KeeYees CH341A Programmer and SOP8 Test Clip

KeeYees SOP8 SOIC8 Test Clip and CH341A USB Programmer Flash User Manual

Model: CH341A Programmer and SOP8 Test Clip

Brand: KeeYees

Product Overview

The KeeYees SOP8 SOIC8 Test Clip and CH341A USB Programmer Flash is a versatile tool designed for in-circuit programming of 24/25 series BIOS chips. This kit provides a convenient solution for backing up, erasing, programming, and calibrating various software on compatible chips without the need for desoldering, making BIOS flashing simpler and more efficient.

The main purpose of the CH341A Programmer is to facilitate these operations on a wide range of memory chips, while the SOP8 test clip allows for direct connection to the chip on the circuit board.

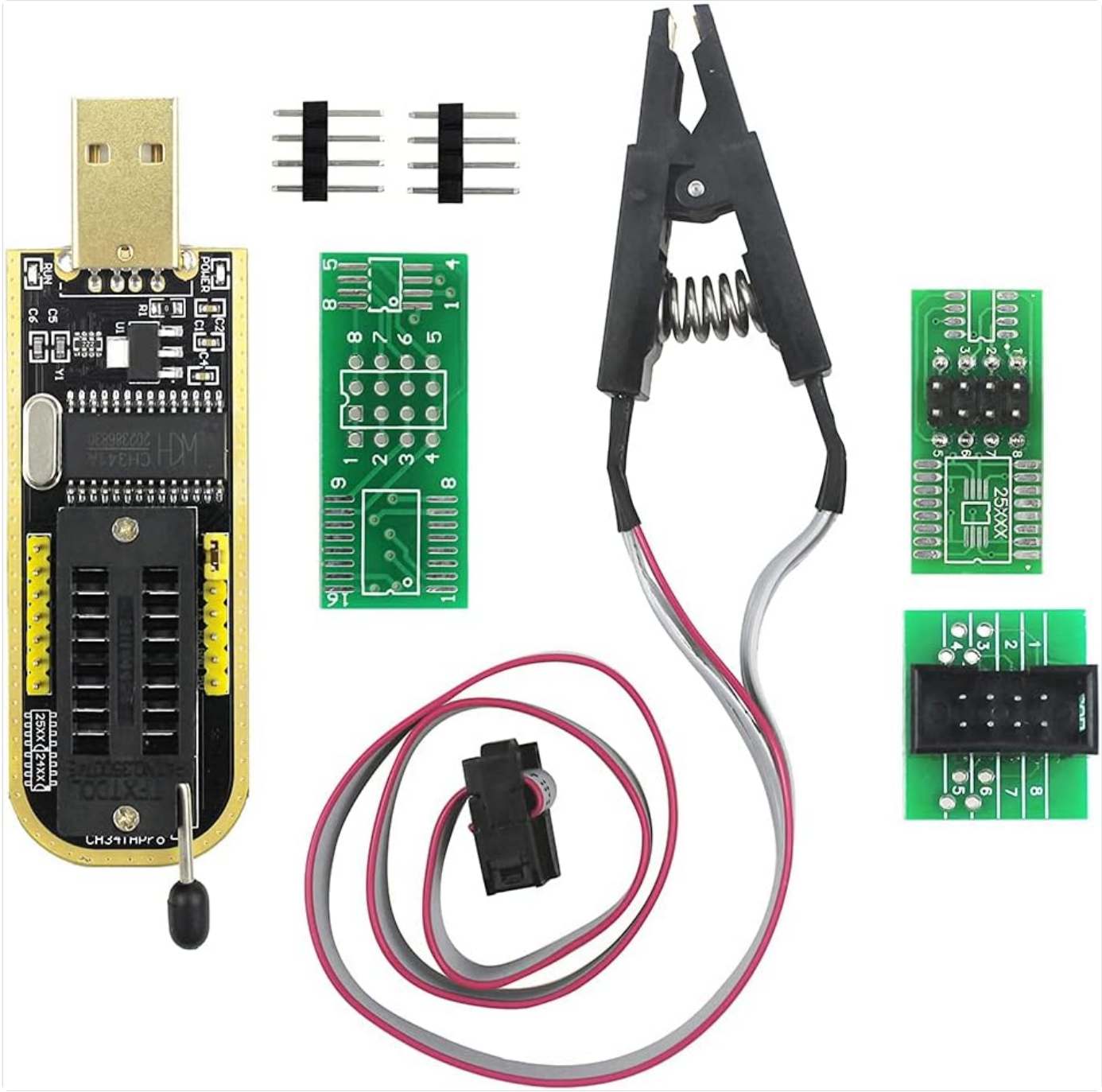


Figure 1: Complete KeeYees CH341A Programmer and SOP8 Test Clip Kit.

