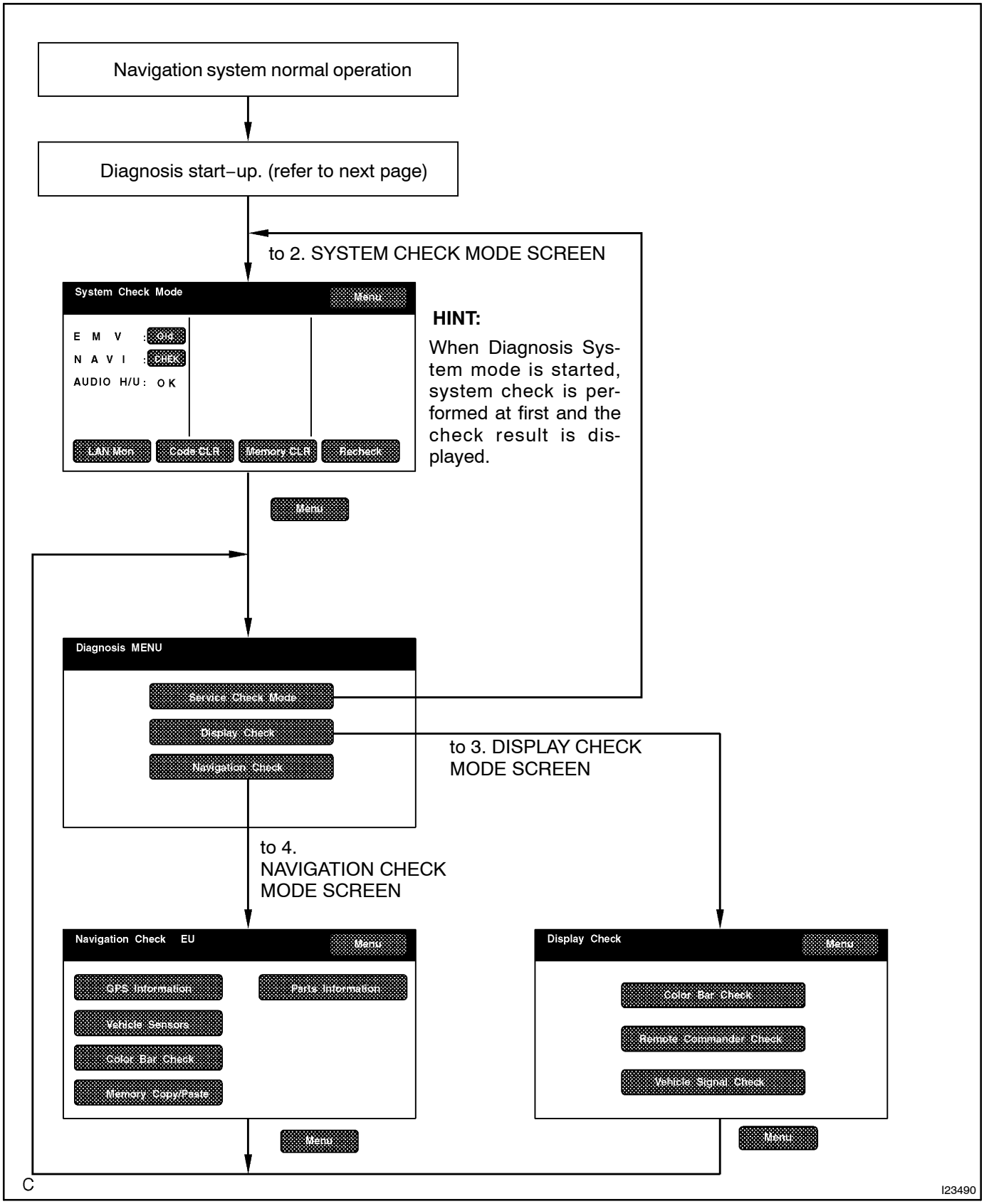
DI9I3-01

PRE–CHECK

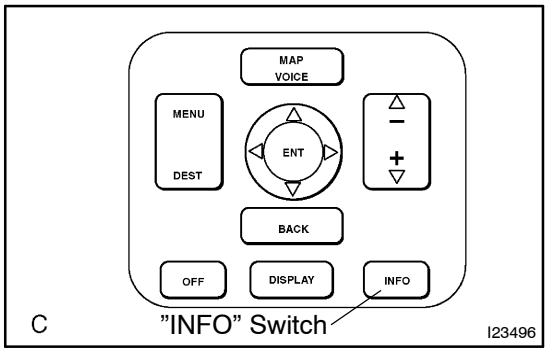
1. DIAGNOSIS SYSTEM MODE

HINT:

Diagnosis System Mode is operated as follows.



