

TROUBLESHOOTING

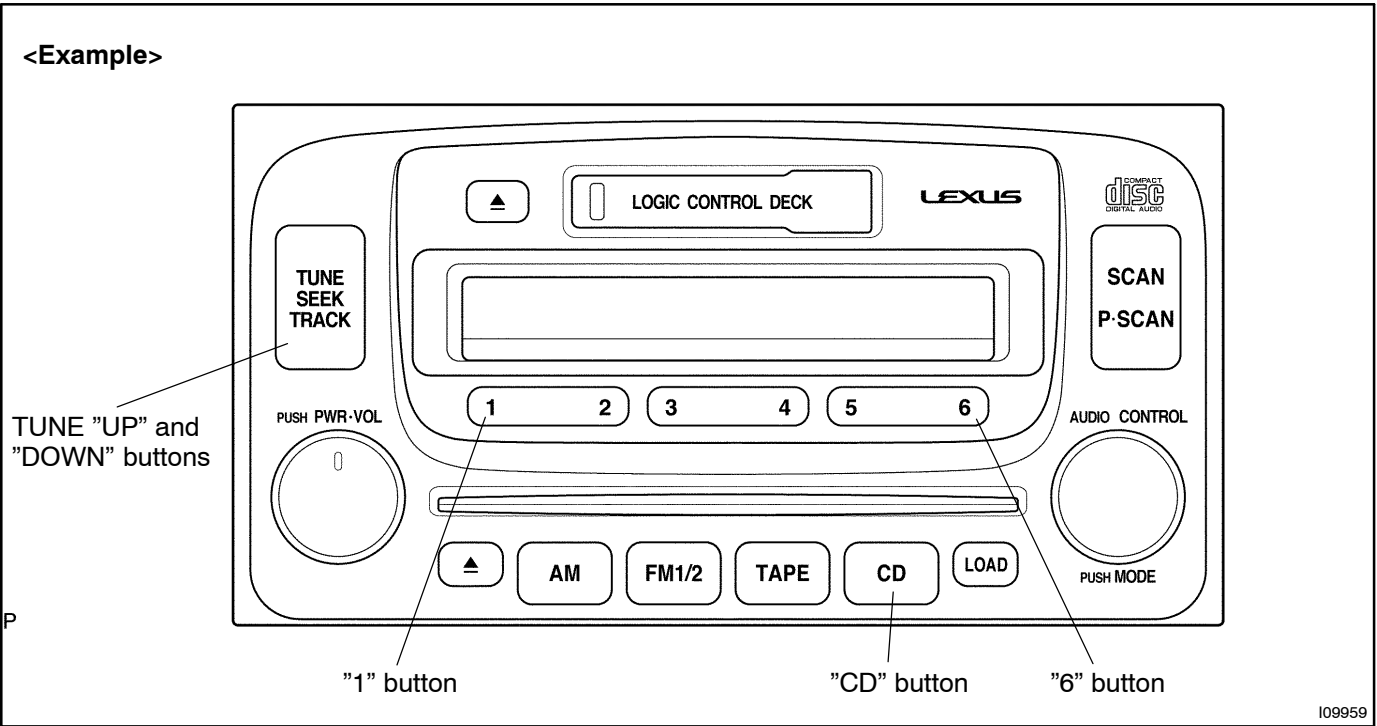
1. DIAGNOSIS FUNCTION

Error codes over tuner and connected equipment are displayed on the screen of tuner.

(a) Diagnosis start-up

For shifting to diagnosis mode, push "CD" button 3 times with pressing "1" and "6" of TRUCK TUNE APS button at the same time while the audio power is OFF and ACC is ON.

In diagnosis mode, by pressing "CD" button for 2 seconds or turning the ignition key OFF, the diagnosis mode is released.



(b) LAN check

When starting up the diagnosis mode, the mode turns to LAN check mode, the screen displays the code numbers (physical address) of tuner and connected equipment. Smaller codes are displayed in order, displayed code numbers are switched by operating TUNE "UP" or TUNE "DOWN" button. In LAN check mode, by pressing "5" of TRUCK TUNE APS button for more than 2 secs., diagnosis memory of each equipment can be deleted, when deletion is completed, the mode returns to LAN check mode.

Code No. (physical address) List

| Code No. | Equipment name                            |
|----------|-------------------------------------------|
| 190      | Radio receiver assembly (Audio head unit) |

(c) System check

When pressing "1" of TRUCK TUNE APS button in LAN check mode, the mode turns to the system check mode, the system performs self diagnosis of connected equipment and displays the results. The smaller code numbers (physical address) are displayed in order (code No. (physical address), diagnosis code, support code of diagnosis code (object equipment)). When no error is detected in the system, "00" is displayed. When an error code is detected, up to 6 codes per one system are displayed. Pressing TUNE "UP" or TUNE "DOWN" switches the display. In the system check mode, when pressing "6" of TRUCK TUNE APS button the mode returns to LAN check mode.

## (d) Diagnosis memory

In LAN check mode, when pressing "2" of TRUCK TUNE APS button the mode turns to the diagnosis memory mode. The results of self diagnosis performed over tuner and connected equipment are memorized and displayed. The smaller code numbers (physical address) are displayed in order (code No. (physical address), periodic communication number when error occurs, diagnosis code, and support code of diagnosis code (object equipment)). When no error is detected in the system, "00" is displayed. When an error code is detected, up to 6 codes per one system are displayed. Pressing TUNE "UP" or TUNE "DOWN" switches the display. Each diagnosis code is same as code in the system check mode. When pressing "6" of TRUCK TUNE APS button, the mode returns to LAN check mode.

**2. DIAGNOSIS CODE LIST**

| Parts Name | DTC | Diagnosis item                             | Diagnosis content                                                                           | Countermeasure and inspected parts                         | System Check | Diagnosis memory |
|------------|-----|--------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------|------------------|
| Head Unit  | 41  | AM tuner error                             | There is an error in AM tuner.                                                              | Radio receiver check.                                      | X            | ○                |
|            | 42  | FM tuner error                             | There is an error in FM tuner.                                                              |                                                            | X            | ○                |
|            | 50  | Cassette error                             | There is an error in cassette deck.                                                         |                                                            | X            | ○                |
|            | D1  | Transmitter error                          | An error occurs during transmitting a signal from head unit to the system.                  | Radio receiver check.<br>Wire harness and connector check. | ○            | ○                |
|            | D4  | AVC-LAN Periodic communication no response | Radio receiver does not respond to periodic communication.                                  | Radio receiver check.                                      | X            | ○                |
|            | FF  | Diagnosis no response                      | Result of diagnosis is not issued from start to finish.                                     |                                                            | ○            | X                |
| AMP        | D1  | Transmitter error                          | An error occurs during transmitting a signal from stereo component amplifier to the system. | Stereo component amplifier check.                          | ○            | ○                |
|            | D4  | AVC-LAN Periodic communication no response | Stereo component amplifier does not respond to periodic communication.                      |                                                            | X            | ○                |
|            | FF  | Diagnosis no response                      | Result of diagnosis is not issued from start to finish.                                     |                                                            | ○            | X                |

**NOTICE:**

**When replacing the internal mechanism (computer part) of the audio system, be careful that no part of your body or clothing comes in contact with the terminals of the leads from the IC, etc. of the replacement part (spare part).**

**HINT:**

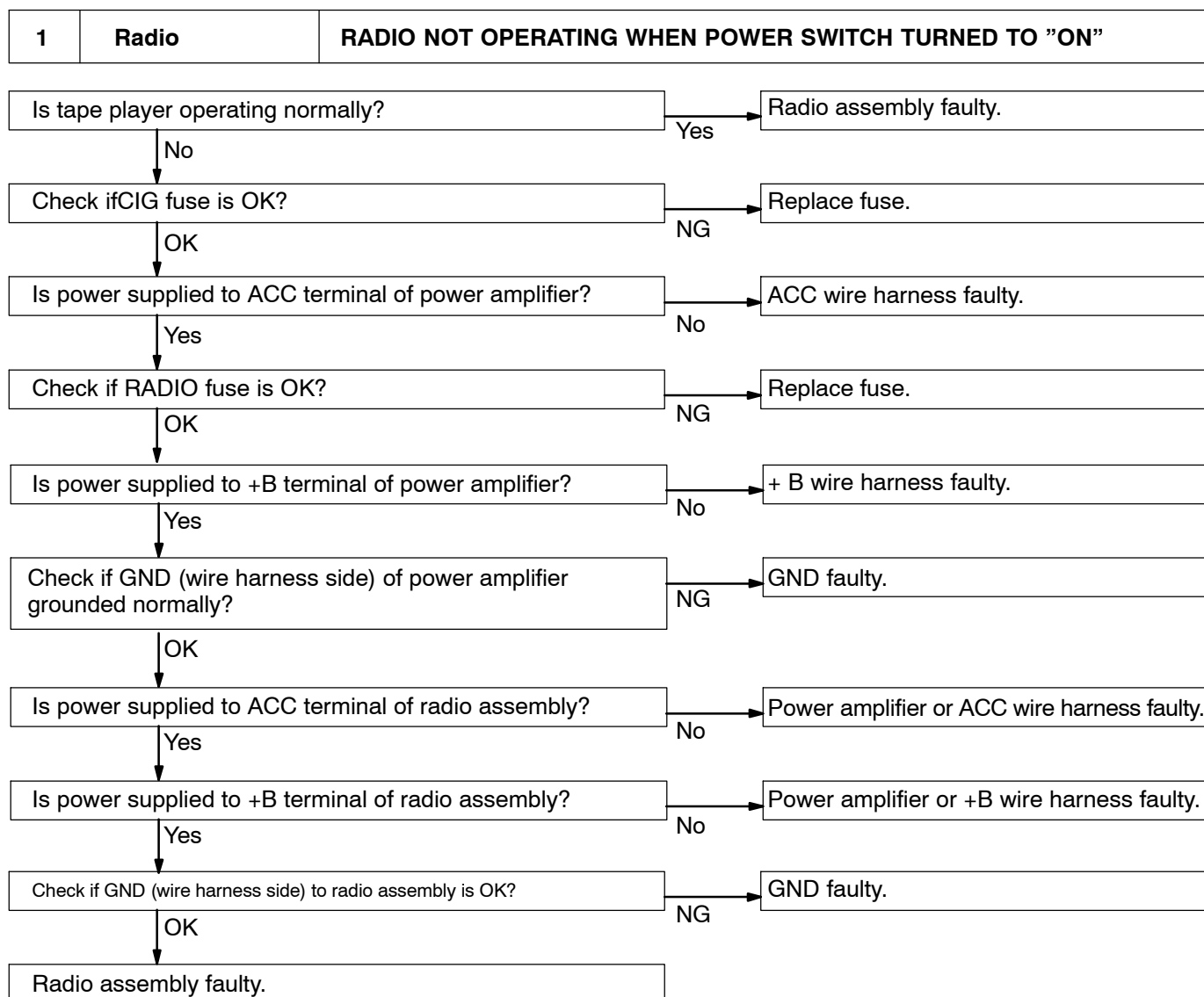
This inspection procedure is a simple troubleshooting which should be carried out on the vehicle during system operation and was prepared on the assumption of system component troubles (except for the wires and connectors, etc.).