Package Contents

The following items are included in your KeeYees SOP8 SOIC8 Test Clip and CH341A USB Programmer Flash kit:

- 1 x CH341A Programmer
- 1 x SOP8 Test Clip
- 1 x 8Pin to 8Pin Converter
- 2 x SOP8 SOP16 to 8Pin Converter
- 2 x 2.54mm 4Pin header

Key Features

- **In-Circuit Programming:** The SOP8 clip enables programming without disassembling the chip, streamlining the process.

- **Multi-Functionality:** The CH341A Programmer supports backing up, erasing, programming, and calibrating various software.
- **Broad Chip Compatibility:** Supports most 24/25 series SOP8 chips on the market. Users must verify their chip model against the provided compatibility list.
- **Versatile Clip Design:** The SOP8 clip accommodates both wide and narrow body SOP8 chips with a 1.27mm pitch.
- **Comprehensive Support:** Detailed PDF tutorials, CH341A software, and drivers are provided to assist with setup and operation.

Setup and Connection

Before using the programmer, ensure you have installed the necessary drivers and software. These are typically provided via email after purchase. Refer to the detailed PDF tutorial for specific installation instructions.

CH341A Programmer Overview

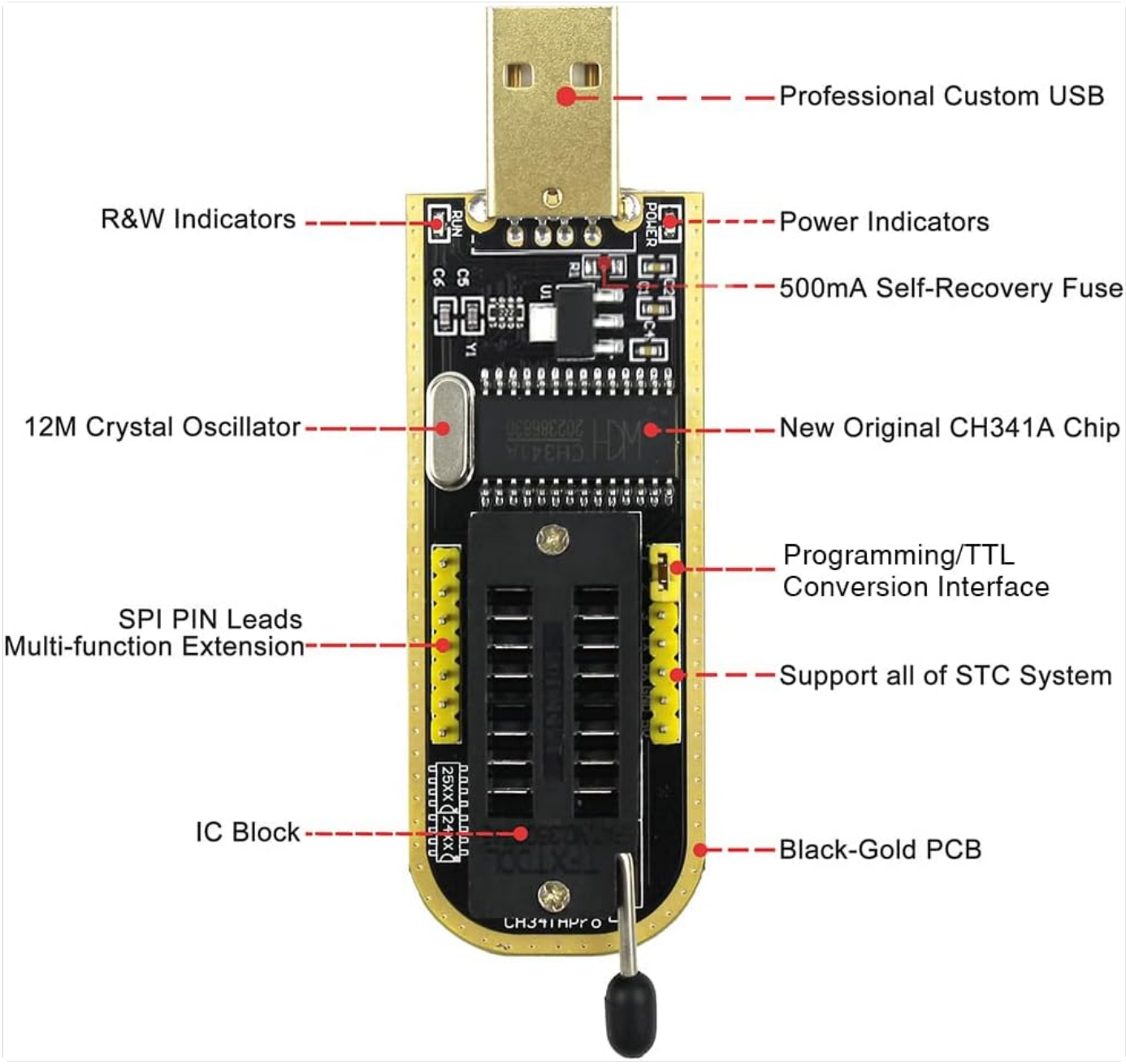


Figure 2: CH341A Programmer with key components labeled, including Professional Custom USB, Power Indicators, R&W Indicators, 500mA Self-Recovery Fuse, 12M Crystal Oscillator, New Original CH341A Chip, Programming/TTL Conversion Interface, SPI PIN Leads, Multi-function Extension, IC Block, and Black-Gold PCB.

SOP8 Test Clip and Converters

The SOP8 Test Clip is designed for in-circuit programming. It connects to the CH341A programmer via a ribbon cable. The kit also includes various converters for different chip types.

