DI63G−02

CIRCUIT INSPECTION

AVC−LAN (Communication bus) Circuit
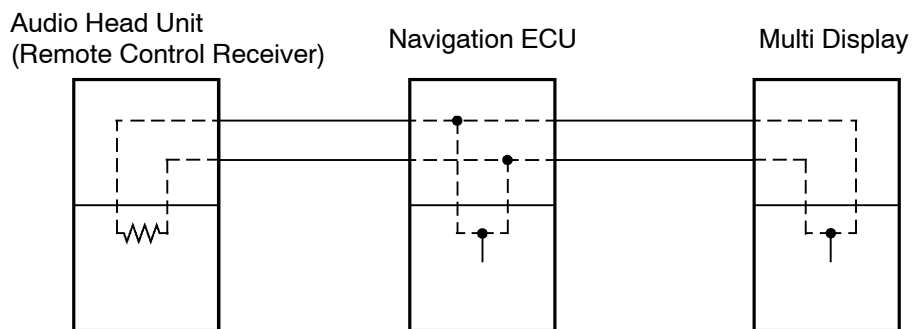
CIRCUIT DESCRIPTION

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.

Multi Display is connected between Navigation ECU and Audio head unit, LEXUS navigation system has the structure that makes communication impossible without Navigation ECU, Multi Display or Audio head unit.

