**Lepy LP-2020A**

# Lepy LP-2020A Class-D Hi-Fi Audio Mini Amplifier User Manual

Model: LP-2020A | Brand: Lepy

## 1. Introduction

### 1.1 Product Overview

The Lepy LP-2020A is a compact Class-D Hi-Fi audio mini amplifier designed for acoustically accurate music reproduction with low distortion. It is suitable for both home and car audio applications. The amplifier features a Tone/Direct switching function, allowing users to customize listening with separate Bass and Treble adjustments or to bypass these enhancements for the original audio source signal. It includes a built-in loudspeaker protection circuit to prevent high volume bursts upon power-on and an over-voltage protection circuit that shuts down the amplifier if the input voltage exceeds 14.4 volts DC. Its design incorporates surface mount components and advanced engineering for reliable performance, reduced signal interference, and extended operational life.

### 1.2 Key Features

- RCA Input for connecting various audio sources such as iPods, MP3/MP4 players, and other devices.
- Miniature size facilitates easy installation in diverse environments, including cars, motorcycles, boats, and home setups.
- Compact Dimensions: 120mm (Depth) x 147mm (Width) x 42mm (Height); Weight: 280g.
- Features a distinctive blue LED light ring around the Volume Knob.
- Independent Bass and Treble tuning controls for sound customization.
- Constructed with a durable aluminum alloy solid case, aiding in efficient heat distribution.

## 2. Safety Instructions

- Ensure the amplifier is connected to a power supply within the specified range of DC12-13.5V with a current greater than 3A.
- Avoid exposing the unit to moisture, rain, or extreme temperatures to prevent damage or electric shock.
- Do not attempt to open the amplifier casing or perform repairs yourself. Refer all servicing to qualified personnel.
- Always disconnect the power adapter from the electrical outlet before making any connections or disconnections to

the amplifier.

- Keep the device out of reach of children to prevent accidents.
- Ensure adequate ventilation around the amplifier to prevent overheating. Do not cover the unit.

## 3. Package Contents

- Lepy LP-2020A Mini Amplifier
- US Power Supply (DC12-13.5V >3A)
- User Manual (this document)

## 4. Product Diagram

### 4.1 Front Panel




**Image 1:** Front view of the Lepy LP-2020A amplifier, showing the power switch, tone/direct switch, treble knob, bass knob, and large volume knob with a blue LED ring.

1. **Power Switch:** Toggles the amplifier on or off.
2. **Tone/Direct Switch:** Selects between using the Bass and Treble controls ('TONE') or bypassing them for a direct audio signal ('DIRECT').
3. **Treble Control:** Adjusts the high-frequency output of the audio.
4. **Bass Control:** Adjusts the low-frequency output of the audio.
5. **Volume Control:** Adjusts the overall audio output level. Features an illuminated blue LED ring when the amplifier is powered on.

### 4.2 Rear Panel




**Image 2:** Rear view of the Lepy LP-2020A amplifier, displaying the RCA input jacks, speaker terminals, and DC power input.

1. **RCA Audio Input (L/R):** Connect your audio source devices (e.g., CD player, MP3 player, computer) using standard RCA cables.
2. **Speaker Output Terminals (L/R):** Connect your passive speakers. Ensure correct polarity (+ to + and - to -). The amplifier is compatible with speakers having an impedance of 4-8 Ohm.
3. **DC Power Input:** Connect the provided DC power adapter to this port.

## 5. Setup Instructions

1. **Connect Speakers:** Ensure the amplifier's power switch is in the 'OFF' position. Connect your passive speakers to the Speaker Output Terminals on the rear panel. Carefully observe the correct polarity: connect the positive (+) terminal of the amplifier to the positive (+) terminal of the speaker, and the negative (-) terminal of the amplifier to the negative (-) terminal of the speaker. The amplifier supports speakers with an impedance of 4-8 Ohm.
2. **Connect Audio Source:** Connect your desired audio source (e.g., smartphone, MP3 player, computer, CD player) to the RCA Audio Input jacks (L/R) on the rear panel using an appropriate RCA cable.
3. **Connect Power:** Insert the barrel connector of the provided power adapter into the DC Power Input port on the rear panel of the amplifier. Then, plug the power adapter into a standard electrical outlet.
4. **Initial Volume Setting:** Before powering on the amplifier, turn the large Volume Control knob on the front panel completely counter-clockwise to its minimum setting. This prevents any sudden loud sounds when the unit is activated.

