

PRE-CHECK

1. DIAGNOSIS SYSTEM DESCRIPTION

HINT:

There are several diagnosis function in the LEXUS Navigation System.

Though each operation procedure is explained on the following pages, the outline is as follows.

As the Navigation ECU has its own internal battery, if separating the battery from ECU, each data can be stored.

(a) **SYSTEM CHECK**

Is this mode, communication circuit is inspected and self diagnosis is conducted in each system (Navigation ECU, display ECU, radio receiver, power amplifier and CD auto changer). The result is displayed on the display.

At the bottom of the screen the map area is displayed,

(b) **DISPLAY CHECK**

In this mode, images and touch switches on the screen are inspected.

(c) **VEHICLE SIGNAL DISPLAY CHECK**

In this mode, 2 items of vehicle signal conditions input in the navigation ECU are displayed at the real time (renewed every approx. 1 sec.).

(d) **INTERNAL COEFFICIENT SET**

This sets time and data of calender and compensation coefficient to improve the accuracy of navigation system. It is not always necessary to adjust the compensation coefficient, however when the error is too excessive due to replacement of tires etc., re-set the coefficient again.

(e) **DIAGNOSIS MEMORY**

Information is stored in the diagnosis memory when an error occurs in the communication of the system and the system.

(f) **GPS INFORMATION**

GPS information receiving condition is displayed.

(g) **NOISE QUALITY CHECK**

Chime or navigation voice recorded in HARDDISK can be tried to hear when necessary.

(h) **DISK INFORMATION**

The area of a map in map harddisk, versions of the map data base and the navigation list are displayed.

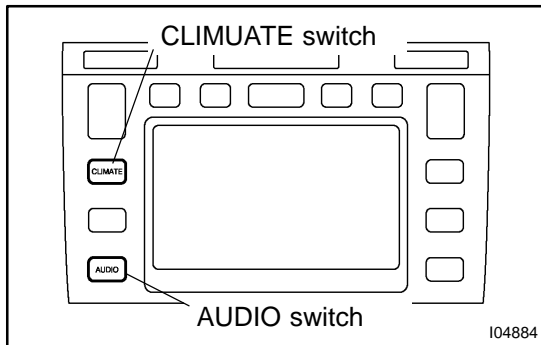
2. DIAGNOSIS CHECK



(a) DIAGNOSIS START-UP

HINT:

There are two ways to start-up diagnosis menu, one is using the diagnosis check wire and the other is using the switch.



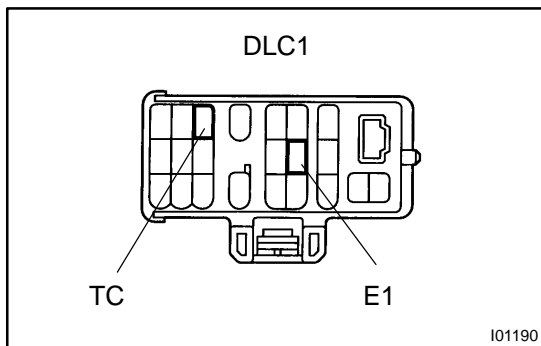
(b) START-UP BY SWITCH OPERATION

While pressing "CLIMATE" and "AUDIO" switches simultaneously, by turning the light control switch to OFF, TAIL, OFF, TAIL, and OFF the system is started-up.

It takes approximately 30 seconds to inspect the screen.

NOTICE:

On the display with LEXUS mark when starting up, do not perform the transmitting operation to the diagnosis mode.

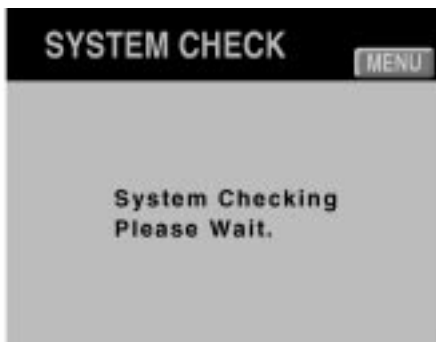


(c) START-UP WITH DIAGNOSIS CHECK WIRE

With the switch in ACC or ON position or engine running, the system is started up by connecting TC and E1 terminals of DLC1 with SST.

It takes approximately 30 seconds to inspect the screen.

SST 09843-18020



(d) SYSTEM STARTING

(e) FINISHING

Diagnosis mode finishes by turning the ignition switch ACC or OFF.



