

JDSLABS AMP+DACS Element III Handles Audio Logic for a Blissful Experience Instruction Manual

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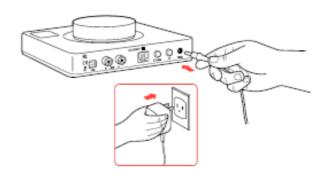


JDSLABS AMP+DACS Element III Handles Audio Logic for a Blissful Experience



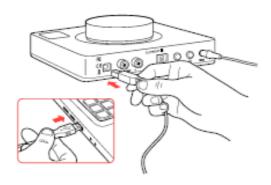
QUICK SETUP

STEP 01



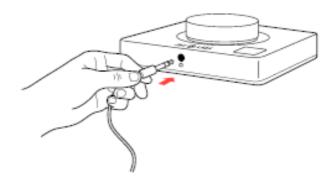
Connect AC power adapter to rear power jack (16VAC), then connect to wall outlet.

STEP 02



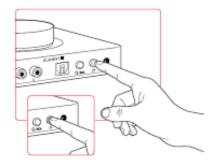
Connect USB cable between your computer and the USB jack.

STEP 03



Connect headphones to the front headphone output jack.

STEP 04



Pressing the Power button turns Element on or off. Pressing the Headphone/RCA button toggles between headphone or RCA Output modes.

STEP 05



Slowly raise the volume knob to an appropriate listening level. See Listening Tips on page 7.



Pressing the volume knob toggles between USB and Optical input. Please see Connectivity and Computer Setup for additional help.

Automatic Gain

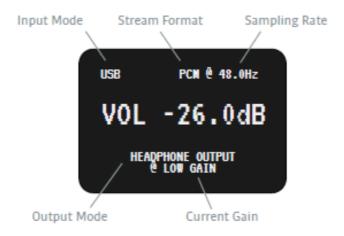
Element III handles audio logic for a blissful experience, automatically toggling the optimal gain state as you adjust volume. No thought is required on your part. Enjoy!

Low Gain is always active at volume levels from -127.5 to 0 dBFS. Continuing to turn the knob beyond 0 dB presents an on-screen progress bar, signifying a pending transition to High Gain. Element III automatically adjusts volume for a pleasant transition between gain states. You will see an effective volume range of 0 to 13.5 dB in High Gain.

Please observe safe listening habits under Listening Tips. Typical listening levels range from-50 dB to -20 dB for most dynamic and planar headphones, depending on your music collection and preferences.

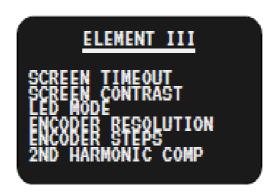
Display

Element III displays status information while you interact, then vanishes so that your focus remains on listening. Pressing down on the Volume Knob for 3+ seconds enters the Options Menu. Turn the knob to navigate up/down the options menu, and push the knob to make a selection.



Settings

Available settings are described below, with default values in bold



Screen Timeout Default: 5 seconds, with a range of 0 (never) to 120 seconds. Screen Contrast HIGH, MED, OR LOW Encoder Steps 0.5 dB 1.0 dB 2nd Harmonic Steps Default: 0, with a range of -75 to 75. Large values in either direction will increase second harmonics 3rd Harmonic Comp Default: -20, with a range of -75 to 75. Large values will increase 3rd harmonics.

DPLL BANDWIDTH

Default: 7, with a range of 0 to 15. This setting directly impacts jitter rejection, with the optimal value dependent on timing stability of your PC or audio source. Most audio sources produce stable audio when DPLL is set to 5. We have conservatively increased the default DPLL value to 7 in order to support a wider range of sources, especially modern 4k TVs. If you encounter stuttering, try increasing DPLL Bandwidth.

SPDIF DE-EMPHASIS

The default value of ON automatically enables de-emphasis when an incoming S/PDIF stream contains such a flag, and otherwise disables de-emphasis. Setting to OFF bypasses auto

de-emphasis. DAC_FILTER FAST ROLLOFF SLOW ROLLOFF MIN PHASE STATUS Displays the current firmware version, USB Stream status (Active, Inactive), and internally recovered I2C Errors. This information is intended for factory Q/C checking. Please note I2C Errors can occur from strong ESD or other interference. Element III monitors for and automatically recovers from I2C errors. Over 864,000 transmissions occur every 24 hours, so it is normal to see an accumulation of I2C recoveries over time.

FACTORY RESET

As the name suggests, Factory Reset clears all above settings to their default states. Upon reset, your Element 3 will default to -45 dB volume in Headphone Output mode via USB Input, and RCA Output will default to 0 dB.

Connectivity

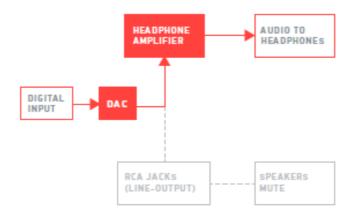
Inputs

Element III accepts digital input via USB or S/PDIF (optical). Press the volume knob to toggle between input modes.