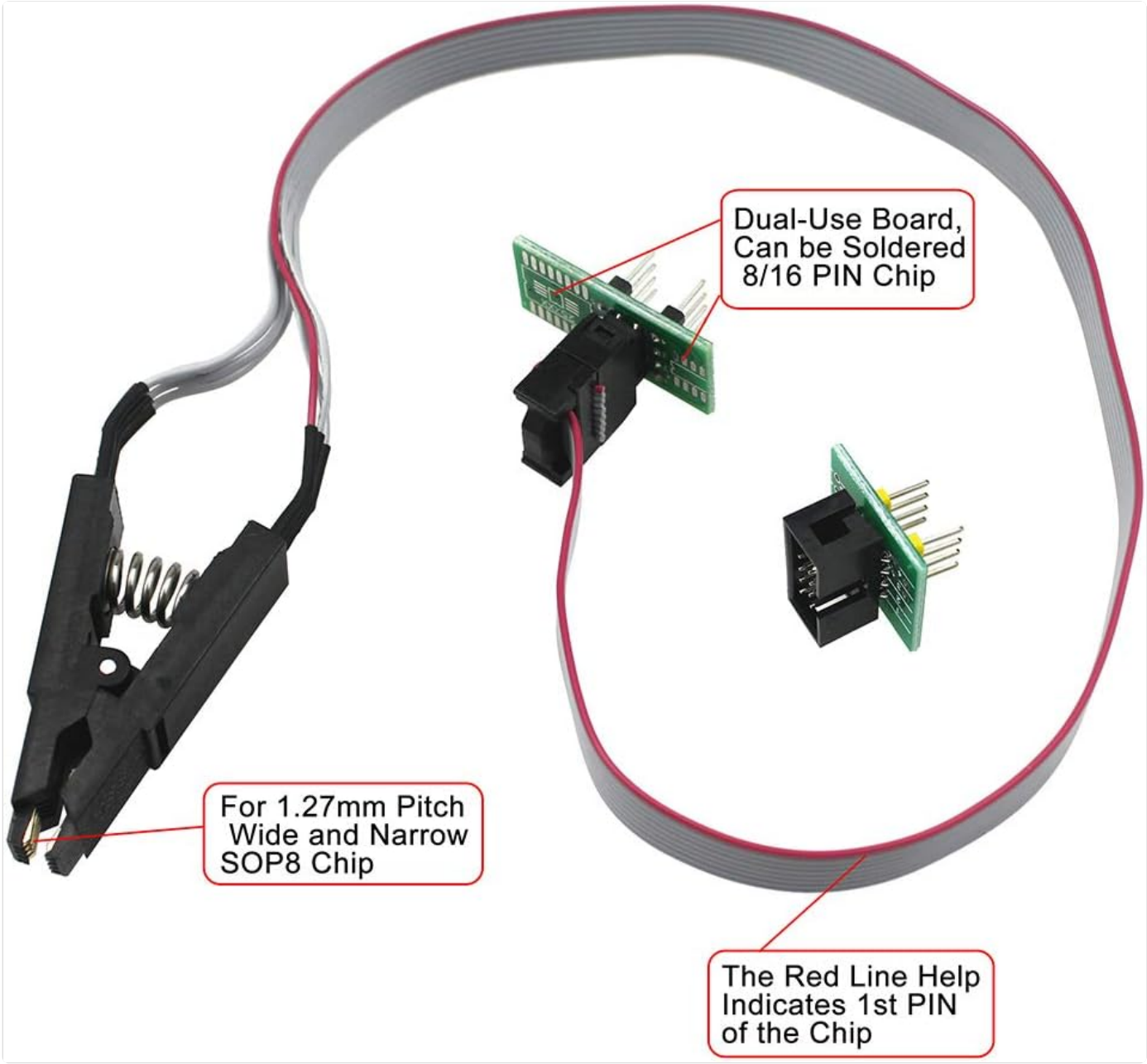


Figure 3: SOP8 Test Clip and included converters. The clip is suitable for 1.27mm Pitch Wide and Narrow SOP8 Chips. The red line on the ribbon cable indicates the 1st pin of the chip. Dual-use boards are included for soldering 8/16 PIN chips.

Connecting the Components

1. Connect the SOP8 Test Clip ribbon cable to the appropriate converter board (e.g., SOP8 SOP16 to 8Pin Converter).
2. Insert the converter board into the ZIF socket on the CH341A Programmer. Ensure correct orientation.
3. Connect the CH341A Programmer to a USB port on your computer.
4. Carefully attach the SOP8 Test Clip to the target BIOS chip on your circuit board. Ensure all pins of the clip align correctly with the chip's pins. The red line on the ribbon cable typically indicates Pin 1.

