

ONKYO A-819RS

ONKYO A-819RS Stereo Preamplifier User Manual

Model: A-819RS

1. INTRODUCTION

This manual provides essential information for the safe and efficient use of your ONKYO A-819RS Stereo Preamplifier. Please read these instructions thoroughly before operating the unit and retain them for future reference. The A-819RS is designed as a stereo premain amplifier, incorporating advanced technologies for high-fidelity audio reproduction. Key design features include a non-magnetic chassis for main components to reduce harmful higher harmonics and a Super Stabilizer structure to prevent external vibrations, ensuring optimal sound clarity and performance.



Figure 1: Front view of the ONKYO A-819RS Stereo Preamplifier. This image shows the amplifier's front panel with various controls and input selectors.

2. SAFETY INFORMATION

- **Power Supply:** Ensure the unit is connected to an AC 100V, 50Hz/60Hz power source. Do not use with incompatible power supplies.
- **Ventilation:** Allow adequate space around the unit for proper ventilation to prevent overheating. Do not block ventilation openings.
- **Moisture:** Do not expose the unit to rain or moisture to prevent fire or electric shock.

- **Foreign Objects:** Do not insert any objects into the unit's openings.
- **Servicing:** Refer all servicing to qualified service personnel. Do not attempt to open or repair the unit yourself.
- **Placement:** Place the unit on a stable, level surface away from direct sunlight, heat sources, and excessive dust or vibration.

3. SETUP

3.1 Connections

Before making any connections, ensure the amplifier is turned off and unplugged from the power outlet.

- **Audio Sources:** Connect your audio components (CD player, tuner, auxiliary devices, tape deck) to the corresponding input jacks (CD, TUNER, AUX, TAPE PLAY) on the rear panel.
- **Phono Input:** For turntables, connect to the PHONO input. The A-819RS supports both MM (Moving Magnet) and MC (Moving Coil) cartridges. Select the appropriate PHONO MM or PHONO MC setting based on your cartridge type.
- **Speakers:** Connect your speakers to the speaker terminals, ensuring correct polarity (+ to + and - to -). The amplifier supports 8Ω speakers.
- **Tape Recorder:** For recording, connect the output of your tape deck to the TAPE REC input.
- **AC Outlets:** The unit features AC outlets on the rear panel. One unswitched outlet provides up to 200W, and two switched outlets provide a total of 200W for connecting other audio components.

3.2 Initial Power On

1. After all connections are made, plug the power cord into a suitable AC outlet.
2. Turn on the amplifier using the power switch.
3. Select the desired input source using the input selector.
4. Start playback on your audio source and slowly increase the volume to a comfortable listening level.

4. OPERATING INSTRUCTIONS

4.1 Basic Operation

- **Input Selector:** Use the input selector knob to choose between connected sources: CD, TUNER, AUX, TAPE PLAY, PHONO MM, or PHONO MC.
- **Volume Control:** Adjust the main volume knob to set the overall listening level.
- **Muting:** The muting function reduces the output by -20dB, useful for temporarily lowering the volume without changing the main volume setting.

4.2 Advanced Features

- **Super Servo Method:** This technology is employed to effectively handle digital audio sources. It electrically isolates the power transformer from the amplifier section, preventing harmful intermodulation noise components from the power supply. This expands the dynamic range by 20dB and addresses noise generated by signal size, particularly for low audio signals below 100Hz.
- **Super Servo Integral Method:** This proprietary ONKYO method thoroughly tracks and cancels intermodulation distortion caused by back electromotive force induced in speakers by external factors like sound pressure from other channels.
- **Linear Switching Method:** The power amplifier section utilizes ONKYO's unique Linear Switching method. This design aims to achieve sound quality comparable to Class A operation while maintaining the efficiency of Class B operation by preventing bias fluctuations and improving linearity.

- **Direct Tone Control:** The amplifier features a simple structure with an MC-compatible straight high-gain equalizer and a power section configured as two amplifiers. The tone control circuit employs a 'Direct Tone' design for minimal signal degradation.
- **Softness Circuit:** An integrated softness circuit is included to control resolution and enhance listenability when connecting to lower-grade program sources or systems with poor quality cartridges or speaker systems.
- **Tone Controls:** Adjust the BASS ($\pm 8\text{dB}$ at 70Hz) and TREBLE ($\pm 8\text{dB}$ at 20kHz) knobs to fine-tune the sound to your preference. These controls are effective at a volume setting of -16dB.
- **Loudness:** The loudness function provides a boost of +6dB at 100Hz, enhancing bass and treble at low listening volumes.
- **Subsonic Filter:** The subsonic filter (15Hz, 6dB/oct) helps to remove unwanted ultra-low frequencies that can cause speaker cone flutter and waste amplifier power.

