

AD-60 User Manual

ISO9001 Certified Enterprise



Packing List

Number	Item	Quantity
1	Hi-Fi Amplifier AD-60	1 pcs
2	Manual	1 pcs
3	Power Line	1 pcs
4	Certificate of qualification	1 pcs
5	Remote control	1 pcs
6	Optical cable GQ-2	1 pcs

Pollution Control Sign and Content Description



The symbol indicates that the product can be reused. The figure indicates the term of service of environmental protection. The product will not cause environmental pollution or affect human body and property within the term of service expressed by the figure since the date of manufacture as long as the safety and operating precautions on the product are obeyed.

Name and Content of Toxic or Harmful Substance or Element in the Product

Name of Parts	Toxic or Harmful Substance or Element					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr)6+	Polybrominated (PBB)	Biphenyls polyphenyls (PBDE)
Body/Box	○	○	○	○	○	○
Equipped Baseplate/ Electrical Part	×	○	○	○	○	○
Plastic Structural Member	○	○	○	○	○	○
Metallic Structural Member	○	○	○	×	○	○
Cable	○	○	○	○	○	○
Transformer	○	○	○	○	○	○
Transformer/Loudspeaker/ Microphone	×	○	○	×	○	○

Marks:

“○” means the content of the hazardous toxic substance is lower than SJ/T11363-2006 standard required.

“×” means in a homogeneous material of the component the content of the hazardous toxic substance is higher than SJ/T11363-2006 standard required.



Note: “×” as there are no substitutable substances under the existing technology

Thank you for using our audio products. With the philosophy of “high technology, high quality and high taste”, we make products with durable materials, exquisite technique, rigorous circuit & advanced technology and offer professional service!

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Important Protective Measures for Attention

	<p>WARNING ELECTRIC DANGER DO NOT OPEN</p>		<p>To reduce risk of electric shock, do not remove the outer cover (or rear panel).</p> <p>For maintenance, it should be carried out by qualified maintenance people.</p> <p>To avoid fire and electric shock hazards, do not get the unit wet or damp.</p> <p>Equipment safety standard : Class II</p>
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- 1 Read the protective measures: read all warning messages about protection and operation in the instructions carefully before using the equipment.
- 2 Follow instructions: please follow the instructions and do not violate the instructions.
- 3 Place the product on where manufacturer recommends: to avoid overturning, do not push too hard or suddenly stop when moving.
- 4 Keep away from water and moisture: do not place equipment near water such as bathtub, basin, sink, washing machine, etc. Do not use equipment at high temperatures or high humidity environment, such as a damp basement.
- 5 Cleaning: do not use liquid or mist cleaners. Please use dry cloth to clean. Turn off the machine and power off before cleaning the equipment.
- 6 Power supply: use the power supply according to marks and tags. Connect and place the wires properly. Do not step on wires to avoid damage. Pay special attention to wires to plugs, receptacles and connecting ports.
- 7 Ventilation: the cabinet of equipment is designed with venting holes. To ensure reliable performance, please avoid overheating and do not cover the equipment. Do not use the equipment on beds, sofas, carpets etc.
- 8 Keep away from heat: do not put that machine near heat sources, such as radiators, stoves and other objects that generate heat (including power amplifiers).
- 9 Prevent unknown objects or liquids - objects or liquids should be prevented from falling through the holes into the equipment, because it might contact with current or live parts that might cause fire or electric shock. Do not place the equipment in rain or water splashing place. Do not put water containers such as vases on top of it.
- 10 Please connect well all input/output wires before switching on.
- 11 Thunder and lightning: unplug the power cable in thunder and lightning weather because it can effectively prevent lightning impulses to protect the equipment.
- 12 Protections: unplug the machine when you do not use it for long period. Good grounding can prevent the machine from being damaged.

- 13 Maintenance: do not open the cabinet without professional instruction to avoid electric shock. Contact with the product managers where you buy this machine in the following cases:
- a) Unknown parts or liquid enter the machine.
 - b) The machine is soaked.
 - c) The machine works abnormally.
 - d) Machine falling or damage.

- 14 Battery: for environment protection, please dispose batteries in appropriate ways.

