MOOG MOD-WK-MAVIS-U

MOOG Mavis - Instruction Manual

Standalone Semi-Modular Analog Synthesizer Kit

1. Introduction

The MOOG Mavis is a powerful and versatile semi-modular analog synthesizer kit designed for both beginners and experienced synthesists. It offers the unmistakable Moog sound in a compact, build-it-yourself format. Mavis can be used as a standalone instrument or integrated into a Eurorack system, providing extensive patching capabilities and unique sound design opportunities with its analog oscillator, filter, envelope generator, and wavefolder.

Image: The MOOG Mavis semi-modular analog synthesizer with green patch cables connected to its patch bay.

2. Setup and Assembly

The Mavis comes as a kit, allowing for a hands-on assembly experience. Follow these steps to set up your synthesizer:

1. **Unboxing and Inventory:** Carefully unpack all components from the box. Verify that all parts listed in the included "Complete Kit" are present: PCB, Front Panel, Bottom Enclosure, Protective Cover, Power Supply, Nut Driver, Calibration Tool, Fastener Kit, Patch Cables, Assembly Instruction, Quickstart Guide, Patch Overlays, Product Catalog, and Registration Card.

Image: All components of the MOOG Mavis kit, including the circuit board, front panel, enclosure, power supply, tools, and patch cables.

2. **Assembly:** Refer to the detailed "Assembly Instruction" guide provided in the kit. This guide will walk you through the process of attaching the PCB to the front panel, securing it within the bottom enclosure, and installing the necessary knobs and jacks.
3. **Power Connection:** Connect the provided power supply to the Mavis unit. Ensure the power supply is appropriate for your region's voltage.
4. **Initial Power On:** Once assembled and powered, the Mavis is ready for initial use. The unit does not have a dedicated power switch; it powers on when connected to the power supply.
5. **Dust Cover:** Use the custom clear dust cover to protect your Mavis when not in use.

Image: The MOOG Mavis synthesizer resting on a surface with its clear protective dust cover placed over it.

6. **Eurorack Integration (Optional):** Mavis can be removed from its case and installed as a 44HP Eurorack module. This allows for integration with other Eurorack modules and Moog semi-modular instruments. Refer to the assembly instructions for detailed steps on Eurorack mounting.

