Troubleshooting Guide

What might appear to be a malfunction in your unit may just be the result of slight misoperation or miswiring. Before calling service, first check the following table for possible problems:

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>No sound. (No sound from one side.)</td>
<td>• Input or output cables are disconnected.</td>
<td>• Connect the input for output cables.</td>
</tr>
<tr>
<td>• Protection circuit may be activated.</td>
<td>• Check connections by referring to “Power indicator”.</td>
<td></td>
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<tr>
<td>• Volume is too high.</td>
<td>• Replace the fuse and use lower volume.</td>
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<tr>
<td>• The speaker cord is shorted.</td>
<td>• After check the speaker cord and fixing the cause of the short, replace the fuse.</td>
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<tr>
<td>The output level is too small (or too large).</td>
<td>• The input sensitivity adjusting control is not set to the correct position.</td>
<td>• Adjust the control correctly referring to “Controls”.</td>
</tr>
<tr>
<td>The sound quality is bad. (The sound is distorted.)</td>
<td>• The speakers wire are connected with wrong polarity.</td>
<td>• Connect them properly checking the (+) / (-) terminal and wires wire.</td>
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<tr>
<td>• A speaker wire is pinched by a screw in the car body.</td>
<td>• Connect the speaker wire again so that it is not pinched by anything.</td>
<td></td>
</tr>
<tr>
<td>• The switches may be set improperly.</td>
<td>• Set switches properly by referring to “System examples”.</td>
<td></td>
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</tbody>
</table>

Specifications

Specifications subject to change without notice.

Audio Section

- Max Power Output: 250 W
- Rated Power Output (1 kHz): Normal: 140 W, THD: 45% Max: 190 W, THD: 45%
- Recommended Speaker Impedance: 2 ohms
- Signal to Noise Ratio: 80 dB
- Sensitivity ( rated output): 2.5 V
- Input Impedance: 15 kΩ
- Low Pass Filter: 12 dB ( bass)...
- High Pass Filter: 12 dB ( treble)...
- Dimensions (width × height × depth): 228 × 50 × 235
- Weight: 2.5 kg ( 5.5 lbs) | 2.8 kg ( 6 lbs) |

Failure to follow these instructions may result in damage to the car and/or the amplifier.

To prevent injury or fire, take the following precautions:

- Be sure the unit is connected to a 12 V DC power supply with a negative ground connection.
- Do not open the top or bottom covers of the unit.
- Do not adjust the unit if it is a product exposed to direct sunlight or excessive heat or humidity. Also avoid places with too much dust or the possibility of water splashing.
- When replacing a fuse, only use a new one with the current-handling rating that is less than the output power of the amplifier. Use of speakers having input power ratings that are lower than the output power of the amplifier with cause smoke to be emitted as well as damage.
- Do not adjust the unit if the unit is not being used properly.
- When a person or safety part, it may cause injury or an accident.

Speaker Selection

- The rated input power of the speakers that are going to be connected should be 240 or greater (for stereo connections), or 440 or greater (for bridged connections). When using more than one set of speakers that are being used, combine the impedance of the speakers and then connect suitable speakers to the amplifier.
- The genuine-acc xcessory car stereo shall have a maximum power output of no more than 40 W. When using more than one set of speakers that are being used, combine the impedance of the speakers and then connect suitable speakers to the amplifier.

Power terminal (S) / (S) / (S) / (S)

- Connect to the respective terminals of the power supply wire, and ground wire, of all which pass through the associated terminal cover. Once the connections are complete, place the cover on the terminal section.

Installation

Since the power amplifier has no parts which requires operation, it can be installed at a position away from the driver’s seat without any hindrances. As generally accepted positions for its installation, places such as inside the trunk, etc. can be considered.

1. Remove the ignition key and disconnect the negative (-) terminal of the battery to prevent short circuits.
2. Set the unit according to the intended usage.
3. Connect the input and output cables of the unit.
4. Connect the power supply, power control wire and grounding wire according to this order.
5. Install the unit in the car.
6. Install the negative (-) terminal of the battery.

CAUTION

- Be sure to turn the power off before changing the setting of any switch.
- If the fuse blows, check wires for shorts, then replace the fuse with one of the same rating.
- When checking the speaker wires, including the negative wire of the speaker or grounding speaker wires to the metal body of the car can cause this unit to fail.
- After installation, check that the brake lamps, wipers, and wipers work properly.

Speaker level input terminals (S)

- Do not connect the speaker output leads from a power amplifier (Optional) to the speaker level input terminals of this unit, for this may cause malfunction or damage.
- Do not connect cables and leads to both RCA cable input jacks and the speaker level input terminals simultaneously, for this may cause malfunction or damage.
- Connect the power control lead to a power supply which can be turned ON/OFF by the ignition key switch (ACC line). With this connection, shock noise may be generated when the power of the genuine-accxcessory car stereo is switched ON/OFF.

