p> <ul style="list-style-type: none"> Forcibly opening/closing, or placing an object on the display screen may cause the display screen to become inoperable.
----------	---

Diagnostic procedure

STEP	INSPECTION	ACTION
1	<ul style="list-style-type: none"> Turn the ignition switch to the ACC position. Press the OPEN/CLOSE button on the LCD unit. Does the display screen open? 	<p>Yes The system is normal.</p> <p>Note</p> <ul style="list-style-type: none"> If the display screen is closed by pressing the OPEN/CLOSE button of the LCD unit with the ignition switch in the ACC position, the display screen will remain closed when the ignition switch is turned to the ACC position again.
		No Go to the next step.
2	<ul style="list-style-type: none"> Turn the ignition switch to the LOCK position. Inspect the following fuses: <ul style="list-style-type: none"> RADIO 15 A fuse ROOM 15 A fuse Are the fuses damaged? 	<p>Yes Go to the next step.</p> <p>No</p> <ul style="list-style-type: none"> Replace with the appropriate standard fuse. If the fuse is melted, inspect the wiring harness for a short to ground. Repair or replace the wiring harness, then replace the fuse.
		No Go to the next step.
3	<ul style="list-style-type: none"> Remove the car-navigation control switch. Disconnect the car-navigation control switch connector (6-pin). Turn the ignition switch to the ACC position. Inspect the voltage between the car-navigation control switch wiring harness-side connector (6-pin) terminal A (POWER) and B (ground). Is the voltage B+? 	<p>Yes Go to Step 5.</p> <p>No Go to the next step.</p>
		No Go to the next step.
4	<ul style="list-style-type: none"> Turn the ignition switch to the LOCK position. Inspect the continuity between terminal A (POWER) and B (ground) at the car-navigation control switch wiring harness-side connector. Is there continuity? 	<p>Yes Repair or replace the suspected wiring harness. Replace the LCD unit. (ACC protector circuit inside LCD unit broken.)</p> <p>No Go to the next step.</p>
		No Go to the next step.
5	<ul style="list-style-type: none"> Remove the LCD unit. Inspect the connection of the LCD unit connector (24-pin). Is the connector securely connected? 	<p>Yes Go to the next step.</p> <p>No Securely connect the LCD unit connector (24-pin).</p>
		No Securely connect the LCD unit connector (24-pin).
6	<ul style="list-style-type: none"> Disconnect the LCD unit connector (24-pin). Inspect both LCD unit connector and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). Are all the pins normal? 	<p>Yes Go to the next step.</p> <p>No</p> <p>If the LCD unit connector is wrong:</p> <ul style="list-style-type: none"> Replace the LCD unit. <p>If the wiring harness-side connector is wrong:</p> <ul style="list-style-type: none"> Repair or replace the pins and/or the connector.
		No
7	<ul style="list-style-type: none"> Inspect the voltage between LCD unit wiring harness-side connector (24-pin) terminal Q (B+) and P (ground). Is the voltage B+? 	<p>Yes Go to the next step.</p> <p>No Inspect the suspect wiring harness, then repair or replace the wiring harness.</p>
		No Inspect the suspect wiring harness, then repair or replace the wiring harness.
8	<ul style="list-style-type: none"> Turn the ignition switch to the ACC position. Inspect the voltage between LCD unit wiring harness-side connector (24-pin) terminal O (ACC) and P (ground). Is the voltage B+? 	<p>Yes Replace the LCD unit.</p> <p>No Inspect the suspect wiring harness, then repair or replace the wiring harness.</p>
		No Inspect the suspect wiring harness, then repair or replace the wiring harness.

