

Radio, Stereo, and Compact Disc: Testing and Inspection

Trouble Code Descriptions

DIAGNOSTIC TROUBLE CODE CHART

Terms	Meaning
Physical address	Three-digit code (shown in hexadecimal) which is given to each component comprising the AVC-LAN. Corresponding to the function, individual symbols are specified.
Logical address	Two-digit code (shown in hexadecimal) which is given to each function comprising the inner system of the AVC-LAN.

1. RADIO RECEIVER ASSY (Physical address: 190)

HINT:

- *1: Even if no failure is detected, trouble code may be stored depending on the battery condition or voltage for starting the engine.
- *2: It is stored when **180 seconds** have passed after the power supply connector is pulled out after the engine starts.
- *3: It may be stored when the engine key is turned **1 minute** after engine starts.
- *4: It may be stored when the engine key is turned again after engine starts.
- *5: When **210 seconds** have passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

DTC	Diagnosis Item	Diagnosis content	Countermeasure and inspected parts
21	ROM Error	Abnormal condition of ROM is detected.	Replace radio receiver assy.
22	RAM Error	Abnormal condition of RAM is detected.	Replace radio receiver assy.
D6 *1	Absence of Master	Component in which this code is recorded was disconnected from system or master component with ignition in ACC or ON.	<input type="checkbox"/> Check harness for power supply system of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy.
D7 *5	Connection check Error	Component in which this code is recorded was disconnected from system or master component ignition with in ACC or ON.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy.
D8 *2	No Response to Connection Check	Component shown by sub code is or was disconnected from system after engine start.	<input type="checkbox"/> Check harness for power supply system of component shown by sub code. <input type="checkbox"/> Check harness for communication system of component shown by sub code.
D9 *1	Last Mode Error	Audio or visual component operated before engine stop is or was disconnected with ignition switch in ACC or ON.	<input type="checkbox"/> Check harness for power supply system of component shown by sub code. <input type="checkbox"/> Check harness for communication system of component shown by sub code.
DA	No Response to ON/OFF Instruction	No response is identified when changing mode (audio and visual mode change). Detected when sound and picture does not change by button operation.	<input type="checkbox"/> Check harness for power supply system of component shown by sub code. <input type="checkbox"/> Check harness for communication system of component shown by sub code. <input type="checkbox"/> If error occurs again, replace component shown by sub code.
DB *1	Mode Status Error	Dual alarm is detected.	<input type="checkbox"/> Check harness for power supply system of component shown by sub code. <input type="checkbox"/> Check harness for communication system of component shown by sub code.
DC *3	Transmission Error	Transmission to component shown by auxiliary code has been failed. (Detecting this DTC does not necessarily mean actual failure.)	If same sub code is recorded in other component, check harness for power supply and communication system of all components shown by code. (If not, delete DTC and recheck.)

DTC	Diagnosis item	Diagnosis content	Countermeasure and inspected parts
DD *4	Master Reset (Momentary Interruption)	After the engine was started, master component was disconnected from system.	<input type="checkbox"/> Check harness for power supply system of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> If this error occurs frequently, replace radio receiver assy.
DE *4	Slave Reset (Momentary Interruption)	After the engine was started, component shown by sub code was disconnected from system.	<input type="checkbox"/> Check harness for power supply of component shown by sub code. <input type="checkbox"/> Check harness for communication system of component shown by sub code.
DF *5	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub-master (audio) and master component.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy.
E0 *1	Registration Completion Instruction Error	"Registration Completion Instruction" command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from master component.	Replace radio receiver assy
E3 *1	Registration Request Transmission	Registration Request command is output from component shown by sub code. Receiving Connection Check Instruction, Registration Request command is output from sub-master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

DD - F4

a. Logical address: 01 (Communication control)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
10	Panel Switch Error	Error in panel switch input part is detected. (Error in switch control part, or internal communication error with switch control part is detected.)	<input type="checkbox"/> Inspect all switches on panel switch test screen in display check mode. If any of them does not function, replace radio receiver assy. <input type="checkbox"/> If all switches function without problem, observe them for a while.
11	Touch Switch Error	Error in touch switch sensor is detected. (Light level of LED is detected to be less than a fixed value.)	<input type="checkbox"/> Inspect all touch switches on touch switch test screen in display check mode. If any of lines does not react, replace radio receiver assy. <input type="checkbox"/> If all of vertical and horizontal lines react normally, observe them for a while.

