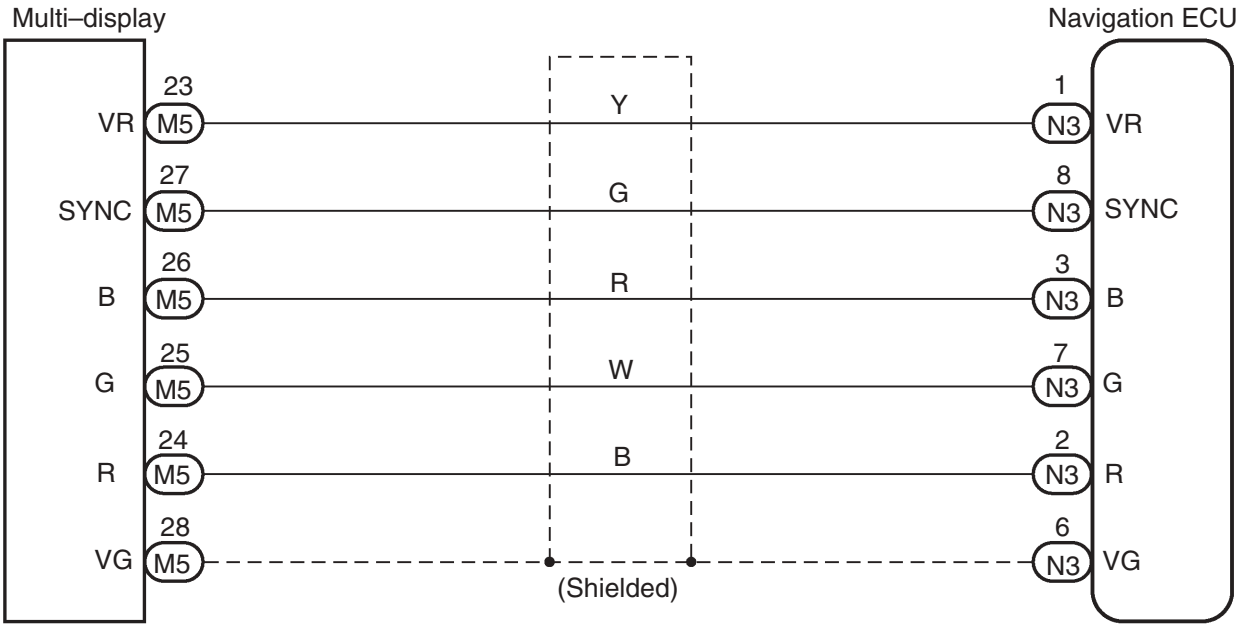
DISPLAY SIGNAL CIRCUIT (NAVIGATION ECU – MULTI–DISPLAY)

CIRCUIT DESCRIPTION

This is the display signal circuit from the navigation ECU to the multi–display.

WIRING DIAGRAM

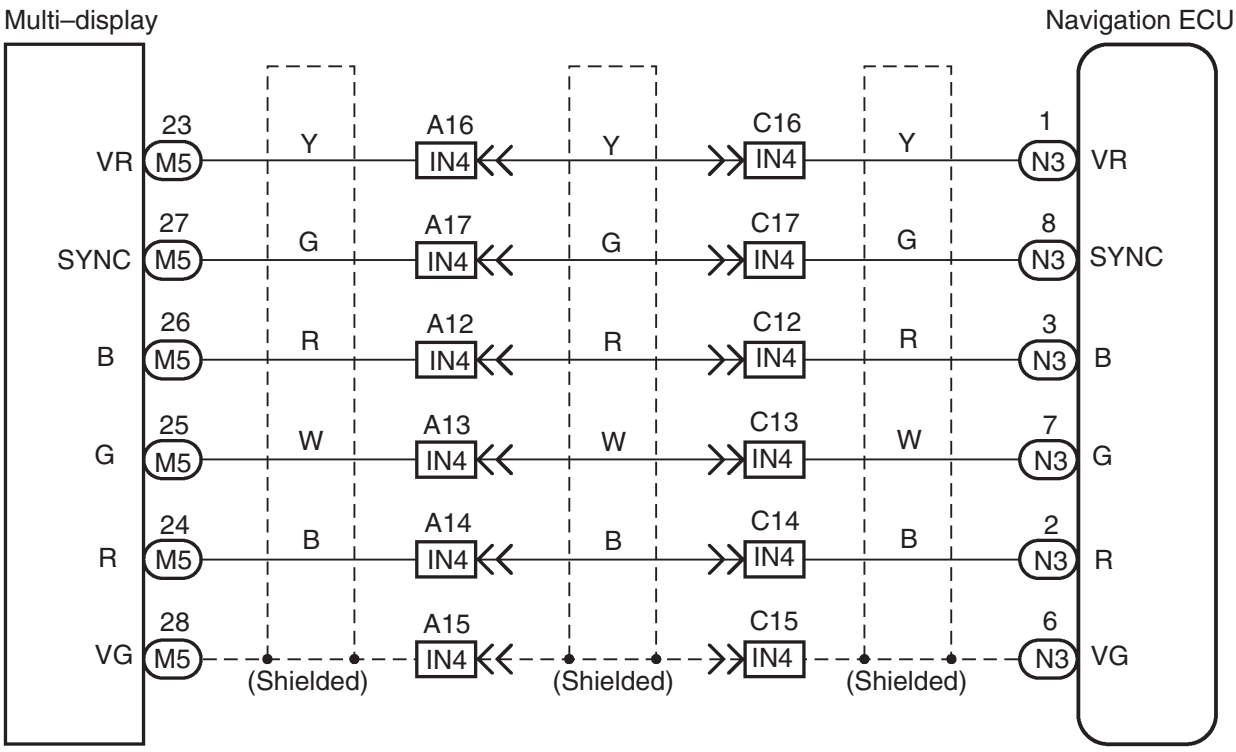
LHD:



