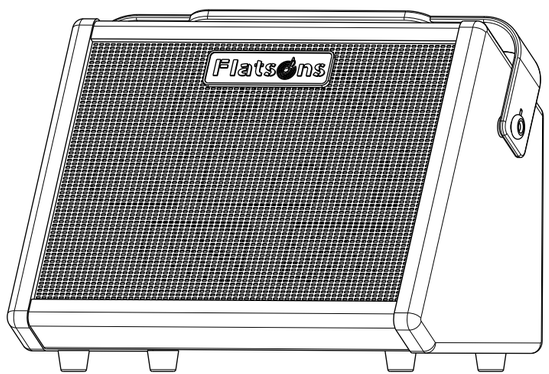
Flatsons

Portable Acoustic Guitar Amplifier

Crush20

User's Manual



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Introduction

Thank you for choosing the Flatsons Crush20 rechargeable multi-function portable guitar amplifier. To ensure optimal use of all features and understanding of safety precautions, please read this manual thoroughly before operation. For inquiries or suggestions, contact us at: +86 40071 66908.

Product Features

1. Portable Design
Maintains a compact form factor while delivering extended battery life.
2. High-Efficiency Amplification
Employs a powerful Class D amplifier and optimized power management, delivering 20W RMS efficiently while minimizing weight.
3. Studio-Grade Sound Processing
Guitar Channel offers faithful sound reproduction with dedicated reverb; Microphone Channel features dual-band EQ (Bass/Treble) and reverb for vocal enhancement.

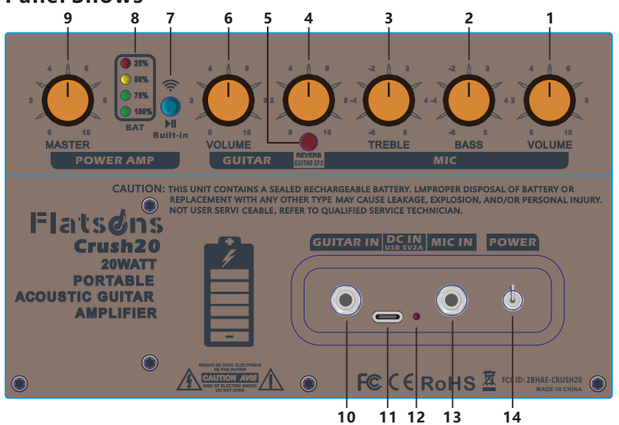
Package Contents

1. Crush20 Guitar Amplifier ×1
2. USB-C Charging Cable (5V/2A) ×1
3. User's Manual ×1

Specifications

Model	Crush20
Rated Power	20W
Peak Power	30W
Speaker	5.5" Full Range
Battery	7.4V/3000mAh lithium-ion battery
Charging Time	1.5–2 hours (USB-C 5V/2A)
Playback Time	4–8 hours (70% volume)
Channel 1 (Mic)	SNR 85dB / Impedance 10kΩ
Channel 2 (Guitar)	SNR 95dB / Impedance 2kΩ
EQ Controls	Bass: ±12dB@125Hz, Treble: ±12dB@8kHz
Connectivity	B.T Version 5.3 (15m range)
B.T Name	Crush20
Net Weight	4.19 lbs (1.9 kg)
Gross Weight	4.72 lbs (2.14 kg)
Product Dimensions	8.5" L × 6.4" W × 6.5" H (215 × 163 × 166 mm)

Panel Shows



Channel 1: Microphone / Active Guitar Input

1. Volume
Adjust the volume of channel 1.
2. Bass
Adjusts low-frequency gain of channel 1.
3. Treble
Adjusts high-frequency gain of channel 1.
4. Reverb
Adjust the intensity of the reverb effect.

Channel 2: Passive Guitar Input

5. Guitar EFX
Dedicated reverb switch for channel 2 (passive guitar). Press to activate reverb effect on Channel 2; release to disable.
Note: *Microphone channel reverb is always active.*
6. Volume
Adjust the volume of channel 2.

Channel 3: B.T Wireless System

7. B.T Function
Short Press:
When B.T is disconnected, short press to activate pairing mode (LED flashes rapidly); when connected, short press to play/pause music.
Pairing Process:
Use B.T search to find device named "Crush20" and connect. After successful pairing, LED stays solid with confirmation tone.
Long Press (2s):
Disable B.T function.
8. Battery Indicator
Four LEDs display battery level (each 25% capacity); when the red light turns off, the amplifier enters standby mode and ceases audio output.
9. Master Volume
Adjust final output volume for all channels.
10. Channel 2 Input Jack
Standard 1/4" (6.35mm) input interface. Connect passive guitars or dynamic microphones.
11. USB-C Charging Port
Recharge using included cable with 5V/2A charger (charger not included).
12. Charging Status Light
Illuminates solid red during charging, and turns off when fully charged or not being charged.
13. Channel 1 Input Jack
Standard 1/4" (6.35mm) input interface. Connect dynamic microphones or active guitar.
14. Power Switch
Toggle upward to power on, toggle downward to power off.

