CIRCUITMESS CIRCUITMESS-JAYD-DIY

CircuitMess Jay-D DIY DJ Mixer Kit Instruction Manual

Model: CIRCUITMESS-JAYD-DIY

1. Introduction

The CircuitMess Jay-D is a do-it-yourself (DIY) DJ mixer kit designed to introduce users to electronics, sound production, and coding. This manual provides comprehensive instructions for assembling, operating, and maintaining your Jay-D mixer, along with troubleshooting tips and product specifications.

The kit allows you to build your own functional DJ mixer, learn about digital audio systems, and even program custom sound effects and light shows. It is suitable for ages 11 and up, offering a hands-on STEM educational experience.

2. KIT CONTENTS

Before beginning assembly, please verify that all components listed below are present in your kit. If any parts are missing or damaged, please contact CircuitMess customer support.

- Main circuit board
- · Display board
- · Acrylic casing pieces
- Bag of small components (resistors, capacitors, LEDs, etc.)
- · Two 5W speakers
- Custom-made plate knobs
- USB-C cable for charging and programming
- · Micro SD card with preloaded beats

What will you get? USB-C cable Micro SD card speakers for charging with preloaded and programming Please note that this educational STEM kit does not include the necessary tools for building. Tools must be purchased or owned separately before beginning assembly.

Image: All components of the CircuitMess Jay-D kit, including circuit boards, speakers, knobs, and acrylic casing, neatly arranged for inspection.

Note: This educational STEM kit does not include necessary tools for building, such as a soldering iron, soldering wire, screwdriver, or pliers. These tools must be purchased or owned separately before beginning assembly.

3. SETUP AND ASSEMBLY

The Jay-D kit requires assembly, including soldering. It is recommended to follow the detailed step-by-step build guide available online from CircuitMess for the most accurate and up-to-date instructions. Assembly typically takes approximately 4 hours.

- 1. **Prepare Your Workspace:** Ensure you have a clean, well-lit, and ventilated area. Gather all necessary tools, including a soldering iron, solder, wire cutters, and a screwdriver.
- 2. **Component Identification:** Familiarize yourself with all the components by comparing them to the kit contents list and the online build guide.
- 3. Soldering Components: Carefully solder the small electronic components onto the main circuit board as instructed

in the online guide. Pay close attention to component orientation (e.g., polarity of LEDs, diodes, and electrolytic capacitors).

- 4. Assemble Boards: Connect the display board to the main circuit board.
- 5. Install Speakers: Attach the two 5W speakers to their designated positions.
- 6. **Casing Assembly:** Enclose the assembled electronics within the acrylic casing pieces. Secure them using the provided screws.
- 7. Attach Knobs: Place the custom-made plate knobs onto their respective potentiometers and encoders.
- 8. **Initial Power-Up:** Once assembled, connect the USB-C cable to the Jay-D and a power source to ensure it powers on correctly.



Image: A close-up of hands assembling the CircuitMess Jay-D, demonstrating the connection of the main circuit board and speakers.



Image: Two children engaged in the assembly process of the Jay-D kit, highlighting the collaborative and educational aspect of the build.

For detailed visual instructions, refer to the official CircuitMess build guide online. A link to the guide can typically be found on the CircuitMess website or by scanning a QR code provided in the kit packaging.

4. OPERATING YOUR JAY-D DJ MIXER

The Jay-D DJ mixer is designed for mixing and manipulating audio tracks. It features two simultaneous playback slots, BPM control, a color LCD screen, sound effects, equalizers, and LED visual effects.

4.1 Basic Operation

- 1. Power On: Press the power button to turn on your Jay-D. The LCD screen will illuminate.
- 2. **Load Tracks:** The micro SD card comes preloaded with several sound effects and a collection of African tunes. Use the navigation controls and LCD screen to select and load tracks into the two playback slots.
- 3. Mix and Manipulate:

- Use the various knobs and sliders to control volume, adjust BPM (Beats Per Minute), apply sound effects, and modify equalization settings for each track.
- The LED lights will respond to your music, providing visual feedback.
- 4. **Adding Your Own Music:** You can add your own music files to the micro SD card via a Micro-USB connection to a computer. Refer to the online guide for supported audio formats.