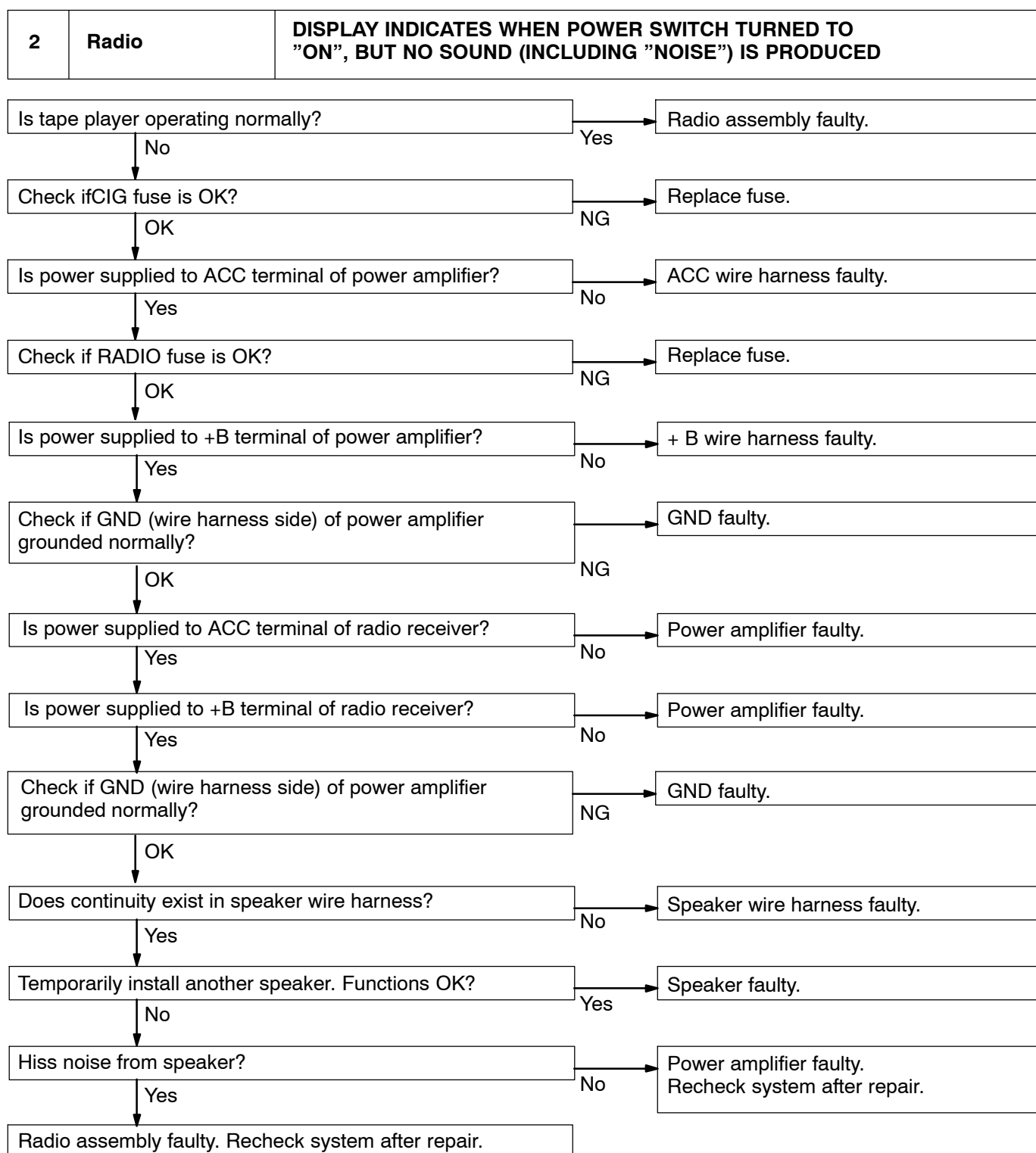
Always inspect the trouble taking the following items into consideration.

- Open or short circuit of the wire harness
- Connector or terminal connection fault

|                 | Problem                                                                                           | No. |
|-----------------|---------------------------------------------------------------------------------------------------|-----|
| Radio           | Radio not operating when power switch turned to 'ON'.                                             | 1   |
|                 | Display indicates when power switch turned to 'ON', but no sound (including 'noise') is produced. | 2   |
|                 | Noise present, but AM – FM not operating.                                                         | 3   |
|                 | Any speaker does not work.                                                                        | 4   |
|                 | Any AM or FM does not work.                                                                       | 5   |
|                 | Few preset turning bands.                                                                         | 5   |
|                 | Reception poor.                                                                                   | 6   |
|                 | Sound quality poor.                                                                               | 7   |
| Tape Player     | Preset memory disappears.                                                                         | 8   |
|                 | Cassette tape cannot be inserted.                                                                 | 9   |
|                 | Cassette tape inserted, but no power.                                                             | 10  |
|                 | Power coming in, but tape player not operating.                                                   | 11  |
|                 | Any speaker does not work.                                                                        | 12  |
|                 | Sound quality poor.                                                                               | 13  |
|                 | Tape jammed, malfunction with tape speed or auto-reverse.                                         | 14  |
|                 | Cassette tape will not eject.                                                                     | 15  |
| CD Player       | CD cannot be inserted.                                                                            | 16  |
|                 | CD inserted, but no power.                                                                        | 17  |
|                 | Power coming in, but CD player not operating.                                                     | 18  |
|                 | Sound jumps.                                                                                      | 19  |
|                 | Sound quality poor (Volume faint).                                                                | 20  |
|                 | Any speaker does not work.                                                                        | 21  |
|                 | CD will not be ejected.                                                                           | 22  |
| Power Amplifier | No power coming in.                                                                               | 23  |
|                 | Power coming in, but power amplifier not operating.                                               | 24  |
|                 | Any speaker does not work.                                                                        | 25  |
| Noise           | Noise occurs                                                                                      | 26  |
|                 | Noise produced by vibration or shock while driving.                                               | 27  |
|                 | Noise produced when engine starts.                                                                | 28  |

The term "AM" includes LW,MW and SW, and the term "FW" includes UKW.





|          |              |                                               |
|----------|--------------|-----------------------------------------------|
| <b>3</b> | <b>Radio</b> | <b>NOISE PRESENT, BUT AM-FM NOT OPERATING</b> |
|----------|--------------|-----------------------------------------------|

Go to No.25

If radio side faulty.

Radio faulty.

|          |              |                                  |
|----------|--------------|----------------------------------|
| <b>4</b> | <b>Radio</b> | <b>ANY SPEAKER DOES NOT WORK</b> |
|----------|--------------|----------------------------------|

Is tape player operating normally?

Yes

Radio assembly faulty.

No

Is hiss noise produced by non-functioning speaker?

Yes

Radio assembly faulty.  
Recheck system after repair.

No

Does continuity exist in speaker wire harness?

No

Speaker wire harness faulty.

Yes

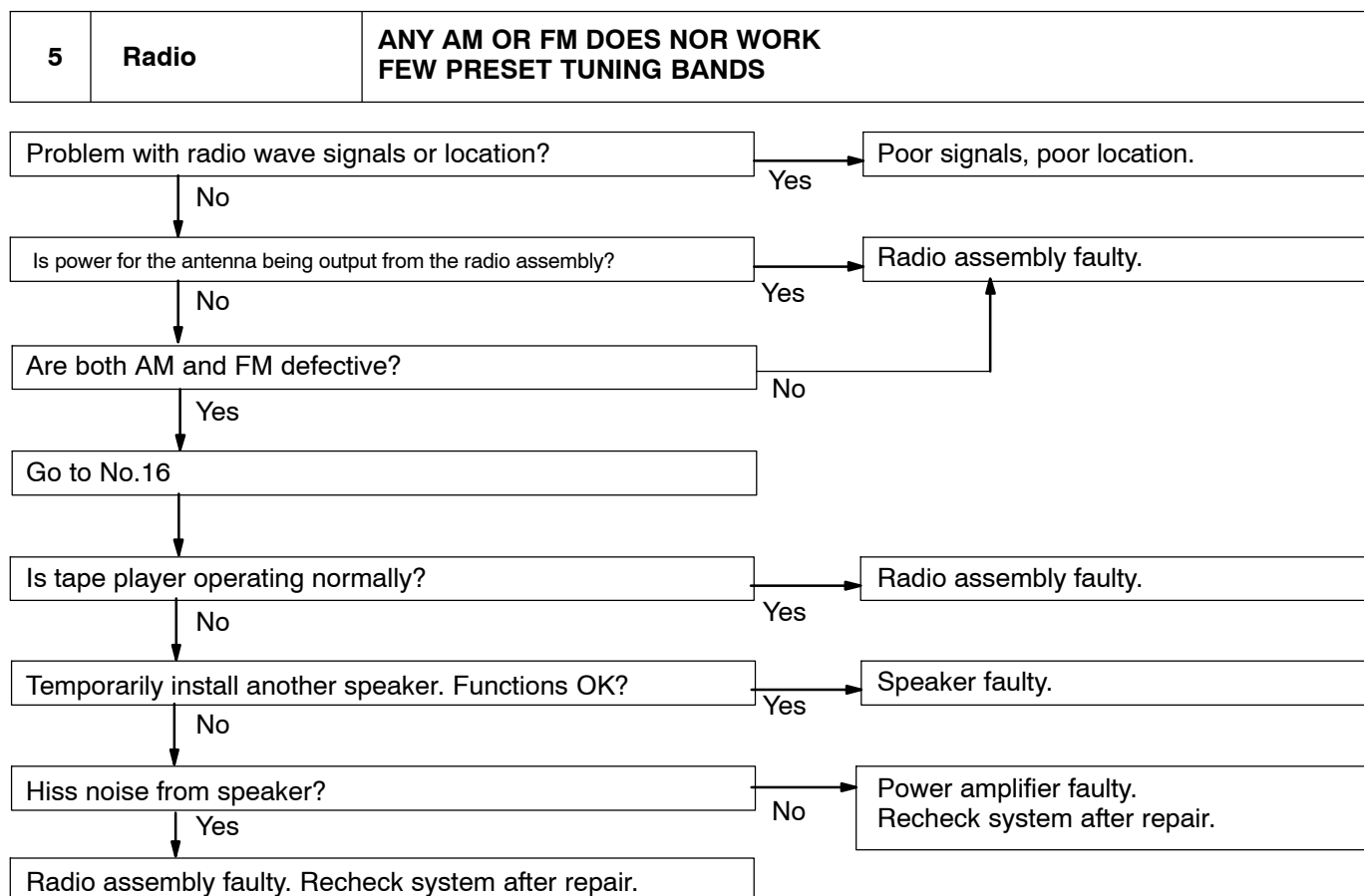
Temporarily install another speaker? Functions OK?