No.2 Display Screen Changes to Black. (Article 1459280)

NO.2 DISPLAY SCREEN CHANGES TO BLACK. [CAR-NAVIGATION SYSTEM]

409634801800

2	<p>Display screen changes to black.</p> <ul style="list-style-type: none"> Open or short circuit in car-navigation unit (power supply (B+)) wiring harness Open or short circuit in car-navigation unit (power supply (ACC)) wiring harness Open or short circuit in car-navigation unit (ground) wiring harness Open or short circuit in wiring harness between LCD unit and car-navigation unit Poor connection of car-navigation unit connector, terminal damage Poor connection of LCD unit connector, terminal damage Car-navigation unit malfunction LCD unit malfunction
----------	--

Diagnostic procedure

STEP	INSPECTION	ACTION
1	<ul style="list-style-type: none"> Turn the ignition switch to the ON position. Does the display screen change from blank to NAVI mode when pressing the joystick of the car-navigation control switch? 	<p>Yes The system is normal.</p> <p>Note</p> <ul style="list-style-type: none"> If the "VOICE" button is pressed for approx. 2 s or more, the "DISP OFF" menu appears on the bottom-left side of screen. If "DISP OFF" mode is selected, the LCD unit will not display anything. "DISP OFF" mode is cancelled when the ignition switch is turned to the LOCK position or the joystick of the car-navigation control switch is pressed.
		No Go to the next step.
2	<ul style="list-style-type: none"> Turn the ignition switch to the LOCK position. Remove the car-navigation unit. Inspect the car-navigation unit connector (24-pin). Is the car-navigation unit connector connected securely? 	<p>Yes Go to the next step.</p> <p>No Securely connect the car-navigation unit connector (24-pin).</p>
		No Securely connect the car-navigation unit connector (24-pin).
3	<ul style="list-style-type: none"> Disconnect the car-navigation unit connector. Inspect both car-navigation unit connector and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). Are all the pins normal? 	<p>Yes Go to the next step.</p> <p>No</p> <p>If the car-navigation unit connector is wrong:</p> <ul style="list-style-type: none"> Replace the car-navigation unit. <p>If the wiring harness-side connector is wrong:</p> <ul style="list-style-type: none"> Repair or replace the pins and/or the connector.
		No
4	<ul style="list-style-type: none"> Inspect the voltage between the car-navigation unit wiring harness-side connector (16-pin) terminals B (B+) and A (ground). Is the voltage B+? 	<p>Yes Go to the next step.</p> <p>No Inspect the suspect wiring harness and repair or replace the wiring harness if necessary.</p>
		No Inspect the suspect wiring harness and repair or replace the wiring harness if necessary.
5	<ul style="list-style-type: none"> Turn the ignition switch to the ACC position. Inspect the voltage between the car-navigation unit wiring harness-side connector (16-pin) terminals D (ACC) and A (ground). Is the voltage B+? 	<p>Yes Go to the next step.</p> <p>No Inspect the suspect wiring harness and repair or replace the wiring harness if necessary.</p>
		No Inspect the suspect wiring harness and repair or replace the wiring harness if necessary.
6	<ul style="list-style-type: none"> Turn the ignition switch to the LOCK position. Remove the LCD unit. Inspect the LCD unit connector (24-pin). Is the LCD unit connector connected securely? 	<p>Yes Go to the next step.</p> <p>No Securely connect the LCD unit connector (24-pin).</p>
		No Securely connect the LCD unit connector (24-pin).
7	<ul style="list-style-type: none"> Disconnect the LCD unit connector (24-pin). Inspect both LCD unit connector and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). Are all the pins normal? 	<p>Yes Go to the next step.</p> <p>No</p> <p>If the LCD unit connector is wrong:</p> <ul style="list-style-type: none"> Replace the LCD unit. <p>If the wiring harness-side connector is wrong:</p> <ul style="list-style-type: none"> Repair or replace the pins and/or the connector.
		No

STEP	INSPECTION	ACTION	
8	<ul style="list-style-type: none"> Inspect the following wiring harnesses between the LCD unit and navigation unit. <ul style="list-style-type: none"> Terminal A (24-pin, B)—terminal T (24-pin, B) Terminal B (24-pin, G)—terminal V (24-pin, G) Terminal C (24-pin, SYNC)—terminal R (24-pin, SYNC) Terminal D (24-pin, R)—terminal X (24-pin, R) Terminal E (24-pin, VGND1)—terminal U (24-pin, VGND1) Is there an open or short circuit? 	Yes	Go to the next step.
		No	Repair or replace the suspected wiring harness.
9	<ul style="list-style-type: none"> Inspect the following wiring harnesses between the LCD unit and car-navigation unit. <ul style="list-style-type: none"> Terminal I (24-pin, SI01)—terminal N (24-pin, SI01) Terminal K (24-pin, SI02)—terminal P (24-pin, SI02) Is there an open or short circuit? 	Yes	Replace the LCD unit, then go to the next step.
		No	Repair or replace the suspected wiring harness.
10	<ul style="list-style-type: none"> Does system work properly? 	Yes	Troubleshooting is completed.
		No	Replace the car-navigation unit.

