KeeYees JK11-C1

KeeYees CH341A USB Programmer and SOIC8 SOP8 Test Clip User Manual

Model: JK11-C1

1. INTRODUCTION

This manual provides instructions for the KeeYees CH341A USB Programmer and SOIC8 SOP8 Test Clip. This device is designed for reading, writing, erasing, and verifying EEPROM chips, particularly those in the 24 and 25 series, commonly found in BIOS, routers, and other embedded systems. The SOP8 test clip facilitates in-circuit programming without the need for desoldering the chip.

For detailed PDF tutorials, CH341A software, and drivers, please refer to the information provided via email after purchase. If you have not received these resources, please contact KeeYees customer support.

2. SAFETY INFORMATION

- Always handle electronic components with care to prevent electrostatic discharge (ESD) damage. Use an anti-static wrist strap if available.
- Ensure the device being programmed is powered off and disconnected from its power source before connecting the programmer or test clip.
- Do not apply excessive force when attaching the SOP8 clip to a chip to avoid damaging the chip or the clip.
- Verify chip compatibility and voltage requirements before programming. Incorrect voltage or incompatible chips can cause permanent damage.
- Keep the device away from moisture and extreme temperatures.

3. PACKAGE CONTENTS

The package typically includes the following components:

- CH341A USB Programmer
- SOIC8 SOP8 Test Clip

- SOP8 to DIP8 Adapter (for wide-body chips)
- SOP8 to DIP8 Adapter (for narrow-body chips)
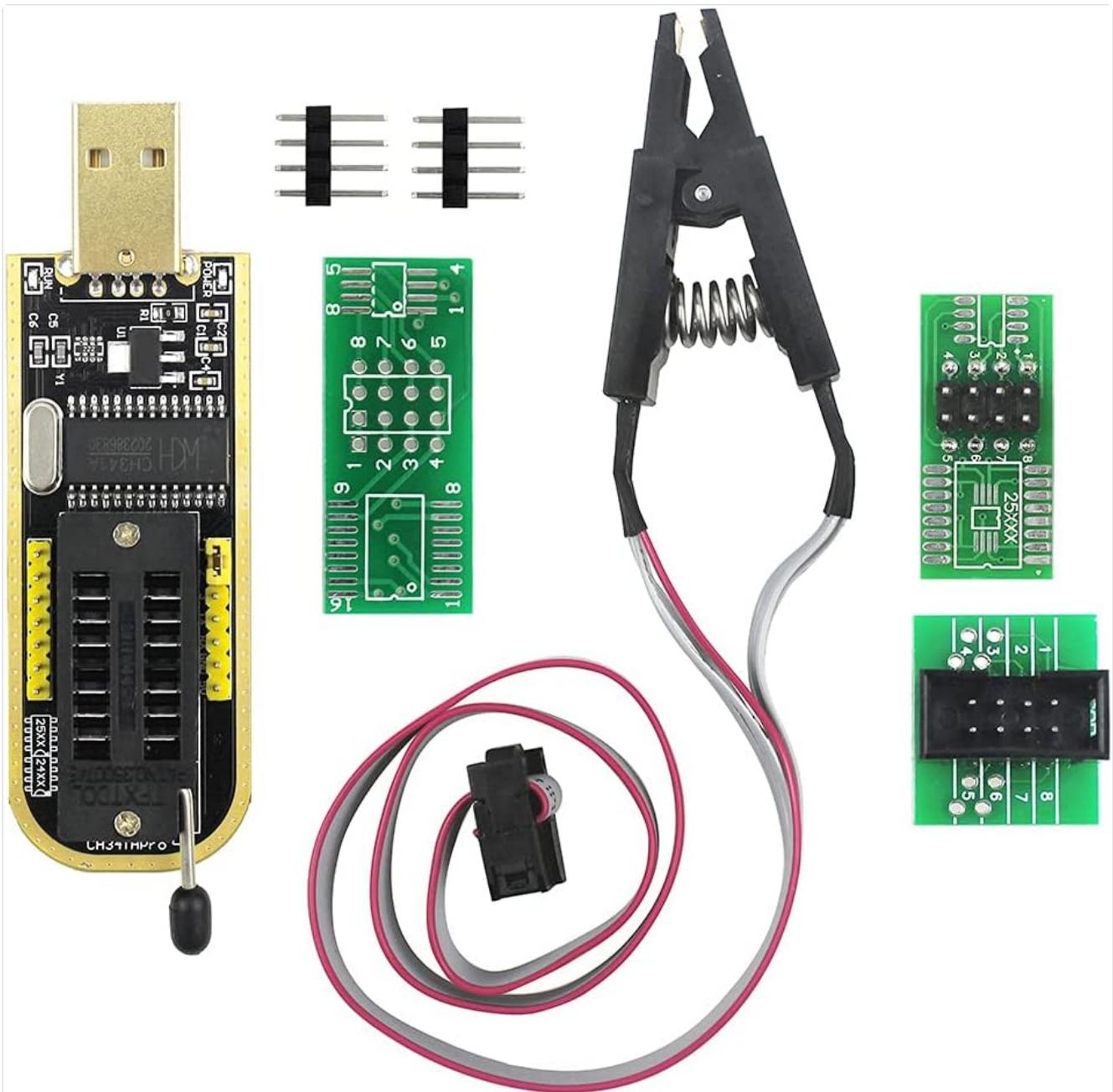- 8-pin and 4-pin headers (for connecting to adapter boards)