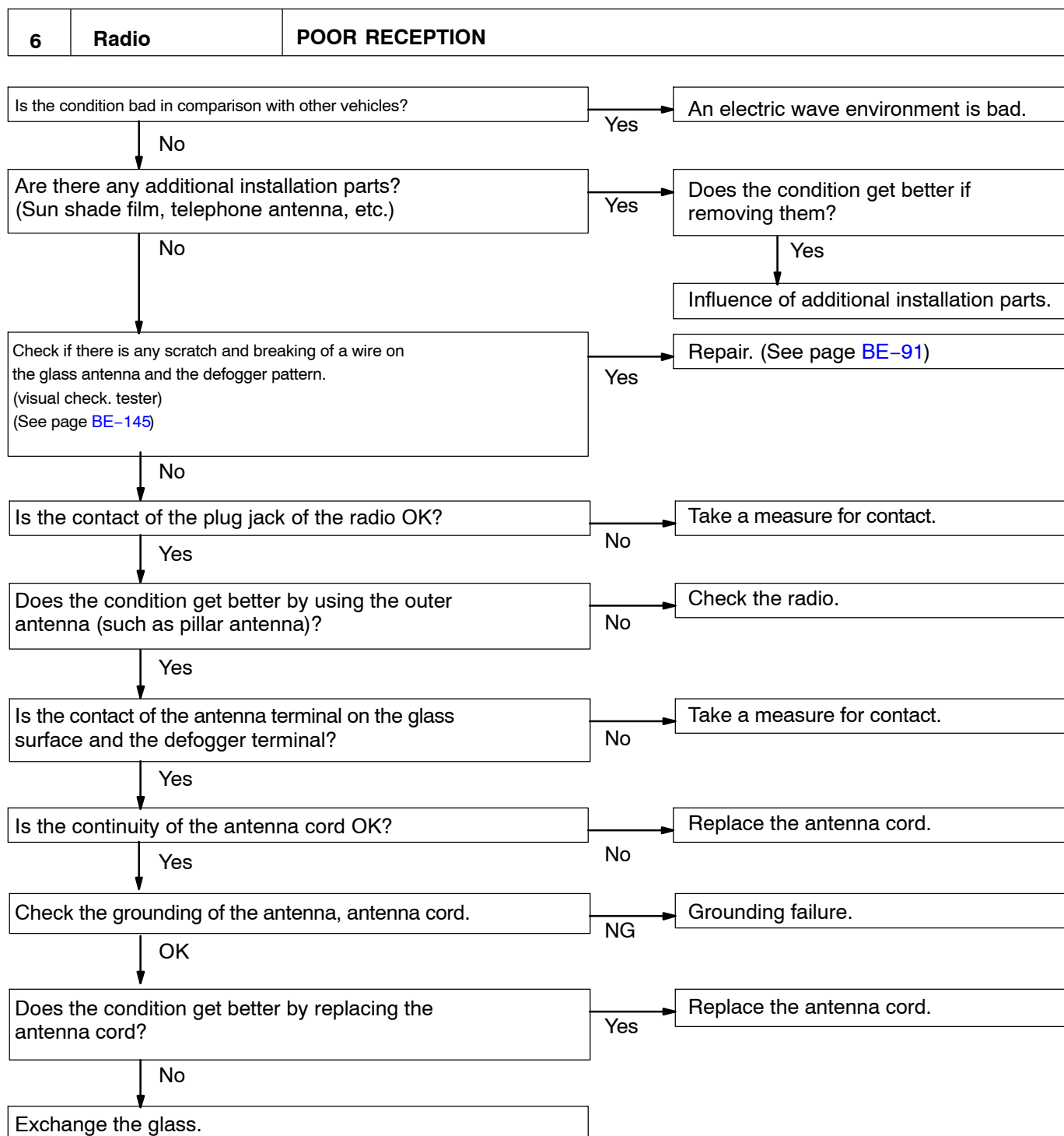
Yes

Speaker faulty.

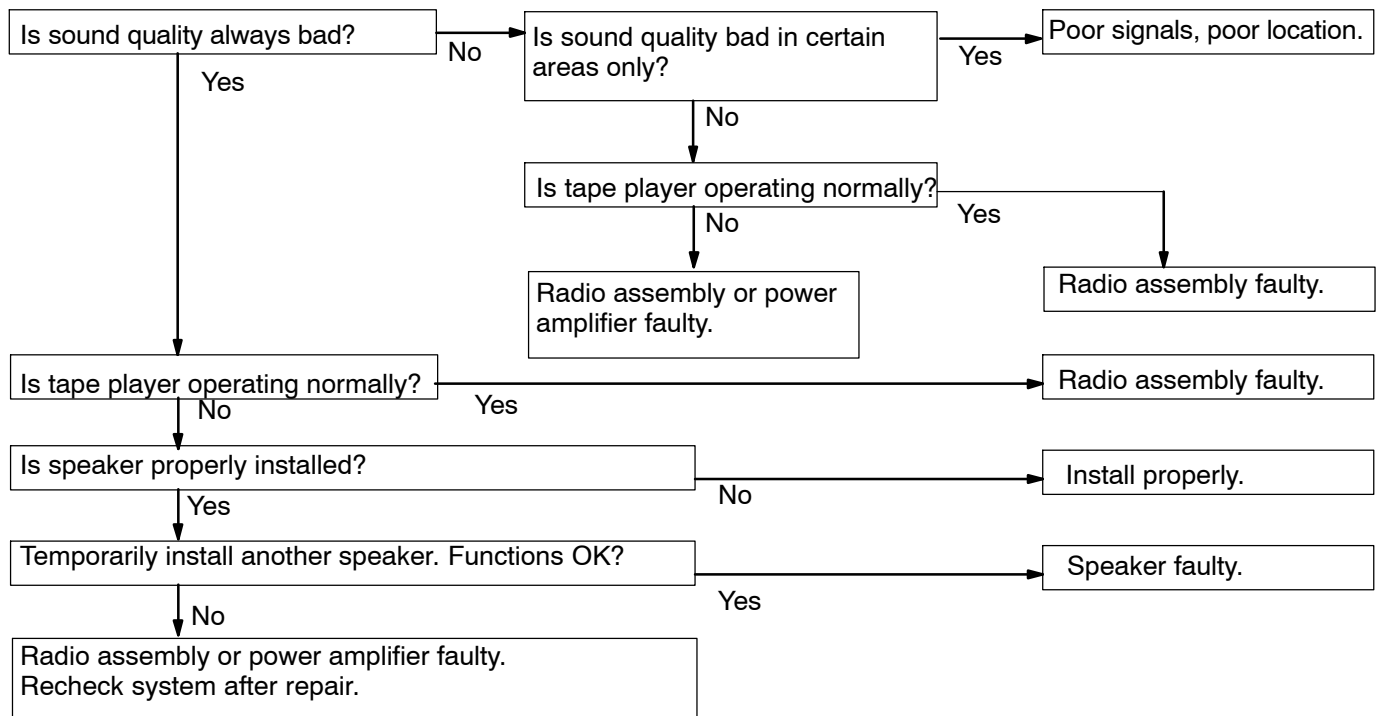
No

Power amplifier faulty. Recheck system after repair.

