DI283–02

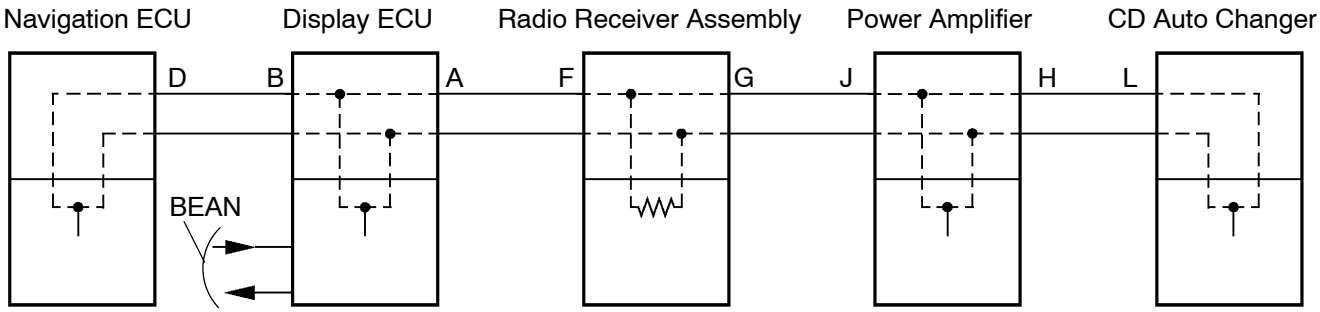
# CIRCUIT INSPECTION

## AVC–LAN (Communication bus) Circuit

## CIRCUIT DESCRIPTION

Each unit of LEXUS navigation system connected with AVC–LAN (communication bus) transfers the signal of each switch by communication.
When +B short and GND short occur in this AVC–LAN, LEXUS navigation system will not function normally as the communication is discontinued.
In this AVC–LAN, Navigation ECU becomes the master of the communication, and the audio head unit has a resistance necessary for transmitting the communication.
Display ECU is connected between Navigation ECU and Audio head unit, LEXUS navigation system has the structure that makes communication impossible without Navigation ECU, Display ECU or Audio head unit.