Image 1: Complete kit including the CH341A programmer, SOP8 test clip, and various adapters.

4. PRODUCT OVERVIEW

4.1 CH341A USB Programmer

The CH341A programmer is a versatile tool for EEPROM operations. It features a USB interface for connection to a computer and various pin headers for connecting to chips or adapter boards.
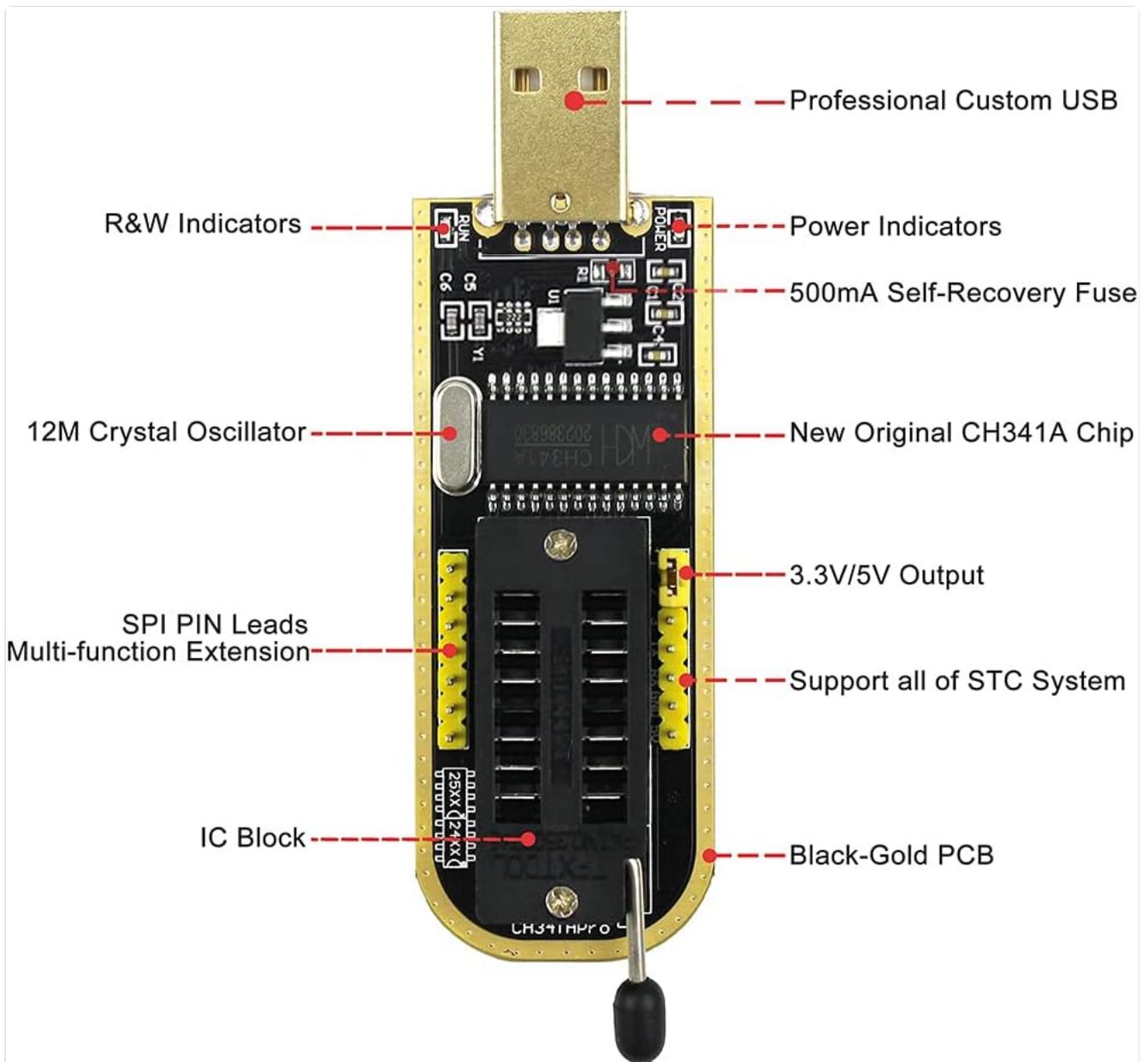
Image 2: Detailed view of the CH341A USB programmer, highlighting its components such as the USB interface, R&W indicators, power indicators, 500mA self-recovery fuse, 12M crystal oscillator, CH341A chip, 3.3V/5V output, SPI PIN leads, multi-function extension, IC block, and black-gold PCB.