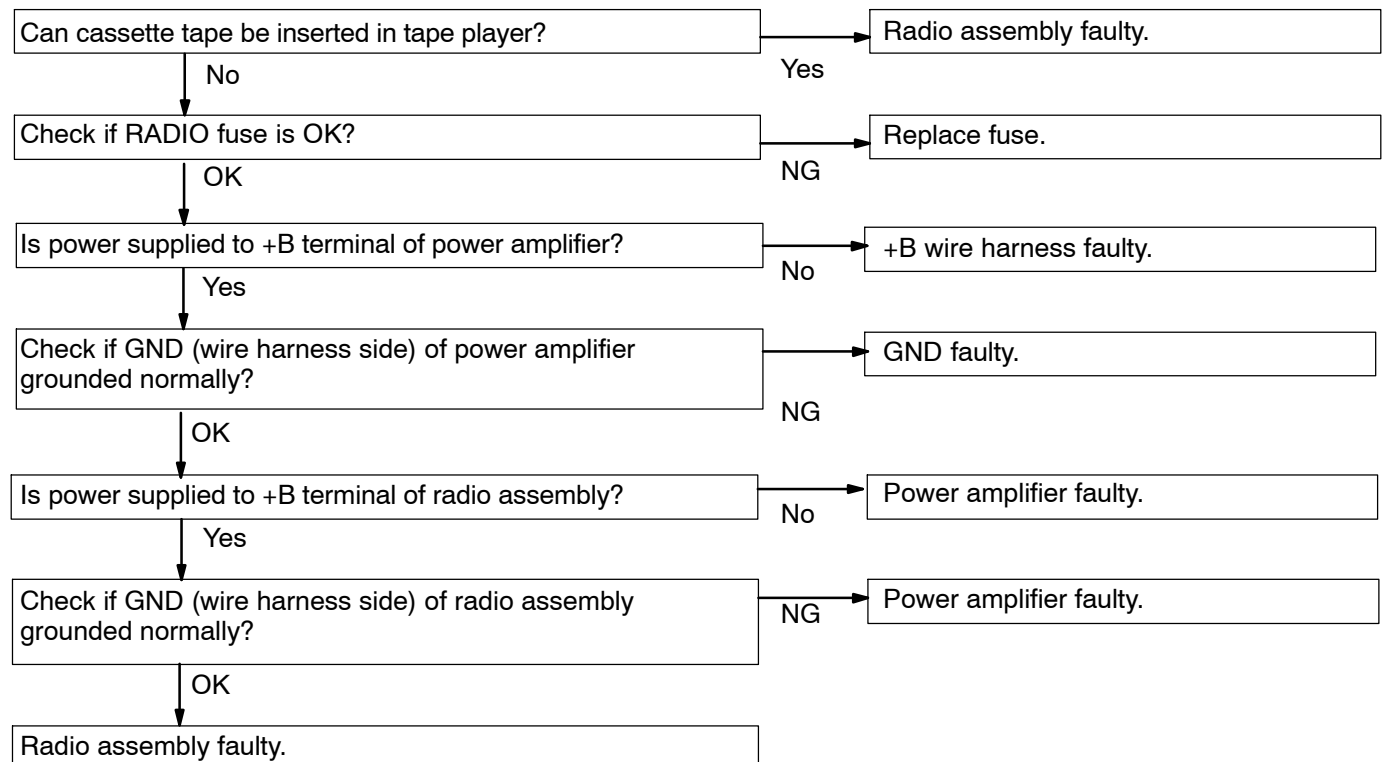




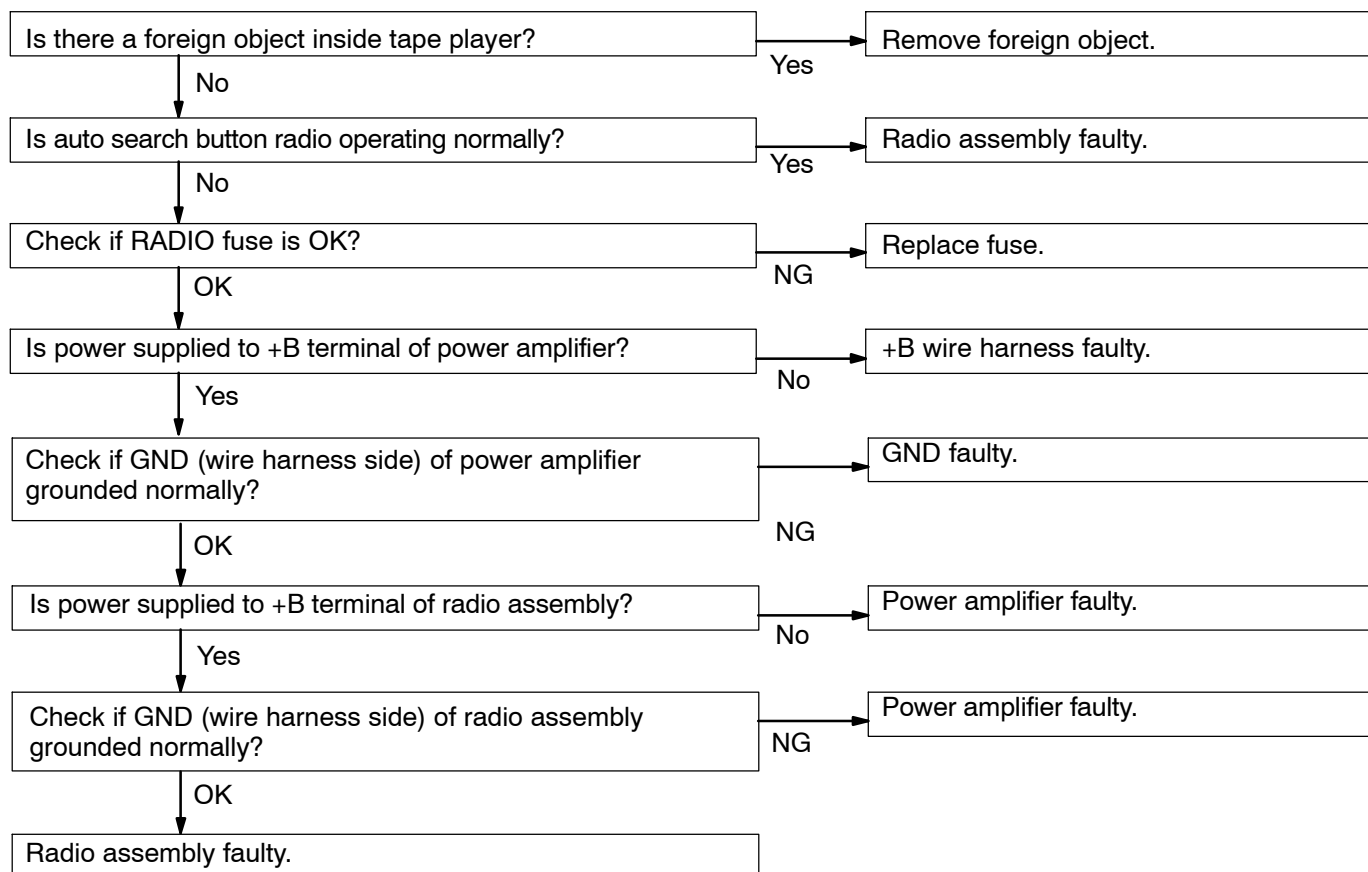
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|----------|--------------|---------------------------|
| <b>7</b> | <b>Radio</b> | <b>SOUND QUALITY POOR</b> |
|----------|--------------|---------------------------|



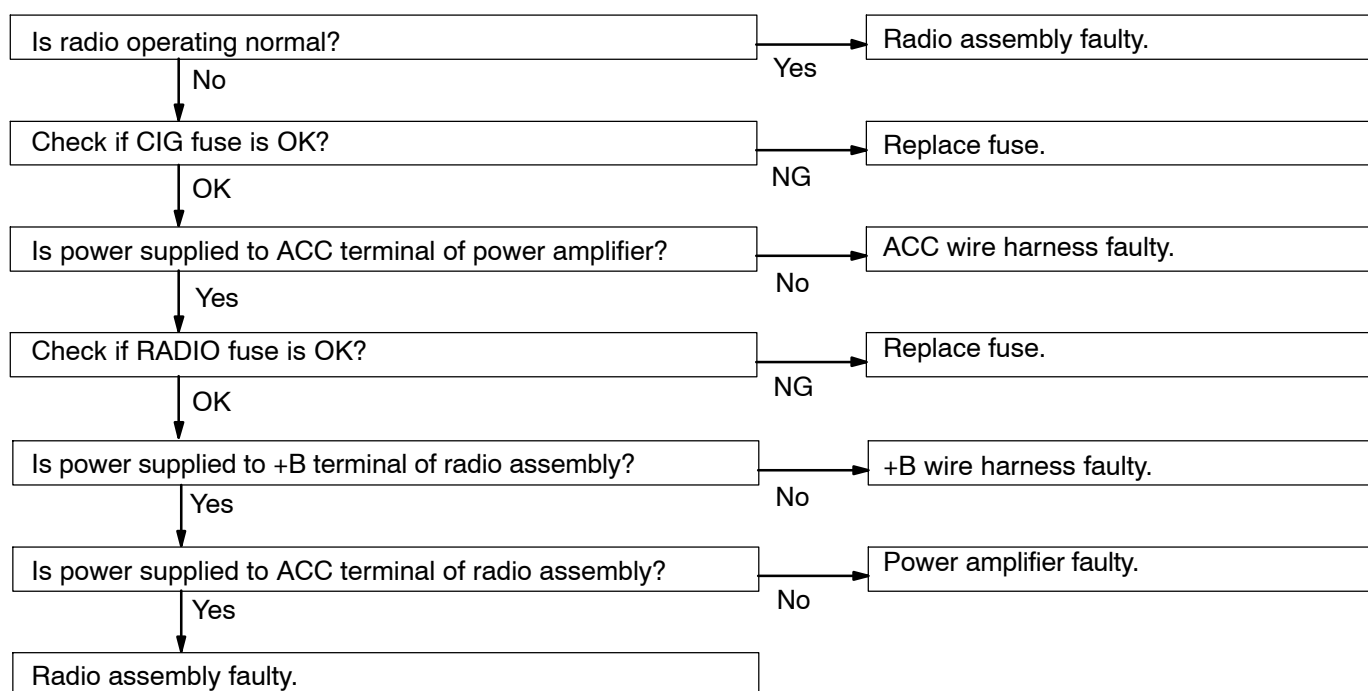
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| <b>8</b> | <b>Radio</b> | <b>PRESET MEMORY DISAPPEARS</b> |
|----------|--------------|---------------------------------|

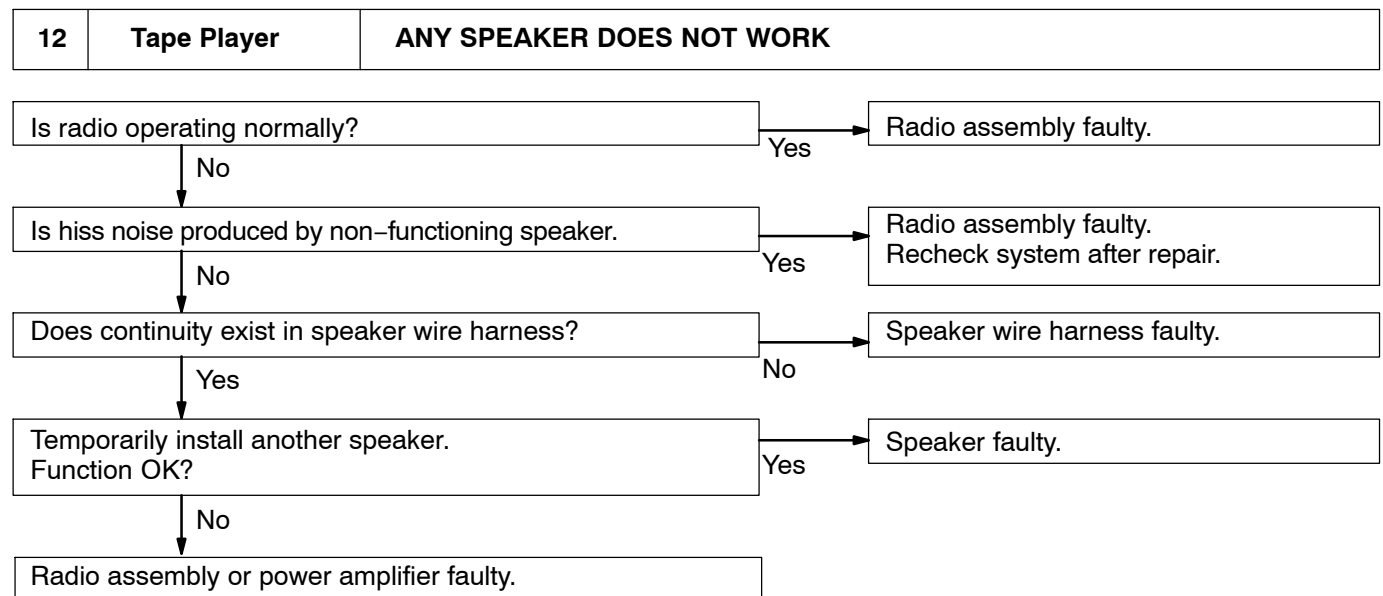
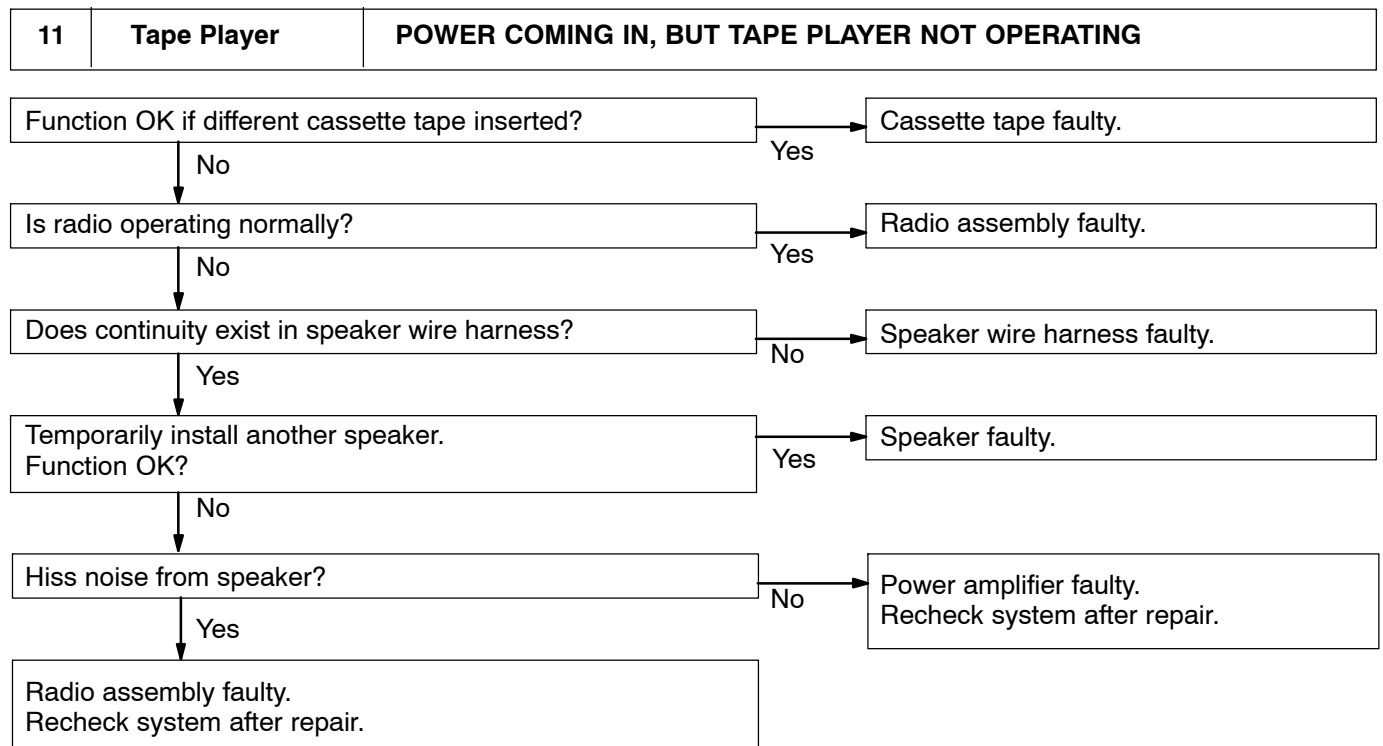


|          |                    |                                         |
|----------|--------------------|-----------------------------------------|
| <b>9</b> | <b>Tape Player</b> | <b>CASSETTE TAPE CANNOT BE INSERTED</b> |
|----------|--------------------|-----------------------------------------|