No.3 Display Screen Changes to White. (Article 1459281)

NO.3 DISPLAY SCREEN CHANGES TO WHITE. [CAR-NAVIGATION SYSTEM]

id0903e8801900

3	Display screen changes to white.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Car-navigation unit malfunction LCD unit malfunction Improper adjustment of the screen contrast

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> Does the display screen change to "display quality adjustment" mode when pressing the MODE button for approx. 2 s or more? Does system work properly? 	Yes	Go to the next step.
		No	Replace the LCD unit.
2	<ul style="list-style-type: none"> Select "default display" or "display quality adjustment" mode in the NAVI mode. Press "ENTER" button. Does system work properly? 	Yes	Troubleshooting is completed.
		No	Replace the LCD unit, then go to the next step.
3	<ul style="list-style-type: none"> Does system work properly? 	Yes	Troubleshooting is completed.
		No	Replace the car-navigation unit.

No.4 System Does Not Load the MAP Disc. (Article 1459282)

NO.4 SYSTEM DOES NOT LOAD THE MAP DISC. [CAR-NAVIGATION SYSTEM]

id0903e8802000

4	System does not load the map disc.	
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Car-navigation unit malfunction • Map disc malfunction • Moisture inside of car-navigation unit • Non-designated disc is inserted 	
	<p>Note</p> <ul style="list-style-type: none"> • If dewdrops are formed inside of the car-navigation unit, the display screen shows the "The disc installed is not a map DVD" message. Remove the map disc, ventilate or remove moisture from the passenger compartment, and then leave it for approx. 1 h. The dewdrops will be removed and the car-navigation unit will operate normally. • In case of a dirty/damaged map disc or car-navigation unit malfunction, the display screen will show the "Please insert a map DVD" message for few seconds to 1 min, then change to "The disc installed is not a map DVD" message after the ignition switch is turned to the ACC position. • If a non-designated disc is inserted, the display screen shows the "The disc installed is not a map DVD" message. 	

Diagnostic procedure

STEP	INSPECTION		ACTION
1	<ul style="list-style-type: none"> • Eject the map disc. • Is the map disc normal? 	Yes	Go to the next step.
		No	Insert a designated disc, then go to the next step.
2	<ul style="list-style-type: none"> • Eject the map disc then insert it again. • Does the system load the map disc? 	Yes	Troubleshooting is completed.
		No	Go to the next step.
3	<ul style="list-style-type: none"> • Eject the map disc and clean the surface of map disc with a soft cloth. • Insert map disc again. • Does the system load the map disc? 	Yes	Troubleshooting is completed.
		No	Replace car-navigation unit and map disc at the same time. (consult distributor)

No.5 Vehicle Position Deviates From the Route MAP. (Article 1459283)

NO.5 VEHICLE POSITION DEVIATES FROM THE ROUTE MAP. [CAR-NAVIGATION SYSTEM]

id0903e8802100

5	Vehicle position deviates from the route map.	
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Jammed radio signals from after market equipment (radar, remote engine starter, anti-theft device or other.) • Open or short circuit in the wiring harness (vehicle speed signal related). • Car-navigation unit malfunction. • Poor connection of the GPS antenna connector, terminal damage • GPS antenna malfunction. • Open or short circuit in feeder line between GPS antenna and car-navigation unit. • Poor connection of the car-navigation unit connector, terminal damage. 	