(a) DIAGNOSIS START–UP
To start the diagnosis menu, there are 2 ways: using a diagnosis check wire and using a switch.



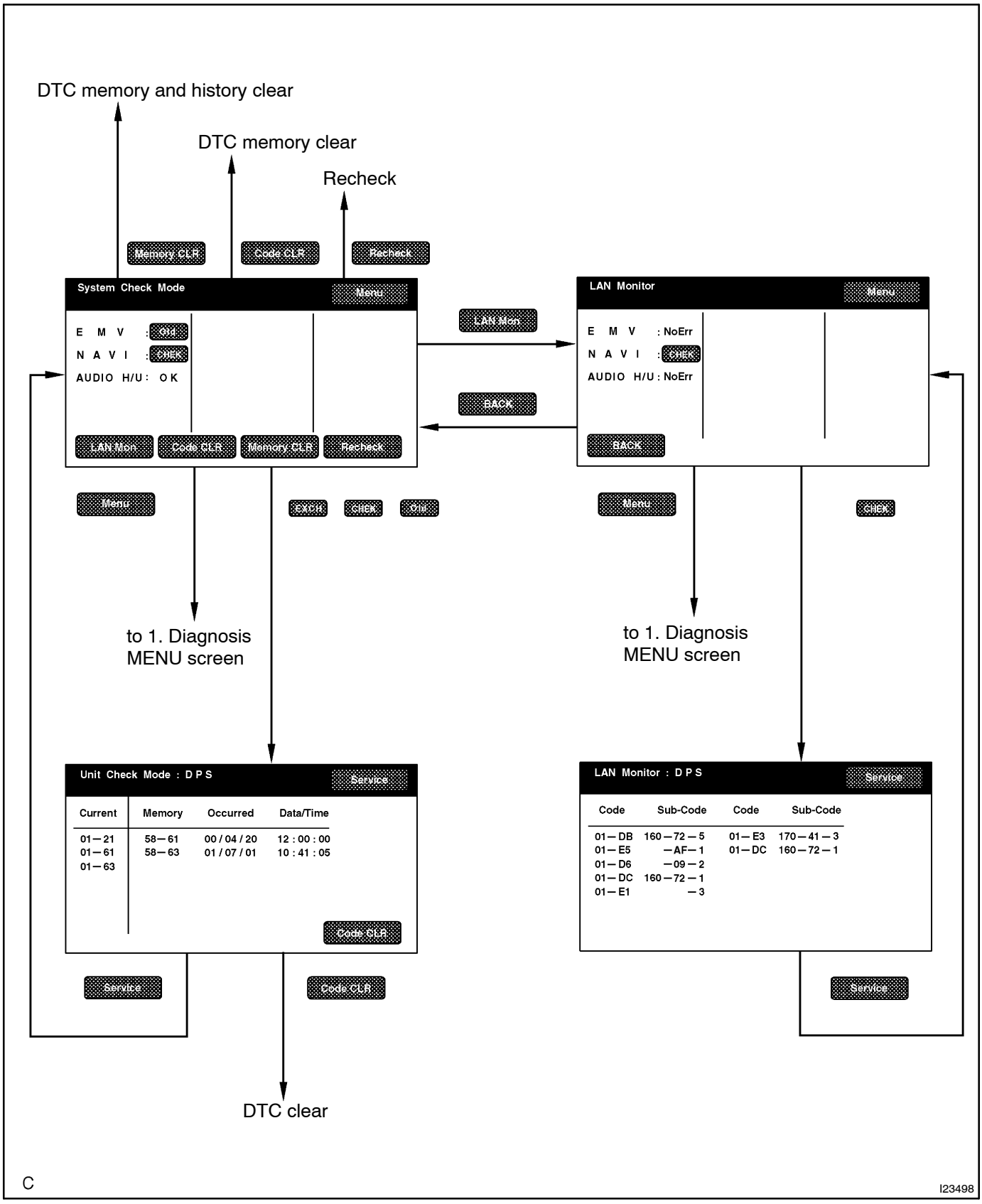
(b) START–UP BY SWITCH OPERATION (light control switch)
(1) Vehicle speed is 0 km/h (0 mph).
(2) Parking brake switch is pressed.
(3) While pressing ”INFO” switch, by turning the light control switch to OFF, TAIL, OFF, TAIL, OFF, TAIL and OFF the system is started up.