- 15 Disconnection device of main power supply: this machine use power plug and coupler as the disconnecting devices. Power plug and coupler should be easily operated.

- 16 This product is only suitable for safe use in altitude below 2000m.



- 17 This product is not suitable to be used in tropical climates.



Instructions Prior to Use

■ General matters

- 1 Please place the machine at the well-ventilated place with accessible space 10 cm in width at its two sides, and above and behind it.
- 2 Don't apply oil, chemical solvent, volatile oil, paint or pesticide to the equipment.
- 3 Don't place the equipment in moist environment with the temperature being as high as above 60°C or extremely low.
- 4 Please keep the equipment away from direct exposure to sunlight, strong magnetic field, high temperature and electrical devices (computer, fax machine, etc.) which may cause interruption.
- 5 Please fixate the power socket when pulling out the power plug.
- 6 Do not open the cabinet without professional instruction to avoid electric shock. Contact with the product managers where you buy this machine for internal maintenance.
- 7 Please place the machine on flat, smooth and stable surface without vibration. Do not put things on top of the machine.
- 8 If there is no sound output, please turn off the machine and turn it on in 10 seconds.
- 9 Do not use the machine during a flashing lighting or thunderstorm. Pull out the plug for safety.

■ Warning

The voltage used for the machine must be consistent with that in the specifications. We assume no responsibilities for fires or other accidents due to the wrong use against the scope as specified.

■ Remark

- 1 Please note that you'd better only put audio files you want to play in the TF card or USB disk before you connect them.
- 2 To avoid data damage, please do not suddenly plug off the unit when the TF card or USB disk is working.

Overview of Functions

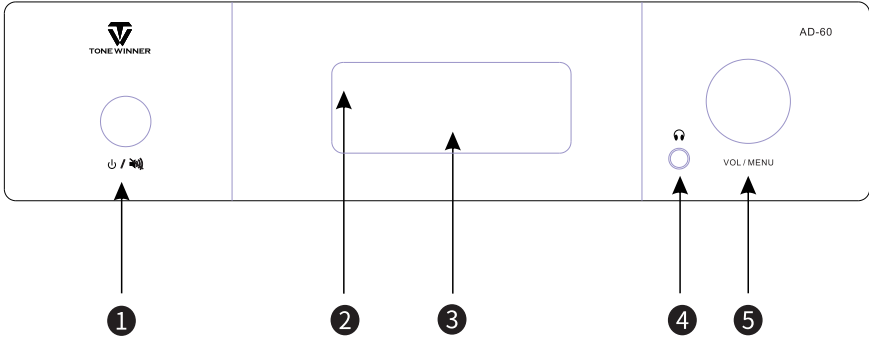
- Support TF card or USB disk local play, support Bluetooth 5.0.
- Supports PC USB audio input, can be used as an external sound card for computers.
- Supports WAV, FLAC, and APE lossless formats, and MP3 compressed audio formats.
- Supports all-function operations on Android and IOS Apps.
- Low distortion high speed Hi-Fi circuit.
- Large toroidal transformer, large capacity filter capacitor, energy is abundant.
- Hi-Fi audiophile circuit.
- Power amplifiers use high-power high-frequency Hi-Fi tubes.
- LCD screen with 5 levels of brightness adjustable; Acrylic lens; microcomputer intelligent operating system, aluminum panel.
- Supports remote control.
- Inputs: 1x coaxial, 1x optical digital (all support 24bit/192KHz), 1xTF card input, 1x TYPE-C/PC input, 1x USB disk input, and 1x HDMI/ARC input.
- Adopt famous electronic volume chip, multi-functional volume knob, imported well known coupling capacitor, filter capacitor.
- High-grade gold-plated input socket; High-end copper output terminal.
- Built-in high-quality digital player.
- Dual power management system.
- 115V~/60Hz and 230V~/50Hz power supply auto-adaptation function.
- CE/FCC certified.
- Supports high-fidelity headphone amp.