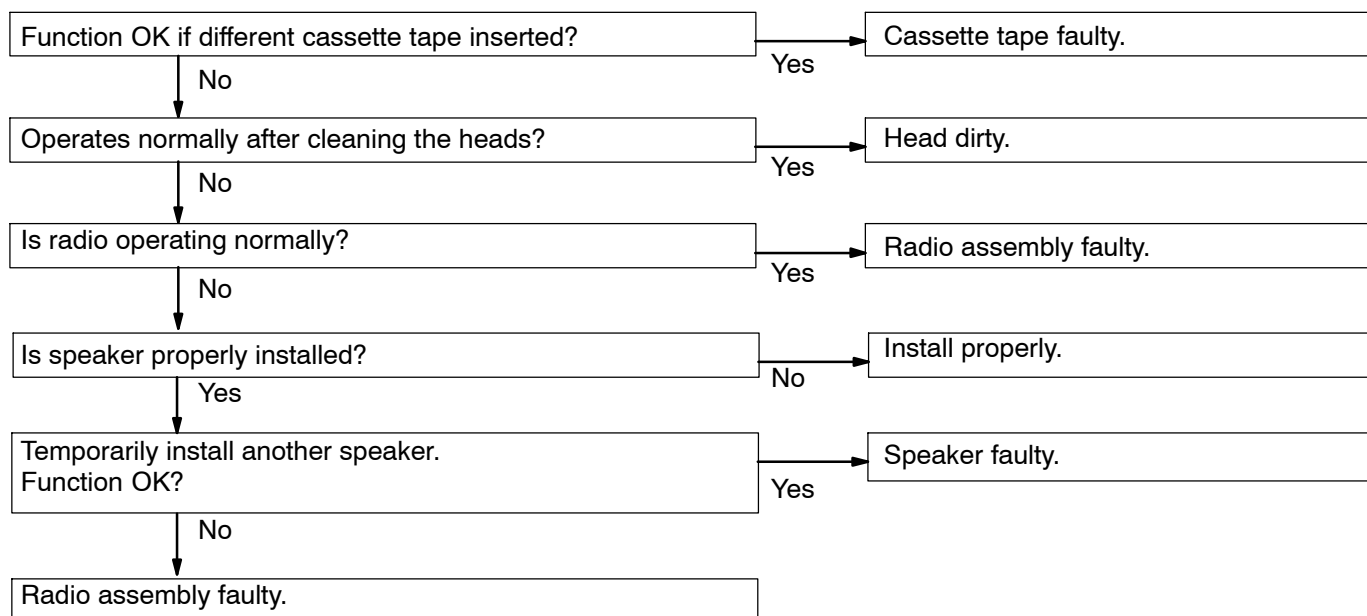


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|-----------|--------------------|---------------------------------------------|
| <b>10</b> | <b>Tape Player</b> | <b>CASSETTE TAPE INSERTED, BUT NO POWER</b> |
|-----------|--------------------|---------------------------------------------|

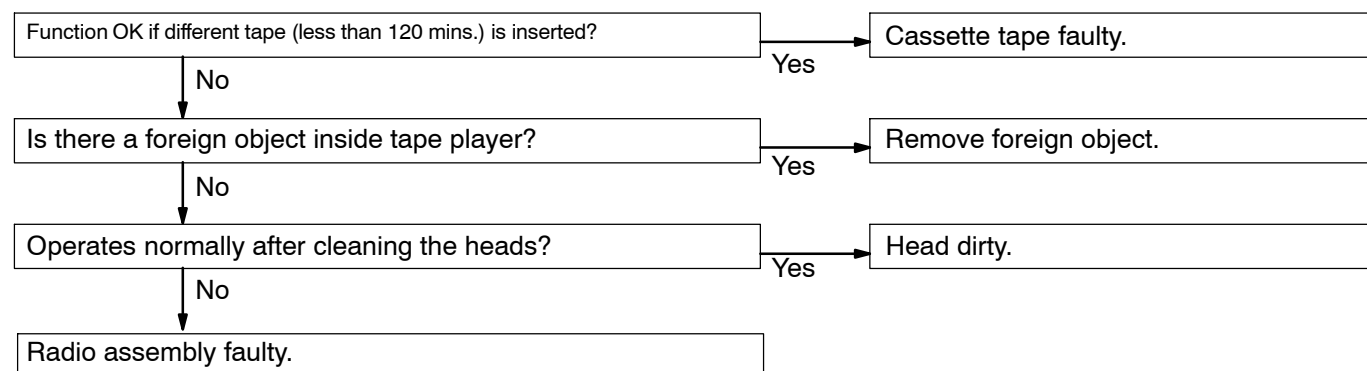




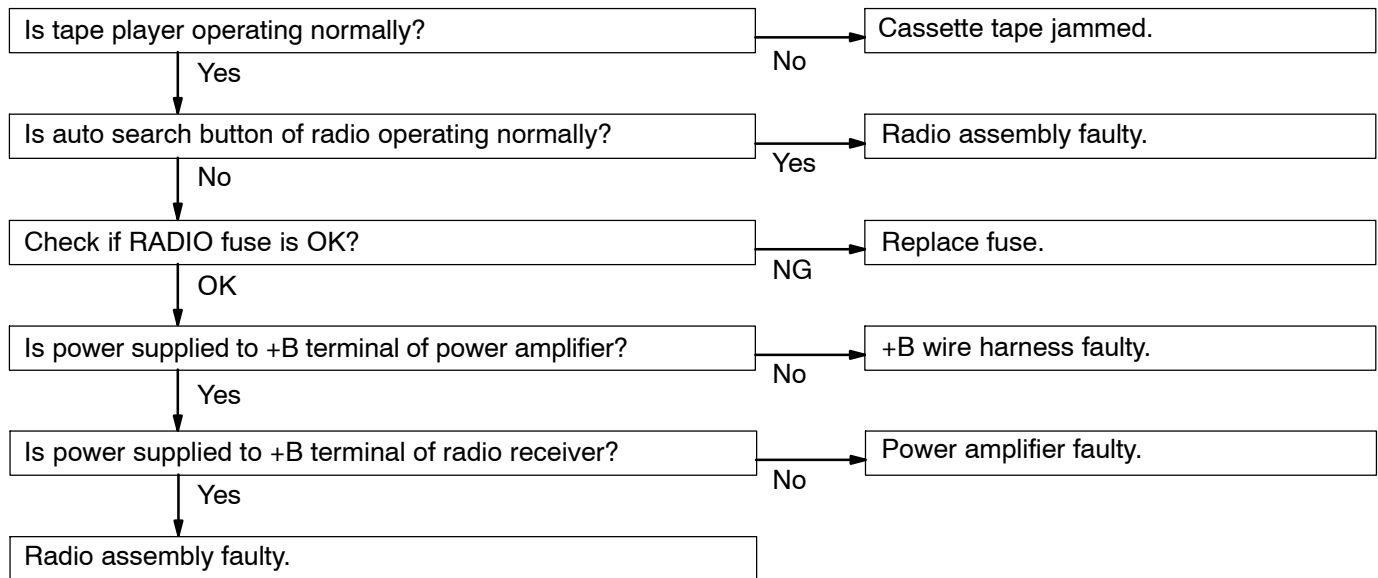
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| <b>13</b> | <b>Tape Player</b> | <b>SOUND QUALITY POOR (VOLUME FAINT)</b> |
|-----------|--------------------|------------------------------------------|



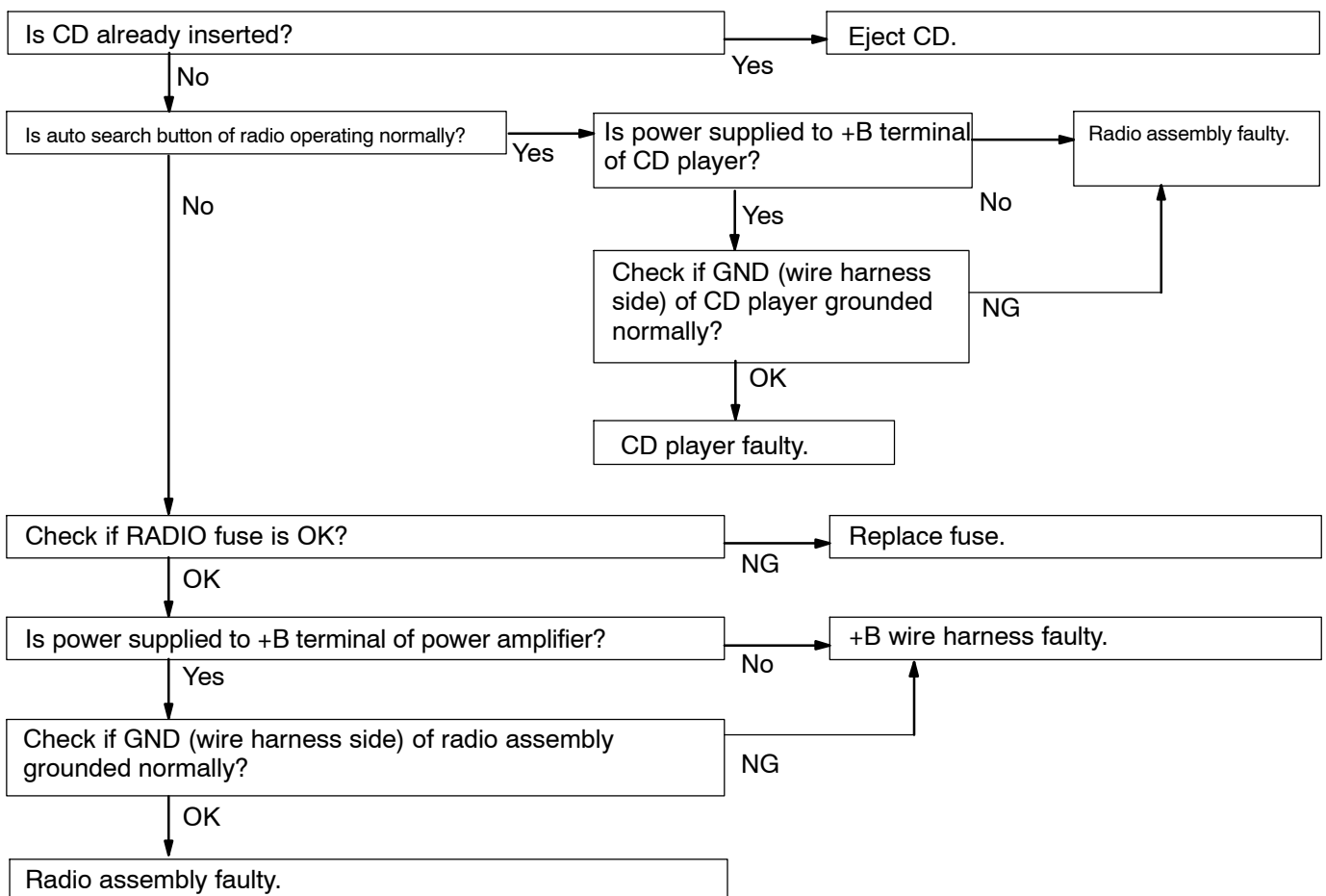
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|-----------|--------------------|----------------------------------------------------------------|
| <b>14</b> | <b>Tape Player</b> | <b>TAPE JAMMED MALFUNCTION WITH TAPE SPEED OR AUTO-REVERSE</b> |
|-----------|--------------------|----------------------------------------------------------------|