- **Professional Custom USB:** Standard USB-A connector for computer connection.
- **R&W Indicators:** LEDs indicating read and write operations.
- **Power Indicators:** LEDs indicating power status.
- **500mA Self-Recovery Fuse:** Provides overcurrent protection.
- **12M Crystal Oscillator:** For stable timing.
- **New Original CH341A Chip:** The core processing unit.
- **3.3V/5V Output:** Selectable voltage output for different chips.
- **SPI PIN Leads** / **Multi-function Extension:** For connecting to external circuits or adapters.
- **IC Block:** Socket for directly inserting DIP-packaged chips.
- **Black-Gold PCB:** High-quality circuit board.

4.2 SOIC8 SOP8 Test Clip and Adapters

The SOP8 test clip is designed for in-circuit programming of SOP8 chips. It comes with adapter boards for various chip configurations.
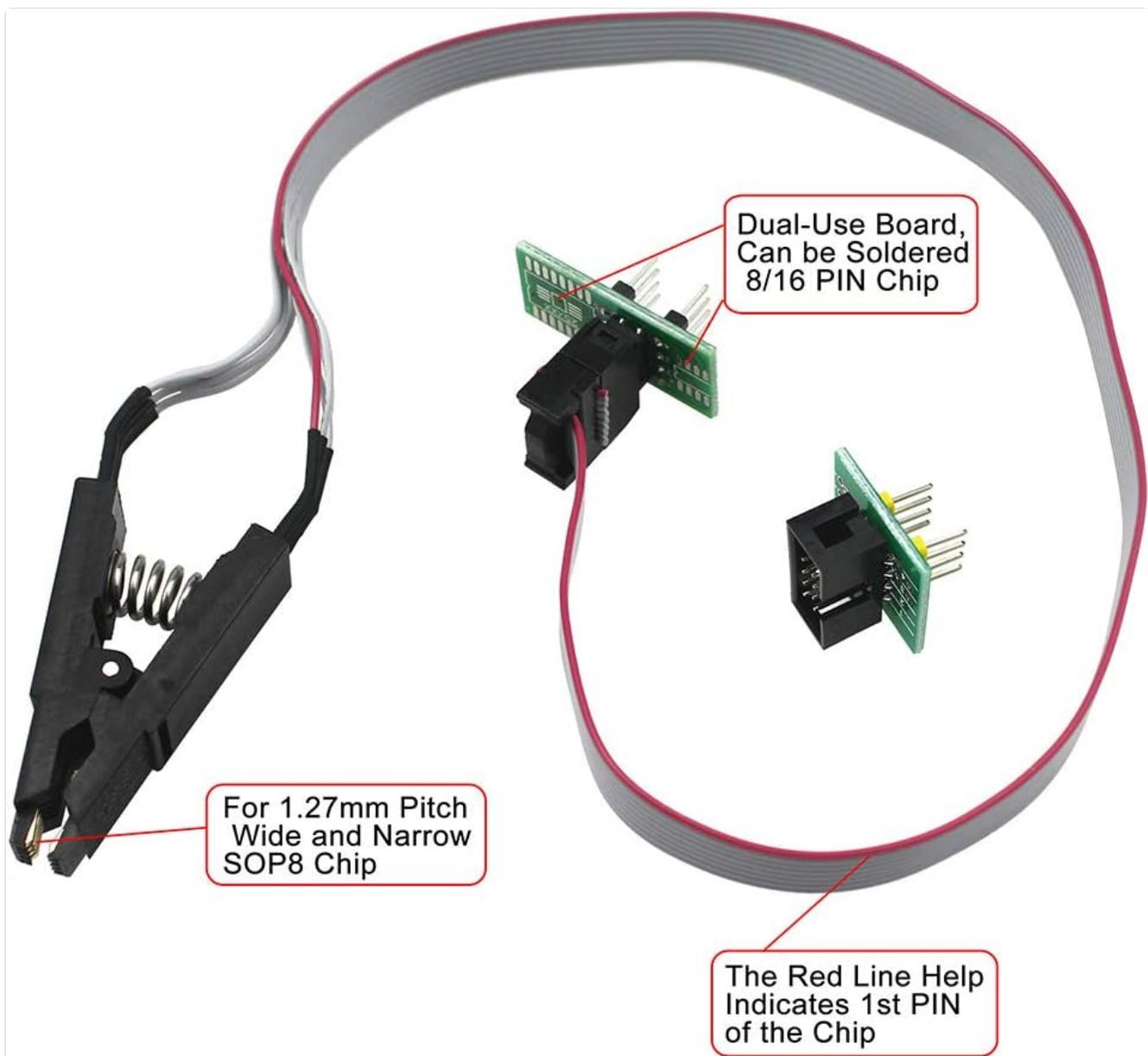
Image 3: The SOP8 test clip and dual-use adapter boards. The red line on the ribbon cable indicates the first pin of the chip. The clip is suitable for 1.27mm pitch wide and narrow SOP8 chips.

- **SOP8 Test Clip:** Allows connection to SOP8 chips without desoldering. Supports both wide-body and narrow-body SOP8 chips with a 1.27 mm pitch.
- **Dual-Use Board:** Adapter boards that can be soldered for 8/16 PIN chips or used with the clip.
- **Red Line Indicator:** The red line on the ribbon cable connected to the clip indicates the first pin (Pin 1) of the chip for correct orientation.

5. COMPATIBILITY

The CH341A programmer supports most 24/25 series EEPROM-SOP8 chips. However, it is crucial to verify your specific chip model against the compatible list provided in the software documentation. Some chips, such as ESMT SST Class 25, are read-only and cannot be written to with this programmer.

Important Considerations Before Purchase:

1. The programmer supports most 24/25 series SOP8 EEPROM chips, but not all. Ensure your chip model is within the compatible range listed in the provided software documentation.
2. Due to the characteristics of the CH341A chip, ESMT SST Class 25 chips are read-only and cannot be written

to.

3. Some chips are affected by peripheral circuits and cannot be directly clipped. Verify the chip's location on the motherboard and ensure sufficient space around the chip for the clip. The clip's end thickness is approximately 3 mm, and its width is 6 mm.

Image 4: Example compatibility lists for 25 Series and 24 Series BIOS chips, along with screenshots of the software interface and tutorial steps.

6. SETUP

6.1 Driver and Software Installation

1. Obtain the latest drivers and software for the CH341A programmer. These are typically provided via email after purchase or can be downloaded from the manufacturer's website.