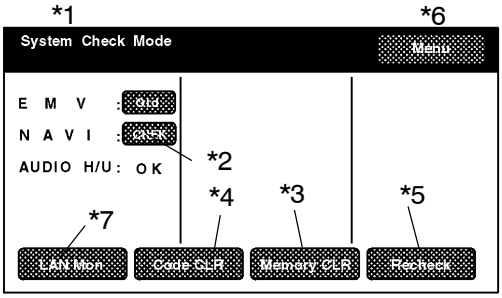
(c) FINISHING DIAGNOSIS SYSTEM MODE
Turn the ignition switch from ACC to OFF to finish the mode. If it is started by switch operation.

2. SERVICE CHECK MODE

HINT:

Service Check Mode is operated as follows.





C I23491

(a) System Check Mode

(1) Start the Diagnosis System.

Display Item	Function
Components Name/*1	List of component names including optional components (15 components max.) are displayed. When the names are not identified, their physical addresses are displayed.
Check Result/*2	Check results are displayed.
Memory Clear switch/*3	Pressing this switch for 3 sec. deletes all the information about master component registration.
DTC Clear switch/*4	Pressing this switch for 3 sec. deletes diagnosis memory of all the components. It deletes Service Check results and the screen displaying the check results.
Recheck/*5	Pressing this switch performs Service Check again.
MENU/*6	Pressing this switch activates the Diagnosis Menu screen.
LAN Monitor Switch/*7	Pressing this switch activates the LAN monitor screen.

HINT:

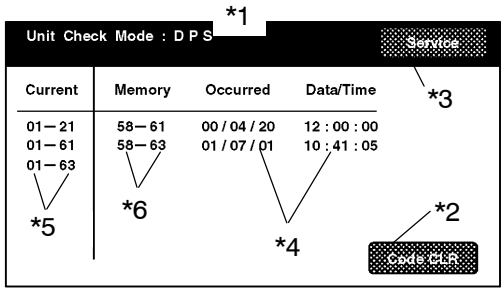
Service Check displays the check results based on the information obtained from each component's response to "System Check Execution" and "Diagnosis Memory Request", and the information of "Current DTC Notification" (the Unit Check that will be displayed on the next screens.).

(2) Read Check Result

Check Result	Meaning
OK	No DTC is identified.
EXCH	One or more DTC requesting for exchange are detected.
CHEK	One or more DTC requesting for check are detected.
NCON	No connection response to Diagnosis System start–up, whereas it has the connection response to the AVC LAN system when the power switch is turned on (when IG is turned to ACC).
Old	One or more DTC are detected because of old version.
NRES	No response to the information about the Diagnosis System, whereas it responds to the Diagnosis System start–up.
No Err	No DTC is identified.

HINT:

- After repair and check, press "Code CLR" for more than 3 sec. to delete diagnosis memory.
- After deleting diagnosis memory, press "Recheck" and make sure "OK" is displayed on the screen.



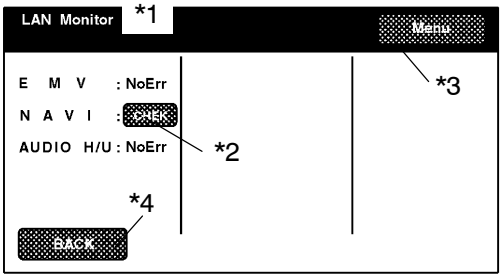
C I23493

(3) ”EXCH”, ”CHEK” and ”Old” can be used as switches to activate ”Unit Check Mode” for detail information. Check troubled parts of the components in these modes by referring to the DTC code list.

Display Item	Description
Components name/*1	Names of components to be checked are displayed.
DTC clear switch/*2	Pressing this switch for 3 sec. deletes DTC memory of the selected diagnosis component.
Service check mode screen switch/*3	Pressing this returns to the Service Check Mode screen.
Date/Time/*4	The date and time stamped at the time of DTC occurrence are displayed in the order of year–month–day–hour–minute–second. (If the date and time data is invalid, it is displayed as a blank.)
Current/ *5	Up to 6 DTC codes detected during the System Check are displayed.
Memory/ *6	DTC memories stored and current DTC Notification are displayed.