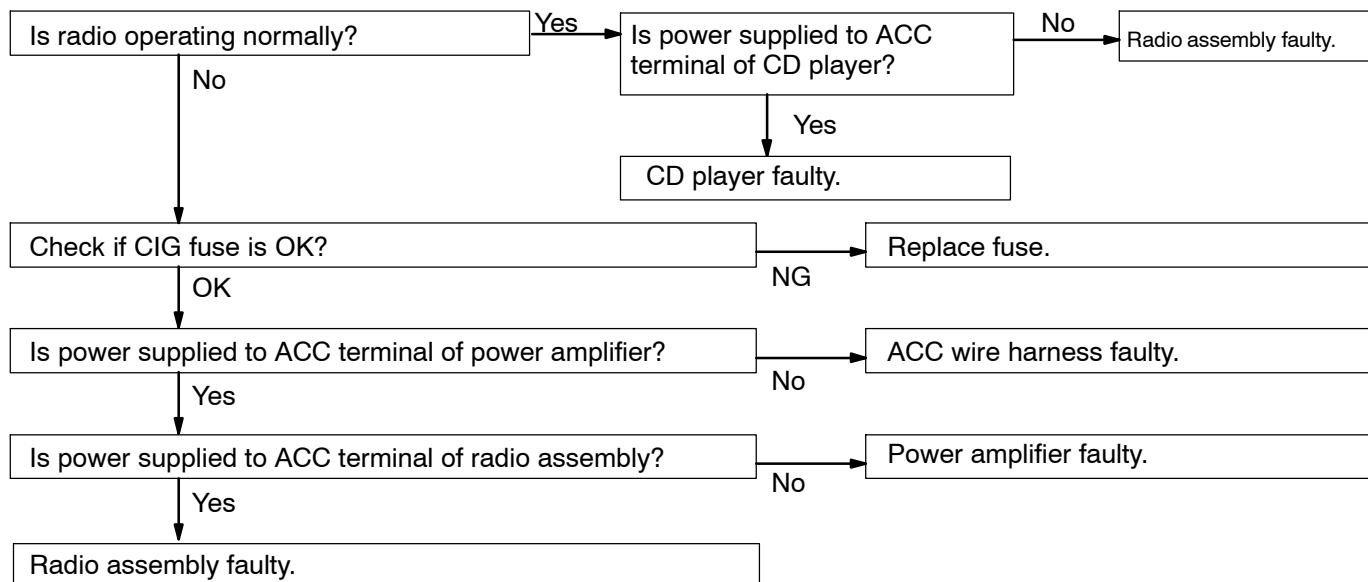
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| <b>15</b> | <b>Tape Player</b> | <b>CASSETTE TAPE WILL NOT BE EJECTED</b> |
|-----------|--------------------|------------------------------------------|



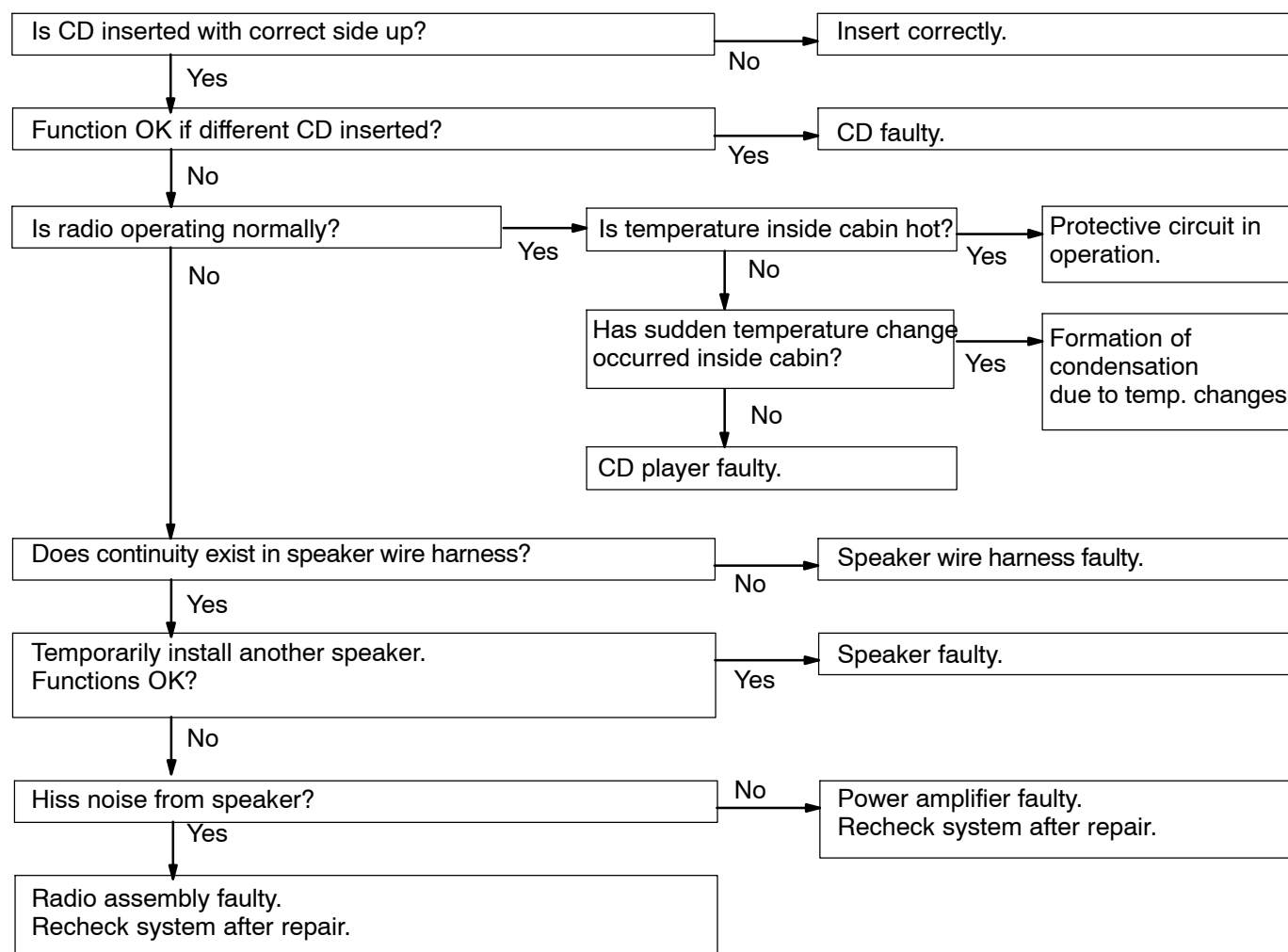
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| <b>16</b> | <b>CD Player</b> | <b>CD CANNOT BE INSERTED</b> |
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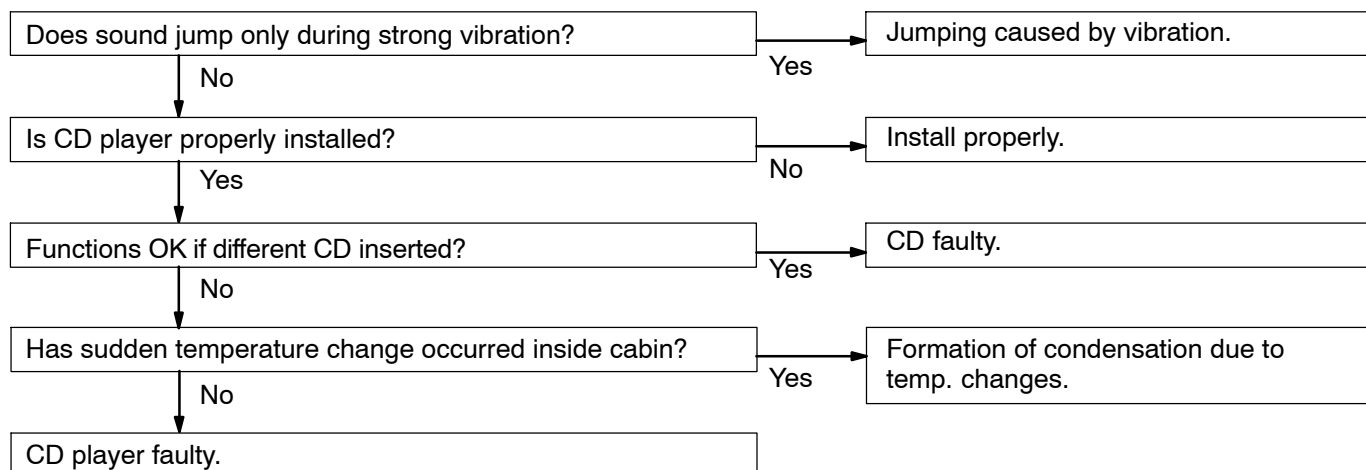
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| <b>17</b> | <b>CD Player</b> | <b>CD INSERTED, BUT NO POWER</b> |
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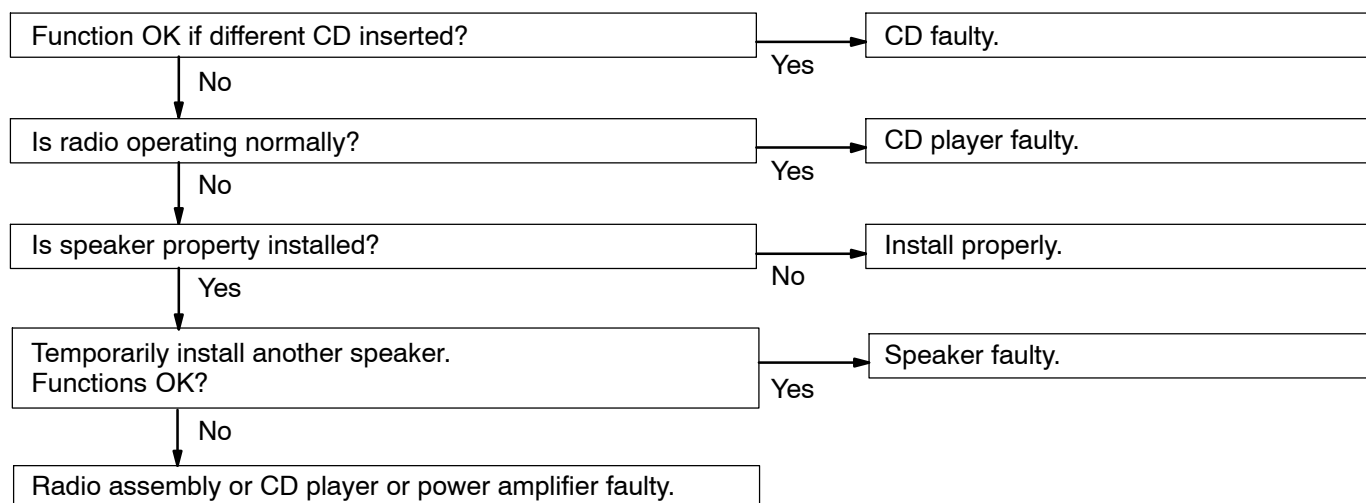
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|-----------|------------------|-----------------------------------------------------|
| <b>18</b> | <b>CD Player</b> | <b>POWER COMING IN, BUT CD PLAYER NOT OPERATING</b> |
|-----------|------------------|-----------------------------------------------------|



