

## PRE-CHECK

### 1. DIAGNOSIS CHECK

#### (a) Starting Diagnosis Mode (Service Check Mode)

- (1) Turn off the audio system and turn the IG switch to ACC. While pressing the preset switches "1" and "6" at the same time, press "CD" 3 times.
- (2) Reference:
  - Beep sound is given 3 times and the system enters the service check mode.
  - It may take about 40 sec. to complete the check.
  - In the service check mode, the system check and the diagnosis memory check are performed, and the check results are displayed in ascending order of the device codes (physical address.)

Terms	Meaning
Component code (Physical address)	Three-digit code (In hexadecimal) given to each device comprising AVC-LAN. Corresponding to its function, individual symbol is provided.
Logical address	Two-digit code (In hexadecimal) given to each function and device unit in each device comprising AVC-LAN.

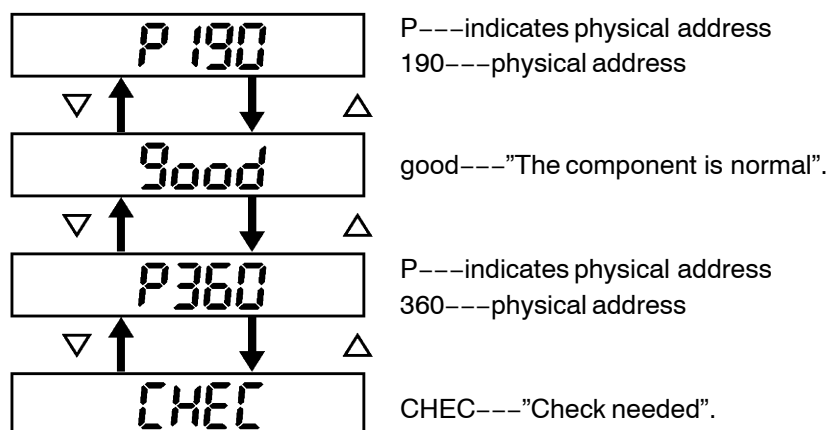
#### Code No. (physical address) List

Code No. (physical address)	Equipment name
190/160	Radio receiver assy (Audio head unit)

#### (b) Finishing Diagnosis Mode

- (1) Press "CD" for 2 sec. or more, or turn the IG switch OFF.

- (c) Service Check Mode Result Display (for checking the current and the past system conditions)
- (1) Press the "TUNE" switch to see the check result of each device.



The illustration shows the case that the system has 2 devices with codes 190 and 360, and the device (code 360) has a trouble.

The check result is displayed in ascending order of device code. The device code is displayed first, then the check result.

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## (2) Check Result Display

Display	Original Language	Meaning	Action to be taken
good	Good (normal)	No DTC is detected in both "System Check Mode" and "Diagnosis Memory Mode".	-
nCon	No connection	The system recognized the component when it was registered, but the component gives no response to the "Diagnosis Mode ON Request".	Check the power source circuit and the communication circuit of the device indicated by the device code (physical address).
ECHn	Exchange	One or more DTC for "Exchange" is detected in either "System Check Mode" or "Diagnosis Memory Mode".	Go to the detail information mode to check the trouble area referring to the DTC list.
CHEC	Check	When no DTC is detected for "Exchange", one or more DTC for "Check is detected in either "System Check Mode" or "Diagnosis Memory Mode".	Go to the detail information mode to check the trouble area referring to the DTC list.

Display	Original Language	Meaning	Action to be taken
Old	Old version	Old DTC application is identified and DTC is detected in either "System Check Mode" or "Diagnosis Memory Mode".	–
nrES	No response	The device gives no response to any one of "System Check Mode ON Request", "System Check Result Request" and "Diagnosis Memory Request".	Check the power source circuit and the communication circuit of the device indicated by the device code (physical code).

- (3) To perform the Service Check again, press the preset switch "1".
- (d) Detail information Mode (when displaying the troubled device's DTC)
  - (1) With "CHEC" or "ECHn" being display, press the preset switch "2" to go to the detail information mode.
  - (2) Press the "TUNE" switch to display "System Check Result (SyS)" and "Diagnosis Memory Response (COdE)".