HINT:

- Detecting Unit DTC activates the Unit Check Mode on the screen.
- In the Unit Check Mode, DTC which is identified as ”EHCK” in the Service Check, is displayed as classified into Current DTC and Past DTC.



C I23492

(b) LAN Monitor

(1) Start the Diagnosis System.

Display Item	Function
Components Name/*1	List of component names including optional components (15 components max.) are displayed. When the names are not identified, their physical addresses are displayed.
Check Result/*2	Check results are displayed.
MENU/*3	Pressing this switch activates the Diagnosis Menu screen.
BACK/*4	Pressing this switch activates the System Check Mode screen.

HINT:

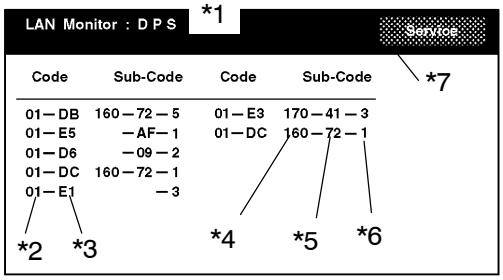
Service Check displays the check results based on the information obtained from each component’s response to ”System Check Execution” and ”Diagnosis Memory Request”, and the information of ”Current DTC Notification” (the LAN Monitor that will be displayed on the next screens.).

(2) Read Check Result

Check Result	Meaning
OK	No DTC is identified.
EXCH	One or more DTC requesting for exchange are detected.
CHEK	One or more DTC requesting for check are detected.
NCON	No connection response to Diagnosis System start–up, whereas it has the connection response to the AVC LAN system when the power switch is turned on (when IG is turned to ACC).
Old	One or more DTC are detected because of old version.
NRES	No response to the information about the Diagnosis System, whereas it responds to the Diagnosis System start–up.
No Err	No DTC is identified.

HINT:

- After repair and check, press ”Code CLR” for more than 3 sec. to delete diagnosis memory.
- After deleting diagnosis memory, press ”Recheck” and make sure ”OK” is displayed on the screen.



C I23494

(3) ”CHEK” can be used as switches to activate ”LAN Monitor” for detail information. Check troubled parts of the components in these modes by referring to the DTC code list.

Display Item	Description
Components name/*1	Names of components to be checked are displayed.
Segment/*2	Logical address codes corresponding to DTC are displayed.
DTC/*3	DTC is displayed.
Sub–Code (address numbers of related components)/*4	Physical address codes memorized together with DTC are displayed.
Sub–code (Connection confirmation number) /*5	Connection confirmation numbers memorized together with DTC are displayed.
Sub–code (Number of occurrence) /*6	The number of occurrence of the same DTC is displayed.
Service check mode screen switch/*7	Pressing this returns to the Service Check Mode screen.
Current/ *12	Up to 6 DTC codes detected during the System Check are displayed.
Memory/ *13	DTC memories stored and current DTC Notification are displayed.