## 6. Operation

1. **Power On:** Flip the Power Switch on the front panel to the 'ON' position. The blue LED ring around the Volume Control knob will illuminate, indicating the amplifier is powered on.
2. **Adjust Volume:** Slowly turn the Volume Control knob clockwise to gradually increase the audio output to your desired listening level.
3. **Tone Control:** If you wish to adjust the sound characteristics, ensure the Tone/Direct switch is set to 'TONE'. Then,

use the Bass and Treble control knobs to fine-tune the low and high frequencies according to your preference.

4. **Tone/Direct Switch:** For a flat, unenhanced audio signal that bypasses the Bass and Treble controls, set the Tone/Direct switch to 'DIRECT'. To enable Bass and Treble adjustments, set it to 'TONE'.
5. **Power Off:** When you have finished using the amplifier, first turn the Volume Control knob completely counter-clockwise to its minimum setting. Then, flip the Power Switch to the 'OFF' position.

## 7. Maintenance

- **Cleaning:** Use a soft, dry, lint-free cloth to clean the exterior surfaces of the amplifier. Do not use liquid cleaners, abrasive pads, or chemical solvents, as these can damage the finish or internal components.
- **Ventilation:** Ensure that the amplifier has adequate airflow around it. Do not block the heat sink fins located on the top and sides of the unit, as proper ventilation is crucial for preventing overheating and maintaining optimal performance.
- **Storage:** If the unit will not be used for an extended period, store it in a cool, dry place away from direct sunlight, excessive heat, and moisture. Disconnect the power adapter before storing.

## 8. Troubleshooting

| Problem | Possible Cause | Solution |
|---|---|---|
| No power, blue LED off | Power adapter not securely connected; Power outlet faulty; Amplifier power switch is off. | Check all power connections; Try plugging the adapter into a different, known-working power outlet; Ensure the power switch on the front panel is in the 'ON' position. |
| No sound output | Audio source not connected or faulty; Speaker wires loose or incorrectly connected; Amplifier volume too low; Audio source muted or its volume is low. | Verify the RCA cable connection between the audio source and the amplifier; Check all speaker wire connections and ensure correct polarity; Increase the amplifier's Volume Control knob; Check the audio source device's volume and mute settings. |
| Distorted sound | Volume level too high (either on amplifier or audio source); Incorrect speaker impedance; Faulty audio cable. | Reduce the volume on both the amplifier and the audio source; Ensure your speakers have an impedance of 4-8 Ohm; Try using a different RCA audio cable. |
| Unit shuts off unexpectedly | Over-voltage protection activated (input voltage exceeds 14.4V DC); Amplifier is overheating due to poor ventilation. | Verify that your power supply provides the correct voltage (DC12-13.5V); Ensure there is adequate space and airflow around the amplifier to prevent heat buildup. |

## 9. Specifications

**Input Power:** DC12-13.5V >3A

**Output Power:** 20W x 2 RMS

**Speaker Impedance:** 4-8 Ohm

**Frequency Response:** 20Hz-20 KHz

**Minimum THD:** <0.4%

**SNR:** >80 dB

**Input Sensitivity:** 200mV

**Input Impedance:** 47k Ohm

**Dimensions (L x W x H):** 14.73 x 4.32 x 11.94 cm (5.8 x 1.7 x 4.7 inches)

**Weight:** 399.16 g (0.88 lbs)

**Material:** Plastic, Metal, Silicon

## 10. Warranty and Support

This product is covered by a standard manufacturer's warranty. For specific warranty details, including duration and coverage, please refer to the documentation provided at the time of purchase or contact your retailer directly. Warranty terms may vary by region and seller.

For technical support, troubleshooting assistance, or service inquiries, please contact the product manufacturer or your authorized dealer. Please have your product model number (LP-2020A) and proof of purchase readily available when seeking support.

*Please retain your original proof of purchase for any warranty claims.*

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