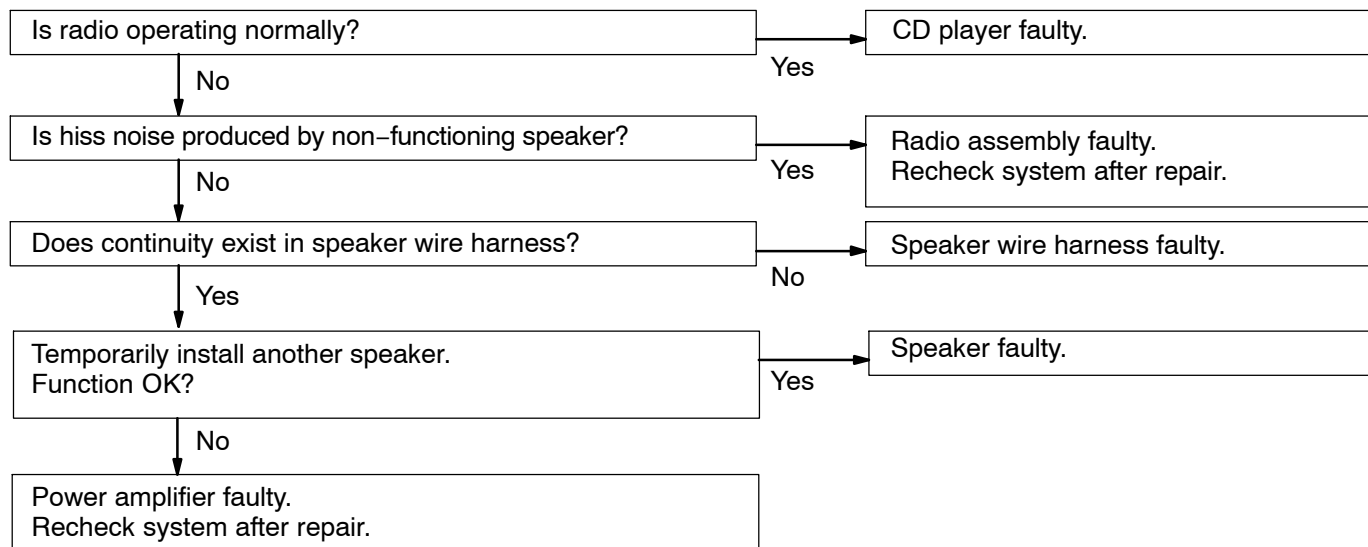
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| <b>19</b> | <b>CD Player</b> | <b>SOUND JUMPS</b> |
|-----------|------------------|--------------------|



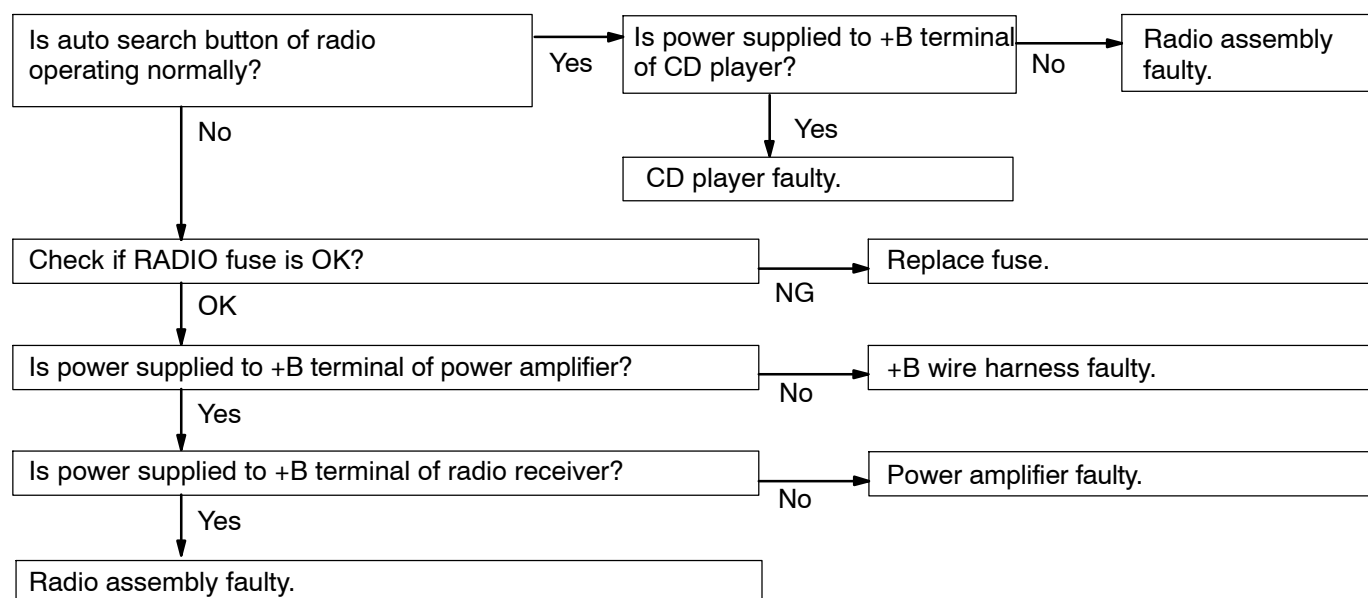
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| <b>20</b> | <b>CD Player</b> | <b>SOUND QUALITY POOR (VOLUME FAINT)</b> |
|-----------|------------------|------------------------------------------|