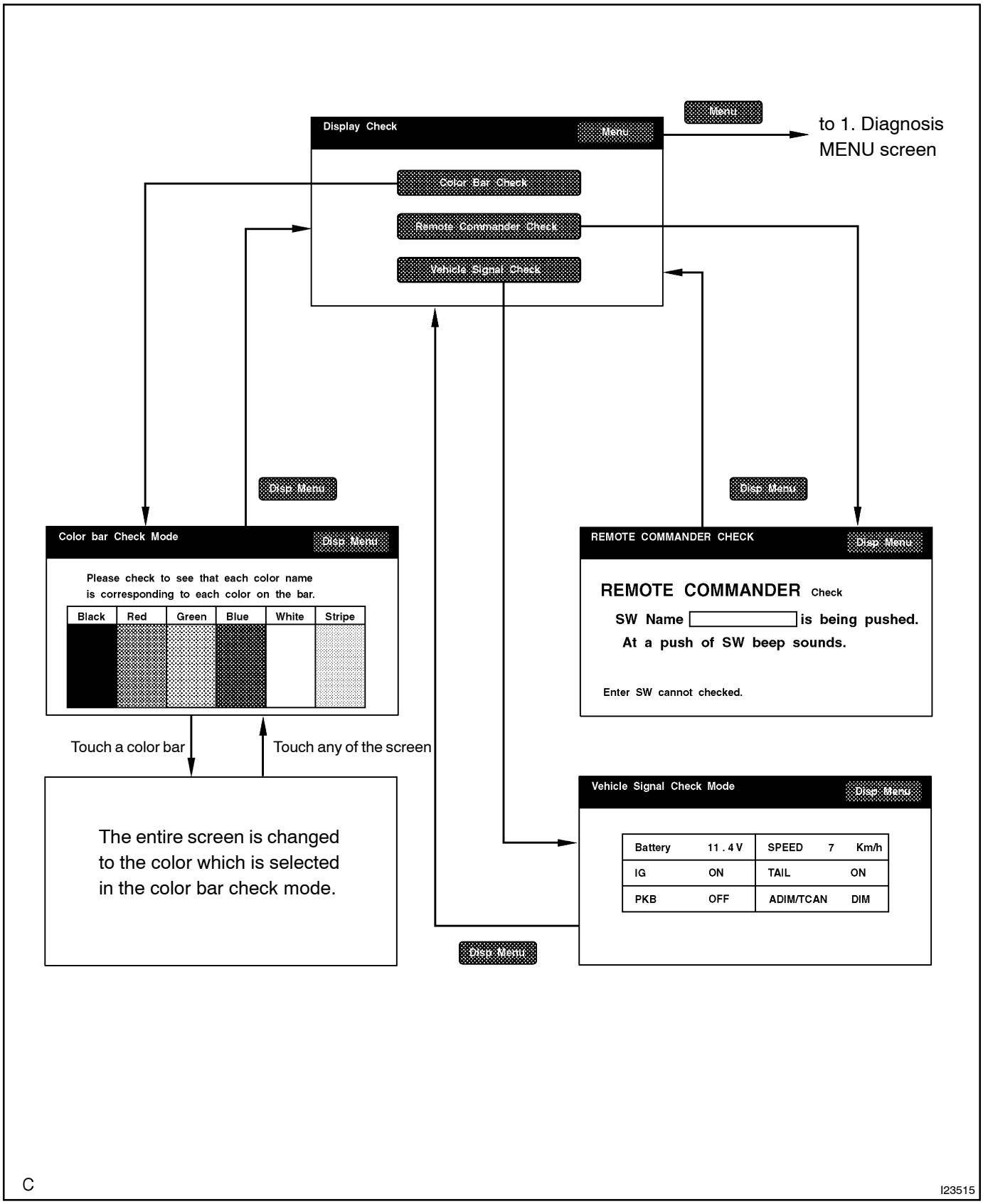
HINT:

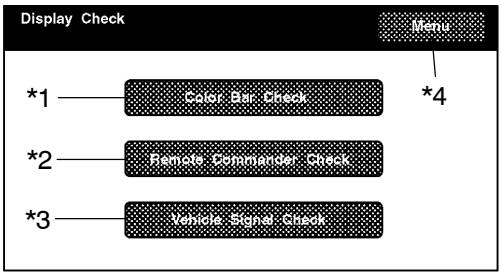
Detecting no LAN DTC activates the LAN Check Mode on the screen.

3. DISPLAY CHECK MODE

HINT:

Display Check Mode is operated as follows.



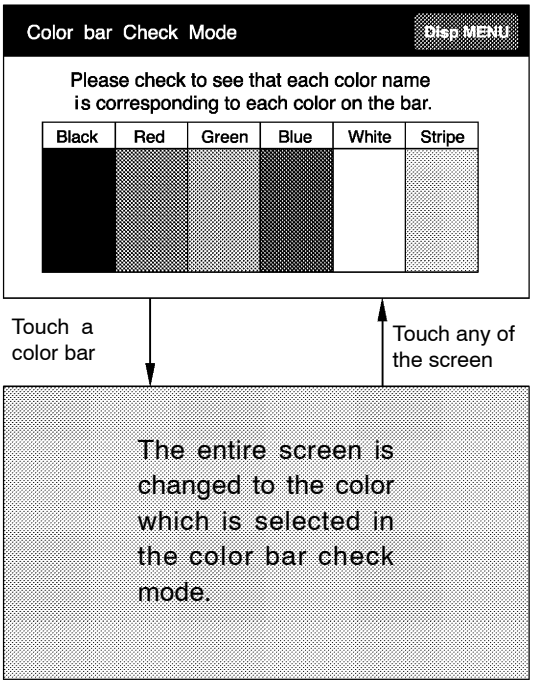


C I23495

(a) Display Check Mode

Display	Contents
Color Bar Check/*1	Color display is checked.
Remote Commander/*2	Operating condition of remote commander display is checked.
Vehicle Signal Check/*3	Status of the vehicle signal which has been loaded into the display is checked.
MENU/*4	Pressing this switch activates the Diagnosis Menu screen.