AVC−LAN

N

I11572

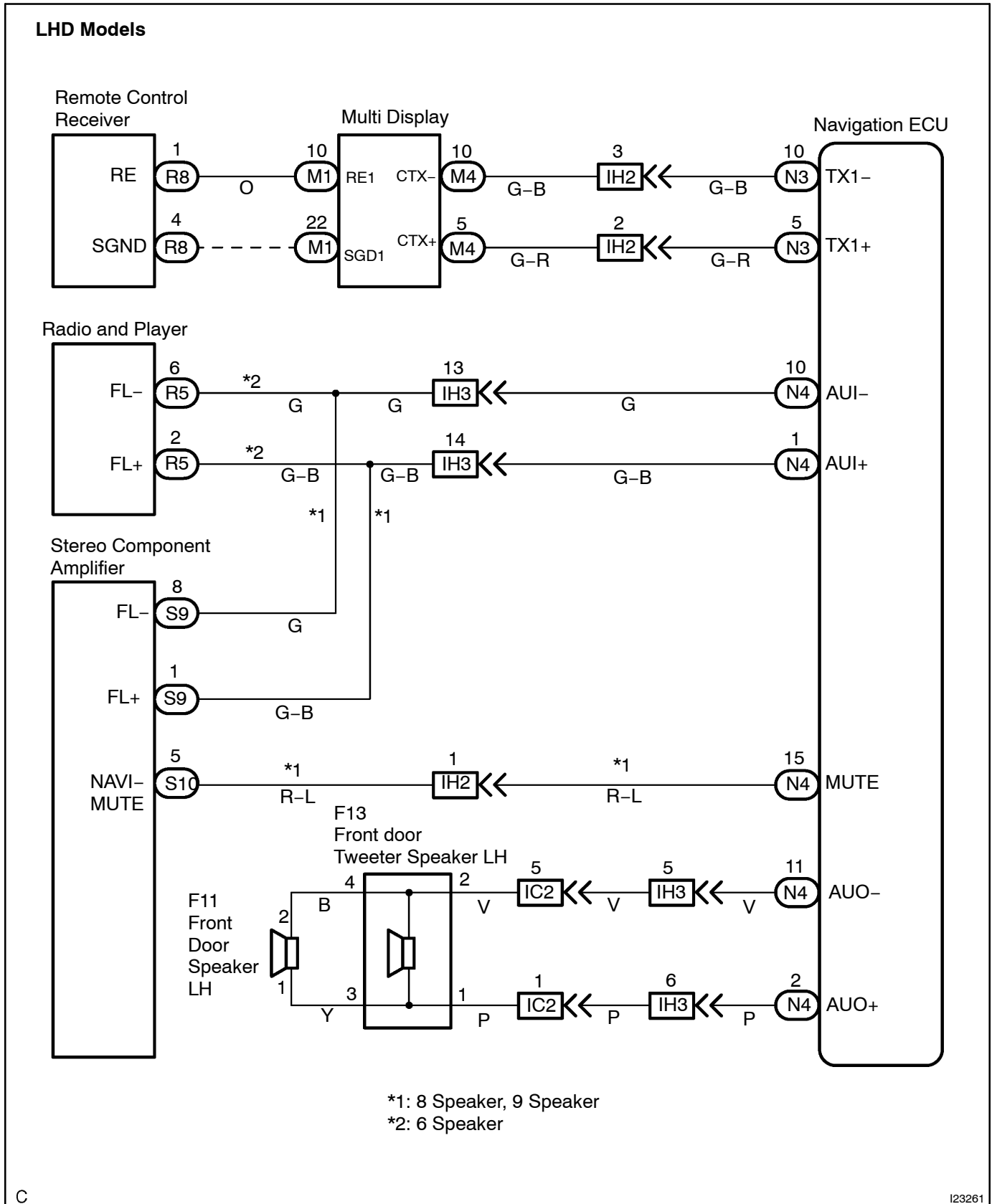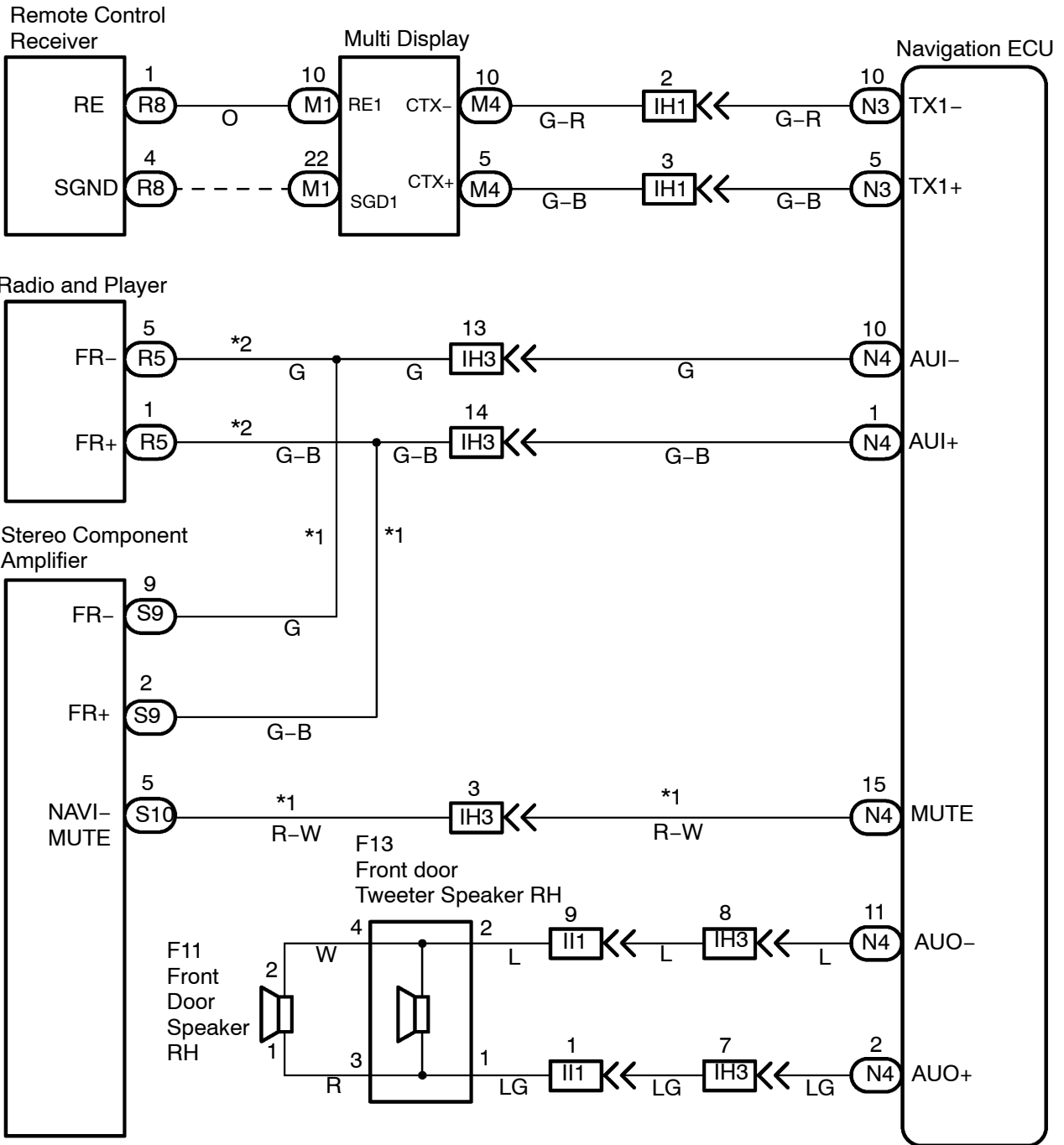# WIRING DIAGRAM