Tips
Active Guitar:
Require battery-powered pickups with built-in preamps, delivering strong signals that need connect to Channel 1's low-impedance input to prevent distortion from overload.

Passive Guitar:
Use non-powered magnetic pickups generating weaker signals, requiring Channel 2's high-impedance input to avoid volume loss and noise interference.

Getting Started

Your new Flatsons Crush20 is a portable amplifier designed to faithfully reproduce the sound of acoustic instruments and a diverse assortment of vocals.
With the addition of B.T wireless connectivity, you can now easily add backing tracks or other accompaniment to your performance.
Here are some basic setup tips to help get you going. To operate Crush20 safely, please read the entire manual.

1. Battery Charging
Fully charge the battery via USB-C (5V/2A) before use.
2. Initial Tone & Effect Setup
Set bass and treble to 12 o'clock position, reverb to 9 o'clock position, turn all volumes down for neutral baseline.
3. Connect Instrument
Connect your instrument or microphones to channel 1/ channel 2 input with shielded 6.35mm cables.
4. Set Tone & Effect
Turn on the power switch. While playing, adjust bass, treble and reverb, then calibrate channel volume by playing intensely and reducing volume when distortion occurs.
5. Volume Optimization
Slowly raise master volume to desired level.

Tips
Always minimize master volume before power-on to prevent speaker damage from power surge and avoid hearing injury from unexpected loud sounds

Troubleshooting

1. Can't Turn on the Machine
A. Check the battery level to ensure that it is sufficiently charged.
B. Check that the power switch is in upward position.
2. Unable to Charge
A. Use only the included 5V/2A USB-C cable.
B. Ensure power source is 5V/2A DC.
C. If left unused for months, recharge every 3 months to maintain battery health.
3. B.T Cannot Connect
A. Check whether B.T can be turned on normally.
B. If the B.T indicator light does not flash but remains lit, it is possible that another device is connected, please disconnect from the other device and then retry pairing.
4. Audio Distortion/Low Volume
A. If using a passive guitar, ensure it is connected to Channel 2 input.
B. If using an active guitar or microphone, connect to Channel 1 input.
C. Reduce the channel volume if distortion occurs during playback.
5. No Sound from Microphone
A. Confirm the microphone is a dynamic type, condenser microphones are not supported.
B. Ensure the microphone is properly connected to Channel 1.
C. If the microphone requires a battery, check that it is functioning.
6. Hum or Noise Interference
A. Use high-quality shielded cables to minimize interference.
B. Relocate away from WiFi routers/electronic devices

Maintenance

1. Battery Maintenance
For long-term storage, maintain battery health by keeping the charge level between 50-60%, replenishing it every 3 months if unused. After extended storage, the initial full charge may take 3-5 hours to recalibrate the battery management system for optimal performance.
2. Surface Cleaning
Regularly clean the amplifier using a soft, dry cloth. For tougher stains, lightly dampen the cloth with water or a non-corrosive cleaning solution, then gently wipe the surface - avoid excessive moisture and always dry immediately.
3. Handling Precautions
Always handle the amplifier with care, lifting and carrying it gently to avoid impacts or drops that could damage internal components.
4. Environmental Protection
Store and use the device in dry environments between 0°C to 40°C (32°F to 104°F), keeping it away from direct sunlight, heat sources, and areas with high humidity or dust accumulation.

Safety Precautions

1. Always retain this manual for reference and carefully follow all warnings and instructions before use.
2. Do not use or store the amplifier near water sources such as bathtubs, wet basements, or outdoors in rainy conditions.
3. Place the product in a dry, stable location away from flammable materials and heat sources, especially during charging.
4. Gently wipe the surface with a slightly damp cloth-never submerge,spray liquids,or use harsh chemicals.
5. Only connect the provided cables to avoid damage or hazards.
6. This amplifier can produce high sound pressure-start with low volume and adjust gradually to avoid hearing damage.
7. If the product malfunctions, contact authorized service personnel immediately—do not attempt self-repair.
8. Avoid extreme temperatures,physical damage,or improper disposal of the lithium-ion battery to prevent fire risks.

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FCC Warnning:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection againstharmful interference in a residential installation. This equipment generates, uses and can radiateradio frequency energy and, if not installed and used in accordance with the instructions, maycause harmful interference to radio communications. However, there is no guarantee thatinterference will not occur in a particular installation. If this equipment does cause harmfulinterference to radio or television reception, which can be determined by turning the equipmentoff and on, the user is encouraged to try to correct the interference by one or more of thefollowing measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1)This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 0cm between the radiator and your body.