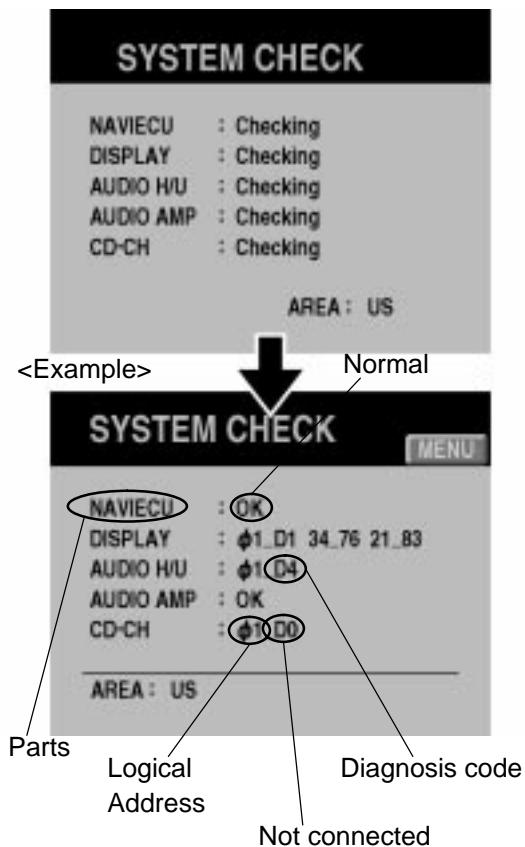
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(f) DIAGNOSIS MENU DISPLAY

When starting-up by switch operation the top menu is displayed on the screen.

Each diagnosis function can be performed by touching each switch on this screen.

● Checking



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(g) SYSTEM CHECK SCREEN

- This screen performs the system inspection.
- After the system inspection completes, when pressing "MENU", screen returns to the diagnosis menu screen.

(In diagnosis mode, the screen can return to the diagnosis menu screen even on another screen by pressing "MENU".)

- On "SYSTEM CHECK" screen, up to 3 logical addresses and 3 diagnosis codes of the objected equipment are displayed.

In the case of normal condition, "O.K." is displayed.

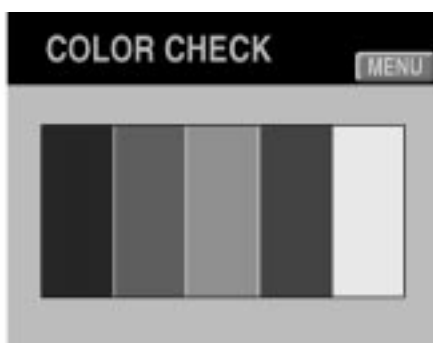
- On a screen, up to 3 diagnosis codes for each objected equipment are displayed.

When diagnosis codes are more than 4, the screen is switched to another screen and returned every 3 seconds.

HINT:

*: Logical address refers to the code allotted to each part of objected equipment which has been subdivided.

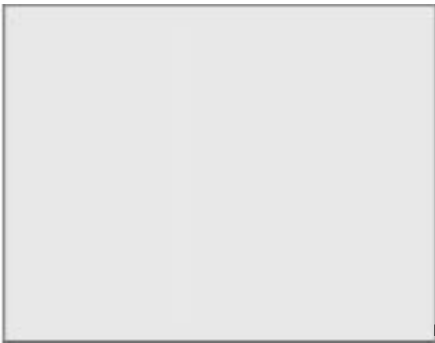
- When an objected equipment is not connected, "-D0" of the diagnosis code is displayed.
- Diagnosis codes are displayed orderly when diagnosis completes.
- If the same diagnosis code is received several times, only 1 code is displayed.



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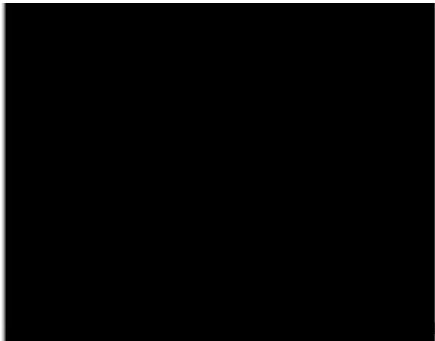
(h) DISPLAY CHECK SCREEN

- On the diagnosis menu screen when pressing "DISPLAY CHECK", the screen turns to the screen shown in the illustration.
- In this screen when pressing "BASE/SPRITE" or "ON SCREEN", the screen changes to the 1 shown in the illustration, this screen displays a color bar.

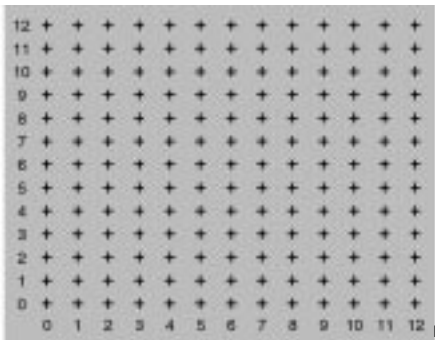


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- When pressing the color bar, the color of whole screen turns to that of the touched area.
If pressing the screen again, the screen returns to the display inspection screen.
- When pressing "TOUCH S/W", screen turns to the touch switch check screen.