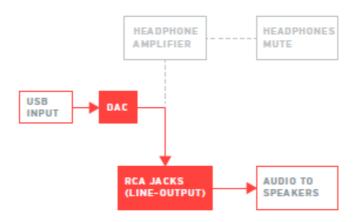
Outputs

Element III provides headphone output and RCA Preamp Outputs. Press the Headphone/RCA button on the rear to toggle between output modes. Only one output is active at a time. Volume is adjustable in either mode, and saved to memory for easy transitions. Pressing an input or output button displays the current mode on the screen.

HEADPHONE OUTPUT MODE



RCA OUTPUT MODE



USB Cables

Element III ships with a 3ft (1m) USB Type A to Type B cable equipped with a ferrite core for optimal jitter and noise rejection. You may use a Type C to Type B cable to connect to Type C devices. Be sure to transfer the detachable ferrite from your JDS Labs cable to your new cable. Use the exact same position on the new cable.

Listening Tips

Set sampling rate to the highest integer multiple of your music collection. For example, use 192kHz for a collection of 48k and 192k audio files. Common streaming services and games tend to use 48kHz audio. Alternatively, you may install the optional XMOS drivers in Win 10/11 and use an ASIO capable app to achieve bitperfect sampling rate changes. Active sampling rate is displayed on Element III's screen. By default, Element III disables host operating volume controls for maximum fidelity and plentiful D/A headroom. Note Win 10/11 may still permit system level volume adjustments. Element III can amplify headphones to dangerously loud audio. Listen safely to conserve your hearing: www.hearingloss.org

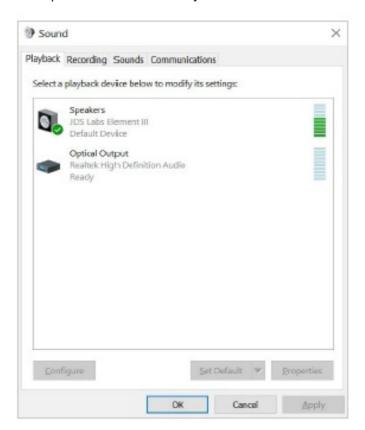
Operating Care

Element III uses a high current power supply and runs warm to the touch. Avoid covering the top and sides. Element III can be safely powered on 24/7. Do not lift the amplifier by its knob! To ensure an optimal noise floor.

always position headphone amplifiers as far away as possible from wireless devices.

Computer Setup

Element III requires no drivers in Windows 10/11, macOS, Linux, and modern versions of iOS and Android. You may download optional drivers for Windows at jdslabs.com/drivers to enable all bitrates, adjust Buffer Length (latency), and enable an ASIO endpoint. Be sure to select your new DAC as the default playback device:



- 1. Right click the volume icon in your taskbar and click: Open Sound Setting Sound Control Panel
- 2. Click on "JDS Labs Element III," then choose "Set Default." Please refer to Listening Tips for optimal properties

macOS

Ensure JDS Labs audio device is selected from Audio Devices.

Troubleshooting

No USB device or "Failed to Play Audio" Cause: USB Device is not initialized. Solution: Turn Element III off, then back on to reset the USB device. The amplifier does not turn on Cause: Missing, damaged, or loose power adapter connection. Solution: Please see jdslabs.com/troubleshooting LEDs flash repeatedly, or screen does not respond Cause: Element III constantly self-monitors to automatically correct potential error states. Flashing LEDs or no screen activity indicate no response from the XMOS processor despite internal reset attempts. This may be caused by a power surge or extreme ESD event. Solution: Please turn Element III off for at least 1 minute, and then back on. If behavior persists, please reach out to jdslabs.com/support Element III reboots during use Cause: Element III is designed to detect insufficient AC mains power and may reboot when subjected to a severe brownout. Solution: Ensure clean power is provided. No sound from headphones Cause: Wrong mode or incorrect connectivity setup. Solution: Please see the Connectivity section. Double-check all cabling and volume levels

Power Adapters

ATTENTION: Incorrect power adapters can result in capacitor explosion hazards and device damage. Only use the power adapter included with your Element:

1. Type: AC-to-AC Transformer: Output Voltage: 16 VAC

2. Current: Minimum 1000mA: Connector: 2.1×55.mm (ID x OD)

Documents / Resources



JDSLABS AMP+DACS Element III Handles Audio Logic for a Blissful Experience [pdf] Inst ruction Manual

AMP DACS Element III Handles Audio Logic for a Blissful Experience

References

- @ JDS LABS _ Makers of the Element and Atom Headphone Amps + DACs
- @ Drivers & Firmware JDS Labs Customer Support
- <u>Ontact _ JDS Labs Customer Support</u>
- @ Troubleshooting JDS Labs Customer Support

Manuals+,