

# C5D Headphone Amp & DAC Instructions Guide

#### **General Use**

Battery may require charging prior to first use. See next page.

- 1. Connect headphones to the **Output** jack.
- 2. Connect an audio player to the digital **USB** input or analog 3.5mm **Source** jack. *To ensure proper startup, keep audio player off or paused before turning C5 on.*
- 3. Turn the rear **Power** switch on.
- 4. Slowly raise volume to an appropriate level.

Feature	How to Use	
Volume	Tap or hold volume lever left to decrease volume, or right to increase volume.	
Gain	Push volume control to toggle high/low gain. Use high gain for max power.	
Bass Boost	Toggle up for normal audio; down for medium bass boost; center for high bass.	
Charging	Toggle to <b>CHG</b> to enable charging, or <b>BAT</b> position for self-power mode.	

### **Equipment Care**

- ✓ Use included rubber bumpers to avoid scratches.
- ✓ Always insert cables with care, and avoid cable strain to maximize connector life.

## **Listening Tips**

- ✓ For maximum sound quality, use digital input or a line level analog source. Set your audio player's volume very high (75%+). Volume should always be controlled from the amplifier.
- ✓ You should hear *no noise* from C5D with your audio player disconnected. Every amplifier is tested to ensure proper operation. If noise is present or audio is significantly distorted at all volumes, try a different input cable or audio player.
- ✓ This amplifier can produce dangerously loud music. Be sensible and listen safely: www.hearingloss.org

Thank you for purchasing C5D. If you have additional questions or comments, please contact us at: <a href="mailto:contact@jdslabs.com">contact@jdslabs.com</a>



## **Charging**

C5D uses smart Li-Ion recharging technology, with typical charge time of 2-4 hours. Connect a mini-USB cable from any computer or USB power adapter and set charge switch to **CHG** position to begin charging.

Amplifier LED Status

Off Off
On Solid Green

Low Battery Flashing Green

Charging Blue

C5D may be used while charging, and USB cord may be connected or disconnected as desired.

Set charge switch to **BAT** position when listening via USB from a phone or tablet. BAT position disables charging so that C5D consumes no power from your device.

Amplifier Specifications		
Frequency Response	+/- 0.1 dB	
THD+N (20-20kHz, 150 Ω)	0.0015%	
THD+N (20-20kHz, 32 Ω)	0.0045%	
Noise	-105 dBu	
Crosstalk @ 150 Ω	-67 dB	
Inter-channel Phase @ 1kHz	+/- 0.01 degrees	
Channel Balance	+/- 0.55 dB	
Max Output @ 600Ω	4.146 VRMS	
Max Output @ 150Ω	3.580 VRMS	
Max Output @ 32 Ω	1.182 VRMS	
Power Supply	14.0 Vpp	
Output Impedance	0.62 Ω	
Battery Run Time	6-8 Hours*	
Charge Time	2-4 Hours	
Operating Temp	0°C to 60°C	
Operating Humidity	0 to 85% Relative	
Dimensions	99.5 x 61.5 x 14.0 mm	
Weight	4.2 ounces	

DAC Specifications			
Frequency Response	+/- 0.14 dB		
THD+N 100Hz	0.0014%		
THD+N 20Hz	0.0015%		
THD+N 10kHz	0.0025%		
IMD 19/20kHz, -7dBFS	0.0015%		
Noise, A-Weighted	-103 dBu		
Dynamic Range	> 109 dB A-Weighted		
Linearity Error, -90dBFS 24/96	0.2 dB		
Crosstalk -10dBFS	-80 dB		
USB Jitter, Marked Sum	-112 dB		
Maximum Output	2.0 VRMS		

Test equipment: PrismSound dScope Series III audio analyzer, Tektronix TDS1012 oscilloscope

\*Run time observed using amplifier and DAC in self-power mode. Actual run time varies with equipment and volume.



**ATTENTION:** Battery must only be replaced with equivalent 3.7V, 1200mAh Li-Ion pack. Misuse of the battery may cause fire or burns. JDS Labs, Inc. is not responsible for damages caused by device misuse, or failure to adhere to device instructions.

#### FCC Certifications

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

#### CE Mark Warning

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.