5. MAINTENANCE

To ensure the longevity and optimal performance of your ONKYO A-819RS, follow these maintenance guidelines:

- **Cleaning:** Wipe the exterior surfaces with a soft, dry cloth. For stubborn dirt, use a cloth lightly dampened with water or a mild, non-abrasive cleaner. Avoid using harsh chemicals or solvents.
- **Ventilation:** Regularly check that the ventilation openings are clear of dust and obstructions. Dust accumulation can lead to overheating.
- **Connections:** Periodically check all cable connections to ensure they are secure and free from corrosion.
- **Storage:** If storing the unit for an extended period, unplug it from the power outlet and cover it to protect against dust.

6. TROUBLESHOOTING

If you encounter any issues with your amplifier, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No power	Power cord unplugged; Power switch off; Blown fuse	Check power cord connection; Turn power switch on; Consult service personnel for fuse replacement
No sound	Incorrect input selected; Volume too low; Speaker cables disconnected; Muting engaged	Select correct input; Increase volume; Check speaker connections; Disengage muting
Distorted sound	Input level too high; Speaker impedance mismatch; Damaged speaker cables	Reduce source volume; Ensure correct speaker impedance (8 Ω); Check/replace speaker cables
Hum or noise	Grounding issue; Interference from other devices; Loose connections	Ensure proper grounding; Move amplifier away from other electronics; Check all cable connections

If the problem persists after attempting these solutions, please contact qualified service personnel.

7. SPECIFICATIONS

The following specifications are for the ONKYO A-819RS Stereo Preamplifier:

Feature	Specification
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Feature	Specification
Model	Stereo Preamplifier
Rated Output (20Hz-20kHz)	110W + 110W (AUX→SP OUT, 8Ω, both channels driven)
Total Harmonic Distortion (20Hz-20kHz)	AUX→SP OUT: 0.007% (at rated output) PHONO MM→REC OUT: 0.003% (3V) PHONO MC→REC OUT: 0.015% (3V)
Intermodulation Distortion (20Hz-20kHz)	AUX→SP OUT: 0.004%
Power Bandwidth	5Hz-100kHz (IHF-3dB, THD 0.2%)
Damping Factor	100 (1kHz, 8Ω)
Frequency Response	PHONO→REC OUT: 20Hz-20kHz ±0.2dB (RIAA deviation) AUX→SP OUT: 2Hz-100kHz +0 -3dB
Input Sensitivity/Impedance	PHONO MM: 2.9mV/47kΩ, 100kΩ PHONO HIGH MC: 2.9mV/100Ω PHONO MC: 180μV/100Ω, 220Ω CD, TUNER, AUX, TAPE PLAY: 150mV/47kΩ
PHONO Maximum Input (1kHz/10kHz, 0.05%)	PHONO MM: 270mV/1300mV PHONO HIGH MC: 270mV/1300mV PHONO MC: 17mV/82mV
Rated Output Voltage/Impedance	TAPE REC: 150mV/560Ω PRE OUT: 1.5V/600Ω
S/N Ratio (IHF Short)	PHONO MM: 88dB PHONO MC: 70dB CD, TUNER, AUX, TAPE PLAY: 100dB
Tone Control (Vol -16dB)	BASS: ±8dB (70Hz) TREBLE: ±8dB (20kHz)
Loudness	+6dB (100Hz)
Subsonic Filter	15Hz, 6dB/oct
Muting	-20dB
Power Supply	AC100V, 50Hz/60Hz
Power Consumption	205W (Electrical Appliance and Material Control Law standard)
AC Outlets	Unswitched: 1 system, 200W Switched: 2 systems, total 200W
Dimensions (W x H x D)	465mm x 158mm x 392mm
Weight	15.5kg

8. WARRANTY AND SUPPORT

For warranty information and customer support, please refer to the warranty card included with your product or visit the official ONKYO website. Keep your purchase receipt as proof of purchase for warranty claims. Do not attempt to service the unit yourself; unauthorized repairs may void your warranty.