2. Install the CH341A drivers on your computer. Follow any on-screen instructions.

3. Install the programming software.

6.2 Connecting the Programmer and Clip

1. Ensure the target device (e.g., motherboard, router) is completely powered off and unplugged.

2. Identify the target SOP8 EEPROM chip on the circuit board.

3. Carefully attach the SOP8 test clip to the EEPROM chip. Ensure all pins of the clip make firm contact with the corresponding pins of the chip. The red line on the clip's ribbon cable indicates Pin 1 of the chip. Align it correctly with the chip's Pin 1 marker (usually a dot or notch).

4. Connect the other end of the SOP8 clip's ribbon cable to the appropriate adapter board (if using one) or directly to the CH341A programmer's SPI pins, ensuring correct pin alignment.

5. Insert the CH341A USB programmer into an available USB port on your computer.
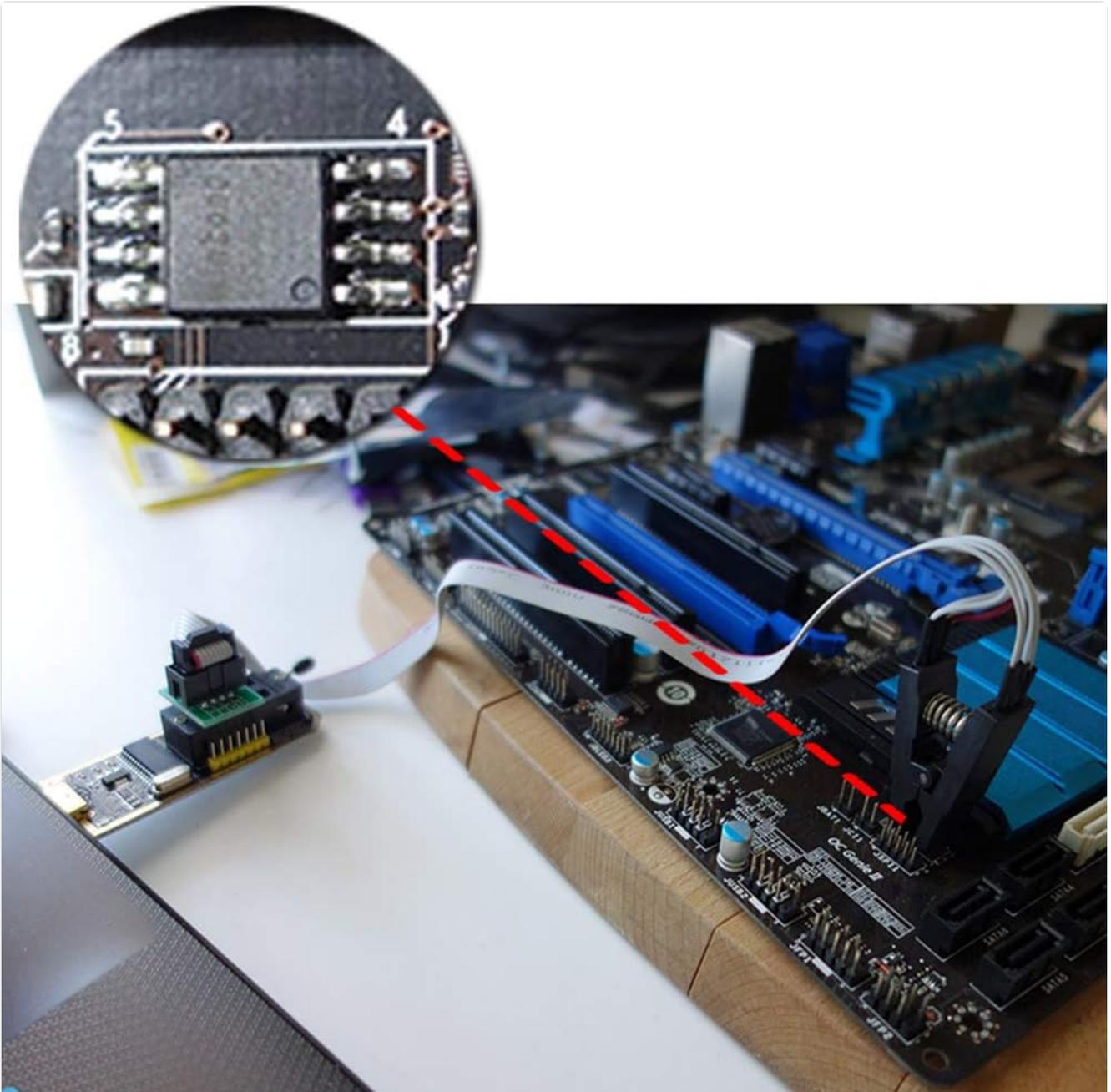