HINT:
In Display Check Mode, above checks can be performed.

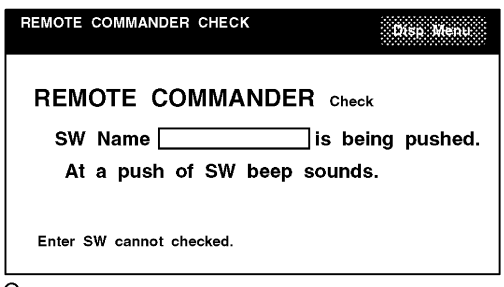


N I23620

(b) Display Color Bar Check
(1) Start the Diagnosis System.
(2) Select ”MENU”.
(3) Select ”Display Check”.
(4) Select ”Color Bar Check”.
(5) Make sure that each color name is corresponding to each color on the bar.

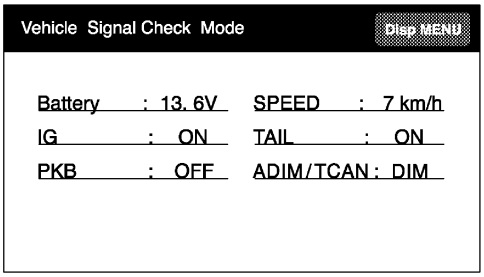
HINT:
Select Black, Red, Green, Blue, White and Stripe to display selected colors and stripe on the entire screen.

(6) Compare with the Color Bar Check in the Navigation Check and make sure that no difference is found.



C I23501

(c) Display Panel Switch Check
(1) Start the Diagnosis system.
(2) Select ”MENU”.
(3) Select ”Display Check”.
(4) Select ”Remote Commander”.
(5) Press each switch and make sure that it corresponds to the display on the screen.



