05F8Z-01

DIAGNOSTIC TROUBLE CODE CHART

| Terms | Description |
|------------------|---|
| Physical address | 3-digit, hexadecimal code assigned to all components connected to the AVC-LAN. Individual symbols are specified based on function. Units whose names are unknown or relevant units are displayed with physical addresses. |
| Logical address | 2-digit, hexadecimal code assigned to all the functions in the AVC-LAN system. |

HINT:

Titles for each unit are stated in the following order: parts name (physical address) [Name indicated by DTC]

- 1. RADIO AND NAVIGATION ASSY (physical address: 140) [AVN]
- (a) Logical address: 01 (Communication control)

HINT:

Methods used to verify the cause of the problem are listed in order of probability in the verification column.

| DTC | Name | Diagnosis | Verification | See page |
|----------------|------------------------------------|--|--|------------------|
| D5 *1 *5 | Absence of registration unit | A device that the sub code shows is (was) disconnected from the system when turning the ignition switch to the ACC or ON position. The communication condition with the device that the code shows cannot be obtained when the engine starts. | Power source circuit (stereo component amplifier assy) Replace stereo component amplifier assy | 05–1974 67–18 |
| D8 *2 *5 | No response for connection check | The device indicated by the sub code is (was) disconnected from the system after engine start. | Power source circuit (stereo component amplifier assy) Replace stereo component amplifier assy | 05–1974 67–18 |
| D9 *1 *5 | Last mode error | The device (for audio visual system) that had functioned before the engine stopped is (was) disconnected from the system when the ignition switch is (was) in the ACC or ON position. | Power source circuit (stereo component amplifier assy) Replace stereo component amplifier assy | 05–1974 67–18 |
| DA *5 | No response against ON/OFF command | No response is identified when changing mode (audio and visual mode change). Detected when sound and image do not change by switch operation. | Power source circuit (stereo component amplifier assy) Replace stereo component amplifier assy | 05–1974 67–18 |
| DB *1 *5 | Mode status error | This code detects a dual alarm. | Power source circuit (stereo component amplifier assy) Replace stereo component amplifier assy | 05–1974 67–18 |
| DC *3 *5 | Failure in transmission | This code indicates a transmission failure to the device indicated by the sub code. NOTE: This DTC may have no direct relationship with the malfunction. | Power source circuit (stereo component amplifier assy) Replace stereo component amplifier assy | 05–1974 67–18 |
| DE *4 *5 | Slave reset | This code is stored when a slave device has been disconnected after engine start. | Power source circuit (stereo component amplifier assy) Replace stereo component amplifier assy | 05–1974 67–18 |
| 21 | ROM error | This code is output when a malfunction exists in ROM. | Replace radio and navigation assy | 67–5 |
| 22 | RAM error | This code is output when a malfunction exists in RAM. | Replace radio and navigation assy | 67–5 |

HINT:

- *1: This code may be recorded depending on the battery condition or engine start voltage even if no failure is detected.
- *2: If the power connector is disconnected after the engine starts, this code is recorded after 180 seconds.
- *3: This code may be stored if the ignition key is turned to the START position again with the engine running.
- *4: This code may be stored if the ignition key is held in the START position for 1 minute or more before returning to the ON position.
- *5: If the device is reported as not existing during verification, check the power source circuit and AVC–LAN circuit for the device.
- (b) Logical address: 21 (SW): 23 (SW with name): 24 (SW converting): 25 (command SW) HINT:

Methods used to verify the cause of the problem are listed in order of probability in the verification column.

| DTC | Name | Diagnosis | Verification | See page |
|-----|--------------------|---|-----------------------------------|----------|
| 10 | Panel switch error | The panel SW detection circuit has a failure. | Replace radio and navigation assy | 67–5 |

(c) Logical address: 58 (Navigation): 80 (GPS) HINT:

Methods used to verify the cause of the problem are listed in order of probability in the verification column.