Start tapping screw (ø 16 mm)
Operations of the following control and switches are required in accordance with the center unit and speakers connected with this unit.

1. **Fuse**
   - 25 A × 1: KAC-6201
   - 15 A × 1: KAC-5201
   - **NOTE:** If you cannot find the specified capacity fuse at your store etc., consult your Kenwood dealer.

2. **Ground terminal**
3. **Battery terminal**

4. **Power control (REMOTE) terminal**
   - **SPEAKER OUTPUT terminals**
     - **Stereo Connections:** When you wish to use the unit as a stereo amplifier, stereo connections are used.
     - **Bridged Connections:** When you wish to use the unit as a high-output monaural amplifier, bridged connections are used. (Make connections to the LEFT channel (+) and the RIGHT channel (−) SPEAKER OUTPUT terminals.

5. **FILTER switch**
   - These switches allow filtering of the speaker output signals.
   - **HPF (High Pass Filter) position** (KAC-6201 only)
     - Only frequencies of 150 Hz or higher are output. (Frequencies below 150 Hz are cut.)
   - **LPF (Low Pass Filter) position**
     - Only frequencies of 80 Hz or lower are output. (Frequencies above 80 Hz are cut.)
   - **OFF position**
     - The original sound without filtering is output.

6. **OPERATION switch**
   - This switch allows selection of the amplification method of input signals.
   - **STEREO position**
     - The amplifier can be used as a stereo amplifier. (The input right signal is not output.)
   - **MONO (Lch) position**
     - Amplifies the signal input from the left side only. (L + R (monaural) sound is required.
   - **L+R position** (KAC-6201 only)
     - The left and right signals are combined before output. (Frequencies below 150 Hz are cut.)
   - **Frequencies above 150 Hz are cut.)
   - **STEREO position**
     - Use this position when the input left and right signals are combined before being amplified. Use this position when the unit is used for subwoofer speakers or the L+R (monaural) sound is required.

7. **INPUT SENSITIVITY control**
   - Set to this position and make bridged connections to use as a high-power monaural amplifier. (The input right signal is not output.)

**CAUTION**
- Do not use this terminal for power source grounding. This unit will be damaged if the power source grounding wire is connected to this terminal.
- Ensure that the withstand voltage and the impedance of 4 ohms.
- Ensure that the combined impedance of the capacitors (C) and coils (L) are sufficient.
- Ensure that the power control wire* is not connected to a metal part serving as an electrical ground.
- Ensure that the battery wire* is not connected to a metal part serving as an electrical ground.

**System examples**

- **2-channel system**
- **Subwoofer system**
- **1-channel system**
- **Tri-mode**

**Principle of Tri-mode**
- Method of frequency band division using a coil and capacitor. In case of 6dB/oct, slope Cor (L), Passes low frequencies and blocks high frequencies. (Low pass)
- Capacitor (C): Passes high frequencies and blocks low frequencies. (High pass)
- Example:
  - When it is required to set a crossover frequency of 120 Hz using speakers with an impedance of 4 ohms.
  - 0 dB: Crossover Frequency
  - -3 dB: Crossover Frequency
  - CAUTION:
    - If you wish to bridge-connect a speaker, the speaker impedance must be no less than 4 ohms. Connecting a speaker with an impedance lower than 4 ohms may damage the unit.
    - Be sure to connect capacitors to speakers to which high frequencies will be passed. Failure to do so will result in a drop of the combined impedance with the subwoofer.
    - Ensure that the withstand voltage and current ratings of the capacitors (C) and coils (L) are sufficient.

**Connection**

- **RCA cable connection**
- **Speaker stereo connection**
- **Speaker bridge connection**
- **Power wire connection**

**Power indicator**
- When the power is turned on, the Power indicator lights.
- If the Power indicator does not light when the power is turned on, the protection function may be activated. Check whether there is any indication of trouble.

**The protection function is activated in the following situations:**
- This unit is equipped with a protection function for protecting this unit and your speakers from various accidents or problems that can occur.
- When the protection function is triggered, the Power indicator goes off and the amplifier stops operating.
- When a speaker wire may be short-circuited.
- When a speaker output contacts ground.
- When the unit malfunctions and a DC signal is sent to the speaker output.
- When the internal temperature is high and unit won’t operate.
- When a ground wire of the center unit (cassette receiver, CD receiver, etc.) or this unit is not connected to a metal part serving as an electrical ground passing electricity to the battery’s negative (-) terminal.