**AVC–LAN**

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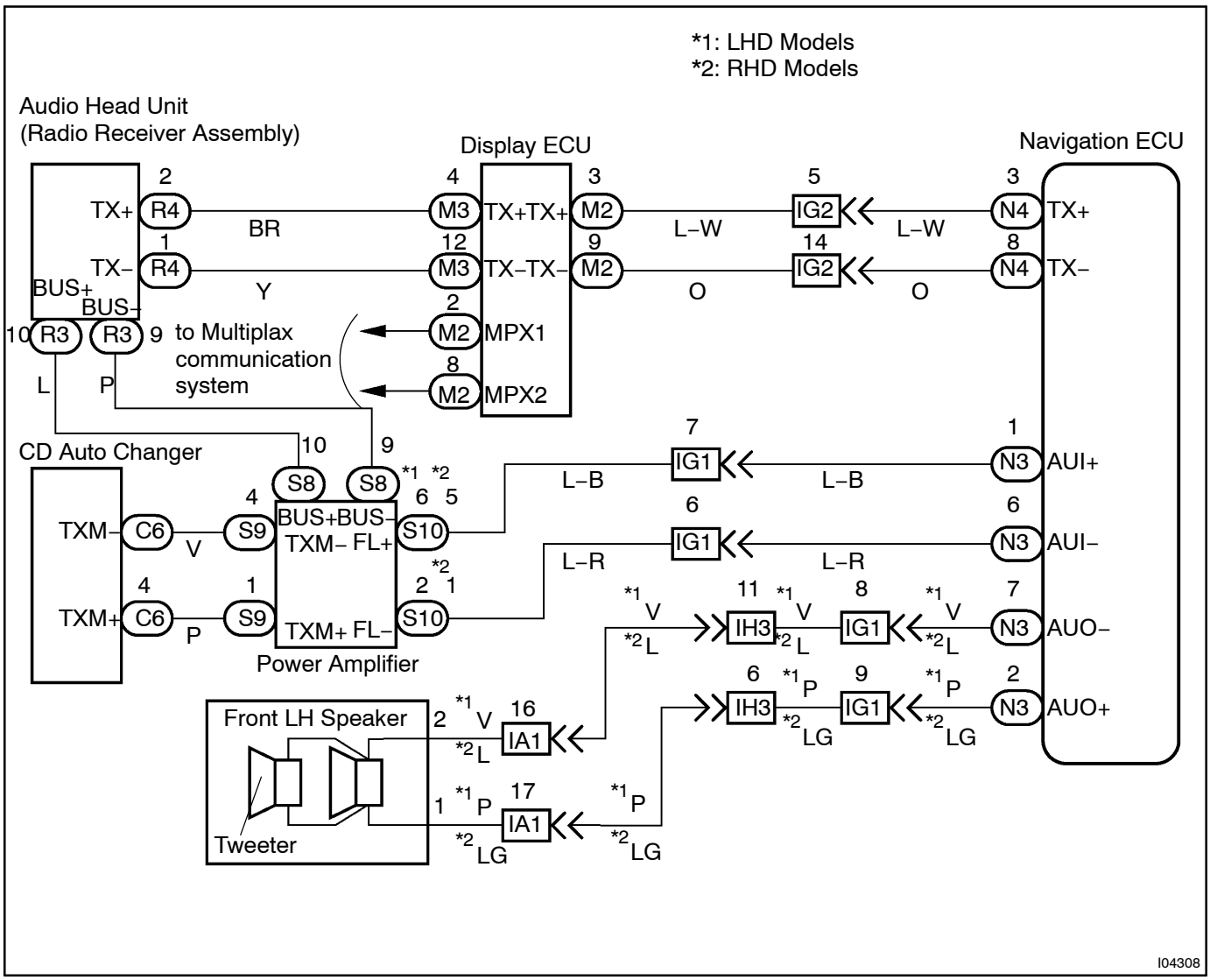
## WIRING DIAGRAM




## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | **Disconnect the connector of CD auto changer and check if AVC–LAN will be recovered normally.** |

**CHECK:**

Check that the display will change by pressing either of the Panel switch or Touch switch on the display.

HINT:

It can be judged that AVC–LAN is recovered if the display is changed.

| | |
|---|---|
| **OK** | **Replace the CD auto changer.** |

**NG**

| | |
|---|---|
| 2 | **Disconnect the "J" connector of the Amplifier, check if AVC–LAN will be recovered normally.** |

**CHECK:**
Check that the display will change by pressing either of the Panel switch or Touch switch on the display.
HINT:
It can be judged that AVC–LAN is recovered if the display is changed.

| | |
|---|---|
| OK | **Repair or replace wire harness or connector between amplifier and CD auto changer.** |

NG

| | |
|---|---|
| 3 | **Disconnect the "I" connector of the Amplifier, check if AVC–LAN will be recovered normally.** |

**CHECK:**
Check that the display will change by pressing either of the Panel switch or Touch switch on the display.
HINT:
It can be judged that AVC–LAN is recovered if the display is changed.

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|---|---|
| OK | **Replace the amplifier.** |

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| | |
|---|---|
| 4 | **Disconnect the ”G” connector of the Audio head unit, check if AVC–LAN will be recovered normally.** |

**CHECK:**

Check that the display will change by pressing either of the Panel switch or Touch switch on the display.

HINT:

It can be judged that AVC–LAN is recovered if the display is changed.

