

SYSTEM DESCRIPTION

1. COMPACT DISC PLAYER

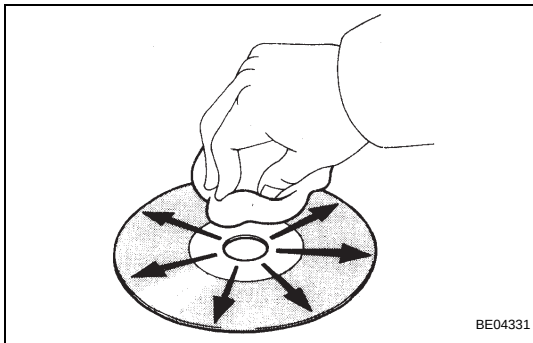
- (a) Compact Disc (hereafter called "CD") players use a laser beam pick-up to read the digital signals recorded on CDs and reproduce analog signals of the music, etc. 4.7 in. (12 cm) and 3.2 in. (8 cm) discs are available for the CD player.

HINT:

Never disassemble or apply oil to any part of the player unit. Do not insert any object other than a disc into the CD player.

NOTICE:

CD players use an invisible laser beam which could cause hazardous radiation exposure. Be sure to operate the player correctly as instructed.



2. MAINTENANCE

- (a) CD Player/Disc Cleaning:

If the disc gets dirty, clean the disc by wiping the surface from the center to outside in a radial direction with a soft cloth.

NOTICE:

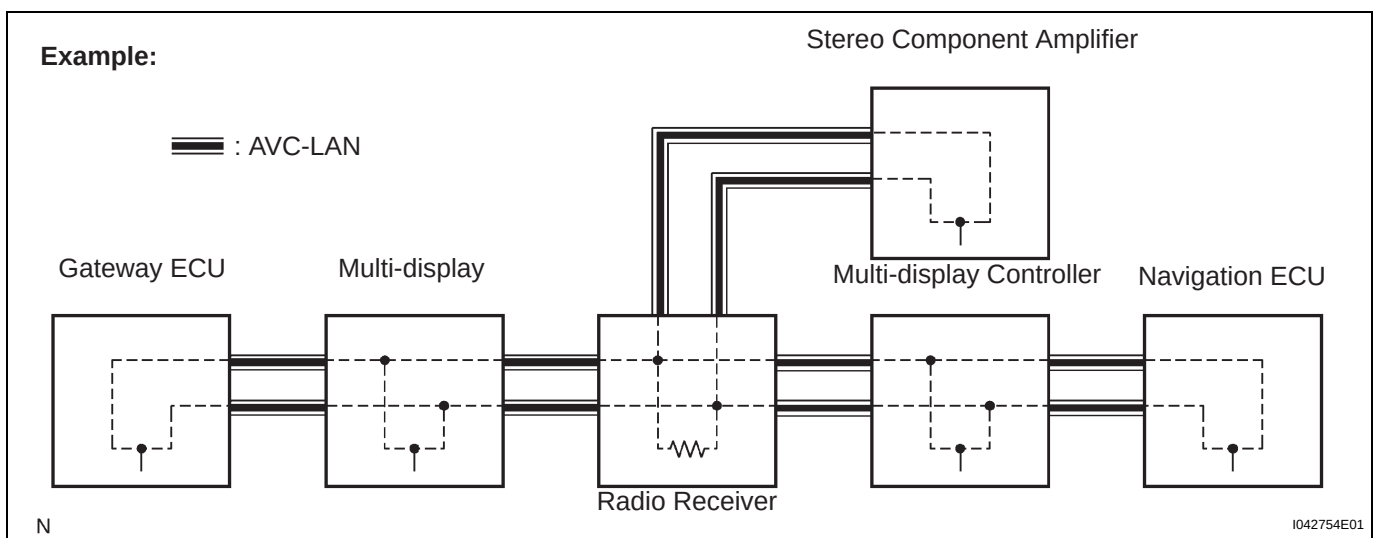
Do not use a conventional record cleaner or anti-static preservative.

3. OUTLINE OF AVC-LAN

- (a) What is AVC-LAN?

AVC-LAN is the abbreviation for Audio Visual Communication-Local Area Network. This is a unified standard co-developed by 6 audio manufacturers associated with Toyota Motor Corporation.

The unified standard includes signals, such as audio, visual and signals for switch indication and communication.



(b) Objectives

Recently development in car audio systems has been rapid and functions have been changed drastically. The conventional system has been switched to a multi-media type such as a navigation system. At the same time customers want to upgrade their audio systems. This is the factor that lies behind this standardization.

The concrete objectives are explained below.

- (1) When products by different manufacturers were combined together, malfunctions such as sound failure occurred. This problem can be solved by standardization of signals.
- (2) Various types of after market products are available.
- (3) In general, a new product developed by a particular manufacturer could not be used due to a lack of compatibility with other manufacturer's products. By developing this new standard, users can enjoy a range of compatible products from different manufacturers.

HINT:

- When a +B short or GND short is detected in the AVC-LAN circuit, communication stops, and the audio system will not function.
- When the audio system is not equipped with a navigation system, the audio head unit is the master unit. When the audio system is equipped with a navigation system, the multi-display unit is the master unit.
- The radio receiver is equipped with a resistor (60 to 80 Ω) for communication.
- All car audio systems using an AVC-LAN circuit have a diagnostic function.
- Each unit has its own specified number called a physical address (three-digit number). Numbers are also allotted to each function, which are called logical addresses (two-digit number).

4. COMMUNICATION SYSTEM

- (a) Components in the audio system communicate with each other through the AVC-LAN. (Radio receiver with CD changer control function)
- (b) When a short circuit or circuit breakdown occurs in the AVC-LAN circuit, the audio system does not operate normally due to the communication cutoff.

5. DIAGNOSTIC FUNCTION

- (a) The audio system has a diagnostic function (The diagnostic result is displayed on the LCD of the radio receiver). (Radio receiver with CD changer control function)
- (b) The component code (physical address), or three-digit number (in hexadecimal) is set for each component comprising AVC-LAN.

- (c) The logical address, or two-digit number (in hexadecimal) is set for each function and component unit in each component.