C I23500

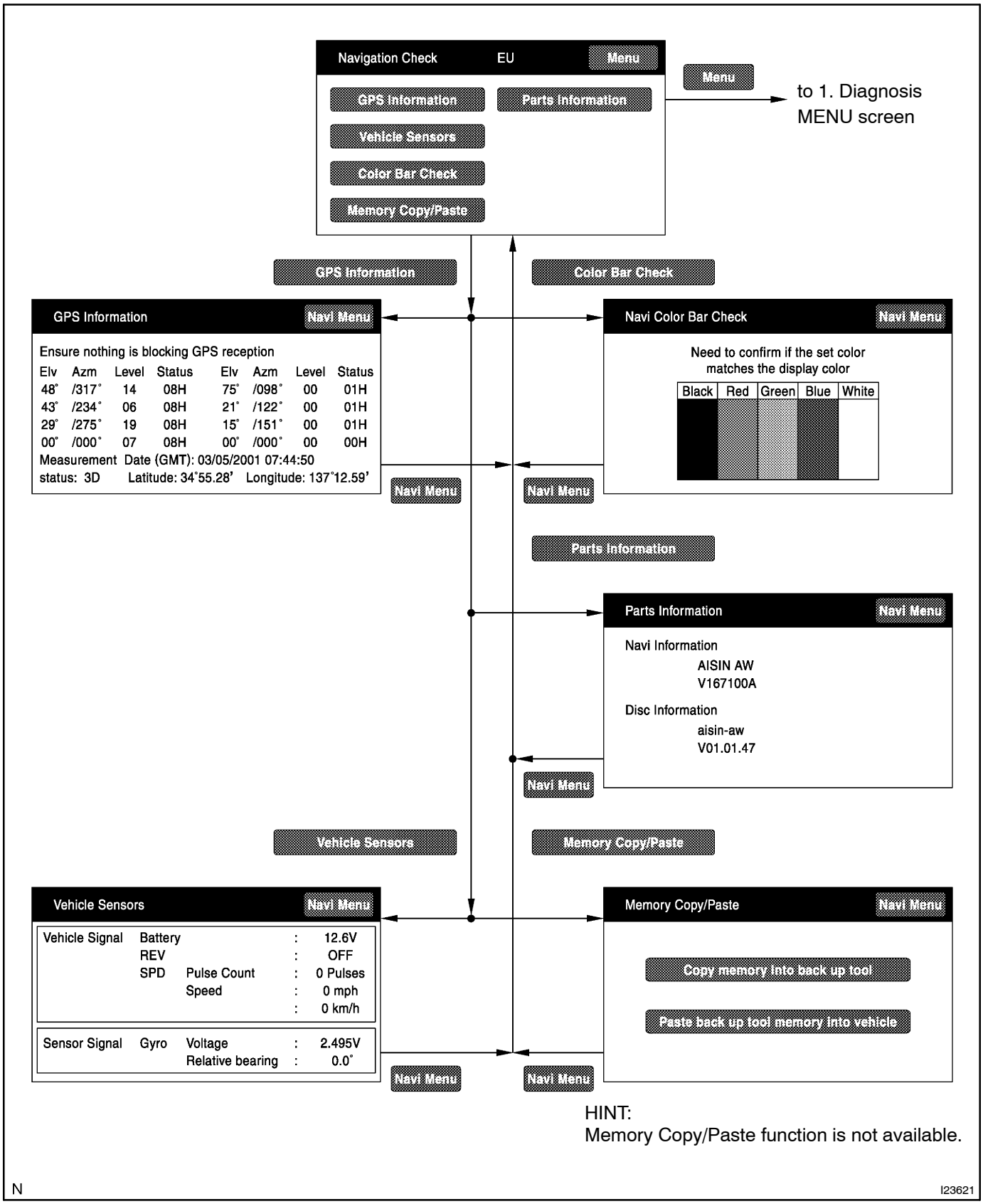
(d) Display Vehicle Signal Check
(1) Start the Diagnosis system.
(2) Select ”MENU”.
(3) Select ”Display Check”.
(4) Select ”Vehicle Signal Check”.
(5) Check the status of the vehicle signal (Battery, IG, PKB, SPEED, TAIL, ADIM/TCAN) loaded into the display.

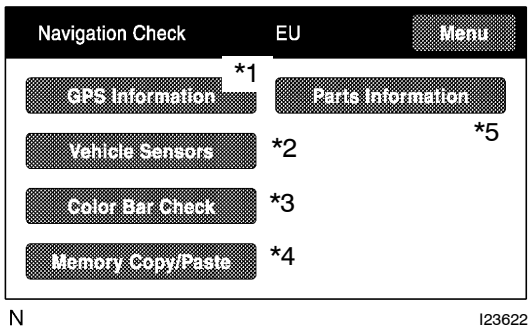
HINT:
Vehicle signal data is updated every 1 second.

4. NAVIGATION CHECK MODE

HINT:

Navigation Check Mode is operated as follows.



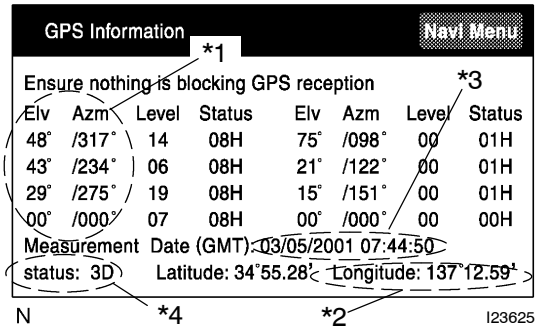


(a) Navigation Check Mode

Display	Description
GPS Information/*1	Information related to GPS is displayed (updated every 1 second.).
Vehicle Sensors/*2	Vehicle signal information to be loaded in the Navigation ECU is displayed (updated every 1 second.).
Color Bar Check/*3	Color display of the Navigation ECU is checked. (Compare with the Color Bar Check results in the Display Check.)
Memory Copy / Paste/*4	Using hand–held tester, read and write user data such as a placement of shop, restaurant etc. stored in memory.
Parts Information/*5	Navigation program version and disc version are displayed.

HINT:

- In the Navigation Check mode, the checks mentioned above can be conducted.
- The Navigation ECU operates each Navigation Check screen.