Diagnostic procedure

STEP	INSPECTION		ACTION
1	<ul style="list-style-type: none"> • Is any of the following after-market equipment installed? (Inspect especially near the GPS antenna.) <ul style="list-style-type: none"> — Radar — Remote engine starter — Anti-theft device — Other 	Yes	Go to the next step.
		No	Go to Step 3.
2	<ul style="list-style-type: none"> • Remove the after-market equipment. <p>Note</p> <ul style="list-style-type: none"> • The procedure requires an assistant. <ul style="list-style-type: none"> • Drive the vehicle without any obstacles. • Does the vehicle indicator follow the steering wheel direction? 	Yes	System is normal. The after-market electrical device might be interrupting the GPS reception.
		No	Go to the next step.
3	<ul style="list-style-type: none"> • Position the vehicle without any obstacles and receive GPS for 5 min at idle. • Does "GPS" show up on the left lower side of the display screen? 	Yes	Go to the next step.
		No	Go to Step 8.

STEP	INSPECTION	ACTION
4	Caution • This procedure requires an assistant. • Start the diagnostic function. • Drive the vehicle. • Check the "Speed" on the diagnosis screen. • Does the "Speed" change according to the vehicle speed? Note • If the engine is started after the diagnostic function is activated, the diagnostic function mode is reset.	Yes Go to the next step.
		No Go to Step 6.
5	Caution • This procedure requires an assistant. • Drive the vehicle and turn the steering wheel to the left and/or right. • Does the vehicle indicator follow the steering direction? Note • The vehicle indicator might be out of position in the following areas: — Parallel road, high-level road, loop road, tower type parking, high-rise buildings lot	Yes The system is normal.
		No Replace the car-navigation unit.
6	• Turn the ignition switch to the LOCK position. • Remove the car-navigation unit. • Inspect the connection of the car-navigation unit connector (16-pin). • Is the connector securely connected?	Yes Go to the next step.
		No Securely connect the car-navigation unit connector (16-pin).
7	• Disconnect the car-navigation unit connector (16-pin). • Inspect both car-navigation unit connector and wiring harness side connector terminal H for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?	Yes Inspect for vehicle speed signal input circuit. Repair or replace if necessary.
		No If the car-navigation unit connector is wrong: • Replace the car-navigation unit. If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
8	Note • If the engine is started after the diagnostic function is activated, the diagnostic function mode is reset. • Turn the ignition switch to the ON position. • Start the diagnostic function. • Inspect the "GPS antenna" on diagnosis screen. • Is "ON" indicated?	Yes Replace the car-navigation unit.
		No Go to the next step.
9	• Turn the ignition switch to the LOCK position. • Remove the car-navigation unit. • Inspect the connection of the car-navigation unit connector and GPS antenna connector. • Is the connector securely connected?	Yes Go to the next step.
		No Securely connect the GPS antenna connector (2-pin).
10	• Disconnect the GPS antenna connector. • Inspect both GPS antenna connector and car-navigation unit connector for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?	Yes Go to the next step.
		No If the wiring harness-side connector is wrong: • Repair or replace the suspected wiring harness. If the car-navigation unit side connector is wrong: • Replace the car-navigation unit.
11	• Inspect the continuity between the car-navigation unit wiring harness-side connector terminal and the GPS antenna wiring harness side connector terminal. • Is there continuity?	Yes Replace the car-navigation unit.
		No Repair or replace the wiring harness.

No.6 Car-Navigation Control Switch Is Inoperative. (Article 1459443)

NO.6 CAR-NAVIGATION CONTROL SWITCH IS INOPERATIVE. [CAR-NAVIGATION SYSTEM]

48320-6B32200

6	Car-navigation control switch is inoperative. • Car-navigation control switch malfunction • Open or short circuit in the wiring harness (remote control signal) • Poor connection of the car-navigation control switch connector, terminal damage • Poor connection of the LCD unit connector, terminal damage • LCD unit malfunction
POSSIBLE CAUSE	Note • The car-navigation control switch is inoperative if the following circuit has a malfunction — LCD unit connector (24-pin) terminal I (SI01)—car-navigation unit connector (24-pin) terminal N (SI01) — LCD unit connector (24-pin) terminal K (SI02)—car-navigation unit connector (24-pin) terminal P (SI02) • If the ignition switch is turned off, then ACC position while above circuits are malfunctioning, display screen changes to black.