10 - 11

b. Logical address: 21 (Switch)

DTC	Diagnosis item	Diagnosis content	Countermeasure and inspected parts
40	Mechanical Error of Media	Malfunction due to mechanical failure is identified. Or cassette tape is cut or entangled.	<input type="checkbox"/> Inspect cassette tape. <input type="checkbox"/> Replace radio receiver assy.
41	EJECT Error	Malfunction due to mechanical failure.	Replace radio receiver assy.
42	Tape caught in the radio receiver assy	Hub lock etc.	Inspect cassette tape.

40 - 42

c. Logical address: 61 (Cassette switch)

DTC	Diagnosis item	Diagnosis content	Countermeasure and inspected parts
42	No Disc Readout	Disc cannot be read.	<input type="checkbox"/> Inspect CD. <input type="checkbox"/> Replace radio receiver assy.
44	CD player Error	Error is detected in CD player.	Replace radio receiver assy.
45	EJECT Error	Magazine cannot be ejected.	Replace radio receiver assy.
47	Detection of high temperature	–	–
48	Detection of eddy current	–	–

42 - 48

d. Logical address: 62 (CD player)

DTC	Diagnosis item	Diagnosis content	Countermeasure and inspected parts
42	No Disc Readout	Disc cannot be read.	<input type="checkbox"/> Inspect CD. <input type="checkbox"/> Replace radio receiver assy.
44	CD player Error	Error is detected in CD player.	Replace radio receiver assy.
45	EJECT Error	Magazine cannot be ejected.	Replace radio receiver assy.
47	Detection of high temperature	–	–
48	Detection of eddy current	–	–

42 - 48

e. Logical address: 63 (In-dash CD changer)

2. STEREO COMPONENT AMPLIFIER ASSY (Physical address: 440)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting the engine.
- *2: This code may be stored when the engine key is turned again **1 min.** after the engine starts.
- *3: This code may be stored when the engine key is turned again after the engine starts.
- *4: When **210 seconds** have passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

DTC	Diagnosis item	Diagnosis content	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded was disconnected from system with ignition in ACC or ON. Or, when this code was recorded, radio receiver assy was disconnected.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for power supply of stereo component amplifier assy. <input type="checkbox"/> Check harness for communication system of stereo component amplifier assy.
D7 *4	Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when this code was recorded, radio receiver assy was disconnected.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for power supply of stereo component amplifier assy. <input type="checkbox"/> Check harness for communication system of stereo component amplifier assy.
DC *2	Transmission Error	Transmission to component shown by auxiliary code failed. (Detecting this DTC does not necessarily mean actual failure.)	If same auxiliary code is recorded in other components, check harness for power supply and communication system of all components shown by code.

D6 - DC

DTC	Diagnosis item	Diagnosis content	Countermeasure and inspected parts
DD *3	Master Reset (Momentary Interruption)	After engine was started, radio receiver assy was disconnected from system.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for power supply of stereo component amplifier assy. <input type="checkbox"/> Check harness for communication system of stereo component amplifier assy. <input type="checkbox"/> If this error occurs frequently, replace radio receiver assy.
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub-master (audio) and master component.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for communication system between radio receiver assy and sub-master component.
E0 *1	Registration Completion Instruction Error	"Registration Completion Instruction" command from master cannot be received.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
E1 *1	Audio processor ON error	While source equipment is operating, AMP output is stopped.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy.
E2	ON/OFF Instruction Parameter Error	Error occurs in ON/OFF controlling command from radio receiver assy.	Replace radio receiver assy.
E3 *1	Registration Request Transmission	<input type="checkbox"/> Registration Request command is output from slave component. <input type="checkbox"/> Registration Connection Check Instruction, Registration Request command are output from sub-master component.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