## Service Check Mode

P 190

TUNE ▽

△ TUNE

CHEC

PRESET SWITCH "3"

PRESET SWITCH "2"

## Detail Information Mode

\*1

P 190

TUNE ▽

△ TUNE

545

TUNE ▽

△ TUNE

1-62

TUNE ▽

△ TUNE

1-47

TUNE ▽

△ TUNE

Continue to display detail information  
when more than one DTC is detected.

TUNE ▽

△ TUNE

COdE

TUNE ▽

△ TUNE

2-01

TUNE ▽

△ TUNE

2-dC

TUNE ▽

△ TUNE

2-P360

TUNE ▽

△ TUNE

2-6F

TUNE ▽

△ TUNE

2-05

TUNE ▽

△ TUNE

Continue to display detail information  
when more than one DTC is detected.

From \*1 To \*1

P---indicates physical address  
190---physical address

SyS---system check result

1---the first code  
62---logical address

47---DTC

COdE---diagnosis memory  
response result2---the second code  
01---logical address

dC---DTC

P---indicates physical address  
360---sub code (\*2)6F---connection  
check number05---the number of times of  
occurrence  
(in decimal)Detail information  
of the first code  
is displayedDetail information  
of the second code  
is displayed

The illustration shows the case that the component with code 190 has DTC "47" and "dC" as a result of the system check and the diagnosis memory response.

The detail information mode shows the system check result first, then the diagnosis memory response result.

(\*2): As for DTC that does not have any sub code, sub code is not displayed.

## (3) Displayed Items in Detail Information Mode

Division Code for DTC display	Meaning	Order of detailed information displayed when the "TUNE UP" switch is pressed. (The order is reversed when the "TUNE DOWN" switch is pressed.)
SyS	System check result is displayed.	Logical address → DTC
COdE	Diagnosis memory check result is displayed.	Logical address → DTC → Sub code → Connection confirmation number → The number of times of occurrence

- (4) Check the trouble area referring to the DTC list.
  - (5) To return to the service check mode, press the pre-set switch "3".
- (e) Clearing Individual DTC Memory (when clearing the memory of DTC detected in the past individually)
- (1) Press the preset switch "5" for 2 sec. or more while the "ECHn" is displayed in the service check mode or during the detail information mode.

## HINT:

- Beep sound is given once when the DTC memory is completely cleared.
  - When DTC memory is cleared, only the component code (physical address) is displayed for the target component.
  - To check DTC, press the preset switch "1" and perform the service check again.
- (f) Clearance of all DTC memory (when clearing all the memory of DTC detected in the past)
- (1) Start the diagnosis mode after repairing the trouble area.
  - (2) Press the preset switch "5" for 2 sec. or more. ("CLr" is displayed at this time.)

## HINT:

- Beep sound is given once when the DTC memory is completely cleared.
  - When DTC memory for all the device is cleared, only the component codes (physical address) are displayed.
- (3) Press the preset switch "1" to perform the service check again, and check that no DTC is displayed for all the component codes (physical address).

**2. IDENTIFICATION OF NOISE SOURCE**

- (a) Identify the condition under which the noise occurs, and check the noise filter on the related part.

Condition in which noise occurs	Noise Source
Depressing the acceleration pedal increases noise, and stopping the engine erases the noise immediately.	Generator
Noise occurs during the A/C or the heater operation.	Blower motor
Rapid acceleration during driving on the unpaved road or after the IG switch is turned ON makes noise.	Fuel pump
Pressing and then releasing the horn switch, and keeping pressing the horn switch makes unusual noise.	Horn
Stopping the engine erases small noise that has been heard.	Ignition
Noise occurs synchronously with the turn signal flash.	Flasher
Noise occurs during the window washer operation.	Washer
Noise occurs during the engine running, and it continues after the engine is stopped.	Engine coolant temperature sensor
Noise occurs during the wiper operation.	Wiper
Noise occurs when the brake pedal is depressed.	Stop light switch
Others.	Static electricity stored on the vehicle

- (b) Reference:

- Make sure first that there is no noise from outside. Failing to do so makes the noise source detection difficult and leads to misunderstanding.
- The noise should be removed in descending order of loudness.
- Setting the radio untuned makes noise noticeable, making the recognition of the phenomenon easier.