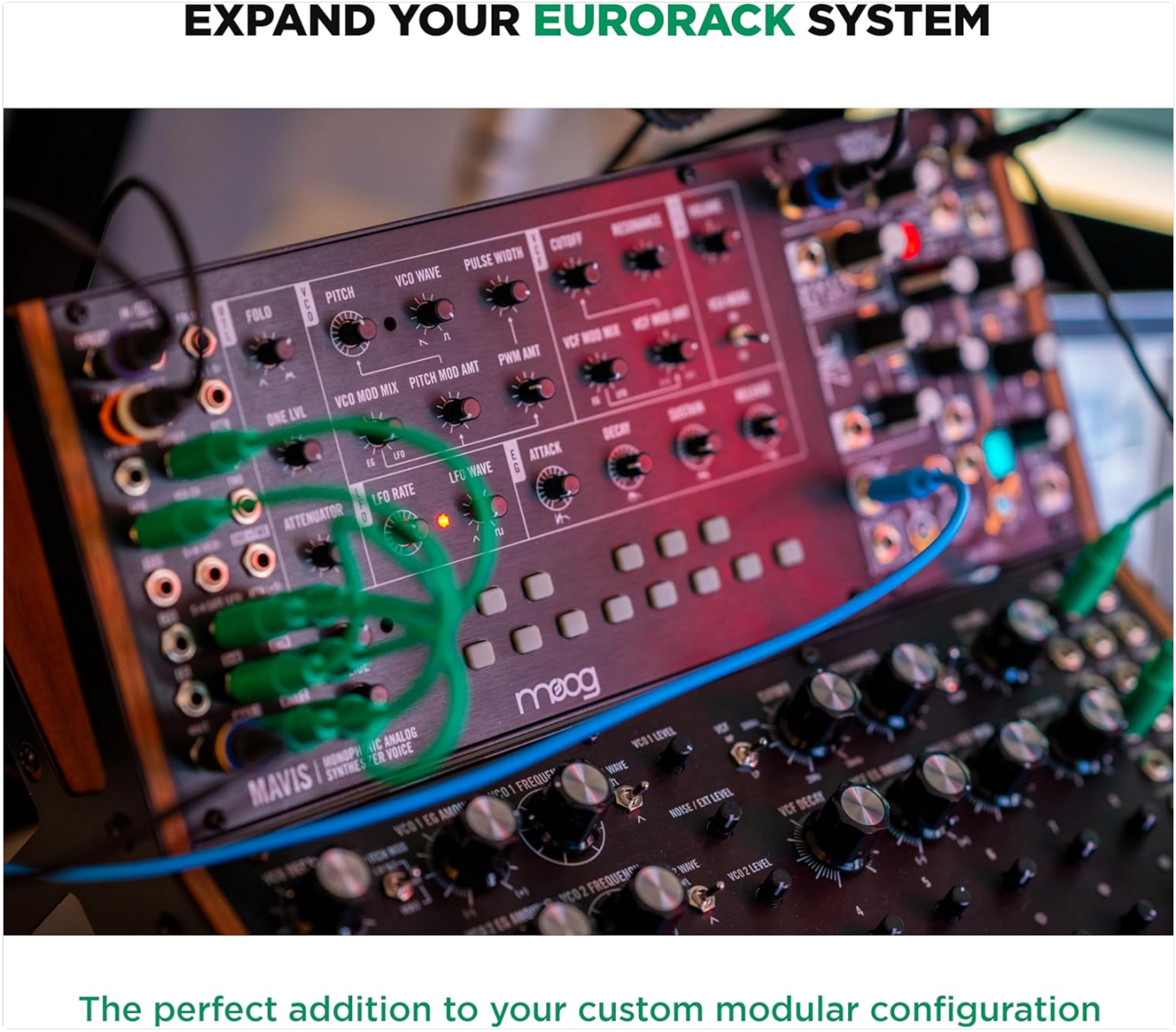

Image: The MOOG Mavis synthesizer integrated into a larger Eurorack modular system, connected with various patch cables to other modules.

3. Operating Instructions

The Mavis features a comprehensive set of controls for sound design. Familiarize yourself with the main sections:

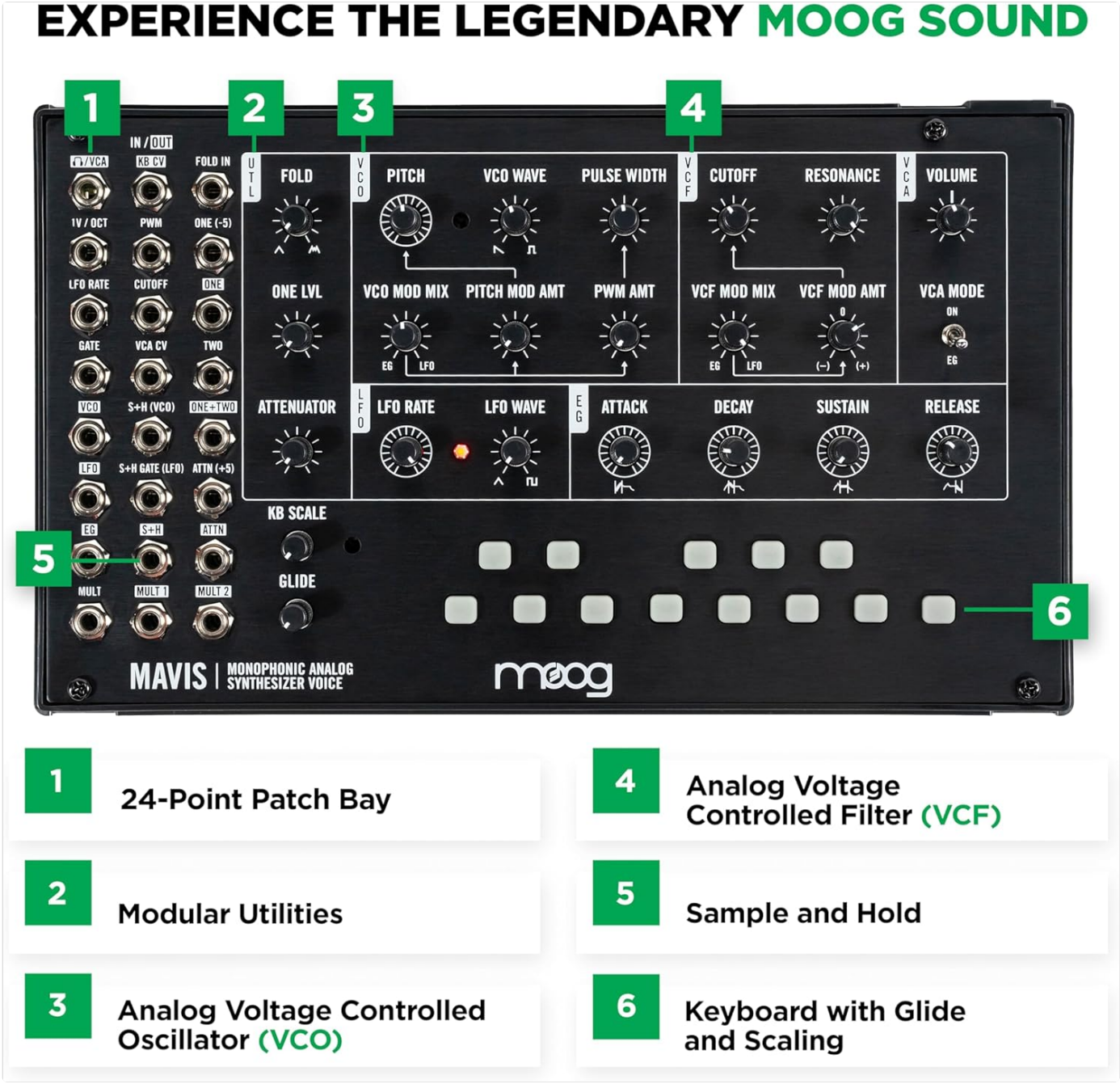

Image: A detailed diagram of the MOOG Mavis front panel, highlighting key sections such as the 24-Point Patch Bay, Modular Utilities, Analog Voltage Controlled Oscillator (VCO), Analog Voltage Controlled Filter (VCF), Sample and Hold, and Keyboard with Glide and Scaling.

3.1. Key Features and Controls

- **24-Point Patch Bay:** This extensive patch bay allows for flexible routing and modulation, enabling complex soundscapes and integration with other modular gear.
- **Analog Voltage Controlled Oscillator (VCO):** Generates the primary sound waves. Controls include Pitch, VCO Wave (waveform selection), Pulse Width, and modulation amounts.
- **Analog Voltage Controlled Filter (VCF):** Shapes the timbre of the sound. Controls include Cutoff, Resonance, and modulation amounts.
- **Envelope Generator (ADSR):** Controls the amplitude over time with Attack, Decay, Sustain, and Release parameters.
- **Low Frequency Oscillator (LFO):** Provides modulation for various parameters, with controls for LFO Rate and LFO Wave (waveform selection).
- **Diode Wavefolder:** A unique feature for additive synthesis, adding rich harmonics to the sound.
- **Sample and Hold (S+H):** Generates stepped random voltages for modulation.
- **Keyboard with Glide and Scaling:** A built-in 13-key keyboard for playing melodies and exploring pitch relationships, with adjustable glide and keyboard scaling.

3.2. Basic Sound Creation

To begin creating sounds, connect the Mavis to an audio output. You can use the built-in keyboard or an external CV/Gate source.