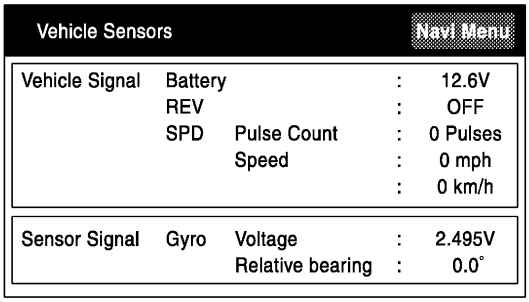
(b) GPS Information

(1) Start the Diagnosis system.
(2) Select ”MENU”.
(3) Select ”Navigation Check”.
(4) Select ”GPS Information”.
(5) Check the GPS–related information.

Display Data	Description
Satellite Information/*1	”Angle of elevation”, ”Azimuth”, ”Level of Signal” and ”Status of Wave Reception” of the Satellite captured by the antenna are displayed (for 8 satellites max.)
Position Data/*2	The latitude and longitude of the current position are displayed in degree, minute and second.
Time Data/*3	Date and time data obtained from the GPS receiver is displayed.

Measurement Status: /*4

Display	Conditions
2D	Measurement on 2 dimensions
3D	Measurement on 3 dimensions
NG	GPS information cannot be used.
Error	Reception error occurs.
–	Other than the above

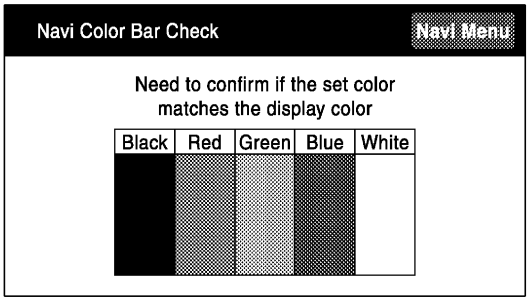


N I23624

(c) Vehicle Sensors

(1) Start the Diagnosis system.
(2) Select ”MENU”.
(3) Select ”Navigation Check”.
(4) Select ”Vehicle sensors”.
(5) Check the vehicle signals (ACC, REV, SPD) and the output signal of the gyro sensor introduced into the navigation ECU.

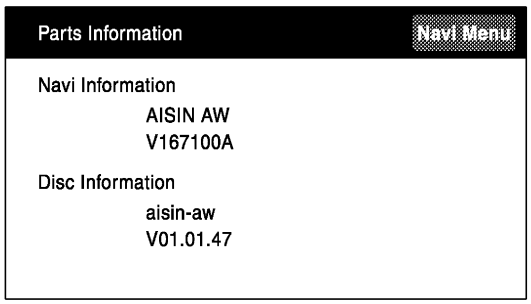
Items	Display Method
ACC signal status	Displayed as ON/OFF.
REV signal status	Displayed as ON/OFF.
SPD signal status	The cumulative value of input pulse count and the vehicle speed [km/h] [mph] are displayed. [The cumulative value of input pulse count is set to be 0 when this screen is displayed. When the vehicle starts to drive, it is counted and displayed continually.]
Output signal of the gyro sensor	Voltage [V] and relative azimuthal angle [degree] are displayed. [The position of the vehicle when this screen is displayed is set to be 0 degree in azimuth. Based on this, relative azimuthal angle is measured and displayed continually.]



N I23623

(d) Navigation Color Bar Check

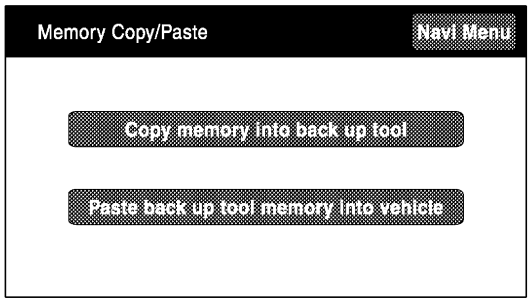
(1) Start the Diagnosis system.
(2) Select ”MENU”.
(3) Select ”Navigation Check”.
(4) Select ”Color Bar Check”.
(5) Make sure that the set color matches the display color.
(6) Compare with the Color Bar Check in the Display Check and make sure that no difference is found.



N I23626

(e) Parts Information

(1) Start the Diagnosis system.
(2) Select ”MENU”.
(3) Select ”Navigation Check”.
(4) Select ”Parts Information”.
(5) Check the program and disc version.



N I23627

(f) Memory/ Copy/ Paste

HINT:

This function is not available.