Diagnostic procedure

STEP	INSPECTION	ACTION
1	• Are the switches only partly inoperative?	Yes Replace the car-navigation control switch.
		No Go to the next step.
2	• Turn the ignition switch to the LOCK position. • Remove the car-navigation control switch. • Inspect the connection of the car-navigation control switch connector (6-pin). • Is the connector securely connected?	Yes Go to the next step.
		No Securely connect the car-navigation control switch connector (6-pin).
3	• Turn the ignition switch to the LOCK position. • Disconnect the car-navigation control switch connector (6-pin). • Inspect both the car-navigation control switch and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?	Yes Go to the next step.
		No If the car-navigation control switch side connector is wrong: • Replace the car-navigation control switch. If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
4	• Remove the LCD unit. • Inspect the LCD unit connector (6-pin). • Is the connector securely connected?	Yes Go to the next step.
		No Securely connect the LCD unit connector.
5	• Disconnect the LCD unit connector (6-pin). • Inspect both the LCD unit and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). • Are all the pins normal?	Yes Connect the LCD unit connector, then go to the next step.
		No If the LCD unit side connector is wrong: • Replace LCD unit. If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
6	• Turn the ignition switch to the LOCK position. • Disconnect the LCD unit connector (6-pin). • Disconnect the car-navigation control switch connector (16-pin). • Inspect for continuity between car-navigation control switch wiring harness-side connector terminal E and the LCD unit wiring harness-side connector terminal E. • Is there continuity?	Yes Inspect for a short circuit in the wiring harness. If there is a short circuit, repair or replace the suspected wiring harness. If the wiring harness is normal, go to the next step.
		No Repair or replace the suspected wiring harness.
7	• Connect the LCD unit connector (6-pin). • Turn the ignition switch to the ON position. • Inspect the voltage between the car-navigation control switch wiring harness-side connector terminal A (POWER) and B (Pground). • Is the voltage B+?	Yes Replace the car-navigation control switch.
		No Go to the next step.

STEP	INSPECTION	ACTION
8	• Turn the ignition switch to the LOCK position. • Disconnect the LCD unit connector (6-pin). • Turn the ignition switch to the ON position. • Inspect the voltage between the car-navigation control switch harness-side connector (16-pin) terminal A (power) and body ground. • Is the voltage B+?	Yes Inspect the car-navigation control switch wiring harness (power supply). Repair or replace if necessary.
		No Replace the LCD unit.

No.7 No Voice Navigation (Article 1459284)

NO.7 NO VOICE NAVIGATION [CAR-NAVIGATION SYSTEM]

40903680200

7	<p>No voice navigation</p> <ul style="list-style-type: none"> Improper adjustment of the NAVI voice volume Car-navigation unit malfunction <p>POSSIBLE CAUSE</p> <ul style="list-style-type: none"> Poor connection of the driver-side front door speaker connector, terminal damage Driver-side front door speaker malfunction Poor connection of the car-navigation unit connector, terminal damage Open or short circuit in driver-side front door speaker wiring harness
----------	--

Diagnostic procedure

STEP	INSPECTION	ACTION
1	<ul style="list-style-type: none"> Is the voice navigation volume from "1" to "7"? 	Yes: Go to the next step. No: Adjust the volume from "1" to "7".
2	<ul style="list-style-type: none"> Turn the audio power switch (CD, MD, radio) to ON. Does the driver-side front door speaker work? 	Yes: Replace the car-navigation unit. No: Go to the next step.
3	<ul style="list-style-type: none"> Turn the ignition switch to the LOCK position. Remove the driver-side front door speaker. Inspect the connection of the driver-side front door speaker connector (2-pin). Is the connector securely connected? 	Yes: Go to the next step. No: Securely connect the driver-side front door speaker connector.
4	<ul style="list-style-type: none"> Disconnect the driver-side front door speaker connector (2-pin). Inspect both the driver-side front door speaker and wiring harness-side connector for poor connection (such as damaged/pulled-out pins, corrosion). Are all the pins normal? 	Yes: Go to the next step. No: If the driver-side front door speaker side connector is wrong: • Replace the driver-side front door speaker. If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
5	<ul style="list-style-type: none"> Remove the car-navigation unit. Inspect the connection of the car-navigation unit connector (16-pin). Is the connector securely connected? 	Yes: Go to the next step. No: Securely connect the car-navigation unit connector.
6	<ul style="list-style-type: none"> Disconnect the car-navigation unit connector (16-pin). Inspect both the car-navigation unit and wiring harness-side connector terminals M and N (without Bose) or I and K (with Bose) for poor connection (such as damaged/pulled-out pins, corrosion). Are all the pins normal? 	Yes: Go to the next step. No: If the car-navigation unit side connector is wrong: • Replace the car-navigation unit. If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
7	<ul style="list-style-type: none"> Inspect for continuity between car-navigation unit and the driver-side front door speaker. Is there continuity? 	Yes: Inspect for a short circuit in the wiring harness. If there is a short circuit, repair or replace the suspected wiring harness. If the wiring harness is normal, go to the next step. No: Repair or replace the wiring harness.
8	<ul style="list-style-type: none"> Inspect the driver-side front door speaker. Is it normal? 	Yes: Replace the car-navigation unit. No: Replace the driver-side front door speaker.