- **Oscillator:** Adjust the VCO Pitch and select a waveform (e.g., square, saw).
- **Filter:** Experiment with the VCF Cutoff and Resonance to shape the sound.
- **Envelope:** Adjust the ADSR controls to create different attack and release characteristics for your sound.
- **Wavefolder:** Turn up the Fold control to introduce harmonic richness.
- **Patching:** Use the included patch cables to connect different points on the patch bay. For example, connect the LFO output to the VCO Pitch input for vibrato, or the EG output to the VCF Cutoff for dynamic filter sweeps.

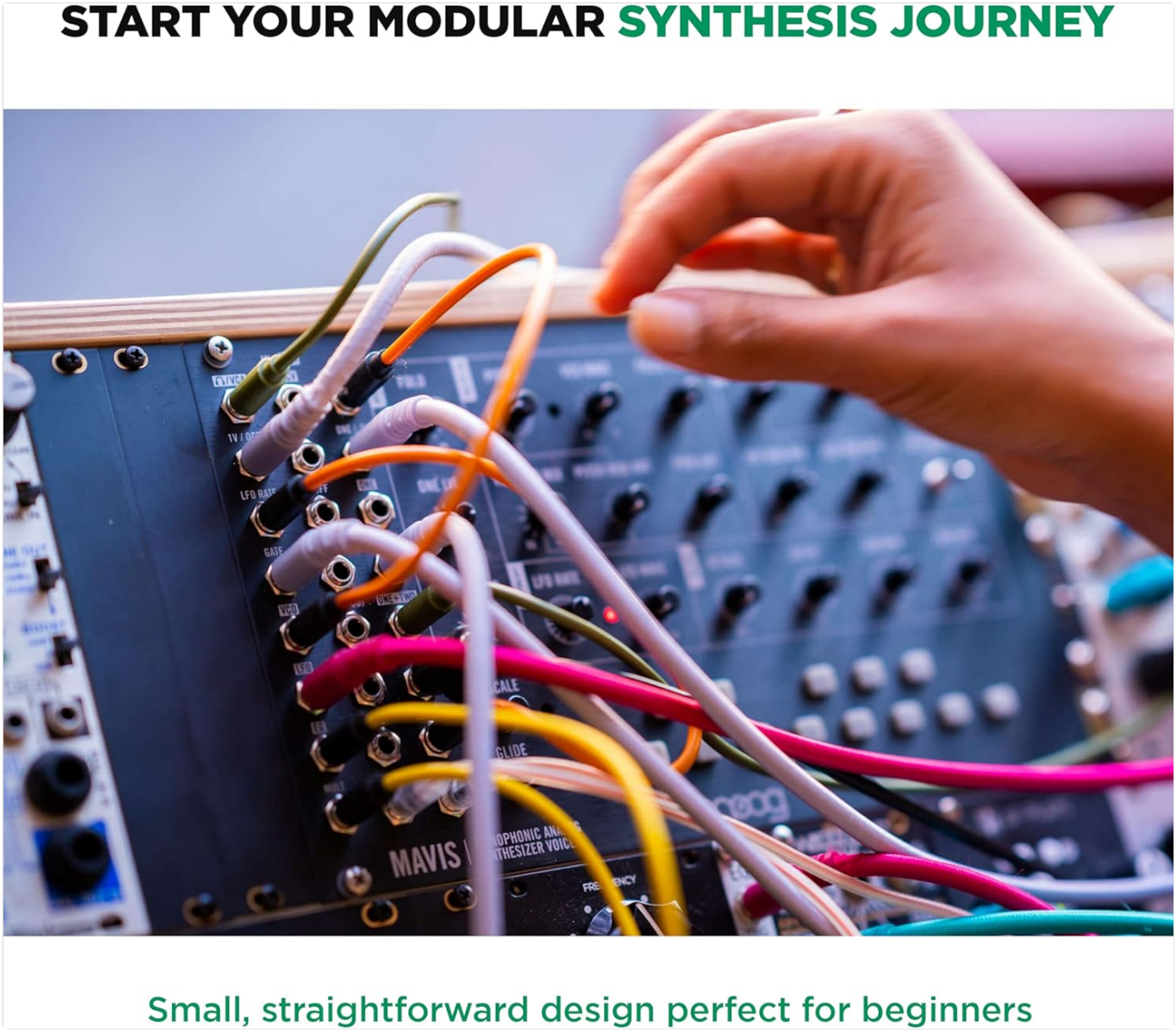

Image: A close-up of hands connecting patch cables on the MOOG Mavis, demonstrating its modular capabilities.