DD - F3

Logical address: 01 (Communication control)

3. MULTI-DISPLAY CONTROLLER SUB-ASSY (Physical address: 1F6, 16C)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting the engine.
- *2: This code may be stored when the engine key is turned again **1 min.** after the engine starts.
- *3: This code may be stored when the engine key is turned again after the engine starts.
- *4: When **210 seconds** have passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.

a. Main (1F6)

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
21	ROM Error	Abnormal condition of ROM is detected.	Replace multi-display controller sub-assy.
22	RAM Error	Abnormal condition of RAM is detected.	Replace multi-display controller sub-assy.
D1 *1	Registered component disconnected AVC-LAN transmitting abnormalities	Component shown by sub-code is or was disconnected from system with ignition switch in ACC or ON. Communication with component shown by sub-code is not ensured when engine is started.	<input type="checkbox"/> Check harness for power supply of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.

21 - D1

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D7 *4	No response to connection check	Component shown by sub-code is or was disconnected from system after engine started.	<input type="checkbox"/> Check harness for power supply of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.
D7 *4	AVC-LAN Communication Check Error	Component in which this code is recorded is or was disconnected from system after engine start. Or, when recording this code, multi-display controller sub-assy was disconnected.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for power supply of multi-display controller sub-assy. <input type="checkbox"/> Check harness for communication system of multi-display controller sub-assy.
D6 *1	Absence of Master	Component in which this code is recorded was disconnected from system with ignition in ACC or ON. Or, when this code was recorded, multi-display controller sub-assy was disconnected.	<input type="checkbox"/> Check harness for power supply system of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for communication system between radio receiver assy and multi-display controller sub-assy.
D7 *4	Connection Check Error	Component in which this code is recorded was disconnected from system after engine start. Or, when this code was recorded, multi-display controller sub-assy was disconnected.	<input type="checkbox"/> Check harness for power supply system of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for power supply of multi-display controller sub-assy. <input type="checkbox"/> Check harness for communication system of multi-display controller sub-assy.
DC *2	Transmission Error	Transmission to component shown by sub-code failed. (This code does not necessarily mean actual failure.)	If same sub-code is recorded in other component(s), check harness for power supply and communication system of all components shown by code.
DD *3	Master Reset (Momentary Interruption)	Component that is to be master was disconnected after engine start.	<input type="checkbox"/> Check harness for power supply system of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for power supply of multi-display controller sub-assy. <input type="checkbox"/> Check harness for communication system of multi-display controller sub-assy. <input type="checkbox"/> If error occurs frequently, replace radio receiver assy.
DF *4	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub-master (audio) and master component.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for communication system between multi-display controller sub-assy and radio receiver assy.
E0 *1	Registration Completion Instruction Error	"Registration Completion Instruction" command from master cannot be received.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.

D7 - E0

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
E3 *1	Registration Request Transmission	<input type="checkbox"/> Registration Request command is output from slave component. <input type="checkbox"/> Registration Request command is output from sub-master component.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

E3 - E4

b. Sub (16C)-AVC-LAN L-1

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D8 *2	No Response To Connection Check	Component shown by sub-code is or was disconnected from system after engine start.	<input type="checkbox"/> Check harness for power supply system of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.
D9 *1	Last Mode Error	Component operated (sound and/or image was provided) before engine stop is or was disconnected with ignition switch in ACC or ON.	<input type="checkbox"/> Check harness for power supply of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.
DA	No Response to ON/OFF Instruction	No response is identified when changing mode (audio and visual mode change). Sound and picture does not change by button operation	<input type="checkbox"/> Check harness for power supply system of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code. <input type="checkbox"/> If error occurs again, replace component shown by auxiliary code
DB *1	Mode Status Error	Dual alarm is detected.	<input type="checkbox"/> Check harness for power supply system of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.
DC *2	Transmission Error	Transmission to component shown by sub-code failed. (This code does not necessarily mean actual failure.)	If same sub-code is recorded in other component(s), check harness for power supply and communication system of all components shown by code.
DE *3	Slave Reset (Momentary Interruption)	After engine start, slave component was disconnected.	<input type="checkbox"/> Check harness for power supply system of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.