The decoder adopts the AD-1955 audio decoder chip, which is highly regarded in the audio industry. It is a top DAC chip with higher and better audio quality than the AD-1853, and its sampling accuracy and quantization standard reach 24bit/192KHz. It has independent digital filtering and D/A conversion, and its dynamic range and SNR can reach an astonishing 126dB, which minimizes the error degree of digital stream in timing resolution. Even with the common CD signal obtained from DVD, the AD-60 amplifier can play sound that makes you feel like high quality sources you are playing.

NJW1194 is used as input and volume adjustment. The chip has the characteristics of low distortion, low noise, high separation, tone control and 0.5 dB step.

The large toroidal transformer used as a 15000uF capacitor made by Tonewinner. Power amplifier tube adopts ON Semiconductor 150W tube, and use low distortion high speed Hi-Fi circuits. This machine adopts the latest production craft works, which is a high-fidelity, low distortion Hi-Fi power amplifier, that has very good music expression.

Front Panel



1 Power switch/Mute

Press this key to pause or play audio in the modes of USB flash, TF card, or Bluetooth.

Press this key to mute or mute release in other source status.

Press and hold the key to power off.

2 Remote receiving window

Remote control receiving signal window, no blocking in front, otherwise it will affect remote control receiving signal.

3 LCD display

a. Displays information such as audio source and volume.

b. The brightness of the display is divided into 5 levels (DIM1-DIM5). The brightness can be adjusted by the remote control or panel menu.

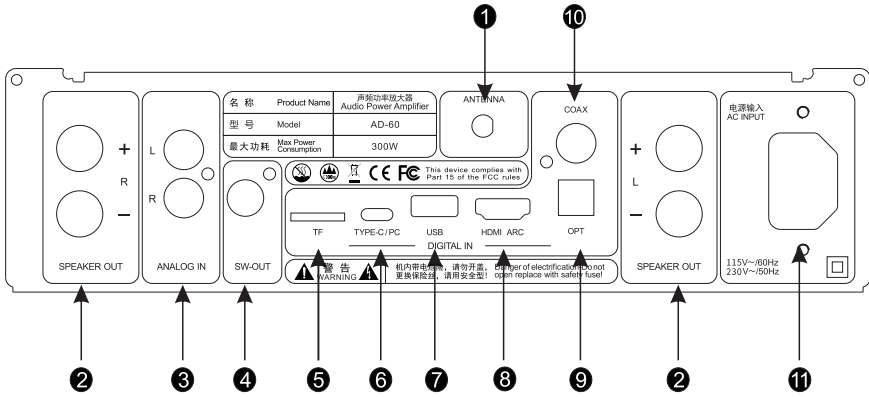
4 Headphone jack

Note: Power output is disconnected when the headset is inserted.

5 VOL/MENU

Volume/function knob (For details, please refer to Vol/MENU introduction on page 8.)

Rear Panel



1 ANTENNA (Bluetooth antenna)

2 Speaker output

L-OUT: Speaker terminal for Left channel. "+" is connected to the positive/red terminal of the speaker. "-" connected to the negative terminal of the speaker.

R-OUT: Speaker terminal for Right channel. "+" is connected to the positive/red terminal of the speaker; "-" connected to the negative terminal of the speaker.

3 ANALOG IN (analog audio L/R input)

4 SW-OUT Bass signal output

User can connect active subwoofer (with filter circuit); When the amplifier is muted, this port has no output signal.

5 TF card input

6 TYPE-C/PC computer input

7 USB disk input

8 HDMI Input/ARC audio input

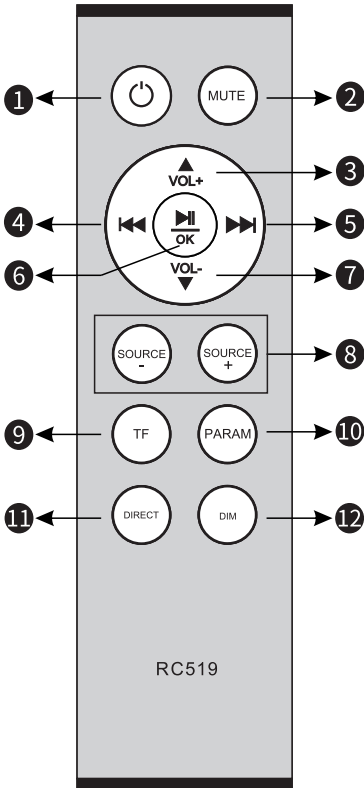
HDMI input is used to connect devices with HDMI output such as DVD players, network players, Blu-ray players, Movie players, etc. This input can send TV audio to amplifier from TVs that support ARC function.