3.3. Using Patch Overlays

The Mavis kit includes several patch overlays (templates) to help you explore different sounds and learn patching techniques. These overlays fit directly over the Mavis panel, indicating specific knob settings and patch cable connections for various sounds like "Buzz Saw," "Folding Bass," and "Foldable Kick Drum."

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Video: A detailed demonstration of the MOOG Mavis synthesizer, showcasing its features, assembly process, and how to use the included patch overlays to create various sounds. This video is provided by Austin Bazaar, a seller of the product.

Place an overlay on the Mavis. Adjust the knobs to match the indicated positions on the overlay. Connect patch cables as shown by the green lines on the overlay. This provides a quick way to achieve specific sounds and understand signal flow.

4. Maintenance

To ensure the longevity and optimal performance of your MOOG Mavis, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to wipe down the unit. Avoid abrasive cleaners or solvents that could damage the finish or controls.
- **Dust Protection:** Always use the provided dust cover when the Mavis is not in use to prevent dust and debris from accumulating on the controls and inside the unit.
- **Storage:** Store the Mavis in a cool, dry place away from direct sunlight, extreme temperatures, and high humidity.
- **Calibration:** Over time, analog synthesizers may require recalibration to maintain accurate pitch tracking and stable performance. Refer to the "Calibration Tool" and instructions provided in the kit for guidance. If you are unsure, consult a qualified technician.

5. Troubleshooting

If you encounter issues with your MOOG Mavis, try the following troubleshooting steps:

Problem	Possible Cause	Solution
No Sound Output	Incorrect audio connections, Volume knob set too low, VCA Mode switch off.	• Ensure audio output is connected to an amplifier/speakers. • Turn up the Volume knob. • Set the VCA Mode switch to 'ON' or 'EG'. • Check patch cable connections if using the patch bay.
Unstable Pitch	Unit not warmed up, Environmental changes, Calibration needed.	• Allow 15-20 minutes for the analog circuits to warm up after powering on. • Ensure stable room temperature. • Perform calibration as per the manual if issues persist.
Controls Not Responding	Incorrect patching, Loose connections.	• Review your patch cable connections, especially if using patch overlays. • Ensure all knobs are securely attached and not loose.
Power Issues	Faulty power supply, Loose power connection.	• Verify the power supply is correctly plugged into the unit and a working outlet. • Ensure the power supply is the correct one provided with the Mavis.

6. Specifications

- **Model Name:** Mavis
- **Model Number:** MOD-WK-MAVIS-U
- **Brand:** MOOG
- **Item Weight:** 0.43 Kilograms (15.1 ounces)
- **Product Dimensions:** 9 x 5.25 x 1.5 inches
- **Body Material:** Plastic
- **Finish Type:** Black Painted
- **Number of Keyboard Keys:** 13
- **Connector Type:** MIDI USB (Note: While listed, the Mavis primarily uses CV/Gate for connectivity. MIDI USB might refer to internal components or future expansion, but direct MIDI USB connectivity for performance is not a primary feature of the Mavis itself based on typical Moog semi-modular designs.)
- **Included Components:** PCB, Front Panel, Bottom Enclosure, Protective Cover, Power Supply, Nut Driver, Calibration Tool, Fastener Kit, Patch Cables, Assembly Instruction, Quickstart Guide, Patch Overlays, Product Catalog, Registration Card.

- **Country of Origin:** USA
- **UPC:** 040232557811

7. Warranty and Support

For warranty information, technical support, or service inquiries, please refer to the "Registration Card" and "Product Catalog" included in your MOOG Mavis kit. You can also visit the official MOOG website for the most up-to-date support resources and contact information.
Online Resources:

- MOOG Music Official Website
- MOOG Store on Amazon