D8 - E4

Logical address: 01 (Communication control)

4. STEREO COMPONENT CONTROLLER ASSY (Physical address: 1F4)

HINT:

- *1: Even if no failure is detected, this code may be stored depending on the battery condition or voltage for starting the engine.
- *2: When **210 seconds** have passed after pulling out the power supply connector of the master component with the ignition switch in ACC or ON, this code is stored.
- *3: This code may be stored when the engine key is turned again **1 minute** after the engine starts.
- *4: This code may be stored when the engine key is turned again after the engine starts.

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D6 *1	Absence of Master	Component in which this code is recorded was disconnected from system with ignition in ACC or ON. Or, when this code was recorded, radio receiver assy was disconnected.	<input type="checkbox"/> Check harness for power supply system of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for communication system between radio receiver assy and stereo component controller assy.
D7 *2	Connection Check Error	Component in which this code is recorded was disconnected from system after engine start. Or, when this code was recorded, radio receiver assy was disconnected.	<input type="checkbox"/> Check harness for power supply system of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy.
DC *3	Transmission Error	Transmission to component shown by sub-code failed. (This code does not necessarily mean actual failure.)	If same sub-code is recorded in other component(s), check harness for power supply and communication system of all components shown by code.
DD *4	Master Reset (Momentary Interruption)	Component that is to be master was disconnected after engine start.	<input type="checkbox"/> Check harness for power supply system of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> If error occurs frequently, replace stereo component controller assy.
E0 *1	Registration Completion Instruction Error	"Registration Completion Instruction" command from master cannot be received.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.
E3 *1	Registration Request Transmission	<input type="checkbox"/> Registration Request command is output from slave component. <input type="checkbox"/> Registration Request command is output from sub-master component.	Since this DTC is provided for engineering, it may be detected when no actual failure exists.
DF *2	Master Error	Due to defective condition of component with a display, master function is switched to audio equipment. Error occurs in communication between sub-master (audio) and master component.	<input type="checkbox"/> Check harness for power supply of radio receiver assy. <input type="checkbox"/> Check harness for communication system of radio receiver assy. <input type="checkbox"/> Check harness for communication system between stereo component controller assy and radio receiver assy.
E4 *1	Multiple Frame Abort	Multiple frame transmission is aborted.	Since this DTC is provided for engineering purpose, it may be detected when no actual failure exists.
D8 *2	No Response To Connection Check	Component shown by sub-code is or was disconnected from system after engine start.	<input type="checkbox"/> Check harness for power supply system of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.

D6 - D8

DTC	Diagnosis item	Condition	Countermeasure and inspected parts
D9 *1	Last Mode Error	Component operated (sound and/or image was provided) before engine stop is or was disconnected with ignition switch in ACC or ON.	<input type="checkbox"/> Check harness for power supply of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.
DA	No Response to ON/OFF Instruction	No response is identified when changing mode (audio and visual mode change). Sound and picture does not change by button operation	<input type="checkbox"/> Check harness for power supply system of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code. <input type="checkbox"/> If error occurs again, replace component shown by auxiliary code
DB *1	Mode Status Error	Dual alarm is detected.	<input type="checkbox"/> Check harness for power supply system of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.
DC *3	Transmission Error	Transmission to component shown by sub-code failed. (This code does not necessarily mean actual failure.)	If same sub-code is recorded in other component(s), check harness for power supply and communication system of all components shown by code.
DE *4	Slave Reset (Momentary Interruption)	After engine start, slave component was disconnected.	<input type="checkbox"/> Check harness for power supply system of component shown by sub-code. <input type="checkbox"/> Check harness for communication system of component shown by sub-code.

D9 - DF

Logical address: 01 (Communication control)