**OK** → **Repair or replace wire harness or connector between Audio head unit and amplifier.**

**NG**

| | |
|---|---|
| 5 | **Check wire harness and connector between Audio head unit and Display ECU. (See page IN–29)** |

**NG** → **Repair or replace wire harness or connector between Audio head unit and Display ECU.**

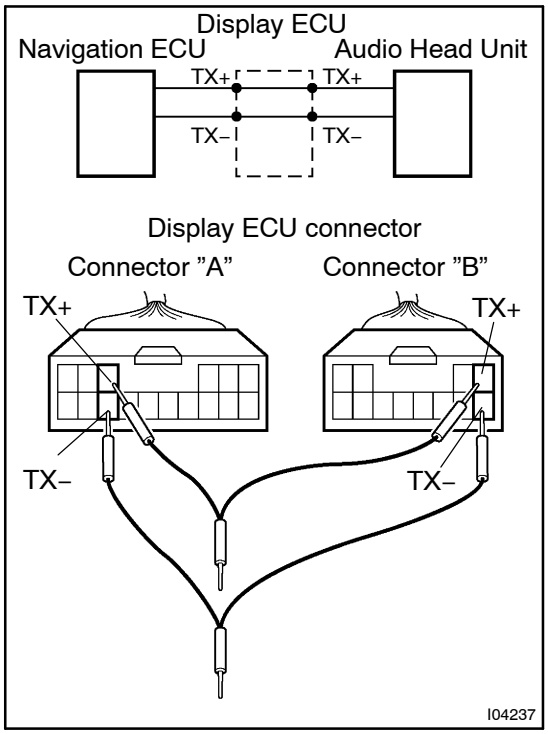
**OK**

| | |
|---|---|
| 6 | **Check wire harness and connector between Display ECU and Navigation ECU. (See page IN–29)** |

**NG** → **Repair or replace wire harness or connector between Display ECU and Navigation ECU.**

**OK**

| 7 | Skip Display ECU and check AVC–LAN. |
|---|---|




**PREPARATION:**

(a) Connect all the connectors except ”A” and ”B” of the Display ECU.

(b) Using 2 SSTs (Diagnosis check wire P/N 09893–12040), connect the terminal TX+ of connector ”A” and TX+ of connector ”B”, the terminal TX– of connector ”A” and TX– of connector ”B” respectively of Display ECU.

**CHECK:**

Operate Audio head unit (CD, Cassette tape, etc.) and check that the sound comes out from the speaker.
(Check that AVC–LAN is recovered.)

| OK | Replace the Display ECU. |
|---|---|

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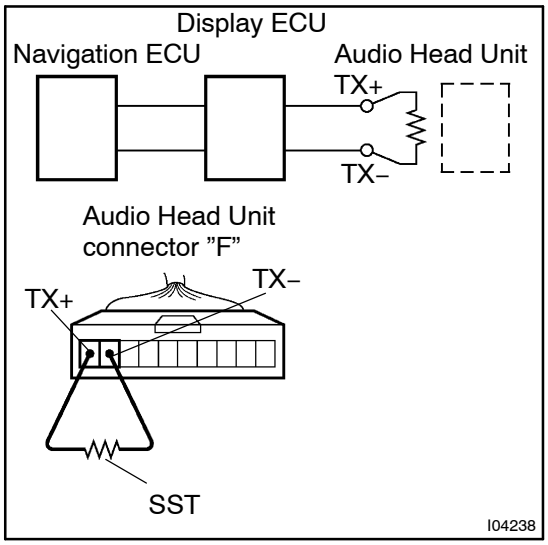
| 8 | Skip Audio head unit and check AVC–LAN. |
|---|---|




**PREPARATION:**

(a) Connect Display ECU connector.
(b) Disconnect Audio head unit ”F” connector.
(c) Using SST (Navigation Check Wire P/N 09843–18050), connect the terminal TX+ to terminal TX– of ”F” connector of Audio head Unit.

**CHECK:**

Operate the panel switch and the touch switch of the display and check that the navigation functions.
(Check that AVC–LAN is recovered.)

**OK** → **Replace the Audio head unit.**

**NG**

**Replace the Navigation ECU.**