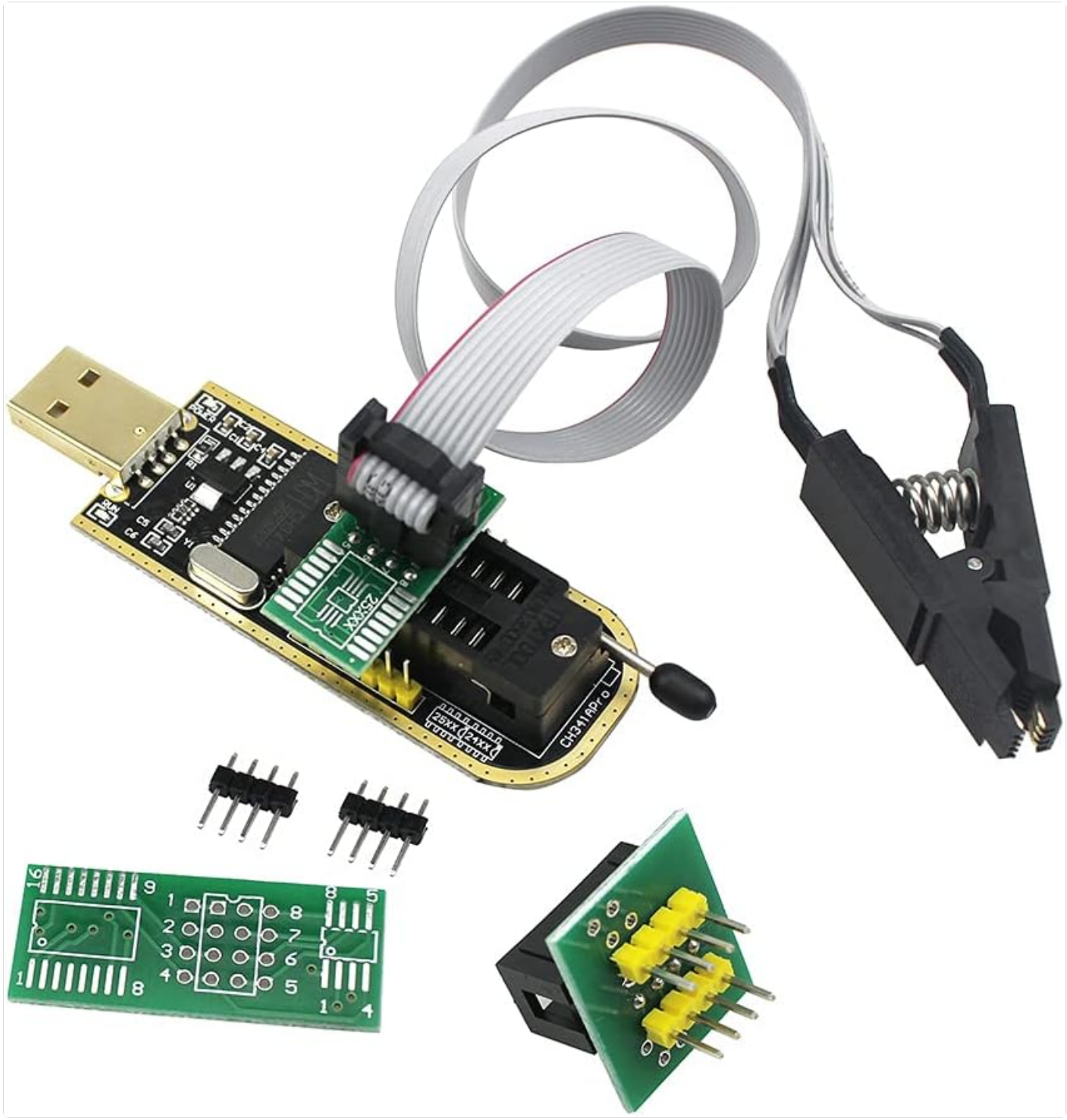


Figure 4: Example of the CH341A Programmer connected to the SOP8 Test Clip and a converter board.