9 1x optical input (supports 24bit 192 kHz)

10 1x coaxial inputs (supports 24bit 192 kHz)

11 Power input terminal.

Remote Control



1 Standby

2 Mute

3 VOL+/parameter+

Turn up the volume/increase the parameter.

4 Last/fast-reverse

Short press to play the previous song.

Long press to make the song fast-backward.

Only works when a USB disk or TF card is inserted.

5 Next/fast-forward

Short press to play the next song.

Long press to make the song fast-forward.

Only works when a USB disk or TF card is inserted.

6 Play/pause

Play or pause the audio.

Only works when a USB disk, TF card or Bluetooth is inserted or connected.

7 VOL-/parameter-

Turn down the volume/decrease the parameter.

8 Source+/- keys

Press these two buttons to select an input source to playback.

9 TF card source

Select a source of TF card to playback.

10 PARAM

Choose sources among BASS, TREBLE & BALANCE, and press VOL+ or VOL- to adjust the corresponding parameters.

11 DIRECT

Adjust Bass and Treble in DIRECT OFF mode, not in DIRECT ON mode.

12 DIM

Adjust the brightness of display screen.

VOL/MENU

Normally, the VOLUME knob of the front panel and VOL buttons of the remote are used to adjust the volume. They can also be used to adjust parameters.

Detailed instructions of adjusting parameters

Long press the "VOL/MENU" button on the front panel for 5s and it will go into the menu. Turn the VOLUME knob or press the volume buttons to select parameters among INPUT, DIRECT, BALANCE, BASS, TREBLE, SETDIM, RESET, INFO, etc.

Turn the VOLUME knob, select RETURN and press the "VOL/MENU" button to go back to the MENU, or select EXIT to directly go back to the home interface.

The MENU functions are as follows:

INPUT (source selection): AN input--COAX input--OPT input--ARC input --BT input --TF input--USB input--PC input--RETURN (return to last layer).

DIRECT: DIRECT OFF
DIRECT ON
RETURN

BALANCE: (balance adjustment): range: L10---0dB---R10
Press VOL/MENU to the last layer.

BASS (bass adjustment): range: -10dB----0dB----+10dB
Press VOL/MENU to the last layer.

TREBLE (treble adjustment): range: -10dB----0dB----+10dB
Press VOL/MENU to the last layer.

*Notes: Adjust Bass and Treble in **DIRECT OFF** mode, not in **DIRECT ON** mode.

SET DIM (VFD display screen luminance adjustment): OFF
DIM1
DIM2
...
DIM5
RETURN

RESET: YES (reset confirm)
RETURN

INFO (version information): AD-60V1.0
RETURN

EXIT (return to the home interface)
Short press to directly go back to the home interface.
Or wait for 15s without any operation and it will automatically return to the home interface.

USB Disk/TF Card

(1) Insert the USB disk with downloaded songs into the USB port in the front, press the front panel button or use the remote to select USB audio source, and then songs will auto-play.

(2) Insert the TF card with downloaded songs into the slot in the rear, press the front panel button or use the remote to select TF audio source, and then songs will auto-play.

(Note: Songs will auto-play only after they are listed in the same file. The USB disk or TF card should be in FAT 32 or exFAT format and not bigger than 128G.)

Mobile Phone Wireless Transmission

(1) Use the front panel button INPUT or the remote to select the audio source BT.

(2) Switch on Bluetooth on your mobile phone, search & pair-connect with AD-60, and you can control music play on your mobile phone.

PC USB Audio Playback

This machine supports the PC audio transmission with the sampling rate of 24 bit 48kHz (driving-free).

Use a USB cable to connect the TYPE-C/PC port on the rear panel with the PC USB port.

Turn on the music playing center on PC and select TYPE-C/PC. Press the front panel button INPUT or use the remote to select PC audio source.