N

I45202

RHD:



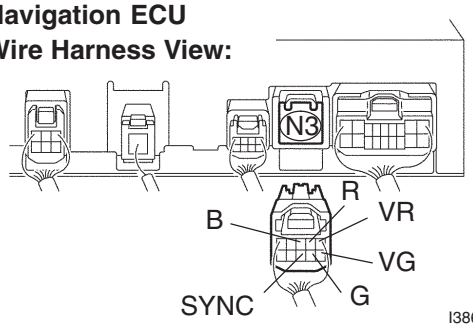
N

I45201

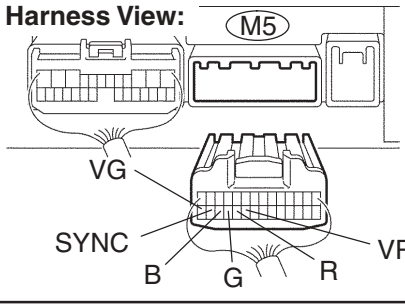
INSPECTION PROCEDURE

1	CHECK HARNESS AND CONNECTOR(NAVIGATION ECU – MULTI–DISPLAY)

Navigation ECU
Wire Harness View:



Multi–display
Wire Harness View:



(a) Disconnect the navigation ECU connector N3 and multi–display connector M5.

(b) Measure the resistance according to the value(s) in the table below.

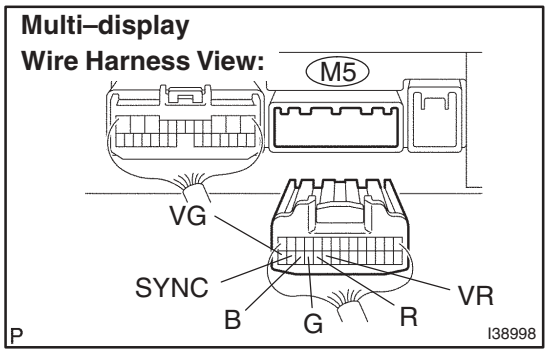
Standard:

Tester connection	Condition	Specified condition
R – R	Always	Below 1 Ω
G – G	Always	Below 1 Ω
B – B	Always	Below 1 Ω
SYNC – SYNC	Always	Below 1 Ω
VR – VR	Always	Below 1 Ω
VG – VG	Always	Below 1 Ω
R – Body ground	Always	10 kΩ or higher
G – Body ground	Always	10 kΩ or higher
B – Body ground	Always	10 kΩ or higher
SYNC – Body ground	Always	10 kΩ or higher
VR – Body ground	Always	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

2 INSPECT NAVIGATION ECU (OUTPUT SIGNAL)



(a) Reconnect the navigation ECU connector N3.
(b) Measure the waveform according to the table below.
Standard:

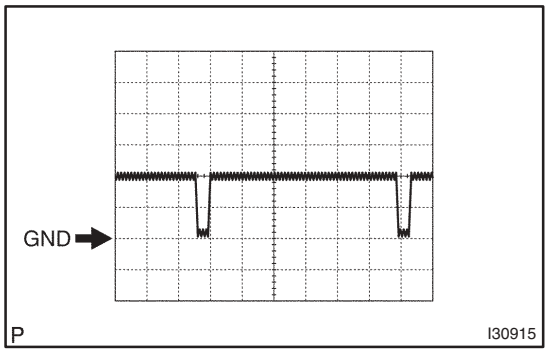
Tester connection	Condition	Specified condition
R – Body ground	Navigation display is ON	A waveform synchronized with display signals is output
G – Body ground	Navigation display is ON	A waveform synchronized with display signals is output
B – Body ground	Navigation display is ON	A waveform synchronized with display signals is output
SYNC – Body ground	Navigation display is ON	A waveform synchronized with display signals is output

NG → **REPLACE NAVIGATION ECU (SEE PUB. NO. RM990E, PAGE 67–22)**

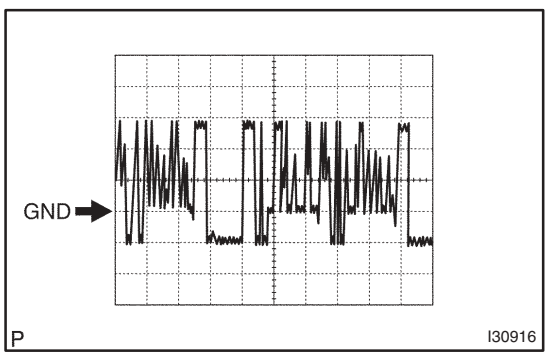
OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–1309)

HINT: The waveform pattern may differ from those shown in the illustrations below due to differences in oscilloscope settings. A normal navigation ECU operating condition can be determined if any waveform is output.



Oscilloscope wave
Terminal: SYNC–Body ground
Setting: 500 mV/DIV 10 μs/DIV
Condition: Navigation display is on



Oscilloscope wave
Terminal: R, G, B–Body ground
Setting: 200 mV/DIV 10 μs/DIV
Condition: Navigation display is on