Image 5: The SOP8 test clip properly connected to an EEPROM chip on a motherboard, with the programmer connected via USB.

7. OPERATING INSTRUCTIONS

The CH341A programmer is primarily used for backup, erase, program, and verify operations on EEPROM chips. The general workflow is as follows:

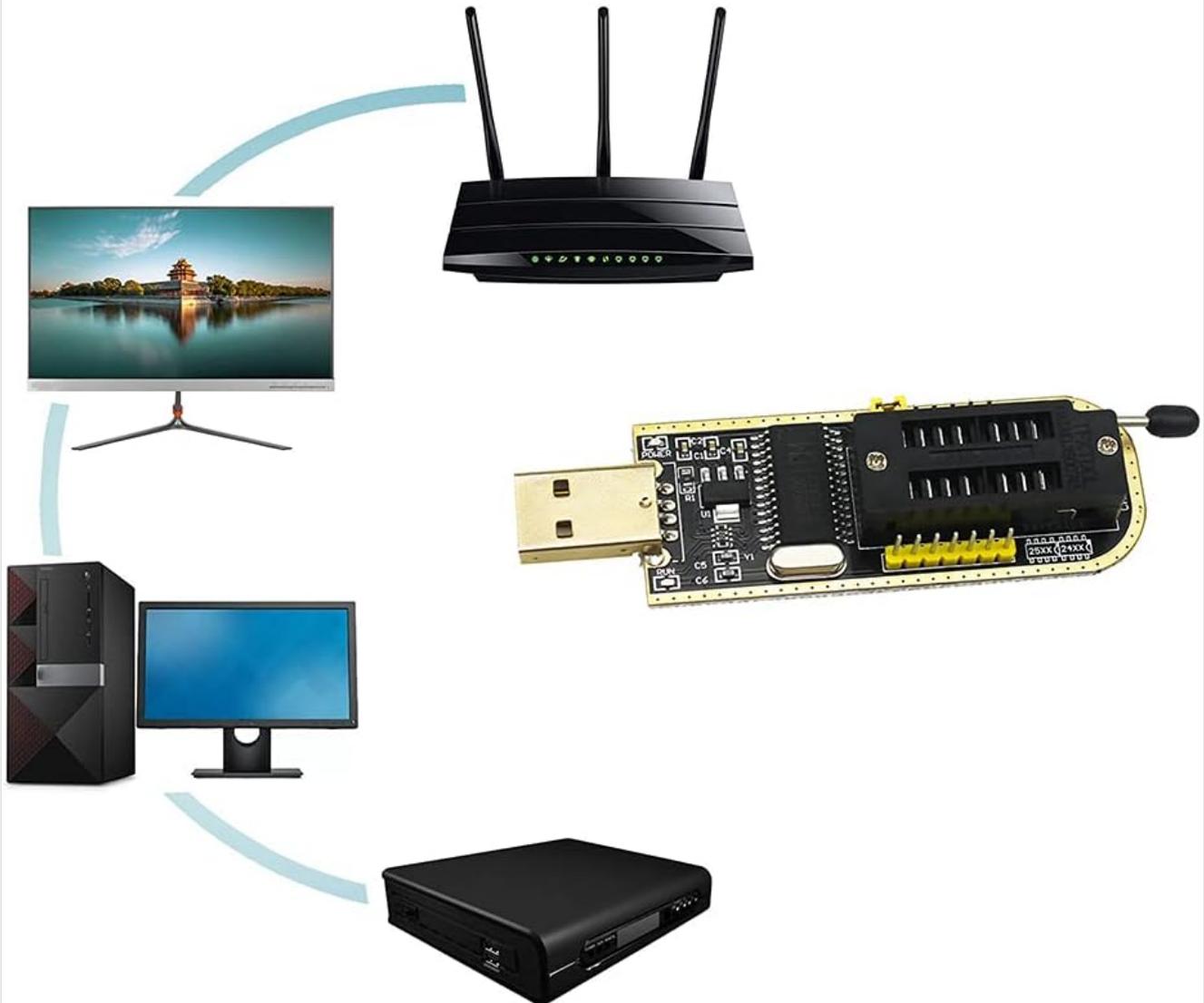# Backup, Erase, Burn and Verify Various Software