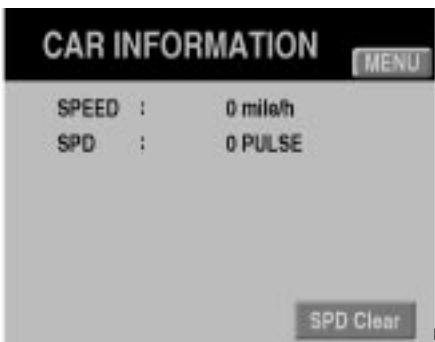
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I04221

(i) TOUCH SWITCH CHECK SCREEN

- On this screen "+" part displayed on the screen is touched, the applicable part is deleted.
- If the screen is left untouched for 10 seconds, it turns to display check screen.



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(j) CAR SIGNAL INFORMATION SCREEN

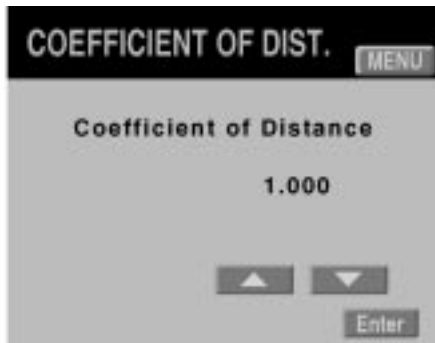
- When pressing "CAR SIGNAL INFO." the screen turns to the screen shown in the illustration.
- This screen inspects whether the following signals are received or send normally.

SPEED: This displays the current vehicle speed.

(The displayed unit is the unit currently set.)

SPD: This displayed the count of pulse. Pulse is added as the vehicle runs.

- If touching "CLEAR", the signal display turns to "0".
- Each signal is renewed every 1 seconds.



I04223

- (k) SPEED COMPENSATION COEFFICIENT SCREEN
- When pressing "COEFFICIENT OF DISTANCE" on the internal coefficient set screen, the screen turns to the speed compensation coefficient screen.

HINT:

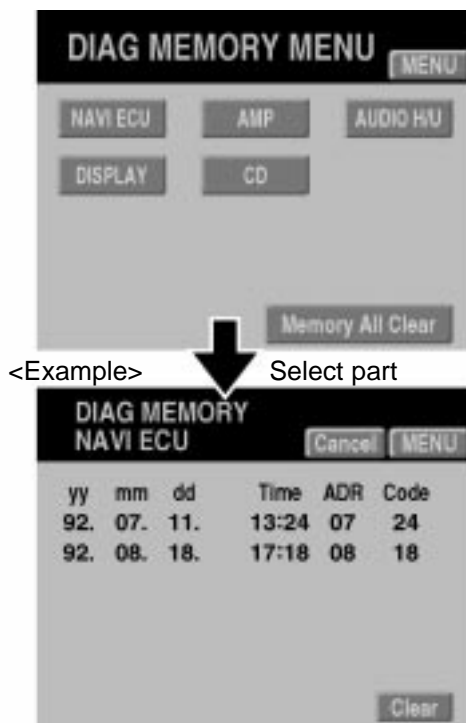
Navigation ECU compensates automatically the error between the distance calculated by ECU and actually measured and performs map-matching. Accordingly it is not necessary for a driver to compensate.

- This screen sets the value of how far the vehicle should go or should delay, when the present site on the map directed by a cursor does not match the real site because of tire replacement etc., This value is called speed compensating coefficient.

HINT:

After matching the present site directed by a cursor on the map with the real site correctly the vehicle is driven on the straight road for 5 Km. When the site on the map is 50 M (1 %) ahead of the real site, the value is 0.990, when 50 M behind, the value is 1.010.

- By pressing triangularity mark, the value is changed, by pressing "SET", set completes.



I04224

- (l) DIAGNOSIS MEMORY SCREEN

- On the diagnosis menu screen when pressing "DIAG. MEMORY" the screen turns to the screen shown in the illustration.
- Up to 6 diagnosis codes per an objected equipment are displayed. If more than 6 diagnosis codes are displayed, oldest diagnosis code will be deleted orderly.
- If the same diagnosis code the date when the code occurred is renewed.
- When the same diagnosis code occurs, the data when it occurred is renewed.
- When the diagnosis code does not occur to all objected equipment in the system of, "O.K." is displayed.
- When "CLEAR" is kept to touch for 3 seconds, all diagnosis memories are cleared.
- When pressing "All clear" for 3 secs., diagnosis memories of all equipment are cleared.

