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OPERATING INSTRUCTIONS | AMP+DACs

# ELEMENT III

## SUPPORT

### ONLINE

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CONTACT@JDSLABS.COM  
JDSLABS.COM/SUPPORT

### BY PHONE

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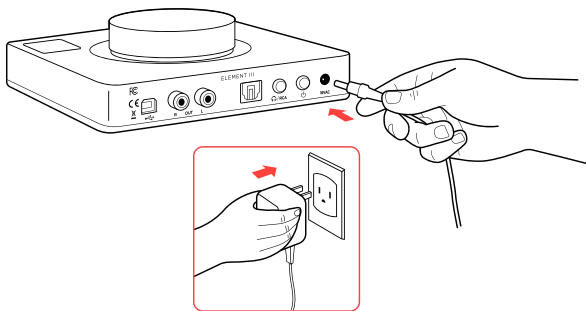
314-252-0936  
9:30AM-6PM CST,  
MONDAY THROUGH FRIDAY

### BY MAIL

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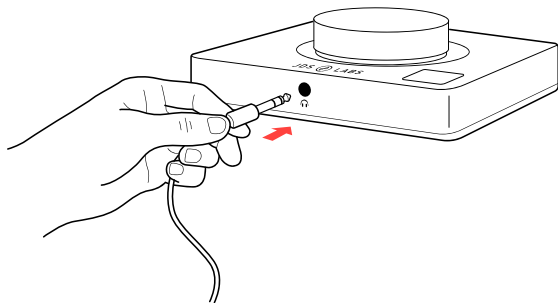
909 N BLUFF RD  
COLLINSVILLE, IL 62234  
UNITED STATES

# QUICK SETUP



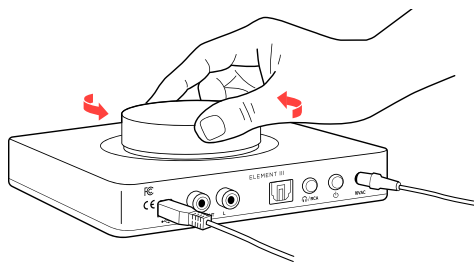
## STEP 01

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



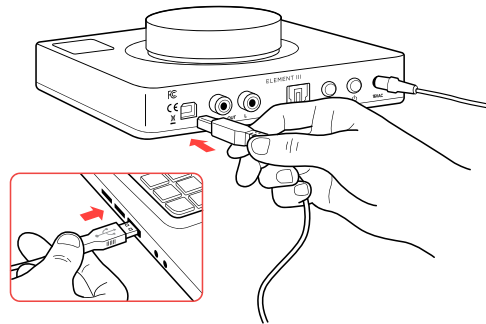
## STEP 03

Connect headphones to the front headphone output jack.



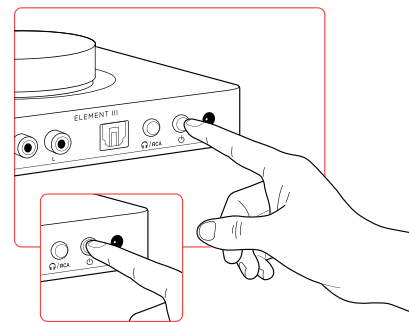
## STEP 05

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



## STEP 02

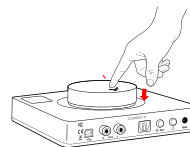
Connect USB cable between your computer and the USB jack.



## STEP 04

Pressing the Power button turns Element on or off.

Pressing the Headphone/RCA button toggles between headphone or RCA Output modes.



Pressing the volume knob toggles between USB and Optical input.

Please see *Connectivity and Computer Setup* for additional help.

# CONFIGURATION

## 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!

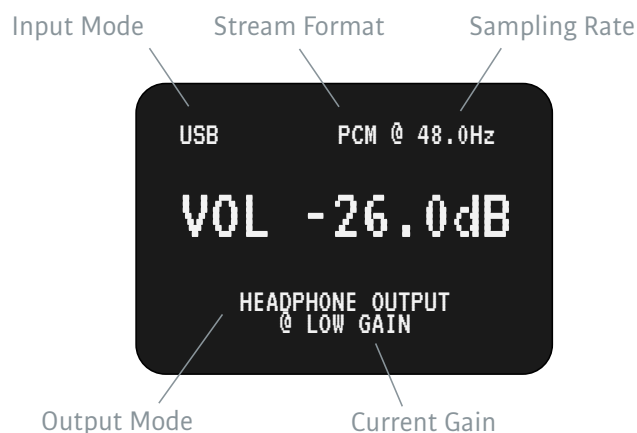
Low Gain is always active at volume levels from -127.5 to 0 dBFS. Continuing to turn the knob beyond 0 dB presents an on-screen progress bar, signifying a pending transition to High Gain. Element III automatically adjusts volume for a pleasant transition between gain states. You will see an effective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

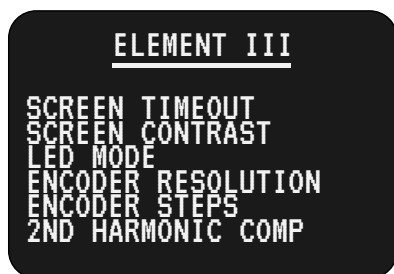
Pressing down on the Volume Knob for 3+ seconds enters the Options Menu. Turn the knob to navigate up/down the options menu, and push the knob to make a selection.