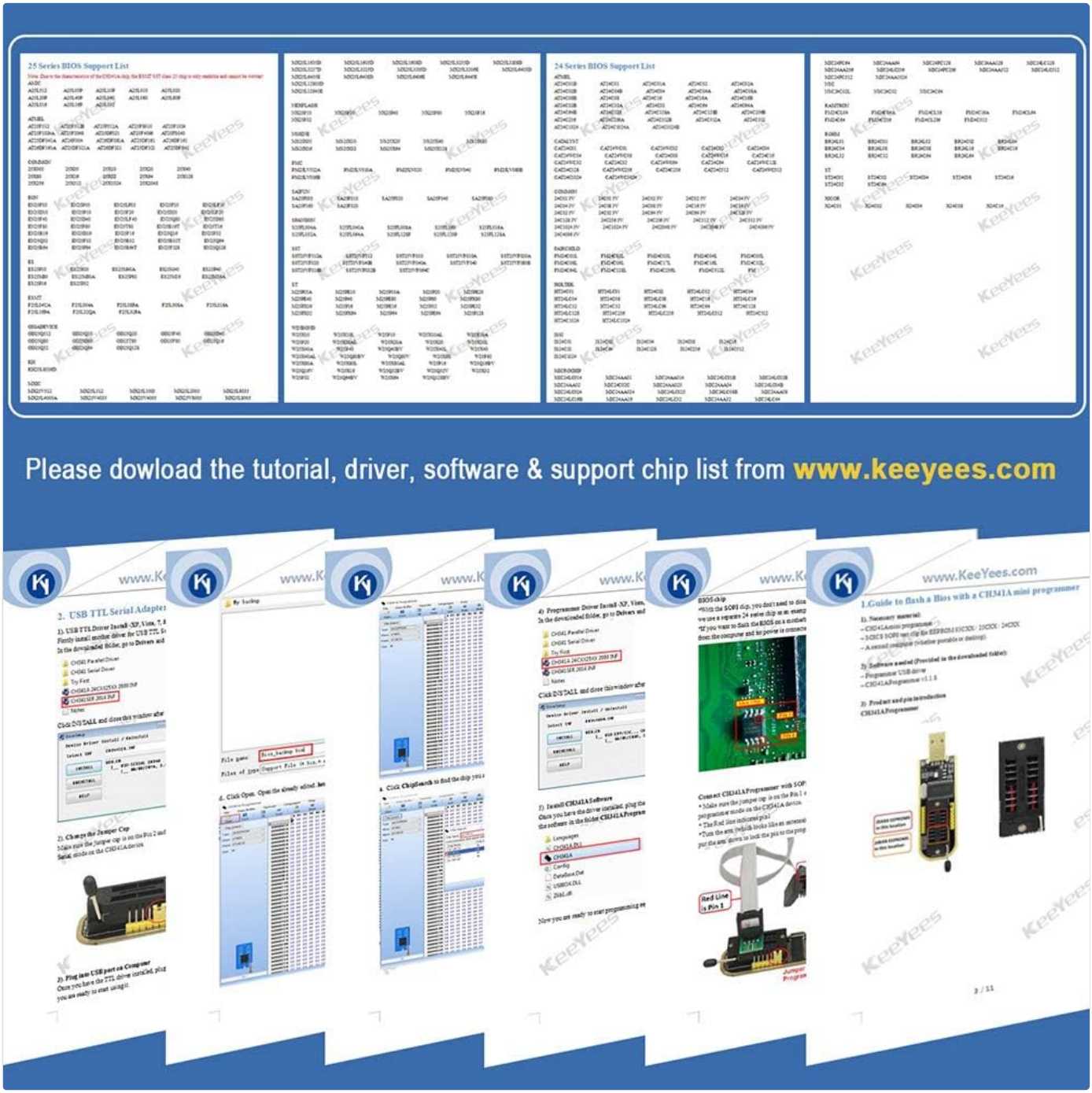


Figure 5: Close-up view of the SOP8 Test Clip properly attached to a BIOS chip on a motherboard.

Operating Instructions

Once the hardware is connected and drivers are installed, you can proceed with programming operations using the CH341A software.

1. **Launch Software:** Open the CH341A programming software on your computer.
2. **Detect Chip:** Use the software's "Detect" or "Identify" function to ensure the programmer recognizes the connected chip.
3. **Read Chip:** To back up the existing firmware, use the "Read" function. Save the read data to a file on your computer. It is highly recommended to create a backup before any write operations.
4. **Erase Chip:** If you intend to write new firmware, you may need to erase the chip first using the "Erase" function.
5. **Load Firmware:** Load the new firmware file (e.g., a BIOS update) into the software.
6. **Program Chip:** Use the "Program" or "Write" function to flash the new firmware to the chip.
7. **Verify Chip:** After programming, use the "Verify" function to compare the data on the chip with the loaded firmware

file to ensure a successful write operation.

For detailed step-by-step instructions and software interface guidance, please refer to the comprehensive PDF tutorial provided by KeeYees.

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

Compatibility Information

The CH341A programmer supports a wide range of 24/25 series SOP8 chips. However, it is crucial to verify that your specific chip model is within the supported range before attempting any operations. Below are important considerations regarding compatibility:

- The programmer supports **most, but not all** 24/25 series EEPROM SOP8 chips. Always cross-reference your chip model with the detailed compatibility list provided in the PDF tutorial.
- Due to the characteristics of the CH341A chip, certain chips, such as the **ESMT SST class 25 chip, are only readable and cannot be written**.
- Some chips may be affected by peripheral circuits on the motherboard, preventing direct clipping. Before using the

clip, check the location of the chip and ensure there is sufficient space around it for the clip to make proper contact. The thickness of the end of the clip is approximately 3mm, and its width is 6mm.