LHD Models

Remote Control Receiver

Multi Display

Navigation ECU

Radio and Player

Stereo Component Amplifier

F13
Front door
Tweeter Speaker LH

F11
Front
Door
Speaker
LH

*1: 8 Speaker, 9 Speaker
*2: 6 Speaker

C

I23261

RHD Models

Remote Control Receiver

Multi Display

Navigation ECU

RE (R8) 1 — O — (M1) 10 RE1   CTX– (M4) 10 — G–R — (IH1) 2 « — G–R — (N3) 10 TX1–

SGND (R8) 4 – – – – (M1) 22 SGD1   CTX+ (M4) 5 — G–B — (IH1) 3 « — G–B — (N3) 5 TX1+

Radio and Player

FR– (R5) 5 — *2 G — G — (IH3) 13 « — G — (N4) 10 AUI–

FR+ (R5) 1 — *2 G–B — G–B — (IH3) 14 « — G–B — (N4) 1 AUI+

Stereo Component Amplifier

FR– (S9) 9 — *1 G

FR+ (S9) 2 — *1 G–B

NAVI–
MUTE (S10) 5 — *1 R–W — (IH3) 3 « — *1 R–W — (N4) 15 MUTE

F13
Front door
Tweeter Speaker RH

F11
Front
Door
Speaker
RH

(II1) 9 « — L — (IH3) 8 « — L — (N4) 11 AUO–

(II1) 1 « — LG — (IH3) 7 « — LG — (N4) 2 AUO+

*1: 8 Speaker, 9 Speaker
*2: 6 Speaker

C

I23261

INSPECTION PROCEDURE

1	Disconnect the connector "S8" of power amplifier 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 power amplifier**

NG

2	Check wire harness and connector between radio and player and Navigation ECU. (**See page IN–34**)

NG ⟩ **Repair or replace wire harness or connector between radio and player and Navigation ECU.**
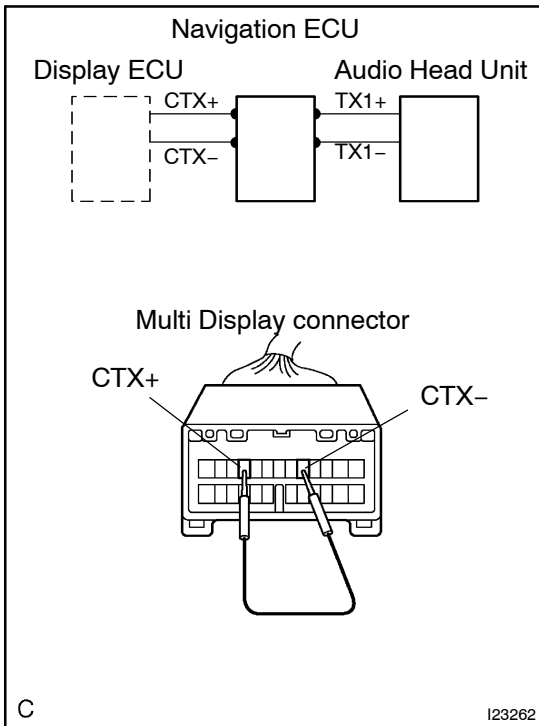
OK

3	Check wire harness and connector between Multi Display and Navigation ECU. (**See page IN–34**)

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

OK

4	**Skip Display ECU and check AVC−LAN.**

Navigation ECU

Display ECU   Audio Head Unit

CTX+   TX1+

CTX−   TX1−

Multi Display connector

CTX+   CTX−

C   I23262

PREPARATION:
(a)   Connect all the connectors except "M1" of the Multi Display.
(b)   Using 2 SSTs (Diagnosis check wire P/N 09893−12040), connect the terminal CTX+ of connector "M1" and CTX+ of connector "M1" of Multi Display.

CHECK:
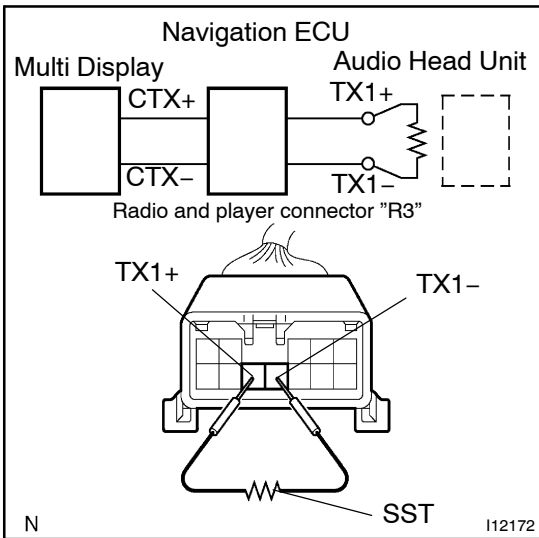Operate radio and player (CD, Cassette tape, etc.) and check that the sound comes out from the speaker.
(Check that AVC−LAN is recovered.)

OK >	**Replace the Multi Display.**

NG

5	Skip radio and player and check AVC–LAN.

```
Navigation ECU
Multi Display          Audio Head Unit
        CTX+                TX1+
        CTX–                TX1–
    Radio and player connector "R3"

TX1+                    TX1–

                         SST
N                              I12172
```

PREPARATION:

(a) Connect Multi Display connector.

(b) Disconnect radio and player "F" connector.

(c) Using SST (Navigation Check Wire P/N 09843–18050), connect the terminal TX1+ to terminal TX1– of "F" connector of radio and player.

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 radio and player.**

NG ▽

Replace the Navigation ECU.