Digital Audio Playback

This machine supports the digital input with the sampling rate of 24bit 192kHz.

Press the front panel button or use the remote to select the audio source OPT or COAX as digital source.

Mobile Phone APP

- To better experience this machine, we have carefully developed a mobile phone APP which supported by this machine as wireless control.
- You can complete the switches and operations of all the above functions through your mobile phone.
- If you use APP for the first time to control this machine, you need to execute steps (1), (2), (3), and after then you only need to execute steps (3):



Setp (1) Make this machine in a normal working state.

Step(2) When your mobile phone connected to network, IOS equipment can go to App Store to search "TONEWINNER" for downloading the app. Android equipment can go to Google Play for download.

Setp (3) After initiating the APP, search the equipment you want to connect and click to match, then you can control it by mobile phone App.

- Click the "?" question mark icon on App, you can check more operation details of the function.

The specification of the product may be changed without further notice.

Precautions

- 1 Place this machine in well ventilated areas because this machine is a high power amplifier which will generating heat inside. So good environment for heat release is required to ensure safe performance. Don't place this machine in narrow and airtight areas and don't put objects on the top of this machine to keep the venting hole unobstructed. If the machine can't release heat well, the service life may be affected, or even the machine will burn down.
- 2 Don't make the machine under the overload condition for a long time: don't set the volume too high or make this machine under the overload condition of peak distortion such as the circuit protection condition. Please check the machine if it is too hot, and if it is too hot, start the machine after it cools down.
- 3 Match of this machine and the speaker: This machine has good capacity to match with speakers, and can match more than 95% home speakers. But there is still something you need to pay attention to when you select speakers:
 - (1) Too low impedance of the speaker is not suitable for this machine, and you'd better not choose the impedance of less than 4Ω . The machine performs best when the impedance is $4\sim 8\Omega$, especially 8Ω .
 - (2) Too low sensitivity of the speaker is not suitable for this machine and you'd better not choose the sensitivity of less than 86dB . The machine can perform well when the sensitivity is over 87dB .
- 4 There are 10 levels of luminance you can select, from DIM OFF to DIM 5. You can select the luminance level you like by pressing the "DIM" button on the front panel to select SETDIM or the DIM button on the remote control.
- 5 The connection line connected to the machine must be reliable and accurate, and please don't mix up the positive & negative terminals or the left & right channels.

Specification

Model: AD-60

S/N: $\geq 100\text{dB/A}$ weighted

Frequency response: 20Hz-100kHz (+1/-3dB)

Distortion: $\leq 0.025\%$ (1kHz, A weight)

Output power: 50W/8 Ω (1 channel driven, 1kHz, THD=1%)
80W/4 Ω (1 channel driven, 1kHz, THD=1%)

Input impedance: 20k

Rated load impedance: 8 Ω

Gain: $\geq 39\text{dB}$

Max power consumption: $< 500\text{W}/8\Omega$

Supply voltage: 115V~/60Hz or 230V~/50Hz

Gross weight: 6.7kg

Net weight: 5.5kg

Unit dimensions: 300×335×83mm (W×D×H)

Packing dimensions: 390×386×131mm (W×D×H)

Execution standards: GB/T9254.1, GB4943.1, GB17625.1

(Note: The specification may be changed slightly without further notice.)

Equipment Safety Standard: Class II

- 1 Please read the manual and safety precautions carefully before using.
- 2 The product should be mounted somewhere ventilated and dry for the convenience of heat dissipation to avoid moisture and lampblack.
- 3 The safety standard of the machine is II; upon installation, the power plug should be connected to 115V~/60Hz or 230V~/50Hz grid.
- 4 Do not remove the cover during using to prevent electrocution.
- 5 Do not frequently turn it on or off. Wait a few minutes before turning it on again.
- 6 When the equipment fails, contact with the product managers where you buy this machine for internal maintenance. To avoid accident, do not open the rear cover for inspection or repair.
- 7 The plugs, power lines, fuses, power switch, and transformer used on the equipment are all safety parts. Upon change of safety parts, the maintenance department should replace them in accordance with the model and specification specified by our company.



Scan QR code

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