No.8 Display Screen Does Not Change to the Night Mode. (Front and Rear Combination Lights Operate Normally.) (Article 1459285)

NO.8 DISPLAY SCREEN DOES NOT CHANGE TO THE NIGHT MODE. (FRONT AND REAR COMBINATION LIGHTS OPERATE NORMALLY.) [CAR-NAVIGATION SYSTEM]

40903680200

8	<p>Display screen does not change to the night mode. (Front and rear combination lights operate normally.)</p> <ul style="list-style-type: none"> Improper setting of NAVI map indication Open or short circuit in TNS signal wiring harness (TNS signal related) LCD unit malfunction Poor connection of the LCD unit connector, terminal damage car-navigation unit malfunction <p>POSSIBLE CAUSE</p> <p>Note</p> <ul style="list-style-type: none"> The car-navigation control switch is inoperative if the following circuit has malfunction — LCD unit connector (24-pin) terminal I (SI01)—car-navigation unit connector (24-pin) terminal N (SI01) — LCD unit connector (24-pin) terminal K (SI02)—car-navigation unit connector (24-pin) terminal P (SI02) If the ignition switch is turned off, then to the ACC position while the above circuits are malfunctioning, the display screen changes to black
----------	--

Diagnostic procedure

STEP	INSPECTION	ACTION
1	<ul style="list-style-type: none"> Turn the ignition switch to the ACC position. Does the display screen change to the night mode when the light switch is turned to the TNS position, and the dimmer cancel switch is turned off? 	Yes: The system is normal. No: Go to the next step.
2	<ul style="list-style-type: none"> Press the "MENU" button. Select "Navigation Set Up". Select "User Setting". Inspect "MAP Mode". Is the "MAP Mode" set to "Auto"? 	Yes: Go to the next step. No: System is normal. Set the "MAP Mode" to "Auto".
3	<ul style="list-style-type: none"> Start the diagnostic function. Turn the light switch to the TNS position. Inspect the "TNS" on the diagnosis check screen. Does the "TNS" indicate "ON"? 	Yes: Replace the car-navigation unit. No: Go to the next step.
4	<ul style="list-style-type: none"> Turn the ignition switch to the LOCK position. Remove the LCD unit. Inspect the connection of the LCD unit connector (24-pin). Is the connector securely connected? 	Yes: Go to the next step. No: Securely connect the LCD unit connector.
5	<ul style="list-style-type: none"> Disconnect the LCD unit connector (24-pin). Inspect both the LCD unit and wiring harness-side connector terminal V for poor connection (such as damaged/pulled-out pins, corrosion). Are all the pins normal? 	Yes: Go to the next step. No: If the LCD unit side connector is wrong • Replace the LCD unit. If the wiring harness-side connector is wrong • Repair or replace the pins and/or the connector.
6	<ul style="list-style-type: none"> Inspect the voltage of the LCD unit wiring harness-side connector (24-pin) terminal V (TNS signal). Is the voltage B+ when the light switch is turned to the TNS position? 	Yes: Replace the LCD unit, then go to the next step. No: Inspect the TNS signal circuit. Repair or replace if necessary.
7	<ul style="list-style-type: none"> Does system work properly? 	Yes: Troubleshooting is completed. No: Replace the car-navigation unit.