Image: The fully assembled CircuitMess Jay-D DJ mixer, showcasing its illuminated screen and active LED lights, ready for use.

4.2 Programming and Customization

The Jay-D is designed to be programmable, allowing users to learn coding and create custom functionalities.

- Connect to Computer: Use the USB-C cable to connect your Jay-D to a computer.
- Access Programming Environment: CircuitMess provides an online programming environment (often block-based for beginners, with options for text-based coding like C++) to create custom programs.
- **Develop Custom Programs:** You can program new sound effects, modify existing ones, create unique light shows, or even develop new applications for your Jay-D.

• Upload Programs: Once your program is complete, upload it to your Jay-D via the USB-C connection.

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Video: An official CircuitMess video demonstrating the Jay-D DJ mixer in action, highlighting its features and the process of building and coding it. This video showcases the educational aspects of electronics and programming.

5. MAINTENANCE

Proper care and maintenance will ensure the longevity of your CircuitMess Jay-D DJ Mixer.

- Cleaning: Use a soft, dry cloth to clean the acrylic casing and display. Avoid abrasive cleaners or solvents that could damage the plastic or electronic components.
- Storage: Store the Jay-D in a cool, dry place away from direct sunlight and extreme temperatures.
- **Component Inspection:** Periodically inspect soldered joints for any signs of cracking or corrosion. If necessary, resolder any loose connections (this should only be done by someone experienced with soldering).
- **Software Updates:** Check the CircuitMess website regularly for firmware updates or new programming features for your Jay-D.
- SD Card Care: Handle the micro SD card carefully. Avoid touching the gold contacts and ensure it is inserted and removed correctly to prevent data corruption.

6. TROUBLESHOOTING

If you encounter issues with your Jay-D, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Jay-D does not power on.	 Loose power connection. Faulty USB-C cable or power adapter. Incorrectly soldered power components. 	 Ensure USB-C cable is securely connected to both Jay-D and power source. Try a different USB-C cable and power adapter. Inspect soldered joints on the main circuit board, especially around the power input.
No sound from speakers.	 Speakers not connected properly. Volume too low. Corrupted audio files on SD card. 	 Check speaker connections to the main board. Increase volume using the knobs. Reformat the SD card and reload original beats, or try different audio files.
LCD screen is blank or distorted.	Display board not connected securely.Damaged display cable.	 Ensure the display board is firmly seated in its connector. Inspect the display cable for any visible damage.

Problem	Possible Cause	Solution
Cannot upload custom code.	 Incorrect drivers installed. USB connection issue. Firewall or antivirus blocking connection. 	 Verify correct drivers are installed for the Jay-D on your computer. Try a different USB port or computer. Temporarily disable firewall/antivirus to test connection.

For more detailed troubleshooting or issues not listed here, please visit the official CircuitMess support page or community forums.

7. SPECIFICATIONS

Feature	Detail
Model Number	CIRCUITMESS-JAYD-DIY
Dimensions (Assembled)	5.12 x 4.53 x 2.36 inches (13 x 11.5 x 6 cm)
Weight	1.1 pounds (0.5 kg)
Material	Acrylic casing
Power Source	Corded Electric (USB-C)
Number of Channels	2
Connectivity Technology	Auxiliary, USB
Output Connector Type	TRS, RCA
Display	Color LCD screen
Audio Output	Two 5W speakers
Storage	Micro SD card (preloaded with beats)
Recommended Age	11+ years

8. WARRANTY AND SUPPORT

For information regarding product warranty, returns, or technical support, please visit the official CircuitMess website or contact their customer service directly. Details are typically available in the product packaging or on the CircuitMess support portal.

CircuitMess Official Website: www.circuitmess.com



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