# OPTIONS MENU

## 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

### LED Mode

**ON** LEDs will remain on while Element III is on.  
 5 MIN STANDBY LEDs will power off after 5 min of USB inactivity, and resume with audio.  
 WITH SCREEN LEDs will power off while the screen is off.

### Encoder Resolution

**FULL**, LOW Determines how quickly the volume knob responds to motion.

### 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

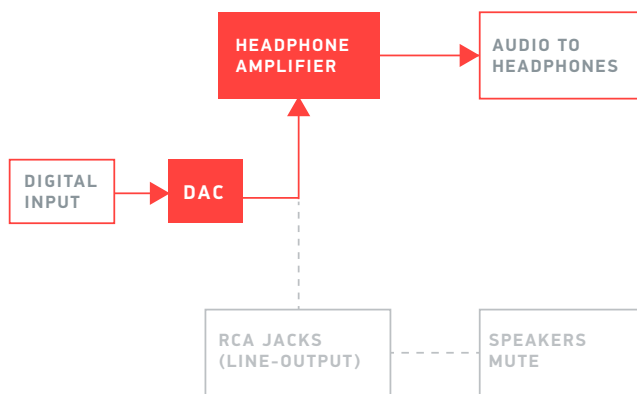
Element III accepts digital input via USB or S/PDIF (optical). Press the volume knob to toggle between input modes.

## Outputs

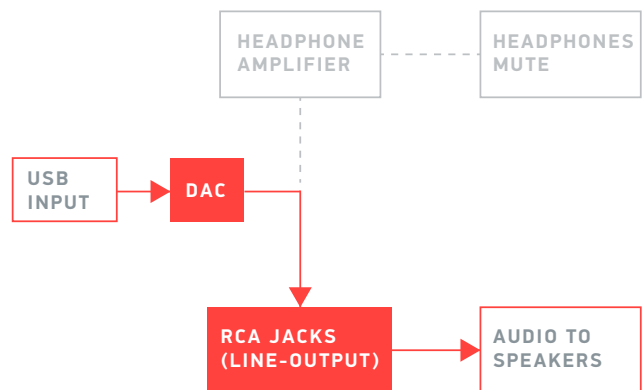
Element III provides headphone output and RCA Preamp Outputs. Press the Headphone/RCA button on the rear to toggle between output modes. Only one output is active at a time. Volume is adjustable in either mode, and saved to memory for easy transitions.

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

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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.

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Element III can amplify headphones to dangerously loud audio. Listen safely to conserve your hearing:  
[www.hearingloss.org](http://www.hearingloss.org)

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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.

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# Operating Care

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Element III uses a high current power supply and runs warm to the touch. Avoid covering the top and sides.

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Do not lift the amplifier by its knob!

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Element III can be safely powered on 24/7.

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To ensure an optimal noise floor, always position headphone amplifiers as far away as possible from wireless devices.

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# SETUP

## 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](https://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:

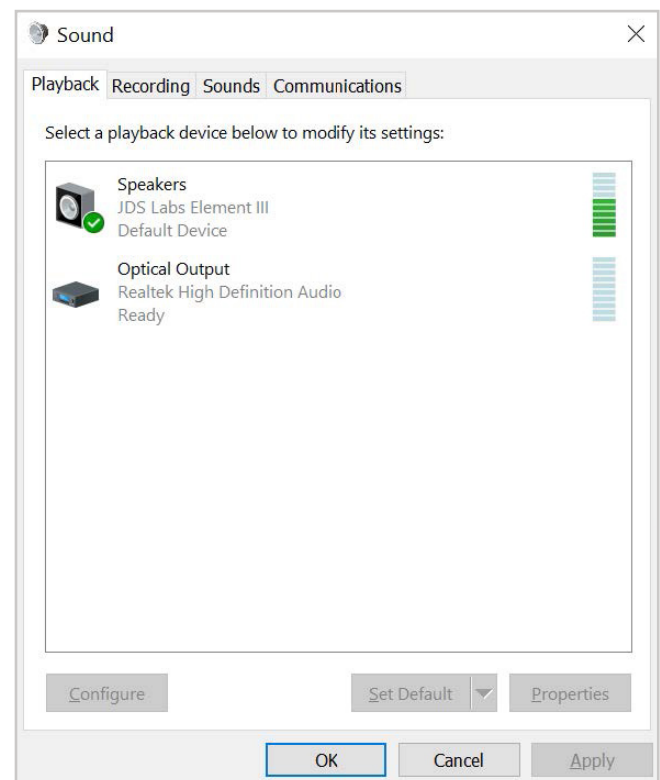
### Windows 10/11

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.

## Amplifier does not turn on

**Cause:** Missing, damaged, or loose power adapter connection.

**Solution:** Please see [jdslabs.com/troubleshooting](https://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](https://jdslabs.com/support)

## Element III reboots during use

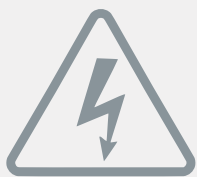
**Cause:** Element III is designed to detect insufficient AC mains power, and may reboot when subjected to a severe brownout.

**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:

|                            |                                |
|----------------------------|--------------------------------|
| Type: AC-to-AC Transformer | Output Voltage: 16 VAC         |
| Current: Minimum 1000mA    | Connector: 2.1x55.mm (ID x OD) |



Application for Council Directives 2004/108/EC, 2006/95/EC, 2002/95/EC. Conformity declared for EN55022:2011, EN611000-3-2, EN61000-3-3, EN55024-2



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.