<Example>

	*1	*2	*3	*4	
	2	25	06	00 50	
*5 →	1	37	02	37	
*6 →		34	53	07	
*7 →	97	06	11	17	22 00
*8 →	04	00	24	04	10 00
	10	07	07	00	10 00
	27	00	16	00	

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(m) GPS INFORMATION SCREEN

- On the diagnosis menu screen, when pressing "GPS INFORMATION", the screen turns to the screen shown in the illustration.
- The displayed contents on this screen are as follows.

*1: Measurement conditions on present site

- 0: No measurement satellite is caught.
- 1: One measurement satellite is caught.
- 2: Two measurement satellite is caught.
- 3: Two dimensional measurement
- 4: Three dimensional measurement
- F: Receiver disorder

*2: Number of satellites available for navigation.

*3: Number of satellites that GPS antenna receives the electrical wave from

*4: Height (M)

*5: Longitude (degree; minutes; second)

(In the case of west longitude, "-" is displayed on the column of first letter, in the case of east longitude, nothing is displayed.)

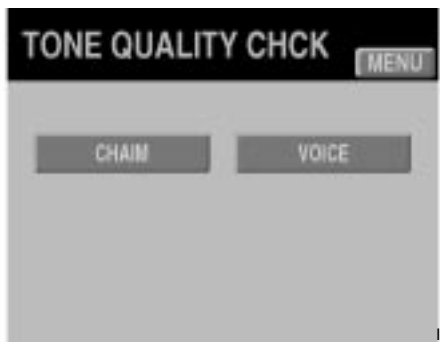
*6: Altitude (degree; minute; second)

(In the case of south altitude, "-" is displayed on the column of first letter, in the case of north altitude, nothing is displayed.)

*7: Year, date

(Year: month: day: time: minute: second)

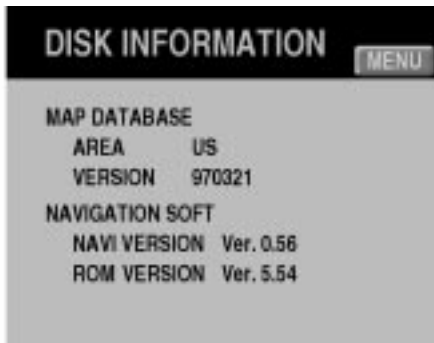
*8: ID of satellite that GPS antenna receives electrical wave from



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(n) TONE QUALITY CHECK

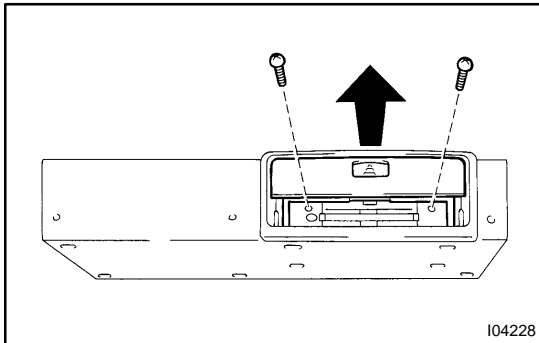
- One the diagnosis menu screen, when pressing "TONE QUALITY CHECK", the screen turns to the screen shown in the illustration.
- Tone check is performed by pressing the menu displayed on this screen.
- When pressing "CHIME", chime of "poop" sounds 3 times.
- When pressing "VOICE", the voice saying "Please proceed to the high lighted route. Then the route guidance will start." sounds 3 times.



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(o) DISC INFORMATION

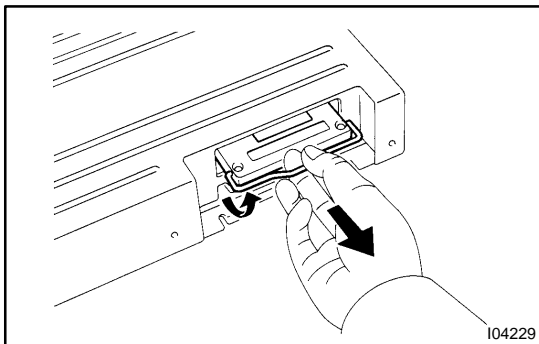
- On the diagnosis menu screen when pressing "DISK INFORMATION", the screen turns to the screen shown in the illustration.
- This screen displays the information MAP DATABASE and NAVIGATION SOFT.



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3. REPLACE HARDDISK

- Remove the 3 bolts and the navigation ECU.
- GPS receipt not available.
- Remove the 2 screws and the cover.



I04229

- Remove harddisk.

NOTICE:

Do not apply any impact to the harddisc.

There is a fear to cause damage to the harddisc if applying impact.