Partial List of Supported 25 Series BIOS Chips:

Note: This is a partial list. For a complete and updated list, please refer to the official PDF tutorial.

AMIC: A25L512 A25L05P A25L10P A25L010 A25L020 A25L20P A25L40P A25L040 A25L080 A25L80P A25L016 A25L16P A25L032

ATMEL: AT25F512 AT25F512B AT25F512A AT25FS010 AT25F1024 AT25F1024A AT25F2048 AT25DF021 AT25F4096 AT25FS040 AT25DF041A AT26F004 AT26DF081A AT25DF161 AT26DF161 AT26DF161A AT25DF321A AT26DF321 AT25DF321 AT25DF641

COMMON: 25X005 25X05 25X10 25X20 25X40 25X80 25X16 25X32 25X64 25X128 25X256 25X512 25X1024 25X2048

EON: EN25F05 EN25P05 EN25LF05 EN25F10 EN25LF10 EN25D10 EN25P10 EN25F20 EN25D20 EN25LF20 EN25F40 EN25D40 EN25LF40 EN25Q80 EN25D80 EN25F80 EN25P80 EN25T80 EN25B16T EN25T16 EN25B16 EN25D16 EN25F16 EN25Q16 EN25P32 EN25Q32 EN25F32 EN25B32 EN25B32T EN25Q64 EN25B64 EN25F64 EN25B64T EN25F128 EN25Q128

ES: ES25P10 ES25P20 ES25M40A ES25M40 ES25P40 ES25M80 ES25M80A ES25P80 ES25M16 ES25M16A ES25P16 ES25P32

ESMT: F25L04UA F25L004A F25L08PA F25L008A F25L016A F25L16PA F25L32QA F25L32PA

GIGADEVICE: GD25Q512 GD25Q10 GD25Q20 GD25F40 GD25D40 GD25Q80 GD25D80 GD25T80 GD25F80 GD25Q16 GD25Q32 GD25Q64 GD25Q128

KH: KH25L8036D

MXIC: MX25V512 MX25L512 MX25L1005 MX25L2005 MX25L8035 MX25L4005A MX25V4035 MX25V4005 MX25V8005 MX25L8005 MX25L1635D MX25L1605D MX25L1608D MX25L3235D MX25L3208D MX25L3237D MX25L3225D MX25L3205D MX25L3206E MX25L6405D MX25L6455E MX25L6408D MX25L6406E MX25L6445E MX25L12805D MX25L12845E

NEXFLASH: N25P10 N25P20 N25P40 N25P80 N25P16 N25P32

NSHINE: MS25X05 MS25X10NS25X20NS25X40 MS25X80 MS25X16 MS25X32 MS25X64 MS25X128

PMC: PM25LV512A PM25LV010A PM25LV020 PM25LV040 PM25LV080B PM25LV016B

SAIFUN: SA25F005 SA25F010 SA25F020 SA25F040 SA25F080 SA25F160 SA25F320

SPANSION: S25FL004A S25FL040A S25FL008A S25FL160 S25FL016A S25FL032A S25FL064A S25FL128P S25FL129P S25FL128A

SST: SST25VF512A SST25VF512 SST25VF010 SST25VF010A SST25VF020A SST25VF020 SST25VF040B SST25VF040A SST25VF040 SST25VF080B SST25VF016B SST25VF032B SST25VF064C

ST: M25P05A M25PE10 M25P10A M25P20 M25PE20 M25PE40 M25P40 M25PE80 M25P80 M25PX80 M25PX16 M25P16 M25PE16 M25P32 M25PE32 M25PX32 M25PX64 M25P64 M25PE64 M25P128

WINBOND: W25X10 W25X10L W25P10 W25X10AL W25X10A W25P20 W25X20AL W25X20A W25X20 W25X20L W25X40A W25P40 W25Q40BV W25X40L W25X40 W25X40AL W25Q80BV W25Q80V W25X80 W25P80 W25X80A W25X80L W25X80AL W25P16 W25Q16BV W25Q16V W25X16 W25Q32BV W25Q32V W25X32 W25P32 W25Q64BV W25X64 W25Q128BV

Troubleshooting

If you encounter issues while using the KeeYees CH341A Programmer and SOP8 Test Clip, consider the following common troubleshooting steps:

- **Chip Not Detected or Programming Failure:**
  - **Clip Connection:** The SOP8 test clip can be finicky. Ensure it is seated perfectly straight and making firm, reliable contact with all pins of the chip. The red line on the ribbon cable should align with Pin 1 of the chip.
  - **Chip Compatibility:** Double-check that your specific chip model is listed as compatible in the official PDF tutorial. Remember that some chips, like ESMT SST class 25, are read-only.
  - **Peripheral Circuits:** Verify that surrounding components on the motherboard do not interfere with the clip's ability to make full contact with the chip.
  - **Software/Driver Issues:** Ensure the correct CH341A drivers are installed and the programming software is up-to-date. Reinstalling them might resolve connectivity problems.
- **Voltage Concerns (for 3.3V chips):**

  While some online discussions suggest modifications for 3.3V chips, the manufacturer's design intends for the

device to correctly handle voltage during read/write operations without user modification. If you experience issues, first ensure proper connection and software configuration before considering hardware alterations.

- **Corrupted BIOS/Firmware:**

  Always back up the original firmware before attempting to write new data. If a programming operation fails, attempting to re-flash the original backup can often restore functionality.

Specifications

Attribute	Detail
Brand	KeeYees
Model	CH341A Programmer, SOP8 Test Clip
Item Weight	1.76 ounces
Package Dimensions	5.24 x 5.16 x 1.02 inches
Manufacturer	KeeYees
Video Output Interface	USB
Supported Chip Series	Most 24/25 series SOP8 chips
SOP8 Clip Pitch	1.27mm (for wide and narrow body)

Support and Resources

For comprehensive guidance, including detailed PDF tutorials, the latest CH341A software, and drivers, please refer to the resources provided by KeeYees. These materials are typically sent via email after your order. If you have not received them or require further assistance, please contact KeeYees customer support directly.

It is recommended to always use the official software and drivers to ensure proper functionality and compatibility with your programmer.

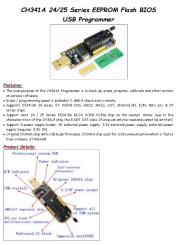
Related Documents - CH341A Programmer and SOP8 Test Clip

[KeeYees ESP32 Development Board User Guide]

A comprehensive guide on how to set up and use the KeeYees ESP32 Development Board with Arduino IDE, including driver installation and board manager configuration.

[CH341A Programmer User Manual: Hardware, Software, and Troubleshooting Guide]

This comprehensive user manual provides detailed instructions for the CH341A Programmer, covering hardware setup, software installation and usage, adapter board guides, and common troubleshooting solutions for electronics enthusiasts and developers.



[CH341A 24/25 Series EEPROM Flash BIOS USB Programmer User Guide]

The CH341A 24/25 Series EEPROM Flash BIOS USB Programmer is a versatile tool designed for backing up, erasing, programming, and calibrating various EEPROM and Flash BIOS chips. It supports 24 series (ST, WINBOND, AMIC, MXIC, SST, SPANSION, EON, PMC) and 25 series chips, including most SOP8 and SOP16 packages. Featuring an original CH341A chip for stable and fast USB communication, it offers multiple power supply modes (5V external, 3.3V external, or 3.3V-5V external) and includes a dedicated IC block, SPI pin leads for expansion, and self-recovery insurance. This programmer is ideal for tasks requiring reliable and efficient memory chip manipulation.

[CH341A Mini Programmer: Usage, Schematics, and Software Guides]

Comprehensive guide to using the CH341A Mini Programmer for SPI, I2C, and TTL serial communication. Includes software setup, Linux kernel module compilation, schematics, and troubleshooting tips.

[CH341A Programmer User Manual]

This manual provides comprehensive instructions for the CH341A Programmer, covering hardware features, software usage, installation, and troubleshooting. It details chip placement, voltage settings, SPI and TTL outputs, and adapter board usage for various chip types.

	XGecu T56/TL866II Programmer User Guide Comprehensive user guide for XGecu T56 and TL866II Plus universal USB programmers, covering software installation, hardware setup, chip programming, firmware updates, and advanced features for electronics development and repair.