| DTC | Name | Diagnosis | Verification | See page |
|-----|--------------------------------|--|---|----------------------------|
| 10 | Gyro error | Ground short, power supply short, or open circuit in the gyro signal, gyro failure. | Inspect the gyro error Replace GPS antenna Replace radio and navigation assy | 05–1969 67–15 67–5 |
| 11 | GPS receiver error | RTC, ROM, and RAM of the GPS receiver and TCXO errors. GPS receiver is failed. | Replace radio and navigation assy | 67–5 |
| 40 | GPS antenna error | GPS antenna error | Replace GPS antenna Replace radio and navigation assy | 67–15 67–5 |
| 41 | GPS antenna power source error | Error of the power source to the GPS antenna | Replace GPS antenna Replace radio and navigation assy | 67–15 67–5 |
| 42 | Map disc read error | Player error. A scratch or dirt on the disc. Access to an invalid address due to software error. | Inspect map disc reading error Replace map disc Replace radio and navigation assy | 05–1970 – 67–5 |
| 43 | SPD signal error | The difference between the GPS speed and SPD pulse is detected. | Inspect SPD signal error Speed signal circuit Replace radio and navigation assy | 05–1971 05–1976 67–5 |

| 44 | Player error | Map player error is detected. | Check if the disc can be inserted and ejected. If a malfunction is found, replace the radio and nav- igation assy. If the same code is detected again, replace the radio and nav- igation assy. | 67–5 67–5 |
|----|------------------|--|--|--------------|
| 45 | High temperature | High map player temperature is detected. | Park the vehicle in a cool place. Turn the engine off. After checking that the temperature of the radio and navigation assy becomes sufficiently low, turn the engine on to verify the malfunction symptom. If the same code is detected, replace the radio and navigation assy. | - 67–5 |

2. STEREO COMPONENT AMPLIFIER ASSY (Physical address: 440) [DSP AMP]

(a) Logical address: 01 (communication control) HINT:

Methods used to verify the cause of the problem are listed in order of probability in the verification column.

| DTC | Name | Diagnosis | Verification | See page |
|----------------|--|---|---|-------------------------------------|
| D7 | Connection check error | When either of the following conditions is met. • The device that stored this code has (had) been disconnected after the engine starts (started). • The master device has (had) been disconnected when this code is (was) stored. | Power source circuit (radio and navigation assy) Power source circuit (stereo component amplifier assy) Replace radio and navigation assy Replace stereo component amplifier assy | 05–1972 05–1974 67–5 67–18 |
| DC *2 *5 | Transmission error | The device stores the fact that transmission to the device indicated by the sub code has failed. NOTE: This DTC may not be directly related to the problem. | Power source circuit (radio and navigation assy) Power source circuit (stereo component amplifier assy) Replace radio and navigation assy Replace stereo component amplifier assy | 05–1972 05–1974 67–5 67–18 |
| E0 *1 | Registration complete indication error | When "Registration complete" command from the master device cannot be received. NOTE: This DTC may not be directly related to the problem. | - | - |
| E1 *1 | Voice processing device ON error | When the AMP device records that the AMP output does not function even while the source device operates. | Power source circuit (radio and navigation assy) Replace radio and navigation assy | 05–1972 67–5 |
| E2 | ON/OFF indication parameter error | When the command for ON/OFF control from the master device has a problem. | Replace radio and navigation assy | 67–5 |

| E3 *1 | Registration demand transmission | When the registration demand command from the slave device is output, or when the registration demand command is output by receiving connection confirmation command from the sub master device. NOTE: This DTC may not be directly related to the problem. | - | - |
|----------|----------------------------------|--|---|---|
| E4 | Multiple frame incomplete | When the multiple frame transmission ends incomplete. NOTE: This DTC may not be directly related to the problem. | _ | _ |

HINT:

- *1: This code may be recorded depending on the battery condition or engine start voltage even if no failure is detected.
- *2: If the power connector is disconnected after the engine starts, this code is recorded after 180 seconds.
- *3: This code may be stored if the ignition key is turned to the START position again with the engine running.
- *4: This code may be stored if the ignition key is held in the START position for 1 minute or more before returning to the ON position.
- *5: If the device is reported as not existing during verification, check the power source circuit and AVC–LAN circuit for the device.