Image 6: The CH341A programmer can be used to backup, erase, burn, and verify various software on devices such as PCs, routers, and set-top boxes.

1. **Launch Software:** Open the CH341A programming software on your computer.

2. **Detect Chip:** In the software, use the "Detect" or "Identify" function to ensure the programmer recognizes the connected EEPROM chip.

3. **Backup (Read):** Before any write operation, it is highly recommended to read the current contents of the chip and save it as a backup file. This allows for restoration if an error occurs.

4. **Erase:** If you intend to write new data, you may need to erase the chip first. Follow the software's instructions for erasing.

5. **Program (Write):** Load the desired firmware or data file into the software and initiate the "Program" or "Write" operation. Monitor the progress indicators.

6. **Verify:** After programming, perform a "Verify" operation to compare the written data with the source file, ensuring data integrity.

7. **Disconnect:** Once all operations are complete and verified, safely disconnect the programmer from the computer and then carefully remove the SOP8 clip from the chip.

Note: Always refer to the specific software tutorial provided for detailed, step-by-step instructions, as software interfaces may vary.

8. Maintenance

- Keep the programmer and clip clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Store the components in a protective case or anti-static bag when not in use to prevent damage.
- Inspect the SOP8 clip for any bent or damaged pins before each use.
- Avoid exposing the device to strong magnetic fields.

9. Troubleshooting

- **Programmer not detected by computer:**
    - Ensure drivers are correctly installed.
    - Try a different USB port or computer.
    - Check the USB cable for damage.

- **Chip not detected by software:**
    - Verify the SOP8 clip is correctly and firmly attached to the chip, ensuring all pins make good contact.
    - Check the orientation of the clip (Pin 1 alignment).
    - Ensure the target device is powered off.
    - Confirm the chip model is supported by the CH341A programmer and software.
    - Some chips might require the target device to be powered on (e.g., 3.3V supply from the motherboard) for detection, but this is generally not recommended for safety. Refer to advanced tutorials if necessary.

- **Read/Write errors:**
    - Poor contact between the clip and the chip. Re-seat the clip.
    - Incompatible chip (e.g., ESMT SST Class 25 chips are read-only).
    - Insufficient power supply from the USB port. Try a different port or a powered USB hub.
    - Corrupted firmware file. Try downloading a fresh copy.

- **3.3V issues:** Some users report issues with 3.3V chips. Ensure the programmer's voltage output is correctly set if applicable, and verify chip compatibility.

10. Specifications

Brand	KeeYees
Item Model Number	JK11-C1
Hardware Interface	USB
Connector Type	USB
Supported Chip Series	Most 24/25 Series EEPROM-SOP8
SOP8 Clip Pitch	1.27 mm (supports wide and narrow body)
Output Voltage	3.3V / 5V (selectable)
Package Dimensions	19.1 x 15.6 x 1.9 cm

Item Weight	70 grams
Spare Parts Availability	Information not available
Guaranteed Software Updates Until	Information not available

11. WARRANTY AND SUPPORT

For warranty information, technical support, or to request the detailed PDF tutorials, software, and drivers, please contact KeeYees customer service. Refer to your purchase documentation for specific contact details or visit the official KeeYees website.
If you encounter any issues not covered in this manual, please reach out to support for assistance.