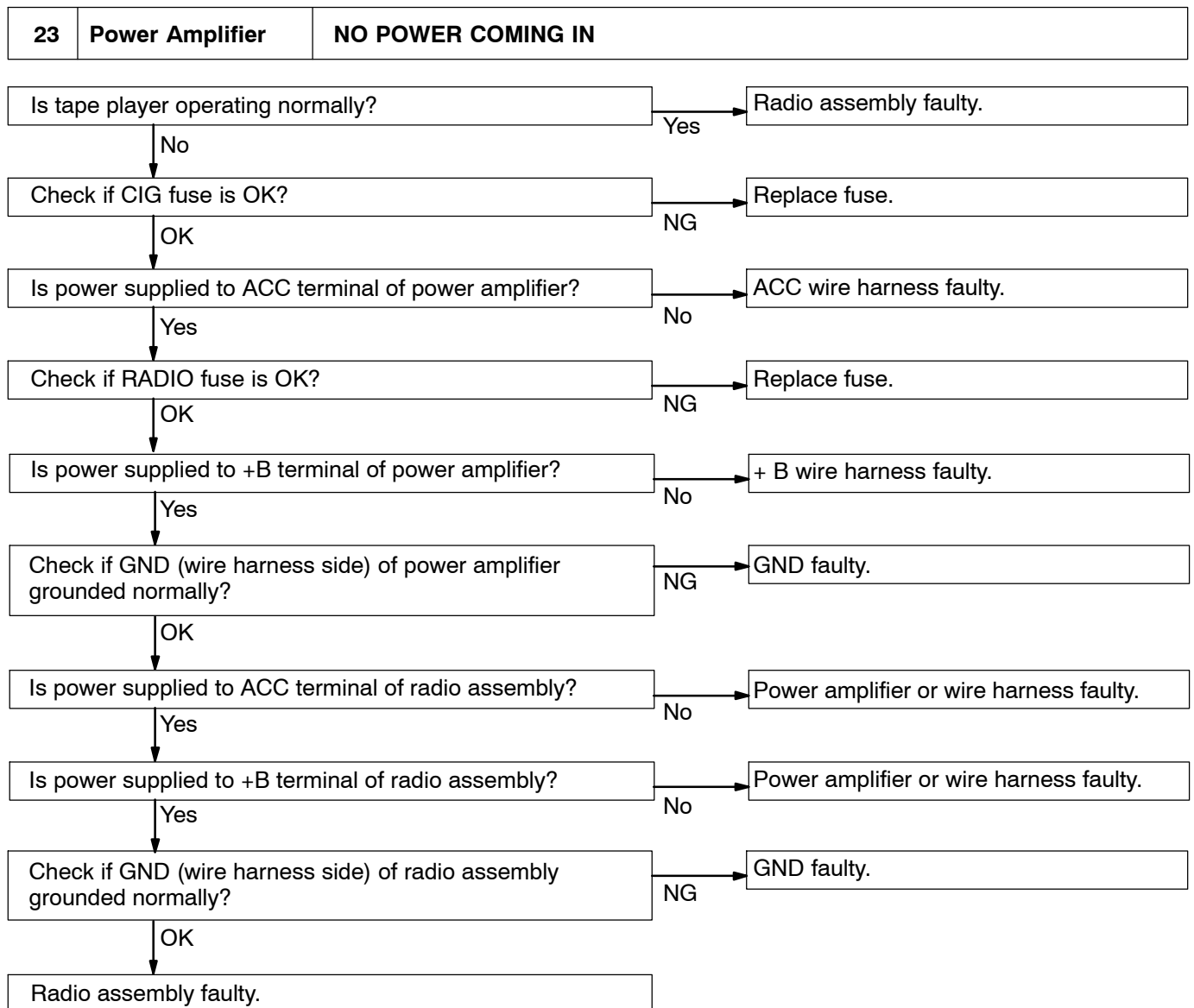


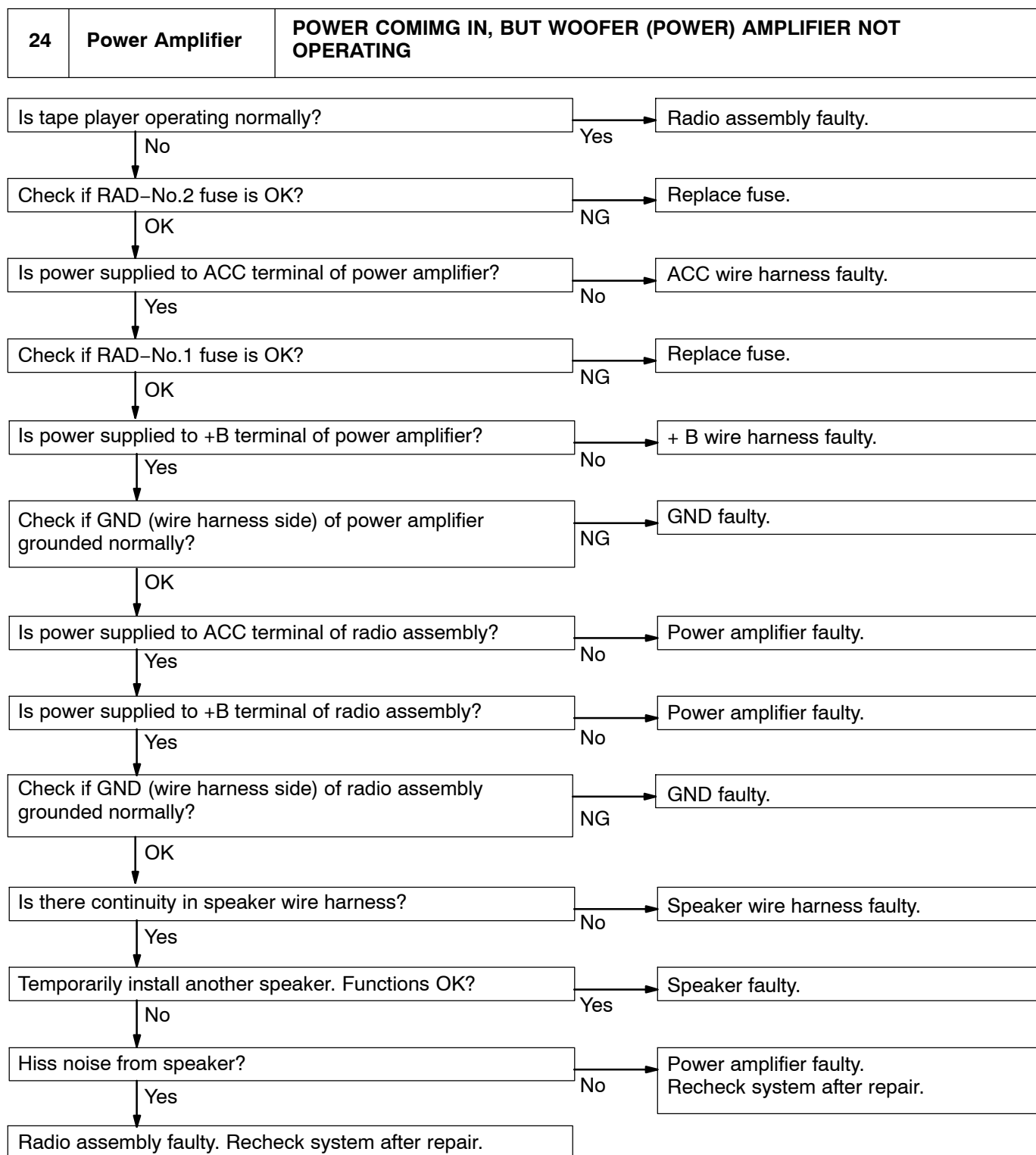
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| <b>21</b> | <b>CD Player</b> | <b>ANY SPEAKER DOES NOT WORK</b> |
|-----------|------------------|----------------------------------|

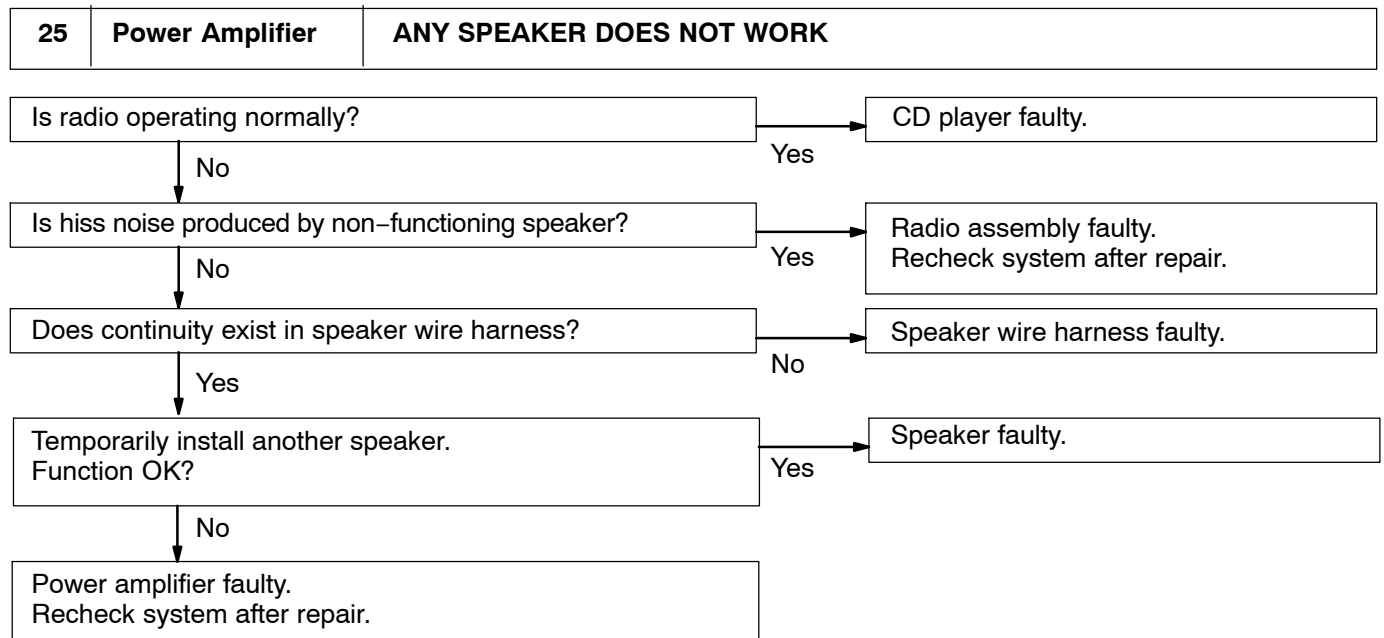


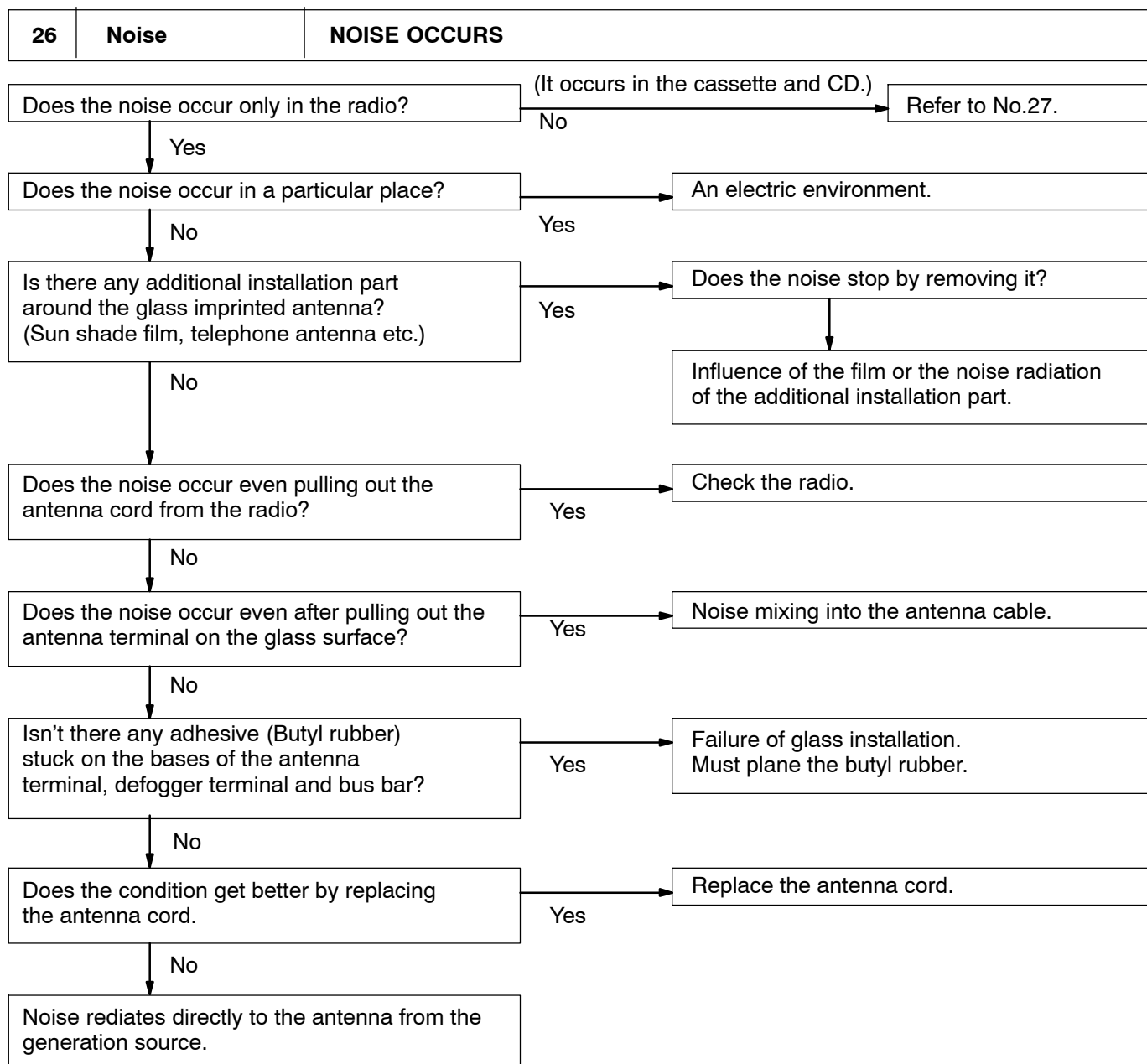
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|-----------|------------------|-------------------------------|
| <b>22</b> | <b>CD Player</b> | <b>CD WILL NOT BE EJECTED</b> |
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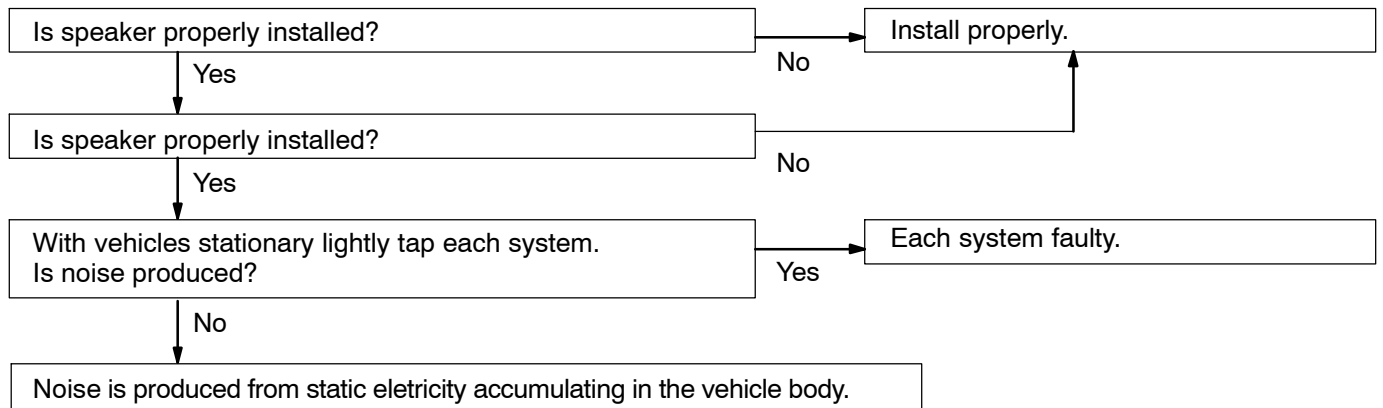








|           |              |                                                           |
|-----------|--------------|-----------------------------------------------------------|
| <b>27</b> | <b>Noise</b> | <b>NOISE PRODUCED BY VIBRATION OR SHOCK WHILE DRIVING</b> |
|-----------|--------------|-----------------------------------------------------------|



|           |              |                                          |
|-----------|--------------|------------------------------------------|
| <b>28</b> | <b>Noise</b> | <b>NOISE PRODUCED WHEN ENGINE STARTS</b> |
|-----------|--------------|------------------------------------------|

